EVALUATION OF THE SEXUAL AND REPRODUCTIVE HEALTH MODULE AS IMPLEMENTED BY THE DEPARTMENT OF HEALTH

BY

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DECLARATION

I declare that the research report hereby submitted as compliance with the requirements for the degree Magister Societatis Scientiae in Nursing to the University of the Free State is my own independent work and has not previously been submitted by me to another university. I further cede copyright of this research report in favour of the University of the Free State.

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M. Reid

November 2005

DEDICATION

This work is dedicated to my husband, Johnny Reid who supported me in his practical way and created a loving and safe environment when I felt I could not continue and also to my parents Nico and Conny van Pletsen who never doubted my abilities.

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I wish to express my sincere gratitude to:

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OPSOMMING

Die doelstelling van die studie was om die Seksueel Reproduktiewe Gesondheidsorg Module wat deur die Departement van Gesondheid geïmplementeer is te evalueer. Vyf doelwitte is gestel om die doelstelling te bereik naamlik om ’n: beskrywing van die reaksie, kennis en vaardighede wat primêre gesondheidsorg verpleegkundiges tydens seksueel reproduktiewe gesondheidsorg opleiding geopenbaar het te gee; vergelyking te tref tussen die bevoegdheid van primêre gesondheidsorg verpleegkundiges wat die seksueel reproduktiewe gesondheidsorg opleiding ondergaan het en primêre gesondheidsorg verpleegkundiges wat nie die opleiding ondergaan het nie; en ’n beskrywing van die persepsie van toesighouers van primêre gesondheidsorg verpleegkundiges en die verpleegkundiges self, ten opsigte van die effek wat seksueel reproduktiewe gesondheidsorg opleiding uitgeoefen het op seksueel reproduktiewe gesondheidsorgdienslewering.

Die studie het van ’n beskrywend vergelykende, kwasi-eksperimentele, post-toets alleen ontwerp gebruik gemaak, aangesien die studie die verskil en veranderlikes in twee groepe ondersoek en beskryf het. Alhoewel gevind is dat die *“reactionnaires”* wat tydens seksueel reproduktiewe gesondheidsorg opleiding gebruik is nie goed opgestel was nie, het die leerders konsekwent die inhoud, toepaslikheid van die inhoud en die aanbiedingswyse van die opleiding as baie goed en uitstekend gereken. Drie-en-sewentig persent van die meervoudige keuse vrae wat tydens die pre- en post-toetse gebruik is, het nie aan die kriteria voldoen wat vir sulke tipe vrae gestel word nie. Leerders wat die seksueel reproduktiewe gesondheidsorg opleiding ondergaan het, het beduidend beter in hul post-toetse gedoen. Die leerders het ook ’n gemiddeld van 94% behaal tydens assessering met die *“Competency Based Skills Assessment Tool”.* Primêre gesondheidsorgverpleegkundiges wat seksueel reproduktiewe gesondheidsorg opleiding ondergaan het, het beduidend beter

gevaar in vrae van die *"Adapted Competency Based Skills Assessment Tool"* en *"Client Exit Interview"* wat kennis, vaardighede en houding geassesseer het. Die hoeveelheid vrae uit bogenoemde instrumente wat minder as 50% behaal het met die assessering van kennis, houding en vaardighede deur opgeleide seksueel reproduktiewe gesondheidsorg verpleegkundiges, suggereer dat minimale oordrag van kennis plaasgevind het. Data wat sou aandui of die pap smeer beleid deur opgeleide verpleegkundiges toegepas is, nadat seksueel reproduktiewe gesondheidsorg opleiding ondergaan is, was onbruikbaar. Tydens die nominale groep bespreking het deelnemers die persepsie gehad dat hul kwaliteit diens, kliënt asseseringstegnieke en vaardighede verbeter het na aflegging van die seksueel reproduktiewe gesondheidsorg opleiding. Die groep het ook die persepsie gehad dat hul verhouding met hul kliënte verbeter het en dat hulle in 'n posisie was om meer omvattende voorligting aan hulle kliënte te gee. 'n Personeel tekort en beperkte tyd om aan kliënte te bestee is deur die groep geïdentifiseer as redes waarom oordrag van kennis gebrekkig was. Die data wat vanuit die nominale groepsbespreking verkry is, is getrianguleer met data wat vanuit die res van die studie gekulmineer het.

SUMMARY

The aim of this study was to evaluate the Sexual and Reproductive Health Module as implemented by the Department of Health. Five objectives were set in order to meet the aim namely to: describe the reaction, knowledge and skills primary health care clinicians displayed during sexual reproductive health training; compare the competence primary health care clinicians rendering sexual reproductive health services displayed after sexual reproductive health training had been completed with those clinicians who had not undergone sexual reproductive health training; and to describe the perception the supervisors and primary health care clinicians had of the effect sexual reproductive health training had on sexual reproductive health services.

The study followed a descriptive comparative, quasi-experimental, post-test-only design, as the study examined and described the differences and variables in two groups. Although reactionnaires used were not well constructed, learners rated the content, relevance of content and mode of presentation used when presenting the course as very good and excellent. Seventy three percent of the multiple-choice-questions used in the pre- and post-tests did not adhere to set criteria for these types of questions. Learners who underwent the Sexual Reproductive Health training scored markedly higher in their post-tests than in their pre-tests and scored an average of 94% during their assessment using the Competency Based Skills Assessment Tool. Trained sexual reproductive health primary health care clinicians scored significantly better in identified questions related to knowledge, skills and attitude, using the Adapted Competency Based Skills Assessment Tool and Client Exit Interview. The number of questions reflecting scores of less than 50%, measuring knowledge, attitude and skills does however suggest that limited transfer of learning took place. Data obtained to identify whether the

pap smear policy was implemented after sexual reproductive health training were not usable. During the nominal group discussion participants perceived their quality of service, client assessment techniques and skills to have bettered after the sexual reproductive health training. The group also perceived that their relationship with their clients had bettered and that they were in a position to give more comprehensive information to their clients. Staff shortage and a lack of time to spend with clients were perceived to impede learning transfer. The data obtained from this group discussion was triangulated with data compiled throughout the rest of the study.

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CHAPTER 1

Evaluation of the Sexual and Reproductive Health (SRH) module

1.1 BACKGROUND TO THE STUDY

A brief background of the study will be given by discussing the identification of a SRH training need. After having identified the SRH training need a SRH module was compiled. The SRH module content and stated outcomes of the module will be highlighted.

1.1.1 Identification of SRH training need

In 1994 the National Department of Health (DoH), the Reproductive Health Research Unit (RHRU) and the World Health Organisation (WHO) undertook an assessment of reproductive health services in South Africa. Significant findings from the assessment included that there was an unmet need for Sexual and Reproductive Health (SRH) training among staff in primary level clinics; difficulty in releasing staff for off the site training; inappropriate SHR curricula; and a need for specific new policies to address SRH issues (Foy, Gabriel, Cindi & Dickson-Tetteh, 2001:4). The DoH tasked the Reproductive Health Research Unit (RHRU) to develop a new curriculum for SRH training addressing the identified needs. Prior to the development of the SRH training course, a Family Planning Course was presented to primary health care personnel. This course mainly focused on contraceptive methods, thus not addressing all the SRH needs identified in the 1994 study.

1.1.2 Compilation of SRH course

The 1994 findings resulted in the Reproductive Health Research Unit (RHRU) from the University of the Witwatersrand, compiling a short course in SRH for professional nurses. The new curriculum was accepted by the professional council (SANC) and approved by the South African Qualification Authority (SAQA) (Foy *et al.*, 2001:1, 5). SAQA accredited the course with 73 credits, placing it on Level 4 on the National Qualifications Framework (Assessing Workplace Learning, LGWSETA, 2002:7). The South African Nursing Council would issue certificates to primary health care clinicians, who have undergone the SRH training module and have been found competent.

1.1.3 Implementation of the SRH module

The DoH recommended that the SRH curriculum should be used for training in all relevant institutions. Making use of the Cascade Model, as depicted in Figure 1.1, has ensured the implementation of training.

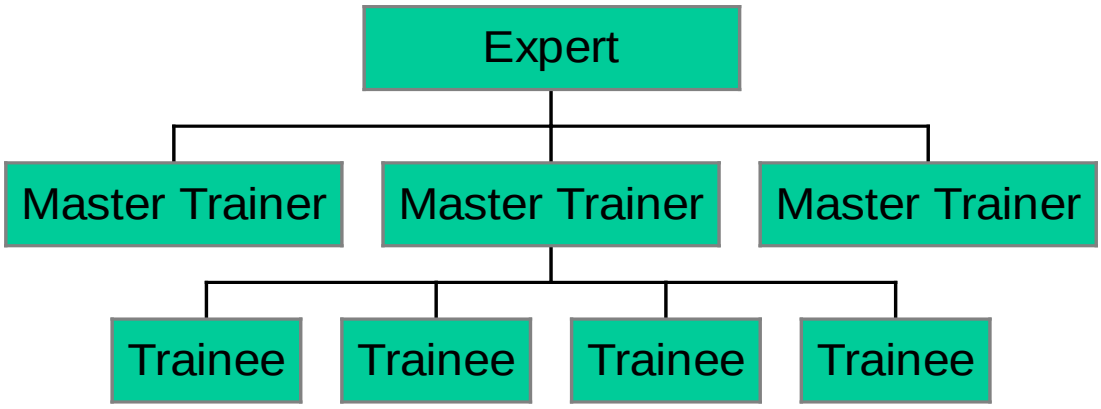

FIGURE 1.1: Cascade model

The RHRU was responsible for the training of master trainers[1], thus ensuring the cascading of SRH training in SA. The training program for the training of master trainers was as follows: They attended a three-day workshop where-after they went back to their clinical setting. After six weeks, they came back for another three-day workshop and post-assessment. This teaching strategy was proposed to address the problem of taking staff out of the work area and is known as distance training (Foy *et al.*, 2001:4).

The study area (Mangaung Local Municipality) consists of three towns, Bloemfontein, Thaba Nchu and Botshabelo. Forty-four Primary Health Care clinics render SRH services in this area. SRH master trainers were trained in all three towns.

The Bloemfontein master trainer had previous experience with the proposed learning strategy and had found that it placed too heavy a load on the trainee. Trainees were not able or willing to do preparation on module content at home, negatively influencing the training process. A number of two week courses was conducted where nurse clinicians underwent in-service[2] training according to the new SANC accredited SRH course. All course participants were exposed to SRH services in their work environment and could benefit from further clinical exposure.

The SRH curriculum that was developed in 2001 has been implemented to various degrees in the different provinces. Thirty master trainers have been trained in the Free State and Northern Cape Province. Provinces are still in a process of cascading training down. During 2003, 68 primary health care professional nurses completed the SRH training in Bloemfontein. The training

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1 Master trainer refers to a person who is initially trained on a specific course content and then becomes responsible to train other employees on the same course content.

2 In-service training means that the trainee is part of a work force but is taken out of the working environment for training.

in Thaba Nchu and Botshabelo was still in an early cascading process, with two personnel members being trained.

1.1.4 Module content

SRH Training encompasses the following aspects: the Framework for the Provision of SRH Services, Contraception, Sexually Transmitted Infections, HIV/AIDS and Common SRH Conditions (Foy *et al.*, 2001:7).

1.1.5 Expected outcome of module

The expected outcomes as stated in the curriculum are as follows:

- The qualified learner (professional nurses), is expected to have acquired and applied the appropriate knowledge, attitudes and skills necessary for the provision of high quality SRH services;

- Comprehensive SRH services should be rendered to individuals and groups in the community; and

- The learner should also be able to efficiently organise and manage SRH services and should be able to collaborate effectively with other stakeholders in the primary health care context (Foy *et al.*, 2001:5, 6).

This study focuses only on the first stated outcome.

1.2 PROBLEM STATEMENT

In the study area (Mangaung Local Municipality), an average of 22,000 sexual reproductive health clients are seen per month. This figure represents 25% of all clients seen at the primary health care clinics (South Africa, Department of Health, District Health Information System, 2003). Effective training in this field is thus of paramount importance, as to ensure a high quality of service rendering.

The goal of a health care delivery site is to provide quality services to a community. The clinical knowledge and skills of a site's staff are critical factors in establishing and sustaining quality services (Transfer of learning, [n.d.]: Online). A literature review by Cohen and Colligan (1998:3) clearly established the benefits of training, in establishing safe and healthful working conditions - the lack of training having contributed to events where workers were injured or killed. In this case a lack of training could have detrimental effects for SRH clients receiving SRH services at primary health care clinics with definite legal implications to service renderers.

The question now is whether the training made any difference in the clinical performance of the trainees (primary health care clinicians) and service rendered subsequent to the training, in other words whether transfer of knowledge took place. A key aspect of evaluating training is to monitor and evaluate the performance of learners when they are back at their jobs to find out whether training resulted in improved job performance. This normally requires follow-up visits to the job sites of the learners (Blouse, 2003:36).

The Teaching Research In Service Model (TRIM) has identified six key elements that are critical to the design and implementation of effective in-service-training and professional development activities. The elements are:

- Identifying needs;
- Determining training outcomes;
- Determining training objectives;
- Developing training activities;
- Designing and implementing evaluation measures; and
- Providing follow-up technical assistance and support (Udell, 2000: Online).

The first four elements were already completed by the RHRU. The designing and implementation of evaluation measures, being one such an element, will be addressed during this study. No evaluation has been undertaken on the Sexual Reproductive Health training presented in the Free State.

The researcher observed minimal difference in the SRH practice of primary healthcare clinicians who have undergone SRH training. Her perception is that transfer of learning might be hampered due to poor or incorrect assessment techniques used during SRH training. The problem to be addressed thus is the lack of evaluation of SRH training in Mangaung Local Municipality in order to identify whether transfer of learning took place.

1.3 AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to evaluate the Sexual and Reproductive Health Module as implemented by the DoH. The objectives of the study are to:

- Describe the reaction primary health care clinicians displayed during SRH training;

- Describe the knowledge primary health care clinicians displayed during SRH training;

- Describe the skills primary health care clinicians displayed during SRH training;

- Compare the competence primary health care clinicians displayed rendering SRH services after SRH training has been completed to those who have not undergone SRH training; and

- Describe the perceptions the supervisors and the primary health care clinicians have of the effect SRH training has on SRH services.

1.4 CONCEPTUAL FRAMEWORK

This study will make use of two specific models that will act as framework for all assessments conducted in the study (see Figure 1.2). The one model is known as Kirkpatrick's model for training evaluation and the other as Newble's model on the components of competence. Kirkpatrick's model includes four levels of outcome evaluation, of which only the first three will be discussed in this study, namely:

- Level 1 referring to participant reaction during and at the end of the course;

- Level 2 referring to participant learning during and at the end of the course;

- Level 3 referring to on-the-job-performance after the course; and

- Level 4 referring to the effect on the environment resulting from the participant's performance (Kirkpatrick, 2005: Online; Businessballs. com, 2005: Online; Garrison, 2003:16; Winfrey, 1999: Online; Kirkpatrick, 1998:19).

Newble's model links to Kirkpatrick's model. Whereas Kirkpatrick identifies specific levels broken into assessing reaction, learning and on-the-job-performance, Newble identifies competence. Competence is broken into separate parts called skills, knowledge and attitudes (Wojtczak, 2002: Online). The specific instruments that will be used in this study assessing the three identified assessment levels of Kirkpatrick, will simultaneously assess the skills, knowledge and attitudes of learners. The ability to engage in clinical problem solving and therefore being able to assess the clinical performance of a learner will therefore assist in assessing on-the-job-performance.

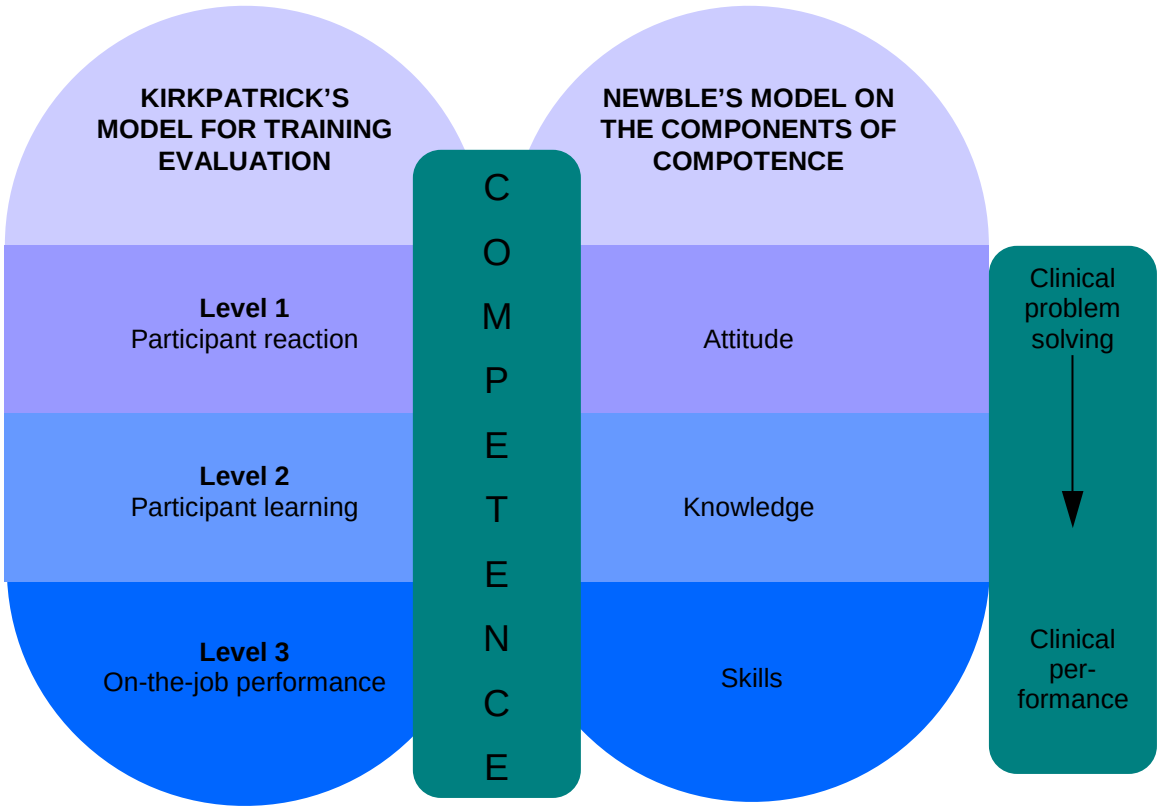

FIGURE 1.2: Conceptual framework

1.5 CONCEPTUAL AND OPERATIONAL DEFINITIONS

A conceptual definition provides a variable or concept with connotative abstract, comprehensive, theoretical meaning and is established through concept analysis, concept derivation, or concept synthesis (Burns & Grove, 2001:793). An operational definition on the other hand is a description of how variables or concepts will be measured or manipulated in a study (Burns & Grove, 2001:805). The concepts used in this study are presented in alphabetical order linking the description of how the concepts will be measured to each conceptual definition.

Assessment: Is a process of passing judgement on individual competence in a given situation. This is a structured process, whereby different types of evidence are collected, using a variety of assessment methods (LGWSETA, 2002:7; Kellaghan & Greany, 2001:19). Primary health care clinicians were assessed through the use of pre-and post-tests (Addendum I), the Competency Based Skills Assessment Tool (Addendum A), reactionnaire, the Adapted Competency Based Skills Assessment Tool (Addendum B1), Client Exit Interview (Addendum C1) and number of pap smears taken after SRH training.

Attitude: It refers to a pattern of mental views established by cumulative prior experience (Miller & Keane, 1983:110). Attitude will be described by making use of the Client Exit Interview (Addendum C1) and the Adapted Competency Based Skills Assessment Tool (Addendum B1).

Competence: A person is deemed to be competent when he/she has acquired a satisfactory level of relevant knowledge and a range of relevant skills that include interpersonal (attitude) and technical components at a certain point in the educational process (IIME, 2004: Online; Van Rooyen & Prinsloo, 2003:24). Newble adds to this definition by stating that the person is competent if he/she has acquired problem-solving skills (Wojtczak, 2002:

Online). Competence will be measured by making use of the Adapted Competency Based Skills Assessment Tool (Addendum B1), Client Exit Interview (Addendum C1) and statistical data namely the number of pap smears taken.

Evaluation: Involves the implementation of standards and criteria to arrive at a value judgement. Evaluation is therefore used mainly for promotion and advancement purposes (Vasuthevan & Viljoen, 2003:73). The reactionnaires and pre-and post-tests were evaluated according to set criteria.

Knowledge: Is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, but all that is required is the bringing to mind of the appropriate information. Knowledge represents the lowest level of training outcomes in the cognitive domain (Google, 2004: Online). Knowledge will be described by making use of pre-and post-tests (Addendum I) and the Competency Based Assessment Tool (Addendum A) completed during SRH training. Knowledge will be assessed after training by using the Adapted Competency Based Skills Assessment Tool (Addendum B1), Client Exit Interview with SRH clients and number of pap smears taken by trained SRH primary health care clinicians.

Module: A module is described as a coherent, independent learning opportunity designed to achieve a specified set of learning outcomes (UFS, 2003:5).

Outcome: It is the competencies required for achievement of a qualification (Vasuthevan & Viljoen, 2003:50).

Primary Health Care Clinician: For the purpose of this study, a primary health care clinician refers to a professional nurse registered with the SANC, rendering services within a primary health care clinic, irrespective of whether the professional nurse have completed the SRH Module presented by the DoH.

Sexual Reproductive Health (SRH) training: SRH training aims to equip the participant with the attitudes, knowledge and skills needed to render high quality comprehensive SRH care to individuals, couples, families and communities in the primary health care setting. The module content encompasses sharing a framework for the provision of SRH services with participants; contraception; sexually transmitted infections; HIV/AIDS and common SRH conditions (Foy *et al*., 2001:4, 7).

Skills: Is the ability of students to use knowledge effectively and readily in performance, the ability to transform knowledge into action (Google, [n.d.]: Online). Skills will be described by making use of the Competency Based Assessment Tool (Addendum A), the Adapted Competency Based Assessment Tool (Addendum B1) and the Client Exit Interview (Addendum C1).

Supervisor: For the purpose of this study, a supervisor refers to a senior professional nurse in charge of primary health care clinics rendering primary health care, including SRH services.

Training: Training is aimed at gaining a skill (Kurtus, 1999: Online). The SRH module is referred to by the Department of Health as a training course. The content of the module encompasses more than only gaining specific skills. Knowledge, attitude and problem solving skills are addressed in order to ensure the provision of a high quality of SRH service. It could therefore be seen as an education and not a training program.

Transfer of learning: Transfer of learning is defined as the knowledge and skills acquired during a learning intervention being applied on a job (JPIEGO, 2002:6). Transfer of learning will be assessed through the Adapted Competency Based Skills Assessment Tool (Addendum B1), Client Exit Interview (Addendum C1) and Nominal group discussion.

1.6 RESEARCH DESIGN

A research design is a blueprint for the conduct of a study that maximizes control over factors that could interfere with the desired outcomes of the studies (Burns & Grove, 2001:242). A quantitative research design will be used, as most of the data will be collected in the form of numbers (Neuman, 1994:28).

1.6.1 Methodology

A descriptive comparative, quasi-experimental, post-test-only design will be used, as the study will examine and describe the differences in variables in two groups that occur naturally in the setting (Burns & Grove, 2001:249). See Figure 1.3 for a schematic presentation of the comparative post-test-only design with non-equivalent groups.

Manipulation of independent variable		Measurement of dependent variable
Experimental group →	treatment →	post test
Control group →		post test
Treatment	-	often ex post facto - may not be well defined
Experimental group	-	those who receive treatment and the post-test
Pretest-inferred-norms of measures of dependent variable(s) of population from which pretreatment experimental group taken		
Control group- not randomly selected-tend to be those who naturally is in the situation and do not receive the treatment		
Approach to analysis:	-	comparison of post-test scores of experimental and control groups - comparison of post-test scores with norms
Unconrolled threats to validity:	-	no link between treatment and change - no pretest - selection

FIGURE 1.3: Schema of post-test-only design with non-equivalent groups (Burns & Grove, 2001:263)

The experimental group in Figure 1.3 refers to the primary health care clinicians who underwent the SRH training, whereas the control group refers to the primary health care clinicians who have not as yet undergone the SRH training. The SRH training itself is the independent variable in this study. The independent variable is a stimulus or activity that is manipulated by the researcher to create an effect on the dependent variable. The dependent variable is the response, behaviour, or outcome that the researcher wants to predict or explain (Burns & Grove, 2001:183). The dependent variable is reflected as the post-test in Figure 1.3. In this study the post-test will consist of data obtained from the Adapted Competency Based Skills Assessment Tool (Addendum B1), Client Exit Interviews (Addendum C1), statistical data (number of pap smears taken) and perceptions obtained from nominal group discussions.

The post-test-only design with non-equivalent groups does pose a threat to the validity of the findings of the study. Selection threats are a problem with both groups. The lack of a pre-test remains a serious hindrance to defining change. Differences in post-test scores between groups may be caused by the treatment or by differential selection processes (Burns & Grove, 2001:262). The mentioned methodological issues threatening validity will be taken into consideration.

1.6.2 Research techniques

Quantitative as well qualitative methods will be used to gather data. The technique that will be used to measure each specific objective is outlined in Table 1.1. The quantitative methods used will be reactionnaires, pre- and post-tests, checklists, structured interviews and collected statistical data. Qualitative data will be gathered by means of nominal group discussions.

TABLE 1.1: Research technique per objective

OBJECTIVE	RESEARCH TECHNIQUE
Describe the **reaction** primary health care clinicians displayed during SRH training	Reactionnaires
Describe the **knowledge** primary health care clinicians displayed during SRH training	Pre- and Post-tests results Competency Based Skills Assessment Tool (Addendum A)
Describe the **skills** primary health care clinicians displayed during SRH training	Competency Based Skills Assessment Tool (Addendum A)
Compare the **competence** primary health care clinicians displayed rendering SRH services after SRH training has been completed to those who have not undergone SRH training	Adapted Competency Based Skills Assessment Tool (Addendum B1) Client Exit Interview (Addendum C1) Number of pap smears taken
Describe the **perceptions** the supervisors and primary health care clinicians have of the effect SRH training has on SRH services.	Nominal group discussion

1.6.3 Population and sampling

A population is the entire aggregation of cases (individuals, objects, events or substances) in which a researcher is interested. The researcher's interest is stimulated due to common characteristics shared by the specific population (Polit & Beck, 2004:289; Brink, 2003:213; Burns & Grove, 2001:806). A sample by definition is part of a whole, selected by the researcher to participate in a research project. The portion of the population chosen is to represent the entire population (Polit & Beck, 2004:291; Brink, 2003:133; Burns & Grove, 2001:810). Population and sampling of populations was conducted for each of the identified research techniques in Table 1.1.

1.6.3.1 Reactionnaires

The population of the reactionnaires was identified as primary health care clinicians of Bloemfontein who underwent SRH training during 2003. The eight groups who underwent the training during 2003 were seen as one group for the purpose of this study. All primary health care clinicians had the opportunity to complete the reactionnaires during the SRH module. No sampling was done with the reactionnaires as all available reactionnaires' data was used.

1.6.3.2 Pre- and post-tests

Primary health care clinicians who completed the SRH module wrote 16 tests that consisted of multiple-choice questions. Four of the tests were post-tests and 12 were pre-tests. The population identified was again all primary health care clinicians who completed the SRH module in Bloemfontein during 2003. As with the reactionnaires no sampling was conducted and all available test result data will be utilised.

An analysis of multiple-choice-questions used in the pre- and post-tests will also be conducted. The pre-tests consisted of 220 multiple-choice-questions and will be seen as the population, since the post-tests made use of the same questions used in the pre-tests and will not be deemed part of the population. A sample size consisting of 20% of the questions will be identified. Forty-five questions will be selected.

1.6.3.3 Competency based skills assessment tool

A Competency Based Skills Assessment Tool was used to assess the skills of all primary health care clinicians at the end of their training. Again the population and sample will consist of all the primary health care clinicians who underwent the SRH training during 2003 in Bloemfontein.

1.6.3.4 Adapted competency based skills assessment tool

The Adapted Competency Based Skills Assessment Tool will be used to compare the competence (attitude, knowledge and skills) primary health care clinicians displayed rendering SRH services after SRH training has been completed to those who have not undergone SRH training. All primary health care clinicians who completed the SRH training during 2003 in Bloemfontein will be identified as the population of the experimental group. No sampling will be conducted from the population of the experimental group and all available primary health care clinicians from this group will be included in the sample. Identifying the population of primary health care clinicians belonging to the control group will be done according to the number of clinicians rendering SRH services in this group. Control group participants will be conveniently selected. The sample size of the experimental group will guide the population and sample size of the control group.

1.6.3.5 Client exit interview

Client Exit Interviews will be conducted with clients who will receive SRH services from primary health care clinicians who will partake in the study and thus has been assessed using an Adapted Competency Based Skills Assessment Tool. A comparison will be made between the attitude and knowledge displayed by primary health care clinicians rendering SRH services after SRH training has been completed to those who have not undergone SRH training. Since the Client Exit Interview will be linked to the Adapted Competency Based Skills Assessment Tool the population and sampling of the experimental and control group will co-inside with those applicable to the Adapted Competency Based Skills Assessment Tool mentioned in 1.6.3.4.

1.6.3.6 Nominal group discussion

The participants in the nominal groups will be from the experimental group. Purposive sampling will be used to construct groups. One group will consist of supervisors of primary health care clinicians and the other group will consist of primary health care clinicians themselves. All supervisors of the experimental group will be invited to participate in a group discussion. The groups will have a minimum of five and maximum of 12 participants per group. The group consisting of primary health care clinicians will continue until saturation has been reached.

1.6.4 Pilot study

A pilot study is a small-scale version or trial run that is done in preparation for a major study (Polit & Beck, 2004:727; Brink, 2003:60). It is developed much like the proposed study, using similar subjects, the same setting, the same treatment and the same data collection and analysis techniques (Burns & Grove, 2001:49). A small sample of the population is used, but this group is

excluded in the actual study (Uys & Basson, 2000:103). Pilot studies were not conducted with the reactionnaires, pre- and post-tests and Competency Based Skills Assessment Tool as these are retrospective data that have already been collected during the SRH training. Pilot studies will however be conducted on the Adapted Competency Based Skills Assessment Tool, Client Exit Interview and Nominal group discussion.

The purpose of the pilot study is to identify and clarify any ambiguous questions; determine the time frame of Exit Interview and usage of Competency Based Skills Assessment Tool; determine ease with which forms are completed; determine if coding used is correct and familiarize the fieldworker with the instruments.

The participants in the pilot study will not be part of the main study. The tools will be adapted according to the findings of the pilot study.

1.6.4.1 Adapted competency based skills assessment tool

The Adapted Competency Based Skills Assessment Tool will be piloted on five primary health care clinicians rendering SRH services. Clinicians to be included in the pilot will not be part of the experimental group. The reason for selecting primary health care clinicians who have not undergone SRH training is that these clinicians would then have to be excluded from the actual study if they partook in the pilot study. All efforts will be made to have as large as possible number of the trained SRH clinicians participating in the study. After completion of the pilot study amendments will be made to the instrument if needed.

1.6.4.2 Client exit interview

In 1.6.3.5 it has been explained that the Client Exit Interview will be linked to the Adapted Competency Based Skills Assessment Tool. Piloting of this instrument would thus be done directly after completion of the Adapted Competency Based Skills Assessment Tool on the five clients who received a SRH service from the primary health care clinicians who partook in the pilot study of the Adapted Competency Based Skills Assessment Tool.

1.6.4.3 Nominal group discussion

Five voluntary primary health care clinicians, from the experimental group, will be part of the discussion *"Write down any positive or negative perceptions you have about the effect SRH training had on your practice as primary health care clinician in sexual reproductive health".*

1.6.5 Data gathering

After the completion of the pilot studies data gathering will commence. Data gathered will be structured according to Kirkpatrick's identified four levels of evaluation. According to Kirkpatrick (1998:19) Level 1 assesses participant reaction. The participant's learning is assessed at Level 2. Level 1 and 2 assessments have been completed and the researcher will thus make use of retrospective data in this regard. According to Kirkpatrick's training evaluation model, Level 3 evaluation's aim is to assess if a training program's participants change their on-the-job performance as a result of them having attended and participated in a training program (Kirkpatrick, [n.d.]; Online). Data related to Level 3 still has to be collated. A brief overview of how the data of Level 1 the reactionnaires and Level 2 the pre-and post-test and Competency Based Skills Assessment Tool's, was gathered will follow. Data that will be gathered during Level 3 will be that of the Adapted Competency

Based Skills Assessment Tool, Client Exit Interview, number of pap smears taken and Nominal Group Discussion.

1.6.5.1 Reactionnaires

The primary health care clinicians undergoing the SRH training completed the reactionnaires. The reactionnaires were individually completed at the end of each training day. The master trainer of the SRH training module presented in Bloemfontein gathered the data. The master trainer referred to was also the researcher of this study.

1.6.5.2 Pre- and post-tests

Primary health care clinicians who underwent the SRH training wrote pre- and post-tests before and after completion of a study unit of the SRH unit. The master trainer of the SRH training module presented in Bloemfontein again gathered the data.

1.6.5.3 Competency based skills assessment tool

Competency Based Skills Assessment Tools were conducted on all primary health care clinicians who underwent the SRH training. This assessment took place in a clinical environment. The master trainer, as well as peer evaluators consisting of co-learners, gathered the data by means of a checklist.

1.6.5.4 Adapted competency based skills assessment tool

A professional nurse who will have been trained according to the Sexual Reproductive Health curriculum will be appointed specifically to act as fieldworker. The fieldworker will undergo training regarding the use of the assessment tool and how to conduct the research rigorously and ethically correct. The Adapted Competency Based Skills Assessment Tool (Addendum B1) will be completed whilst observing the primary health care clinician practising SRH.

1.6.5.5 Client exit interview

The same identified fieldworker will also conduct the client exit interview after having completed the Adapted Competency Based Skills Assessment Tool. The fieldworker would therefore undergo training in gathering data from the structured questions posed in the client exit interview.

1.6.5.6 Number of pap smears taken

The number of pap smears taken prior to SRH training, in the primary health care clinics who underwent SRH training, will be compared with the number of pap smears taken after SRH training has been completed in these clinics. This data will be compiled through the District Health Information System Program of the DoH in South Africa.

1.6.5.7 Nominal group discussion

The nominal groups will be conducted on two consecutive days during the afternoons, as the clinics are less busy in the afternoons. An expert in the conduction of nominal groups will conduct the groups. The expert will be an independent person, skilled in the technique of conducting nominal group discussions, as well as skilled in quantitative research techniques. A quiet venue will be utilized. Validation will occur simultaneously during the group discussion. The question that will be posed to these groups is as follows: *"Write down any positive or negative perceptions you have about the effect SRH training had on your practice as primary health care clinician in sexual reproductive health"*. Nominal groups will be held until saturation has been reached.

1.6.6 Data analysis

Data analysis will be done by the Department of Biostatistics at UFS. Descriptive statistics, namely frequencies and percentages for categorical data and means and standard deviations or medians and percentiles for continues data, will be calculated per group. The groups will be compared by means of 95% confidence intervals.

Qualitative data namely the data from the nominal groups will be presented as categories and themes and arranged according to priorities.

1.7 VALIDITY

Validity implies that the measurement technique is actually assessing what it is supposed to measure (Trochim, 2002: Online; Burns, 2000:127; Marneweck & Rouhani, 2000:292). The validity of the quantitative techniques that will be used in the study will be briefly discussed. The techniques are reactionnaires,

multiple-choice-questions used in pre-and post-tests, a Competency Based Skills Assessment Tool and Adapted Competency Based Skills Assessment Tool, a Client Exit Interview as well as data reflecting the number of pap smears taken.

1.7.1 Reactionnaires

Content validity is established by determining the extent to which a measure reflects a specific domain of content (Uys & Basson, 2000:81; Terre Blanche & Durrheim, 1999:85). The reactionnaires used did adhere to content validity as all units in the SRH module were covered in the reactionnaires.

1.7.2 Pre- and post-tests

Face validity verifies that the instrument gives the appearance of measuring the content (Burns & Grove, 2001:400). The face validity of the multiple-choice-questions used in the pre- and post tests during the SRH training was compromised by the construction of the questions.

1.7.3 Competency based skills assessment tool

The researcher made use of a Competency Based Skills Assessment Tool compiled by the RHRU especially to be used during SRH training. The content covered in the checklist also reflected the content of the SRH module ensuring that content validity were adhered to.

1.7.4 Adapted competency based skills assessment tool

The Adapted Competency Based Skills Assessment Tool's content corresponds with the content of the SRH module ensuring content validity. This tool will be used with each SRH client consultation to ensure that no loss of subjects occurs. Not losing any study subjects will enhance the internal validity of the instrument (Polit, Beck & Hungler, 2001:194; Babbie, 2001:226).

1.7.5 Client exit interview

The fieldworker will be sensitised to exclude courtesy bias as far as possible in order not to influence the validity of the client exit interview. Courtesy bias occurs when strong cultural norms cause respondents to hide anything unpleasant or give answers that the respondent thinks the interviewer wants (Neuman, 1994:394).

1.7.6 Number of pap smear taken

The number of pap smears taken by the experimental group prior and after SRH training will be collected from previously collected statistical data. The primary health care clinicians rendering SRH services collate the data. They are guided by *Definitions on minimum data set form, updated 01/04/04.* This guideline clearly defines the data element and includes the policy as to when pap smears should be taken. This enhances the validity of statistics used.

1.8 RELIABILITY

Reliability refers to the consistency with which the same results can be repeated, using the same measuring instrument (Trochim, 2002: Online; Burns, 2000:127; Uys & Basson, 2000:75). Reliability of each of the already mentioned quantitative techniques will be briefly highlighted.

1.8.1 Reactionnaire

Test reliability is influenced by the comprehensiveness of the test (Uys & Basson, 2000:75). The reactionnaire comprehensively assessed the reaction of learners towards the SRH training course, as the instructor's presentation techniques, how completely the topics were covered, how valuable they perceived each module to be and the relevance of the content to their specific job were covered in the reactionnaire. The learners completed the reactionnaire on a daily basis.

1.8.2 Pre-and post-tests

A high reliability coefficient is established when test irregularities are minimised (Uys & Basson, 2000:81). This was the case with pre- and post-tests as test administration was uniformly conducted in the eight (8) groups who underwent the SRH training.

1.8.3 Competency based skills assessment tool

Inter-observer reliability is enhanced when two or more trained observers watches some event simultaneously and independently record the relevant variables according to a category (Polit *et al.*, 2001:307). The master trainer assisted the learners in peer evaluation whilst assessing each other making use of the Competency Based Skills Assessment Tool thus adhering to inter-observer reliability.

1.8.4 Adapted competency based skills assessment tool

Making use of a pilot study improves the reliability of a study (Neuman, 1991:130). The Adapted Competency Based Skills Assessment Tool will be tested in a pilot study. The fieldworker will also be guided by a guideline as to how to complete the tool (Addendum B2).

1.8.5 Client exit interview

As with the Adapted Competency Based Skills Assessment Tool the fieldworker will be guided as how to conduct the Client Exit Interview (Addendum C2) enhancing the reliability of data to be obtained from this instrument.

1.8.6 Number of pap smears taken

The District Health Information System used to capture data of pap smears taken, has a range of built in tools for data validation. If data is validated the reliability of data results are enhanced (South Africa, Department of Health, 2001:8).

The only qualitative technique that will be used in the study is that of a nominal group discussion.

1.9 TRUSTWORTHINESS OF NOMINAL GROUP TECHNIQUE

Krefting (1991:217), classified trustworthiness into different perspectives. The identified perspectives are theoretical validity, credibility, transferability, dependability and inferential validity. Each one of the perspectives will be expanded upon in Chapter 3 of this study.

1.10 ETHICAL CONSIDERATIONS

Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations to the study participants (Polit & Beck, 2004:717). Ethical considerations therefore consider the mentioned aspects of ethics in research. The principle of self-determination will be upheld as prospective participants will have the right to decide voluntarily whether to participate in the study without risking any penalty (Pilot & Beck, 2004:147; Brink, 2003:39). The principle of respect for human dignity will be upheld as well. This principle encompasses people's right to make informed, voluntary decisions about study participation, which includes full disclosure (Polit & Beck, 2003:147; Uys & Basson, 2000:99). All participants will have to give informed consent prior to partaking in the study. Informed consent means that participants have adequate information regarding the research, are capable of understanding the information and have the power of free choice, enabling them to consent or decline participation voluntarily (Polit & Beck, 2004:151; Brink, 2003:42; Burns & Grove, 2001:206). All the reactionnaires and tests from research participants will be depersonalised to enhance confidentiality. Except for research principles that will be taken into consideration, permission to conduct the study was also obtained. The study was submitted to the Ethics Committee of the Faculty of Health Sciences of the University of the Free State who approved the continuance of the study, being satisfied that no ethical principles will be disregarded. The DoH and Mangaung Local Municipality granted permission to conduct the study.

1.11 VALUE OF THE STUDY

The purpose of evaluating training is to determine which aspects of the training were effective and which not; provide information to management to assist in designing future training; document the effectiveness of the training to stakeholders and to justify budgets for training (Garrison, 2003:16). The aspects mentioned by Garrison are applicable to the study, influencing specific role players.

The study will be of value to the following role players:

- SRH clients;
- Primary Health Care clinicians rendering SRH services;
- The DoH; and
- The RHRU.

SRH clients will benefit from the outcome of the study, as they will receive quality SRH services rendered by trained SRH primary health care clinicians. Primary Health Care clinicians rendering SRH services will be able to improve their practice. Trained and untrained SRH clinicians will have the opportunity to identify specific areas to be addressed aiming to better the quality of SRH service rendered at primary health care level. The DoH will be able to evaluate their SRH training investment. As the study will indicate if the training had any effect in the clinical practice, the DoH and RHRU may have to consider improving specific aspects of the training. The results can possibly indicate other areas of research.

This project is sustainable, as the researcher has close ties within the clinical setting and can therefore be instrumental in the implementation of research and research results.

Research results will be handed over to the Department of Health as well as the Educational Committee of the SANC. These bodies would be highly interested in the results of this study, as the SRH training course can be seen as a flagship, being the first short course registered with SANC and SAQA.

The results of this research will be presented at an international conference and published as an article in an accredited research journal.

1.12 EXPLANATION OF CHAPTERS

The rest of the study will address the following aspects:

- **Chapter 2** will consist of a literature review addressing the background to SRH services as well as a discussion of the SRH module presented. In-service-training as training method used to present the SRH module will also be explored. The concepts assessment, competence and evaluation will be unpacked;

- **Chapter 3** will clarify the plan and structure of the study by discussing the methodology of this study. The methodology refers to the research design, research techniques, population and sampling, data gathering, data analyses, validity and reliability and ethical considerations taken into account with this study. The research design will be discussed by exploring quantitative research, quasi-experimental studies, descriptive research and comparative research as design methods used in this study;

- **Chapter 4** will aim to analyse data collected. With the exception of the nominal group technique all other research techniques will represent quantitative data. The aim of collecting a specific data element will be highlighted, as well as how the population and sampling will be conducted, data analyses of the specific element, interpretation of data analysed and the validity and reliability of results; and

- **Chapter 5** will summarize the conclusions of this study as well as recommendations that could be made from results obtained from this study.

CHAPTER 2

Literature review

2.1 INTRODUCTION

The emergence of AIDS and the recognition of other sexual health related issues in the last two decades have created the need for nurses to recognize sexuality as a component of care (Hayter, 1996:662). Sexual Reproductive Health (SRH) forms part of this care component.

SRH problems and illnesses create a greater burden of disease among South Africans than any other category of illness (Foy *et al.,* 2000:49). The percentage of population estimated to be HIV positive in South Africa has increased from 4,5% in 1995 to 10,2% in 2003. Six-comma-five percent of people 15 years and older have been treated for a new episode of a sexually transmitted disease in South Africa during 2002 (Health Systems Trust, 2005: Online). HIV, being the sexually transmitted infection causing the most deaths in SA, also has an impact on the very high incidence of tuberculosis in SA. An estimated 160 000 tuberculosis cases in 1996 included more than 42 000 cases as a direct result of HIV infection. The nature of the demographic and economic consequences of AIDS in a society is determined by how many people are infected, their place in society in terms of skill and productivity and for how long they are ill. It will take a number of decades before the full impact of the AIDS epidemic will be felt, although the socio-economic costs of this epidemic are already quite evident (South Africa, White Paper On Population Policy, 1998:24-25). The prevalence of HIV is increasing on a daily basis, fast becoming the number one cause of mortality in the country (Foy *et*

al., 2000:49). Disadvantaged groups carry the greatest burden of sexual and reproductive disease and problems. It is especially poor and vulnerable women suffering the most in this regard (Foy *et al.,* 2000:49). The South African government took responsibility for the provision of health care to the citizens of the country by entrenching the right to health care, in The Constitution (South Africa, The Constitution, 1996:13).

The state is the main provider of contraceptive services in South Africa. Contraceptive services, including contraceptive methods, are provided free of charge in the public sector. Contraceptive services, being part of the public health services, are still going through a process of transformation in an attempt to redress past inequities (South Africa, Department of Health, 2001a:11). Contraceptive services, also known as family planning services, began in the 1930's in South Africa and was intended to provide birth control and advice to poor, white married women. The falling birth rate of the white population, together with the increase of the non-white population caused increasing fear among the white community of being swamped by large numbers of black people. In the late 1960's a national family planning programme with the political rationale to reduce the non-white population growth rate was launched. Free family planning services were made available to all racial groups but on a segregated basis. In Municipal areas family planning was offered as an integral part of Maternal Child Health services, but elsewhere national and provincial health departments developed strong vertical family planning services. Through the 1970's an ideological shift took place, emphasising the goal of the Family Planning Program to improve women's health through birth spacing. The quality of care only improved as from the 1980's when family planning services became integrated into primary health care (South Africa, Department of Health, 2001a:6).

The improvement of the quality of health care is at present further addressed at national and provincial level. The Maternal Child and Women's Health (MCWH) and Nutrition Cluster are responsible for contraceptive service policy making, and the production of training and education materials. In the provinces, provincial MCWH and Nutrition Directorates manage contraceptive services, in line with national policies, through the district health system. Contraceptive services are delivered at community level, at mobile units, clinics and community health centres and district hospitals. Problem cases are referred to tertiary hospitals and academic centres (South Africa, Department of Health, 2001a:11). The same legal framework guides the rendering of contraceptive services everywhere in South Africa.

In SA many initiatives have been taken to improve the standards of health services by providing documents to guide service renderers. Documents providing the legal framework are as follows:

- The Department of Public Service and Administration developed the White Paper on Transforming public service, the Batho Pele (People First) Principles in 1997. The main thrust of the document is the establishment of a culture in which all State employees regard the public or customer as the focus of their work. Public servants are held accountable for the service they render (South Africa. Government Gazette, 1997:9);

- The Patients' Right Charter from the DoH was formulated as a common standard for the realisation of the right of access to health care services, as guaranteed by the Constitution. Both the Batho Phele Principles and the Patients Rights Charter were used by the Health Sector Strategic Framework 1999-2004 to improve quality of care (South Africa, Department of Health, 2005: Online);

- The Population Policy of 1998 aimed at improving the quality, accessibility and affordability of primary health care services, including reproductive health. A reduction in mortality rates and unwanted pregnancies were also identified as focus areas. Disparities in the provision of services to disadvantaged groups and underserved areas were to be eliminated (South Africa. White Paper on Population Policy, 1998:3-4);

- The National Health Bill of 2002 prioritised maternal, child and women's health. According to this bill women and men should be provided with services that will enable them to achieve optimal reproductive and sexual health (South Africa, National Health bill, 2002:6);

- The National Contraception Policy Guidelines of 2001 contained the policy framework for the provision and use of contraception including guiding principles, a goal, purpose, objectives and strategies. Current reproductive health challenges were to be addressed by this policy. Focus is placed on the rights of patients and the needs of providers (South Africa, Department of Health, 2001a:19). The new definition of sexual and reproductive health, as well as the shift towards rendering a comprehensive reproductive health care service is embraced in this document (South Africa, Department of Health, 2001a:18);

- The Guidelines for Maternity Care in South Africa of 2002 gave guidance to health workers providing obstetric services in clinics, community health centres and district hospitals. The guidelines also address the need to counsel pregnant women on their future contraceptive needs (South Africa, Department of Health, 2002b:5);

- The Youth and Adolescent Health policy prioritises the integration of sexual and reproductive health services at the primary, secondary and tertiary levels of health care (South Africa, Department of Health, 2001b:41); and

- During the International Conference on Primary Health care, the Declaration of Alma-Ata was co-signed by the South African Government. Signatories pledged to address the main health problems in their communities by providing promotive, preventive, curative and rehabilitative services. The rendering of maternal care and family planning services were specifically mentioned (Declaration of Alma-Ata, 1978:2).

Standards of health care cannot be addressed within a legal framework if a human right framework is not also being incorporated in the package (South Africa, Department of Health, 2001a:6). The Constitution of South Africa provides the human rights framework guiding service renderers.

The Constitution of South Africa is the highest law, entrenching the human rights of every citizen of South Africa. In Chapter 2, nr 27 1a) of the Constitution, the following statement is found *"Everyone has the right to have access to health care services, including reproductive health care*" (South Africa, The Constitution Act 108, 1996:13). SRH care is also recognised as a human right by the WHO and is seen as a key intervention for improving the health of women, men and children. All individuals have the right to access, choice, and the benefits of scientific progress in the selection of family planning methods. A holistic approach has to be assumed when clients' rights are placed on the forefront. This would entail taking into account clients' sexual and reproductive health care needs and considering all appropriate eligibility criteria and practice recommendations, in helping clients choose and use a family planning method (WHO, 2002:3). Within the established legal and human right framework SRH services are being rendered in SA.

2.2 BACKGROUND TO SRH SERVICES

During the International Conference on Population and Development that was held in Cairo in 1994 the concept of sexual reproductive health was defined for the first time (Foy *et al.*, 2001:39).

Reproductive health was defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so (WHO, 2004: Online). Clift (2001: Online) added to the definition of reproductive health stating that reproductive health addresses the reproductive processes, functions and system at all stages of life. The International Conference on Population and Development defined **sexual health** as a state of physical, emotional, mental and social well being related to sexuality. It is not merely the absence of disease, dysfunction and infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled (WHO, 2003:57). Clift (2001: Online) sees sexual health as the integration of the somatic, emotional, intellectual, and social aspects of the sexual being in ways that are positively enriching and that enhance personality, communication and love. A complex web of factors ranging from sexual behaviours and attitudes and societal factors, to biological risk and genetic predisposition influences sexual health. It encompasses the problems of HIV and Sexually Transmitted Infections (STI's), unintended pregnancy and abortion, infertility and cancer resulting from STIs, and sexual dysfunction. Sexual health can also be influenced by mental health, acute and chronic illnesses and violence (WHO, 2003:57). Having had sexual

reproductive health identified by international role players, it was up to the DoH to ensure that these concepts were integrated into service delivery. The DoH identified challenges in implementing SRH services.

2.2.1 Challenges facing the implementation of SRH services

The DoH recognised contraceptive, maternal, child, adolescent and women's health services, together with STI/HIV prevention and management, as integral components of sexual and reproductive health care. One of the most cost effective ways to improve sexual and reproductive health is to integrate these services. Contraceptive service providers are therefore challenged to look beyond the contraceptive needs of their clients to their other reproductive health needs (South Africa, Department of Health, 2001a:5). The South African Department of Health identified other challenges such as facilitating organisational change, updating the technical knowledge and skills of service providers at the primary health care service delivery point, as well as addressing the provision of attitudinal training (Foy *et al.*, 2000:4). The DoH also took note of problems identified by the WHO that would directly or indirectly influence the implementation of SRH services.

The WHO identified possible reasons why family planning needs are often not met. Varied reasons were found. Poor access to quality family planning services, limited access to key information for contraceptive decision making, and lack of a supportive environment within families and communities have been identified as possible reasons (WHO, 2003:5). The question is now how to address the identified challenges.

Effective SRH training has been seen as a way to address some of the identified challenges. Although the public and private sector on a regular basis conduct training, it does not always achieve the expected improvement in quality of care. Approaches to training need to be re-assessed continuously in

order to develop and implement appropriate service provision. Both public and private sectors need to develop strategies to promote effective training approaches in order to improve the quality of Sexual and Reproductive Health Services, including STI management (RHRU, 2002:3). The short course in SRH addressed the previously inappropriate curricula used. Previously used courses did not take the definition of sexual reproductive health as it was defined by the International Conference on Population and Development in 1994 into consideration (Foy *et al.*, 2000:4). The increased utilisation of SRH services by the public, being mainly served by professional nurses, necessitated ensuring the renderance of quality SRH care.

2.2.2 Utilisation of SRH services

Contraceptive usage has increased worldwide over the last four decades, particularly in developing countries where contraceptive prevalence among married women has increased from less than 10% in the 1960's to over 60% today (WHO, 2003:5). South Africa compares well with other developing countries having had a 61.2% contraceptive prevalence rate during 1998 (Health Systems Trust, 2005: Online). However, in the developing world as a whole, an estimated 123 million women have unmet need for family planning, either for limiting or spacing births (WHO, 2003:5).

Often the providers of contraceptive services, especially in developing areas, are the only professional health attendants consulted regularly by contraceptive users. This offers a unique opportunity to provide a good quality contraceptive service, as well as a primary health care service. All patients using contraceptives should be examined and evaluated annually, not necessarily because a contraceptive is being used, but for health promotion in particular. In addition to a family planning service, the opportunity should be utilised to provide basic health education. A more comprehensive service is to the advantage of the patient the rest of her family and the community (Theron & Grobler, 1998:134).

A high quality of integrated service delivery would therefore be expected in the new century, posing several challenges to SRH services and service providers.

2.2.3 Quality of care

Quality of care refers to a level of performance or accomplishment that characterizes health care. Ultimately, measures of quality of care always depend upon clinical outcomes or value of judgements, but there are ingredients and determinates of quality that can be measured objectively, such as structure, process or procedures, and outcomes (IIME, 2004: Online). The WHO (cited in Foy *et al.*, 2001:5) defines quality as proper performance, according to standards, of interventions that are known to be safe, that are affordable to the society in question, and that have the ability to produce an impact on mortality and malnutrition. Quality of care is important in reproductive health service rendering as well.

Quality of services is seen to be a key determinant of reproductive health outcomes (WHO, 2004: Online). Improving quality of care is one of the 10 points in the plan to strengthen implementation of efficient and high quality health services within the DoH's Health Sector Strategic Framework 1999-2004. Despite the significant achievements within the SA health sector over the past five years, much work remains to be done. The DoH focused largely on increasing access to health care during the first five years. Of late the focus is on accelerating quality of health service delivery (Foy *et al.*, 2001:4). The DoH identified essential components of quality care in SRH that is to assist in the planned acceleration of quality care.

2.2.3.1 Essential components of quality care

The South African DoH (2001a:19) set guiding principles regarding SRH services to be followed:

- There should be respect for and promotion of human and reproductive rights for each client seeking contraceptive services;
- An enabling legislative environment for the provision of contraceptive services should be created;
- Contraceptive services should be free in the public sector;
- Contraceptive services should be equitably distributed throughout the country;
- Contraceptive services should be made available to all who need them;
- Service provision should include information and counselling on contraception, sexuality and reproductive health;
- Contraceptive services should be provided as part of comprehensive reproductive care;
- Contraceptive methods should be prescribed on the basis of informed choice;
- No client requesting contraception should be sent away without a suitable method of her/his choice;
- Service should offer a method mix appropriate to the level of service delivery;

- Services should be provided through a well- managed system with clear referral pathways; and

- Service providers should have all their technical and professional needs appropriately met.

Adhering to clients' rights, creating a caring environment and individualised care that fosters continuity in care are essential elements to be added to ensuring quality care being rendered. Service providers are directly responsible for meeting certain standards in order to ensure that clients get high quality SRH services. Some standards may not be under the direct control of providers (e.g. management systems), nevertheless one should advocate for any necessary improvements through appropriate channels (Foy *et al.,* 2001:5). Essential components for rendering quality care have been described, but it is also important to identify factors that influence quality care.

2.2.3.2 Factors influencing quality care

There are a number of factors impacting upon primary care, which, while not necessarily exclusive to this field, often have an accumulated effect on service delivery and therefore patient/client care (Nicol & Glen, 1999:83). This in spite of a study conducted by Strachota and associates, claiming 70% of nurses surveyed shared a passion for nursing and liked giving good patient care (Strachota, Normandin, O'Brien, Clary & Krukow, 2003:112). The factors influencing quality care are:

- Personnel turnover;
- Infrastructure and logistical support; and
- Staff competence (Shaver & Lacey, 2003:166).

The **effects of losses of health professionals** are numerous. The effect on the quality of care is the most visible and a great cause for concern. The reduced number of health care workers is subjected to increasing workloads due to larger populations that have to be serviced. This greater demand for services is likely to lead to a decline in quality care. During 2001, a vacancy rate of 57.3% was found among health professional posts in the public sector in South Africa (Health System Trust, 2002: Online). The implementation of free health services for all citizens in South Africa without increasing staff establishments or budgets for maintaining and running health services aggravated this problem (Geyer, 2004:34). Nurses' perception of staffing adequacy plays an important role, as poor staffing levels were perceived by professionals not to give them enough time to provide quality care (Strachota *et al.*, 2003:112).

The **deterioration of infrastructure and logistic support** in the public sector causes a lack of support to health workers to provide quality care. Nurses are placed in a difficult position when the employer and the community expect the nurse to provide health services in areas where there is not adequate staff, stock or infrastructure (Geyer, 2004:35). Facilitated supervision and back-up from management would assist them to enjoy an adequate infrastructure and sufficient equipment and supplies (South Africa, Department of Health, 2001a:22).

The **clinical knowledge and skills** of a site's staff are a critical factor in establishing and sustaining quality services (Nelson & Dufour, 2002:4). They have to receive relevant training and be given the opportunity to have their knowledge updated (South Africa, Department of Health, 2001a:22). Continuous education and training to develop new competencies is of value with all the changes that are currently taking place and provides practitioners with the ability to manage a rapidly changing environment (Geyer, 2004:34-36). A significant and largely unacceptable time lag between the development of new knowledge, evidence and research and its translation into everyday

practice also influences the rendering of quality care negatively (WHO, 2004: Online; Nicol & Glen, 1999:83). Increased use of personnel with insufficient skills in an attempt to meet health care needs has consequences for quality care. The exploitation of other categories of staff, such as enrolled nurses who are expected to perform duties outside their scope of practice create a high-risk environment for the patient, health worker as well as employing body (Geyer, 2004:35).

To enable service providers to deliver high-quality care, their needs must be met. Patient care suffers when employees are unhappy with their work situation (Strachota *et al.*, 2003:111). Factors influencing quality care within the health sector will have an effect on SRH service rendering, as this service is part of the health sector. Plans to address quality care within the health sector would therefore benefit SRH services as well.

2.2.3.3 Plans to address quality care

The DoH developed a ten-point plan to strengthen the implementation of efficient, effective and high quality health services throughout the health system (Foy *et al.*, 2001:42). The implementation of this plan towards SRH services will be evaluated according to the mentioned points of the proposed plan.

Re-organisation of certain support services: a specific support service that was re-organised was the district health information system that standardised PHC data collection (South Africa, Department of Health, 2003c);

Legislative reform: the legal framework guiding SRH services was revised as was discussed on page 3 and 4;

Improving quality of care: the Patient's Rights Charter and Batho Pele principles sensitised public and service renderers alike of the importance of receiving and rendering quality care;

Revitalising of public system: local governments were guided by an Independent Development Plan indicating key performance areas within local government (Mangaung Local Municipality, 2004:1);

Decreasing morbidity and mortality rates through strategic interventions: a protocol for the management of a person with a sexually transmitted disease was compiled by the DoH, standardising treatment in this field (South Africa, Department of Health, 2000);

Improving resource mobilisation and management: a comprehensive and integrated package of essential primary health care services was introduced (South Africa, Department of Health, 2001c:7). SRH services are part of the core package;

Improving consultation within the health system and between the health system and communities served: the defined level of services addressed consultation/referral within the health system. Communities were involved in the structuring of the system (South Africa, Department of Health, 2001c:10); and

Strengthening co-operation with partners internationally: the WHO is the most influential international partner in health and is giving priority to improving access to high-quality care in family planning through a variety of strategies. The Programme of Action of the 1994 International Conference on Population and Development emphasized the importance of reproductive health to women's overall well - being and called for programmes to increase the availability and quality of reproductive health services (WHO, 2004: Online). Women's and men's rights and perspectives are taken into account in

the planning, management and evaluation of services. The widest available range of contraceptive methods are promoted so that people may select what is most appropriate to their needs and circumstances. Contraceptive counselling will be based on eligibility criteria and practice recommendations that are supported by a scientific rationale (WHO, 2002:3).

Although all aspects mentioned are crucial to ensure quality of care this review will deal with knowledge and skills. It is outside the scope of this study to address all relevant issues. The provision of standardised SRH care would uplift the knowledge and skills of service providers.

Clinical practice for contraceptive method provision is not nationally uniform in SA. In an attempt to update and standardise the provision of contraceptive methods and eliminate unnecessary restrictive practices and medical barriers, the WHO developed a set of medical eligibility criteria for the provision of contraceptives. This is based on the results of careful collaborative inter-agency review of all clinical, epidemiological and programmatic research on new and old contraceptive methods over the last ten years. South Africa endorsed these guidelines in order to provide contraceptive methods safely and correctly in accordance with standardised contraceptive clinical practice guidelines and infection prevention protocols. The clinical practice guidelines took the STI/HIV epidemic into account (South Africa, Department of Health, 2001a:25). The WHO guidelines suggest the suitability of each contraceptive method in the presence of specific medical conditions. Health risks are weighed against health benefits. The criteria allow service providers to prescribe contraceptives according to clients' personal preferences while maintaining an adequate margin of safety. They represent an advance towards ensuring that women and men are adequately protected from possible health risks associated with contraceptive use, without being unnecessarily denied the method of their choice (South Africa, Department of Health, 2001a:25). The short course in comprehensive SRH has been developed in line with the proposed eligibility criteria and practice

recommendations of the WHO. The guidelines set out in the mentioned SRH course serves as a standard for measuring quality.

Once quality standards or criteria have been defined, some measurement of specific clinical standards/guidelines is necessary in order to compare actual performance with defined standards. Any clinical procedure, protocol or guideline can be measured to determine the quality of care provided. By measuring compliance to standards managers and providers can identify shortfalls and work out how to address them in order to improve quality of care (Foy *et al*., 2001:103). In order to specifically ensure the competence of staff a short course in SRH has been developed.

2.3 SEXUAL AND REPRODUCTIVE HEALTH MODULE

The terminology course and module is used interchangeably in literature. A course is seen as a structured learning experience with specified learning outcomes. It is the smallest recognisable component of a programme of study. A course is also known as a module (New Zealand, Qualification Authority, 1996:87). A module is described as a coherent, independent learning opportunity designed to achieve a specified set of learning outcomes. In a modular qualification a module has a specific structure and standard size and a designated weighting and level in the learning programme. A module fulfils a fundamental, core and elective function in a learning programme (UFS, 2003:5). This study will refer to a module, which would include a course as well, as has been stated in literature quoted. The unit standards that form part of each module or course are registered statements of desired education and training outcomes and their associated assessment criteria. It also includes administrative information (Vasuthevan & Viljoen, 2003:114). Outcomes on the other hand are contextually demonstrated end - products of the learning process (Vasuthevan & Viljoen, 2003:113; South Africa, Ministerial Committee, 1996:15). Mehrens and Lehmann (1991:28) state that an outcome is what occurs as a result of an educational experience. An

outcome can be seen as all possible demonstrable results that stem from casual factors or activities. Learning outcomes are statements of what a learner is expected to know, understand or be able to do at the end of a module (Moon, 2002:10). In medical education, an outcome refers to a new skill, knowledge or stimulus to improve the quality of patient care. Setting outcomes can be very useful for developing a framework of various results expected from various educational activities. Outcomes may be related to the educational process (process outcomes), to the product of education (learning outcomes), or the professional role of the learner (performance outcome) (IIME, 2004: Online; LGWSETA, 2002:4). The South African Qualification Authority (SAQA) includes the acquisition of values and attitudes integrated into the learner's performance in the description of what an outcome entails (LGWSETA, 2002:4).

Outcomes inform all relevant parties of what should be achieved by the end of a module and assist in measuring progress and understanding against what is required for each module (LGWSETA, 2002:5). The National Standards Body recommends outcomes and SAQA registers outcomes. These outcomes are categorised according to the following clusters:

Essential embedded knowledge refers to prior learning or qualifications needed for entry, as well as requirements for entry. This underpinning knowledge will ensure that the learner understands the contextual knowledge and can apply it to the skills required (Van Rooyen & Prinsloo, 2003:113; Jacobs, 2000:4);

Specific skills outcomes refers to the specific knowledge attitudes and understanding, which should be displayed in a particular context (Van Rooyen & Prinsloo, 2003:115; Jacobs, 2000:2); and

Critical cross-field outcomes are broad, generic and cross-curricular outcomes, laying the foundation for specific outcomes (Jacobs, 2000:2). The competence of a candidate is measured against these outcomes and assessed using statements of competence and assessment criteria. In order to do so the distinguished categories of competence will all be assessed in their own right, using the appropriate methods of assessment (LGWSETA, 2002:28). SAQA identified a list of critical outcomes considered essential to develop skills for all South African learning areas. These outcomes were defined as the characteristics that should be possessed by the ideal 'product' of an education and training system (LGWSETA, 2002:11). Learning outcomes should be closely related to assessment criteria (Moon, 2002:39). The following are critical outcomes that can successfully be embedded within unit standards:

- Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made;

- Work effectively with others as a team, group, organisation, community;

- Organise and manage oneself and one's activities responsibly and effectively;

- Collect, analyse, organise and critically evaluate information;

- Communicate effectively using visual, mathematical and or language skills in the modes of oral and/or written presentation;

- Use science and technology effectively and critically, showing responsibility towards the environment and health of others; and

- Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation (Van Rooyen and Prinsloo, 2003:22; LGWSETA, 2002:11).

A similar categorisation of outcomes is also followed in England (Moon, 2002:17). In South Africa standards based education and training, and the outcomes that have to be attained by the learner is clearly defined. The assessor uses these standards as a measure to find out whether a learner has performed to the set standard. The availability of national standards sets the floor for learners' performance to be measured against nationally agreed standards, instead of measuring performance against that of another learner. Standards-based assessment is designed to show what learners understand and what they can do and apply from what they have learnt. To be able to do this, learners must understand why and how they will be assessed to give their best performance. In standards – based assessment the learner knows what outcomes the assessor will be looking for. The focus is therefore not on *"catching the learner out"*; instead, assessment is a chance for the learner to give his/her best performance (Van Rooyen & Prinsloo, 2003:23; LGWSETA, 2002:13). The learner is given the opportunity to demonstrate complex learning that is packed with knowledge, skills, and attitudes/values. This learning can be applied across new and different contexts (LGWSETA, 2002:14). The outcomes and other relevant requirements of the SRH module that has been implemented by the DoH are now discussed.

2.3.1 SRH module presented

The SRH module has been approved as a short course by the SANC in September 2001 (Kgongwane, 2005: Personal interview). The short course in comprehensive SRH has been developed to address the identified unmet need of appropriate primary health care training in SRH (Foy *et al.*, 2001:5). The learner requirements for the module and expected outcomes of the SRH

module will be tabulated, simultaneously reflecting whether these aspects met SAQA's set criteria.

TABLE 2.1: Critiquing SRH learning requirements and expected outcomes against SAQA criteria

LEARNING REQUIREMENTS		
SRH module	**SAQA criteria**	**Critique**
• Candidates for the course must be professional nurses registered with the SANC and practising at public or private/non-governmental health care facilities (Foy *et al.*, 2001:5).	Learning requirements refers to the knowledge, skill and understanding assumed to be in place (LGWSETA, 2002:31; SAQA, 2001:15).	Identifying all practising, registered professional nurses' as candidates for the SRH module might not be specific enough. Specifying that they should be practicing primary health care nurses, rendering SRH services would set a clearer basis for future understanding.
EXPECTED OUTCOMES		
SRH module	**SAQA criteria**	**Critique**
• The qualifying learner should have the fundamental knowledge, attitudes and skills with respect to the general nursing sciences (Foy *et al.*, 2001:5).	Outcome statements should show to what extent and in what way the outcomes represent the performance of a competent practitioner on this level (SAQA, 2001:17).	The expected outcome should have been more specific regarding what the learner should be able to do at the end of the module, as general nursing sciences covers a broad area.

The **course curriculum** was written in accordance with the requirements of SANC and SAQA for short courses (Foy *et al.*, 2001:5). The specific outcomes, associated assessment criteria and critical cross-field outcomes as contained in the SRH module are tabulated. The researcher has highlighted instances where no link could be found between specific outcomes, associated assessment criteria and critical cross-field outcomes.

TABLE 2.2: Linkage between specific outcomes, associated assessment criteria and critical cross-field outcomes of SRH module

SPECIFIC OUTCOME (Foy *et al.*, 2001:5-6)	ASSOCIATED ASSESSMENT CRITERIA (Foy *et al.*, 2001:6)	CRITICAL CROSS-FIELD OUTCOMES (Foy *et al.*, 2001:6)
1) Have acquired the appropriate knowledge, attitudes and skills necessary for the provision of high quality SRH services;	1) Display knowledge, attitudes and skills necessary for the provision of high quality SRH services;	1) Identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made;
2) Be able to apply the knowledge, attitudes and skills in the provision of high quality SRH services;	2) Demonstrate the application of appropriate knowledge, attitudes and skills in the provision of SRH;	• No critical cross-field outcomes identified;
3) Be able to provide comprehensive SRH services to individuals, couples, families and communities;	3) Provide comprehensive SRH for individuals, couples, families and communities;	• No critical cross-field outcomes identified;
4) Be able to efficiently organise and manage SRH services and;	4) Apply the principles of efficient organisation and management of SRH services and;	4) Organising and managing oneself and one's activities responsibly and effectively;
5) Be able to collaborate effectively with other stakeholders within the primary health care context;	5) Display the ability to function effectively with other stakeholders within the primary health care context;	5) Working effectively with others as a member of a team, group, organisation or community;
• No specific outcome stated;	6) Provide SRH education and information to individuals, couples, families and communities;	• No critical cross-field outcomes identified;
• No specific outcome stated;	• No associated assessment criteria stated;	7) Collecting, analysing, organising and critically evaluating information;
• No specific outcome stated;	• No associated assessment criteria stated;	8) Communicating effectively using visual, mathematical and or language skills in the modes of oral and or written presentation;
• No specific outcome stated;	• No associated assessment criteria stated;	9) Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation and;
• No specific outcome stated;	• No associated assessment criteria stated;	10) Displaying cultural and aesthetic sensitivity across a range of social contexts

Regarding the **duration** of the SRH module, the total number of notional hours of learning for the course has been estimated to be 733. A notional hour of learning is the time the average learner will need to acquire proficiency in the specified learning outcomes. These hours include contact time, self-study, skills development tests and clinical practice (Foy *et al.*, 2001:6).

The **learning approaches** suggested to teachers presenting the SRH module were to make use of facilitation, self-study, peer group teaching, group study, demonstrations, role-plays, case- studies and supervised clinical practice sessions. Throughout the course the learner should take full responsibility for his/her progress (Foy *et al.*, 2001:6).

2.3.2 SRH module content

The DoH set specific standards regarding the content of the SRH module. These standards were to be used in the training and re-training of primary health care clinicians. They include:

- Values clarification, anti-bias training and the development of client centred approaches of care, to help ensure that providers uphold clients' rights, and provide services to all people;

- The provision of information, education and counselling to the public and clients;

- Technical knowledge and skills on contraceptive technologies, method provision and follow-up, infection prevention, special sexual and reproductive health care needs of priority groups, and the prevention and management of interrelated sexual and reproductive health priority areas (e.g. STI/HIV infection, infertility, cervical cancer, breast cancer, teenage pregnancy, violence against women); and

- Management skills, including quality improvement methods, recording of client information and the collection, collation and use of data should be covered as well (South Africa, Department of Health, 2001a:29).

The SRH course implemented by the Department of Health did encompass the above-mentioned standards.

2.3.2.1 SRH course manuals

A series of five manuals covering the five modules of the SRH course curriculum has been developed for a PHC setting. The manuals are:

Framework for the provision of SRH services: This manual begins with a pre-course revision unit of reproduction and sexuality. Following on this are units on the legal, ethical, professional practice, sexual rights and gender context on which the provision of SRH services should be based. The manual then goes on to cover the fundamentals of organisation and management of SRH services in order to ensure high quality of care and the elements of a comprehensive SRH consultation;

Contraception: This manual contains units covering the important legal, policy and general service delivery issues regarding contraception provision. Following on are a series of units on each of the available contraceptive methods in terms of their key characteristics and essentials for provision. There is also a unit on the provision of contraception for people with special needs;

Sexually Transmitted Infections: This manual includes units on the epidemiology and control of STI's, STI syndromes and the complete management of a patient with a STI; and

HIV and AIDS: This manual contains units on basic information about HIV and AIDS, the clinical manifestation of HIV and AIDS, the essentials of comprehensive management of HIV/AIDSD, HIV voluntary counselling and testing and HIV and AIDS considerations in specific groups of people; and

Common SRH conditions: This covers topics such as common gynaecological disorders in women (Foy *et al.*, 2001:7).

The module content made it possible for the primary health care clinicians who underwent the SRH course to fulfil the expectations the DoH had as to what they should be able to do when rendering SRH services.

Knowledge gained should enable the nurse to share the following information with clients receiving SRH services:

- Proper use of method;
- Contraindications of method;
- Effectiveness in preventing pregnancy;
- Need to protect against STI's and HIV if at risk of exposure;
- Possible side effects of method; and
- Possible interaction of the method with other drugs or condition (Foy *et al.,* 2000:65).

As has been highlighted, the first manual provided the framework for the provision of SRH services, emphasising the importance of rendering SRH services within a gender context. Previously presented courses in the field of SRH did not emphasize the importance of being gender sensitive.

2.3.2.2 Importance of gender sensitivity

According to the White Paper on Population Policy (1998:10), advocating gender equality, equity and the empowerment of women are fundamental prerequisites for sustainable human development, and thus constitute cornerstones of population and development programmes. The South African government has committed themselves to the entrenchment of gender equality not only through the Population Policy, but mostly by specifying its importance in the Constitution. In 1995 the government ratified the United

Nations Convention on the elimination of all forms of Discrimination Against women, as well as the 4th United Nations Conference on Women held in Beijing (Sadie & Loots, 1998: Online). The DoH was bound to follow suit.

As was highlighted, the DoH recognised the importance of gender sensitivity being displayed when rendering SRH services, as this important aspect was incorporated in the SRH module. Gender sensitivity refers to the ability to perceive, understand and take action against the differences between the situations of men and women and the issues of limitation, subordination and oppression in the lives of women (The Gender Resource and Information Development Centre, [n.d]: Online). Sexual and reproductive health are concerned not only with the physical aspects of sexual and reproductive development and functioning, but also with the psychological aspects that underpin relationships between men and women, girls and boys, parents and children, and between sexual partners. Central to sexual and reproductive health is the balance of gender in society and the opportunity for people to express their sexuality. These impact on behaviour pattern with respect to health and access to services (Foy *et al.*, 2001:38). Reproductive health messages need to address women as women, not just as caretakers, and they need to speak to women as adult members of the family and community, not as if they were children. Reproductive health must be seen within the context of the life cycle, and also in the context of every aspect of women's lives (Clift, 2001: Online). Within one's life cycle different roles are enacted upon.

Gender roles are roles which are classified by sex, but where the classification is social and not biological (Gender Glossary, [n.d.]: Online). Gender roles are central in sexual and reproductive health. Because it is women who get pregnant and give birth, the risk factors and exposures for women and men are fundamentally different from the outset, with the burden of ill-health being much greater for women. In addition, many of the health issues related to sex and sexuality depend on the nature of men and women's relationships

to each other (WHO, 2003:51). Reproductive health programmes have increasingly understood that men's support and participation is essential to the ultimate success of any reproductive health initiative (Clift, 2001: Online). Often, for economic, political and social reasons, women have less power in relationships than do men and are therefore not in a position to protect themselves from unwanted sex, from transmission of infections or from violence. At the same time, men may also be constrained by social expectations of manhood and masculinity, which may have a negative or positive impact on health and that of women. These aspects must be understood and taken into account in order for research, policies and programmes to be effective in addressing problems in sexual and reproductive health (WHO, 2003:51; Miers, 2002:72). SRH rights have also been elevated to its rightful place in order to ensure a high quality of SRH service delivery.

2.3.2.3 Importance of SRH rights

The importance of sexual and reproductive health rights was also addressed in the SRH module. As has already been mentioned in the introduction, SRH rights have been entrenched in South Africa's Constitution (South Africa, The Constitution Act 108, 1996:13). Being guided by The Constitution, the DoH enacted upon this established right with the compilation of the Policy Guidelines for Youth and Adolescent Health (South Africa, Department of Health, 2001b:36). SRH rights were further emphasised in the Population Policy of South Africa (South Africa, White Paper on Population Policy, 1998:8). The sexual and reproductive health rights and needs of adolescents in particular remain culturally and politically sensitive topics. Sexual and reproductive health rights and needs of adolescents and youth are sadly neglected worldwide. This neglect has major implications. Globally there are a total of about 1.7 billion young people (10-24 years of age) (WHO, 2003:63). This same age group represents 32% of the total population in South Africa (Statistics South Africa, 2003:27). The information and life skills this portion

of the population get or don't get, has far reaching consequences for the lives of young men and women throughout the life cycle. The continued lack of evidence on these issues, and on the best and workable practices in different settings that meet their needs for information and life skills and for services in acceptable and effective ways, need to be addressed through research (WHO, 2003:63). Addressing sexual health at the individual, family, community or health system level requires integrated interventions by trained health providers and a functioning referral system. It also requires a legal, policy and regulatory environment where the sexual rights of all people are upheld (WHO, 2003:57). The DoH suggested various learning approaches to follow in order to present the discussed content of the SRH module. Some of the suggested approaches were utilized whilst making use of In-service-training as training method of the SRH module.

2.4 IN-SERVICE-TRAINING AS TRAINING METHOD OF SRH MODULE

In service training is the training of people whilst they are employed in order to enhance competence in job related responsibilities in a specific area or discipline (Lingual Links Library, 1999: Online; Alspach, 1995:237; Booyens, 1993:369). A continuous need for in-service training of health care workers exist, due to the rapid changes within the health care profession (Booyens, 1993:369). In this study primary health care clinicians employed by a local authority were trained regarding SRH in order to improve their competence in rendering SRH services.

In-service-training programmes are usually directed towards maintenance of competency, training, educating, and informing the person about the present requirements of the job (Alspach, 1995:239; Booyens, 1993:369). The SRH module presented by the DoH links to the maintenance of competency. Specific aspects or tasks within nursing are deemed to be sufficiently important in providing safe and effective patient care, for them to be labelled

as *"mandatory"* (Alspach, 1995:239). In order for primary health care clinicians in SA to be issued with a 38A permit, (this permit legalises the dispensing of contraceptive methods by a primary health care clinician), the primary health care clinician has to successfully complete the SRH training module training (South Africa, Nursing Act, act 50 of 1978, art. 38). The SRH module presented during in-service training to primary health care clinicians addressed the maintenance of competence within the work force. Being competent in doing what one is supposed to do remains one's own responsibility.

Health workers are not allowed to perform tasks they do not feel themselves competent to perform. It is the responsibility of professional staff to seek to rectify the discrepancy themselves by applying for or requesting appropriate training. Such training could be needed for personnel who have never undergone training in a specific field or have been trained, but are no longer competent in performing certain tasks (South Africa, Department of Health, 2001c:7). The health worker is, however, not the only role player involved in the training process.

The nurse manager who invests in the continuous development of staff gets better patient care results and the personnel become better motivated to perform to the best of their abilities. Personnel being developed, tend to stay working in the same institution, especially if such development leads to the fulfilment of higher order needs such as self-actualisation and self expression (Booyens, 1993:366). To improve the performance of health workers, the following key individuals should be involved in the process:

The supervisor responsible for monitoring and maintaining the quality of services and ensuring health care workers are properly supported in the work place;

Trainers responsible for helping health care workers acquire the necessary knowledge and skills to perform well on the job;

Health care worker responsible for the delivery of quality services; and

Co-workers responsible for supporting learners while they are engaged in training and as they apply new knowledge and skills at the work site (JHPIEGO, 2002:6).

Having the identified role players on board does not guarantee a successful training session, if the principles of in-service training are not adhered to.

2.4.1 Principles of in-service-training

When presenting in-service training certain principles should be taken into account. These principles are highlighted, emphasising the identification of training needs and the special adaptions trainers of adult learners should make.

2.4.1.1 Training needs

It is of foremost importance that in-service training needs have to be identified. A need for in-service training arises from the job requirements of a particular work setting (Alspach, 1995:13). This is usually done by observing employees in the work situation, asking for suggestions from employees by making use of suggestion boxes or making a suggestion form a part of the monthly newsletter from the in-service education department, by the circulation of questionnaires to departments or unit supervisors, and by determining needs which stems from the audit reports (Wakley, Chambers & Field, 2000:11; Booyens, 1993:369). Advisory committees comprising of various levels of management can assist in identifying whether a particular problem is training related or not. Although attitude surveys measures job

satisfaction, training needs can also be identified this way. Other ways of identifying training needs are through conducting a skills test, performance appraisals pointing out strengths and weaknesses in employee performance or through exit interviews. A high turnover rate may spell organisational problems and a need for training (Grobler, 2002:319-320). The SRH module presented by the DoH was presented to primary health care clinicians after DoH, WHO and Reproductive Health Research Unit undertook an assessment of reproductive health services in SA in 1994. Their findings led to the compilation and presentation of the SRH module (Foy *et al.*, 2001:4). Since In-service training targets adult learners, one has to take principles of adult learning into account.

2.4.1.2 Adult learners

Adult learners are a diverse group as they are influenced by society, age and accumulated experiences. Facilitating the learning experience for adults necessitates an understanding of adulthood in conjunction with the learning process (Fenwick & Tennant, 2004:55; Darkenwald & Merriam, 1982:86). Principles of learning, relevant to adult education, can be derived from the theories of behaviourists, humanists, gestaltists and cognitive theorists. The principles to be adhered to are that:

- An adult's readiness to learn depends upon the amount of previous learning. The more knowledge a person has accumulated the better able he or she is able to absorb new information and engage in complex modes of thinking (Darkenwald & Merriam, 1982:110). The previous learning includes life experiences and knowledge that may include work-related activities, family responsibility and previous education (Lieb, 1991: Online). Successful learning goes hand in hand with having acquired some basic knowledge, before assimilating new knowledge. It is desirable that the employee's basic prior knowledge be known in order to plan and develop learning material that will build

onto this pre-existing knowledge base (Nesbit, Leach & Foley, 2004:92; Booyens, 1993:370). The South African Qualifications Authority has therefore included Essential Embedded Knowledge in all courses registered with this body. Embedded knowledge refers to the body of theory essential for understanding and applying the standard to be studied (LGWSETA, 2002:32);

- An employee's training is mostly of use if he/she is motivated to learn and if they express interest in a subject and are told beforehand as to the benefits they will get from the learning to be presented (Booyens, 1993:371). Intrinsic motivation produces more pervasive and performance learning. When needs are directly satisfied by the learning itself, what is learned becomes an integral part of the learner. Extrinsic motivation may produce learning but the learning is not as effective as that which is intrinsically motivated (Mellish, Brink & Paton, 1998:68; Darkenwald & Merriam, 1982:110);

- Positive reinforcement of learning is more effective than negative reinforcement. As many adults are insecure and fearful because of negative experiences in earlier schooling, feelings of success in adult learning are essential for continued learning (Darkenwald & Merriam, 1982:110). New behaviour will be reinforced, if positive feedback is given when displaying application of newly learnt knowledge, skills or attitudes (Booyens, 1993:371);

- Adults learn best by actively taking part in their instruction. Collaborative modes of teaching and learning will enhance the self-concepts of those involved and result in more meaningful and effective learning (Nesbit *et al.*, 2004:86; Brundage & MacKeracher cited in Dewar, 1999: Online; Darkenwald & Merriam, 1982:110). Projects, exercises, problem solving sessions, group discussions and formal discussions are methods that can be recommended in adult learning.

Better learning will take place if a learner actively performs a particular task according to set guidelines, rather than watching the instructor demonstrate the correct way of performing the task (Booyens, 1993:371). Learners should therefore be encouraged to participate with the educator in planning their learning experience (Quinn, 2000:105; Mellish *et al.*, 1998:67);

- To maximize learning, information should be presented in some organized fashion. The starting point for organising material for adults is related to the adults' past experiences and knowledge. In this way adults are helped to identify their present level of competence and the level of competence to be achieved. This links to adults being goal orientated. Adults appreciate an educational program that is organised and has clearly defined elements (Quinn, 2000:105; Mellish *et al.*, 1998:67; Lieb, 1991: Online; Darkenwald & Merriam, 1982:110);

- Meaningful material and tasks are more easily learned and longer remembered than non-meaningful material (Lieb, 1999: Online; Mellish *et al.*, 1998:67; Darkenwald & Merriam, 1982:110). Adult learners are usually not interested in knowledge which they feel will be of little practical value to them. They want to acquire useful knowledge to integrate into their practical everyday work (Nesbit *et al.*, 2004:88; Gillies cited in Booyens, 1993:371). Ideally this newly acquired knowledge should immediately be applied in the workplace (Mellish *et al.,* 1998:68; Darkenwald & Merriam, 1982:86);

- Adults are more sensitive to physical surroundings (Mellish *et al.*, 1998:67; Booyens, 1993:372). Environmental factors affect learning. Tangible stimuli such as noise, seating and temperature can interfere with the learning process (Quinn, 2000:105; Darkenwald & Merriam, 1982:110);

- Learning with regard to skill development is enhanced by repetition (Darkenwald & Merriam, 1982:110). When the task to be learned or mastered by the employee is not likely to be practised immediately in the work situation, and when performance of a task must be maintained during periods of stress, over learning should be practised (Booyens, 1993:73); and

- Learning should ideally be paced at the individuals' own rate, taking individual differences into account (Booyens, 1993:372).

Having identified the principles of adult learning, one has to bear in mind that different training methods can be used to address training needs of adults.

2.4.2 Training methods proposed for SRH module

The DoH proposed a distance-learning programme with primary health care clinicians forming their own study groups. The course facilitator should be available to support the learners during this time and co-ordinate the clinical practice sessions of the participants. Self-study of the module was also advised as a possible learning approach (Foy *et al*., 2001:7). The master trainer of the SRH course did not follow the suggested proposal, but made use of an In-Service Training approach. In-Service training has already been discussed. The reason for choosing in-service training as method of training for the SRH module lies in the advantage this method has over the advantages and disadvantages of the proposed other methods. The benefit of using an in-service training approach is that trainees can draw from their work experience (Lingual Links Library, 1999: Online). In–service training can be conducted in or immediately adjacent to the work site. A shorter interval between instruction and evaluation of learning occurs and only a small group of learners is involved at a time (Alspach, 1995:237).

A disadvantage of in-service training is that the trainee is already responsible for and engaged in a task or program and may easily be distracted from training activities (Lingual Links Library, 1999: Online). The SRH module was, however, not presented in the work place itself, although visitation to the workplace (as supervised clinical practice sessions) was part of the teaching methods used. Opportunities to develop new skills or update existing ones rely very heavily on in-service training programmes. Different resources can be used to be of assistance during in-service training, examples being video and video training packages, clinical equipment and computer-assisted learning. Simulation and role-plays can also be effectively used during in-service training (Nicol & Glen, 1999:84, 88-89). The advantages and disadvantages of distance learning, self study and group study will be further explored as these strategies were recommended for use during SRH training but were not actively pursued during the SRH training.

2.4.2.1 Distance learning

In distance learning the learner and the teacher are not face-to-face. In order for two-way communication to take place between them technical media has to be used (Spencer, 2004:190; Coastal Carolina University, 2003: Online; Perry & Rumble cited in Hodgson, 1993:10). Matyla and Gividen (1997:4), defines distance learning as a system and a process that connects learners with distributed learning resources. This method poses certain advantages and disadvantages to the user.

The outstanding benefit of using distance learning is that this method offers particular professional training to a much wider audience of learners. More people can be trained more often with different distance learning tools. Education and training costs in terms of money and time is reduced because no time is lost in travel to on-site training. Subject matter experts can be brought in without leaving their hometowns (California Distance Learning Project, 2005: Online; Mantyla & Gividen, 1997:5; Hodgson, 1993:13).

Distance learning allows learners the opportunity to become self-directed, lifelong learners. The target audience for distance learning is mostly adult learners, who are allowed to study part-time, fitting studies around other commitments (California Distance Learning Project, 2005: Online; Spencer, 2004:190).

A disadvantage of using distance learning is that a well-structured support system is needed (Hodgson, 1993:15). Providers of distance based learning should be able to respond to the needs of the learner making use of distance based learning. These needs include support within the materials themselves, for example via questions and feedback to learners, technology back-up for marking of computer marked assignments and having a central student advice Centrum available (Lockwood, 1995:244). A study performed at the University of South Africa, a distance based education institution, found that language proficiency influenced learner approaches to texts and could have a negative impact on learner outcome, should language proficiency be a problem (Bergh, van Wyk, Lemmer, van der Linde & van Niekerk, 1996:174). A lot of skilled preparation is needed to prepare study material. It is also so that not all study objectives can always be addressed through distance learning (California Distance Learning Project, 2005: Online; Hodgson, 1993:15). Distance learning is often linked with self-study being another training method.

2.4.2.2 Self study

Self-study training is the educational process where individuals learn independently often in terms of their own unique objectives and at their own pace (Lingual Links Library, 1999: Online). Self-study offers certain advantages as well as disadvantages to those making use of this training method.

An advantage of self-study training is that it often does not require the learner to be present in an institution. Also it is usually less expensive than group training (Lingual Links Library, 1999: Online). Costs associated with classroom rental or overhead expenses can be cut as learners can use materials wherever and whenever they find it convenient (Alspach, 1995:234). The learners themselves benefit from this form of study since they are taught to solve problems on their own, learn how to learn and not just learn facts and become more experienced in working without close supervision. Being exposed to self-study one also comes to know that the classroom or training school is not the only place where learning occurs (Avenant, 1990:158; Ewan & White, 1989:119-120). Learners grow personally as well as professionally as they understand the theoretical base of their practice better, taking responsibility for their own learning and tend to become highly motivated (White & Ewan, 1991:109).

A disadvantage of self- study training is that quality control is difficult. You need to develop quality-control mechanisms such as tests, interviews, or performance observations to insure the quality of the training (Lingual Links Library, 1999: Online). A teacher has to be available for frequent reviews of progress sessions with the learner to ensure that the objectives are still appropriate, feasible and attainable and the results of the learning and practice is beneficial to the learner. This can be very time-consuming if many learners partake in self-study activities (White & Ewan, 1991:110). An alternative to self-study could be group study.

2.4.2.3 Study group

A study group is a collection of individuals who gather together regularly to improve their understanding of some subject by participating in a focused discussion. The study group organizes and maintains an agenda of readings. Prior to each meeting participants have read and reflected upon the reading and may come prepared with questions, ideas or explanations of the reading

(Kerievsky, 2000: Online). Belonging to a study group one has to be aware of the advantages and disadvantages of this study method.

Disadvantages of making use of this training method are that focus of the discussion on hand can easily become lost; this would defeat the whole purpose of getting together as a group. A group member needs to act as leader or moderator of the group. This person should be the most advanced student with respect to the reading to be discussed. If no such a person were available in the group the success of the study group would be uncertain (Bertram, 2003:224; Kerievsky, 2000: Online).

The main advantage of being part of a study group is that active participation in the group fosters a better understanding of the content to be studied (Kerievsky, 2000: Online). Learners also believed that being part of a study group helped them to achieve good marks. Belonging to a study group provides non-academic support, such as emotional support for one another. Peer pressure within groups, caused by seeing other learners doing more work or achieving better marks, could have a positive effect on the learner (Bertram, 2003:221). The teaching methods used during the presentation of the SRH module will now be discussed.

2.4.3 Teaching methods used

The SRH module was developed in such a way that a number of teaching methods were adopted. The teaching methods proposed and used in the module included facilitation of group discussions, demonstrations, role-plays, case-studies and supervised clinical practice sessions (Foy *et al.*, 2001:6). Primary health care personnel undergoing the SRH training had to engage in self-study prior to attending the training session. Self-study has already been discussed as a training method in 2.4.2.2. Introductory lectures were presented to the groups before facilitation of the various activities took place.

2.4.3.1 Lectures

A lecture provides learners with an overview of what they must know of a particular topic area. Lectures are best used to convey information, which explains the relationships between detailed concepts on the topic and which is not readily available elsewhere. Teachers do most of the talking and students mainly listen or write (Quinn, 2000:337; Mellish *et al.*, 1998:101; Ewan & White, 1989:78). A lecture is seen as a formal talk on a particular subject, often delivered at a college or university (AllWords.com, 2005: Online). Specific advantages and disadvantages of this training method should be taken into consideration when making use of this method.

Lecturing is an especially useful teaching tool when you need to impart information to a large number of students in a short time, model critical thinking and communication skills, or teach auditory learners. Lecturing is also helpful when you want your enthusiasm to reach a large audience, or you must present concepts that are difficult, derived from a wide range of sources, or from sources that are unavailable. Learners' thoughts can be directed in a particular direction as it emphasizes or clarifies facts. A large group of learners can be exposed to a recognised authority or specialist in a field (Mellish *et al.*, 1998:102-103; David, 1993: Online; Bernhard & Walsh, 1990:120, 49-52). Lectures can also be helpful to estimate how students are doing. Formal assessment such as exams will give that feedback, but this would often be too late as some students will have failed (Brown & Race, 2002:57; Mashaba & Brink, 1994:68).

A common complaint is that lectures create passivity among learners and often exceed learners' psychological or physiological ability to focus. No real discussion is often allowed, although students are sometimes encouraged to ask questions at specific times during the lecture. Lectures also may not be the best way to teach motor skills as well as cognitive skills such as application, analysis, synthesis or evaluation. It does not allow for individual

learning rates. Since lecturing is a skill that has to be developed by a teacher, a teacher without this skill would add to the disadvantages of lecturing. These disadvantages can be avoided by incorporating a variety of alternative teaching techniques into lectures (Quinn, 2000:339; Mellish *et al*., 1998:102-103; David, 1993: Online; Bernhard & Walsh, 1990:120). As has been stated lecturing was followed by facilitation of various activities.

2.4.3.2 Facilitation

Facilitation is defined as a meeting of a group of people at which a facilitator structures and manages group process to help the group meets its goal. A facilitation session may also be a meeting between two people: a facilitator and an individual who accepts process help and guidance (Rees, 1998:12). A facilitator on the other hand is a teacher who assists in learning and decision-making (Lingual Links Library, 1999: Online). Facilitation during the presentation of the SRH module took place in groups and not on an individual basis. Making use of facilitation does, however, have recognised advantages and disadvantages to those making use of this method.

Facilitation empowers learners to take control and responsibility for their efforts, progress and achievements. Facilitation also provides opportunities, resources and encouragement for the group to succeed in achieving its objectives. This way the group can be accountable for the way they proceed. Facilitation therefore helps a group to accomplish its goals (Herholdt, 2001:2). Group members are more motivated to support the decisions made and every member has the chance to be influential and useful so that group members sense they are an integral part of a team effort. Innovation, problem-solving and implementation skills are built in. A forum is also provided for constructive conflict resolution and clarifying misunderstandings (Rees, 1998:13). A person acting as facilitator who does not have the necessary skills and knowledge regarding group dynamics and processes can be the

cause of the facilitation process to be a disaster. Herholdt (2001:6) identified desirable facilitation behaviour as:

- Remaining neutral on issues;
- Being an active listener;
- Knowing how to ask questions;
- Encouraging open communication; and
- Maintaining focus on the issues.

Another technique incorporated when presenting the SRH module was group discussions.

2.4.3.3 Group discussions

A group is more than one person. A collection of people become a group when members see themselves as a group, share the same purpose, goals or ideals, begin to identify with one another and interact with and influence one another (Allen, Mehal, Palmateer & Sluster, 1995:110). A group discussion is therefore a give-and-take situation where an exchange of views on some topic takes place (The Free Online Dictionary, 2004: Online). Within group learning different group learning techniques can be identified. These techniques can be classified into six main groups namely buzz sessions and similar small-group activities, class discussions, seminars, group tutorials, group projects and self help groups. The form, content and structure of the group technique adopted and its particular educational aims and objectives structure the role of the teacher. The SRH study made use of buzz sessions and class discussions. The teacher or master trainer in this case, acted as group facilitator. The task of the group facilitator was to generate self-expression and interaction within the group (Ellington & Earl, 1996: Online).

Buzz sessions are short participative sessions that are deliberately built into a lecture or larger group exercise in order to stimulate discussion and provide student feedback. In such sessions, small sub-groups of two to four persons spend a short period (generally no more than five minutes) intensively discussing a topic suggested by the teacher. Each sub-group then reports back on its deliberations to the group as a whole. Class discussions take the form of a controlled discussion in which the teacher is at all times firmly in control of the situation, either allowing the class to ask questions and controlling the way in which these are discussed or guiding the class through structured discussion of some sort by asking carefully-chosen questions, providing prompts (Ellington & Earl, 1996: Online). Buzz groups and class discussions, as have been used when presenting the SRH module, have some strengths and weaknesses.

Buzz groups and class discussions constitute an excellent method of introducing variety into a lecture or formal presentation. This variety assists in addressing the problem learners have due to limitations in their attention span. Appropriate use of such sessions forces the students to undergo a radical change in their thought processes helping to stop their attention from lapsing. Such sessions can be used to achieve a wide range of objectives, both cognitive and non-cognitive. They can be used to develop oral communication and interpersonal skills, as well as being ideal for helping students to render their prior experience explicit or to develop their powers of decision-making, evaluation and divergent thinking. The main limitation of these group discussions is that it is not suitable to be used as a teaching method in its own right. Basic facts and principles of a subject can be conveyed in this manner and group discussions as mentioned should only be used in a supportive role in conjunction with other methods such as lectures. The method also needs careful control if it is not to get out of hand as the word *"buzz"* suggests (Ellington & Earl, 1996: Online). In a group discussion it is important to have reasonable balance between speakers. Often there are people who dominate discussion and those who say nothing (Rice, Saunders

& O'Sullivan, 1996:74). The facilitator has to make people aware of those behaviours with tact and without offending them (Herholdt, 2001:4). Except for group discussions, demonstrations were also utilised as a training method.

2.4.3.4 Demonstrations

A demonstration refers to a specific procedure or activity that the teacher implements whilst being observed by the learners. This teaching method is associated with explanations indicating why, when and where it is done. Demonstrations may be done individually or in groups. Students can even demonstrate to the class or teacher using criteria and guidelines given ahead of time (Google, 2005: Online; Grobler, 2002:338; Quinn, 2000:348). Demonstrations can also be used to set a problem for students to solve (Ewan & White, 1989:129). They are designed to illustrate theoretical principles, which are outlined in lectures (Brown & Atkins, 1990:99). Advantages and disadvantages of demonstration usage as a training method are discussed.

A demonstration is the training method of choice when illustration of a task or work process has to be explained (Grobler, 2002:338). A demonstration is only successful if all three of the following steps are followed: demonstration, followed by supervised practice of the components of the task, followed by return demonstration in which the students demonstrate that they are able to integrate the components into performance of the task. The teacher can not expect positive results after a demonstration if he or she did not adhere to including the characteristics of an effective demonstration. These include a clear purpose and objective of the demonstration, a purposeful effort to actively involve students, careful preparation of resources that will be needed and provision for opportunities for supervised practice and return demonstrations (Quinn, 2000:349; Ewan & White, 1989:110-111). When demonstrations lead learners to use scientific thought and problem solving skills, higher levels of thinking is promoted and better retention of information achieved (Swanson, 1999: Online). Careful arrangement of the room and

lighting is needed to ensure all learners can see what is going on (Quinn, 2000:350; Avenant, 1990:109). A demonstration without ensuring learners making the linkage with the cause-effect relationships of the specific situation is also of no use (Swanson, 1999: Online; Avenant, 1990:109). A common weakness is that the demonstration may occur long after the lecture so that the principle is no longer uppermost in the student's mind, or it may occur before the lecture so the principle is not known. A facilitating method may be used to provide the necessary information (Brown & Atkins, 1990:99). Another training method used during the presentation of the SRH module was role-plays.

2.4.3.5 Role-plays

Role-playing is the spontaneous enactment of a true-to-life situation that involves human interaction (Alspach, 1995:89; Van Ments, 1983:16). Bartle (2004: Online) adds to this definition by stating that the facilitator sets up a scenario where participants are assigned different roles that they can identify with when they undertake their work in the field. Usually there are no scripts and participants have limited data on which to base their roles (Grobler, 2002:326; Kodotchigova, 2001: Online). A role-play is a highly flexible learning activity that has a wide scope for variation and imagination (Kirsch, 2001: Online). In order to make successful use of role-plays as training method the correct process has to be followed.

Firstly the purpose of the role-play has to be identified, and then specific roles have to be assigned to two or more participants, followed by a brief description of the situation to be portrayed. Role players then act and interact according to their assignments as if they were the actual persons in that situation. Once all relevant behaviours have been demonstrated, the play is terminated and the entire group reviews the events and their implications (Kirsch, 2001: Online; McSharry & Jones 2000:79; Alspach, 1999:89). The purpose of role-playing is to teach process skills or to develop attitudes rather

than to convey factual content. Many of these skills involve management and interpersonal relations and include elements in the affective domain of learning (Alspach, 1999:89). No single role-play will ever be the same twice, thus adaptability of the teacher is a prerequisite (McSharry & Jones 2000:79). Teachers should take notice of the strengths and weaknesses of this training method.

Strengths that could be exploited when using role-plays are discussed.

- Role-playing affords learners the opportunity to put themselves in another's shoes, to view and respond to a situation through another's eyes and feelings (Bartle, 2004: Online; Alspach, 1999:89; Cotton, 1995:82);

- Potentially difficult emotional or behavioural situations and controversial issues can be practised in a safe way (McSharry & Jones 2000:77; Ments, 1983:25; Barghuoti, 1973: Online);

- Role-play can improve learners' interaction skills. Shy learners are assisted by the mask a role-play provides liberating them from conversational restraints (Kirsch, 2001: Online; Van Ments, 1983:25); and

- Role-plays actively involve participants (Soultrek, 2001: Online). Their participation leads to learning on at least two levels, curriculum learning and skills development (Fallows & Steven, 2000:143).

Weaknesses teachers should be aware of when using role-plays are the following:

- One of the more common limitations of role-playing is the adult learners' reluctance to use this teaching method. Some learners have had past negative experiences with this teaching technique and others may dislike an instructional method that forces them to perform in front of a group (McSharry & Jones, 2000:77). This sentiment often stems from confusion between role-playing and acting. Where an actor is concerned with an audience a role-player is only concerned about himself and his fellow role-players (Ments, 1983:20);

- In some instances the teacher may not be well versed in using the technique or in effectively managing its progress or conclusion, this may lead to unruly behaviour in class (McSharry & Jones, 2000:77; Alspach, 1999:89; Cotton, 1995:81). A great deal of judgement, skill and sensitivity to group dynamics is needed from the teacher presenting role-plays (McSharry & Jones, 2000:78; Van Ments, 1983:37) and;

- Role-plays can be a total disaster if not enough time is allocated to complete the process (Cotton, 1995:81).

Case studies were alternatively used to role-plays.

2.4.3.6 Case studies

A case study is a written description of an organisational problem. It requires from participants to identify and analyse specific problems, develop alternative courses of action and recommend the best alternative. Individuals or groups can analyse a case study (Grobler, 2002:326). This definition can further be elaborated on by adding that case studies are an interactive

learning method using real scenarios that focus on a specific issue, topic or problem. It is used primarily to strengthen knowledge and problem-solving and clinical decision-making skills. Typically participants read, study and react to these case studies in writing or orally during group discussion (Google, 2005: Online). The advantages and disadvantages of making use of case studies are discussed.

The primary purpose and therefore main advantage of using case studies is to enhance problem-solving skills (Atherton, 2003: Online; Grobler, 2002:326; Fallows & Steven, 2000:141). Learning is made realistic if it is based on real-world situations and briefing material used should make use of terminology used in the real situation (Fallows & Steven, 2000:141, 144; Barghouti, 1973: Online). Working in groups gives learners insight into group dynamics and group decision-making processes (Grobler, 2002:326; Fallows & Steven, 2000:141). The teacher can also use case studies as formative information on the abilities of the student (Robinson cited in Fallows & Steven, 2000:30).

Disadvantages of case studies to be taken notice of are that a poorly constructed case study would not allow learners to benefit from this training method (Cotton, 1995:72). The level of detail has to be addressed carefully. If too sparse, it may well suggest its own answers, if too complex, students can get lost. Distracting information should be introduced with care as to not get carried away with the story (Atherton, 2003: Online). This method should definitely not be used if the criterion for assessing correct answers is contestable or unclear (Atherton, 2003: Online). Both the design and marking of case-study based work is time-consuming and need to be piloted and revised in the light of feedback, which makes them problematic for use for examinations (Atherton, 2003: Online). Preparation of case studies is also time-consuming (Brown & Atkins, 1990:66).

Case studies can be used in conjunction with other methods (Atherton, 2003: Online). Another training method used during presentation of the SRH module was supervised clinical practice sessions.

2.4.3.7 Supervised clinical practice sessions

A broad definition of clinical learning is that it refers to learning, which occurs in settings similar to the ones in which learners will eventually work. Supervision refers to the learner being assigned to a supervisor or advisor with whom they can discuss their problems and what they have learnt (White & Ewan, 1997:4; Ewan & White, 1989:105, 112). Bishop (cited in Clifford & Clark, 2004:86) refers to clinical supervision as an interaction between two or more practitioners within a safe environment, which facilitates reflective critical analysis of care, thus enhancing the quality of services provided. Clinical supervision cannot be separated from clinical education.

The general aims for clinical education seem to fall into five main areas namely to:

- Help learners to learn skills and understand the principles of those skills;
- Help learners to deal with situations they will meet in their professional role;
- Provide learners with supervised practice in applying their factual knowledge and learned skills to the solution of real problems in the practical situation;
- Help learners to understand the jobs they are learning to do and to gain confidence in their own abilities to carry out their role; and

- Assist learners to be exposed to experiences, which will help to shape their attitudes in desirable directions (Ewan & White, 1989:105; Brown & Atkins, 1990:91).

Certain advantages and disadvantages of making use of clinical supervision should be taken note of.

Clinical practice sessions are ideal to use when learners are to be taught practical skills and procedures (Quinn, 2000:413; Ewan & White, 1989:105). Knowledge of facts, concepts and principles and skills without the learner being able to apply these is of very little value (Alspach, 1995:91). Clinical sessions provide real life practice in dealing with patients' problems and therefore offer the reality of nursing practice (Alspach, 1995:91; Ewan & White, 1989:129). Learners are provided with a sense of self-awareness and of on-the-job- capabilities (Ewan & White, 1989:129). Clinical sessions also give learners the opportunity to be exposed to suitable role models (Ewan & White, 1989:129).

Clinical practice sessions can be wasted if it does not involve learning by doing. Teachers would be wasting a valuable experience if teaching takes place here instead of in the classroom. Adequate preparation of learners and other role players who are part of the clinical setting is essential if learning by doing is to occur in clinical placement (Nicol & Glen, 1999:97; Ewan & White, 1989:129). If learners are experienced as *"being in the way"* or is seen to be an extra pair of hands, rather than allowing the learner to meet his/her learning needs the clinical practice session can not be optimally utilised. Clinical experiences are sometimes difficult to arrange because the clinical setting is also a service setting and full-time staff are usually concerned with their patient care responsibilities. Learners can also be seen to be either irresponsible or incompetent, or given tasks belonging to registered nurses. None of these situations is beneficial to the learner or patient (Naude, Meyer & Van Niekerk, 2000:84; Ewan & White, 1989:107-108). The teacher may

find it very difficult to schedule learners to encounter the right type of patients with the right nursing care at specific times when the learners are in that setting, due to the clinical setting being a service setting as well (Mellish *et al.*, 1998:246; Alspach, 1995:91). When clinical supervisors do not update themselves regarding the objectives of the placement or of the background knowledge and skills that learners have before learners arrive, the session becomes wasted (Ewan & White, 1989:108). The teacher therefore has to be aware of the outcomes for the clinical learning setting, including the learner behaviours such as applying and interrelating various principles, concepts and theories and facts. The affective traits and technical skills expected from the learner should also be clear to the teacher before she/he can successfully supervise clinical sessions (Alspach, 1995:91). The teacher would only be able to prepare the physical environment for the learner if he/she is aware of objectives to be reached (Quinn, 2000:419). On the other hand, if students themselves are ignorant of their objectives or specific purposes of the placement and therefore are unable to direct their own learning efforts, practice sessions become wasted (Ewan & White, 1989:108). Finally the condition of the patient in the clinical situation may complicate the teaching and learning process since both teacher and learner must take care not to cause the patient undue discomfort or concern (Ewan & White, 1989:108).

The DoH proposed several training methods that could be used when presenting the SRH module, such as distance learning, facilitation, self study, group study, demonstrations, role plays, case studies and supervised clinical practice sessions (Foy *et al.*, 2001:6). Teaching methods that were, however, used, as part of an In-Service-Training approach was self-study, lecturing, facilitation, group discussions, demonstrations, role-plays and supervised clinical practice sessions. After having undergone the training input, learners had to be assessed on their competence.

2.5 ASSESSMENT

Assessment is a process of passing judgement on individual competence in a given situation. This is a structured process, whereby different types of evidence are collected, using a variety of assessment methods. An individual's performance is judged according to national set standards. This strategy enables the assessor to measure knowledge, skills and attitudes. The measurement of data gained from assessment helps one to evaluate actions (LGWSETA, 2002:7; South Africa, Ministerial Committee for work on NQF, 1996:16; Kellaghan & Greany, 2001:19). Fallows and Steven (2000:39) adds to this definition by defining assessment as a process that is integral to learning that involves observation, analysis, and judgement of each student's performance on the basis of explicit criteria with resulting feedback to the student. In the South African context it specifically refers to the process of gathering and weighing evidence in order to determine whether learners have demonstrated competence in outcomes specified in unit standards and/or qualifications registered on the National Qualification Framework (NQF) (Van Rooyen & Prinsloo, 2003:113). Assessment can be undertaken on a formative or summative basis.

Formative assessment means assisting and supporting learning by advising the learner about his or her rate of progress against competency standards (Van Rooyen & Prinsloo, 2003:114; Ewan & White, 1989:188). It refers to the gathering of information about student learning during the program and usually repeatedly, to improve the learning of those students or learners (Triltelli, 2002: Online). Formative assessment should be an integral part of learning and students should always have access to an advisor with whom they can discuss their achievements and their deficiencies (Ewan & White, 1989:219). Summative assessment represents the aggregate or final result of student learning (Ewan & White, 1989:188). It also refers to the gathering of information at the conclusion of a program or finite part of the program in order to improve learning or to meet accountability demands (Van Rooyen &

Prinsloo, 2003:115; Triltelli, 2002: Online). Whether formative or summative assessment is used, the assessor has to take certain principles of assessment into consideration.

2.5.1 Principles of assessment

As many pitfalls exist, specific principles of assessment should guide the assessor. Assessment conducted during the SRH module is therefore weighed against assessment principles found in literature. The opinion of the researcher of whether the assessment principles were adhered to in this study is mentioned after each principle has been stated. Assessment principles assessors should take note of is that:

- If **objectives are poorly defined**, it will not be clear what should be measured. If the objective cannot be measured, it will be very difficult, if at all possible, to tell whether or not, and to what degree the objectives have been realized by the students (Stassen, Doherty & Poe, 2001:2; Mehrens & Lehmann, 1991:28; Ewan & White, 1989:194);

    - The expected outcome stated for learners of the SRH module was not clear on what the performance of a competent practitioner should entail after completion of the module;

- **Competence** of a candidate is **established against the assessment criteria** of a Unit Standard using the assessment criteria and statements of competence (LGWSETA, 2002:27). The learner is now no longer compared to other learners, but on the extent to which each individual learner is able to achieve the set criterion (Ewan & White, 1989:190).

- Learners were individually assessed during undergoing their SRH training making use of multiple-choice-questions, as well as a Competency Based Assessment Tool;

- Assessment should as far as possible address all levels of **Blooms' taxonomy.** Bloom identified six levels within the cognitive domain, from the simple recall of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order, which is classified as evaluation (Officeport, 2005: Online; C Sc 3315, 2005: Online);

  - SRH assessment instruments did not distinguish assessment according to Blooms' taxonomy;

- The assessment should ensure that all the specific outcomes, critical cross-field outcomes and essential embedded knowledge are assessed (LGWSETA, 2002:27). No **single method of assessment** can serve every purpose. The chosen method of assessment, instruments and techniques must provide a range of opportunities for learners to demonstrate knowledge, skills, values and attitudes (Van Rooyen & Prinsloo, 2003:91);

  - As has been indicated in Table 2.2, a serious discrepancy existed between specific outcomes and critical cross-field outcomes. Essential embedded knowledge was rather vaguely stated and also not assessed;

- The specific outcomes must be **assessed through observation** of performance. Supporting evidence should be used to prove competence of specific outcomes only when they are not clearly seen through actual performance (LGWSETA, 2002:27). Assessment is most effective when it reflects an understanding of learning as

multidimensional, integrated and revealed in performance over time (Stassen *et al.*, 2001:2);

- Not all SRH specific outcomes set were observed. The specific outcomes set that were not observed were: providing a comprehensive SRH service to individuals, couples, families and communities; organising and managing a SRH service and collaborating effectively with PHC partners;

- **Essential embedded knowledge** must be assessed in its own right, through oral or written evidence. It cannot be assessed only through seeing knowledge applied (LGWSETA, 2002:27);

  - The essential embedded knowledge for the SRH module was not clearly stated and not assessed;

- The **specific outcomes and essential embedded knowledge** must be **assessed in relation to each other**. If a candidate is able to explain the essential embedded knowledge but is not able to perform the specific outcomes, they should not be assessed as competent. Similarly, if a candidate is able to perform the specific outcomes but is unable to explain or justify their performance in terms of essential embedded knowledge, they should not be assessed as competent. Evidence of the critical cross-field outcomes should be found both in the performance and in the essential embedded knowledge (LGWSETA, 2002:27). This would assist in ensuring that learner assessment and learning become integrated (Gray, 1989:24);

  - Specific outcomes and essential embedded knowledge of the SRH module was not assessed in relation to each other. This was made more difficult as the essential embedded knowledge was not clearly stated;

- It is of utmost importance that **learners** themselves **become partners** in the assessment. Feedback on the effectiveness of their learning would be one such a way to encourage learner to adopt a serious approach to their learning (Wiener, Mizen & Duckham, 2003:79; Fallows & Steven, 2000:75; Gray, 1989:46);

  - SRH learners did get feedback on assessments conducted on the day of assessment;

- As a considerable **time variation** may exist between how long it may take different learners **to achieve the objectives** set, experienced teachers would have to counsel learners who are markedly out of step with their colleagues in order to address this challenge (Ewan & White, 1989:194);

  - It was necessary to discuss the achievement of objectives with two learners who underwent the SRH module;

- The quality of instruction can be bettered if instruction is modified on the basis of what was **learned from learner assessment** (Gray, 1989:25). Decision makers do, however, have to take note that an assessment task can include only a sample of relevant knowledge and skills and a sample of learner responses. The extent to which written responses under controlled conditions can be generalized might be limited (Kellaghan & Greany, 2001:22); and

  - The master trainer gave written feedback to the DoH after the completion of each SRH module.

Various assessment methods can be used to assess knowledge, attitude and skills (Stassen *et al.*, 2001:34). This study made use of two specific models that acted as framework for all assessments conducted in the study. The one model is known as Kirkpatrick's model for training evaluation and the other as Newble's model on the components of competence. Newble's model will only be discussed later in this chapter, with Kirkpatrick's model being discussed firstly.

2.5.2 Kirkpatrick's model for training evaluation

Assessment has already been defined as a process of passing judgement on an individual's competence. Evaluation is seen as making a judgement about quality, in other words relating how good the behaviour or performance is. Evaluation involves the interpretation of what has been gathered through measurement, in which judgements are made about performance (McMillan, 1997:10; Mehrens & Lehmann, 1991:4). Kirkpatrick however, uses the terminology evaluation and assessment interchangeably (Kirkpatrick, 1998:283). For the purpose of this study when referring to a learners' competence the term assessment will be used.

Assessment can take place on different levels. This study made use of Kirkpatrick's model of training evaluation. The training community has used this model since the late 1950's. Kirkpatrick's model includes four levels of outcome evaluation namely:

- Level 1 referring to participant reaction during and at the end of the course;

- Level 2 referring to participant learning during and at the end of the course;

- Level 3 referring to behaviour especially on-the-job performance after the course; and

- Level 4 referring to the results of training after the course (Kirkpatrick, [n.d.]: Online; Businessballs.com, 2005: Online; Garrison, 2003:16; Winfrey, 1999: Online; Kirkpatrick, 1998:19).

This study excluded level four evaluations. A brief description of what each level entails will follow. See Figure 2.1 as depicting Kirkpatrick's four-level model.

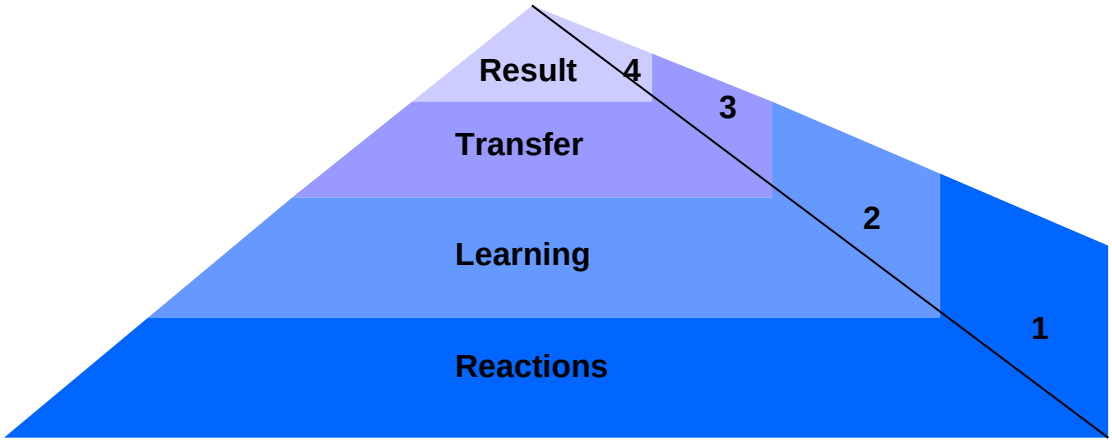

FIGURE 2.1: Kirkpatrick's four-level model

Level 1 evaluation's goal is to measure participants' reactions to the training program. This does not refer to reactions toward the overall program, but rather specific components of the program, such as the instructor, topics, presentation style and schedule. This type of evaluation is often called the *"smile sheet".* Participant's reactions should be measured immediately after the program. Learning on Level 2 and transfer of learning on Level 3 are unlikely to occur unless participants have positive attitudes towards the training program. Level 1 relies on the measurement of attitudes, usually through the use of a questionnaire. The questionnaire should be compiled of closed-ended items (like a rating scale) as well as open-ended items. Anonymous completion of questionnaires would most likely lead to more honest answers. The advantages of Level 1 evaluation are that the trainer

would know how participants felt about the training event and areas participants felt were missing could be identified and rectified to improve future versions of the training program (Kirkpatrick, [n.d.]: Online; Businessballs.com, [n.d.]: Online; Winfrey, 1999: Online; Kirkpatrick, 1998:20). See Table 2.3 for Level 1 assessment methods used during this study.

Assessing at Level 2 moves beyond learner satisfaction and attempts to assess the extent learners have advanced in skills, knowledge or attitude. Level 2 evaluation should also be done immediately after the training event. Knowledge is measured using already available achievement tests that are criterion-referenced. Criterion-referenced tests are conducted to determine whether learners have mastered one or more learning objectives and these tests include a cut-off point. A performance test is used to assess skills. The goal of a performance test is to determine whether learners can perform the skills they have been taught in the training event. Attitudes (reactions) are measured with questionnaires similar to the questionnaires used for Level 1 evaluation (Kirkpatrick, [n.d.]: Online; Businessballs.com, 2005: Online; Winfrey, 1999: Online; Kirkpatrick, 1998:20). The advantages of Level 2 evaluations are that demonstrated participant learning assist teachers in promoting their training program as well as providing information to improve future versions of the training program (Kirkpatrick, [n.d.]: Online). See Table 2.3 for Level 2 assessment methods used during this study.

Level 3 evaluation measures the transfer that has occurred in learners' behaviour due to the training program. The goal of Level 3 evaluation is to find out if the training program changed learners on-the-job-behaviour. The transfer of knowledge, skills and attitudes from the training context to the workplace is thus measured (Kirkpatrick, [n.d.]: Online; Businessballs.com, 2005: Online; Winfrey, 1999: Online). The main advantage of Level 3 evaluation is that it provides measurement of actual behaviour on the job, rather than only measuring positive after learning. This is important since

actual on-the-job results are needed after learners have undergone a training program (Kirkpatrick, [n.d.]: Online). See Table 2.4 for Level 3 assessment methods used during this study.

In Kirkpatrick's four level model, each successive evaluation is built on information provided by the lower level (Winfrey, 1999: Online). As has been mentioned, this study only address Level 1 to Level 3 of the model. Various assessment methods have been used in each of the mentioned levels.

2.5.3 Assessment methods used in presentation of SRH module

During the presentation of the SRH module various assessment methods were used. The assessment methods used will be tabulated according to Kirkpatrick's level of evaluation, whether embedded knowledge was tested, which assessment methods were assessed formatively or summatively and which method assessed knowledge, attitude or skills.

TABLE 2.3: Assessment methods used in presentation of SRH module

METHOD USED	Kirkpatrick's level of evaluation	Embedded knowledge	Formative assessment	Summative assessment	Knowledge	Attitude	Skills
Multiple-choice-questions pre-test		X			X		
Reactionnaire	1		X			X	
Multiple-choice-questions post-test	2		X		X		
Competency Based Skills Assessment Tool	2			X	X	X	X

Multiple-choice questions were utilised in pre-tests written by learners. This was testing the knowledge of learners on the content of the SRH training course. Learners also completed reactionnaires assessing attitude on a formative basis. The reactionnaires linked with Level 1 of Kirkpatrick's assessment level, as participant reaction was assessed. Multiple-choice questions were written as post–tests after completion of specified units, again assessing knowledge. This formative assessment was again on Level 2 of Kirkpatrick's identified assessment levels. A Competency Based Assessment Tool was used at the end of the module to assess knowledge, attitude and skills gained. This summative method was on Level 2 of Kirkpatrick's evaluation levels. Methods used to assess knowledge; attitude and skills during the SRH module will now be discussed.

2.5.3.1 Assessing knowledge

Knowledge is seen as the acquisition or awareness of facts, data, information, ideas or principles to which one has access through formal or individual study, research, observation, experience or intuition (IIME, 2004: Online). Knowledge can be assessed using a number of methods, examples being short answer questions, essay questions or oral examinations (Ewan & White, 1989:201). At entering school performance was directly measured against acceptable standards. In an effort to eliminate subjectivity, one was exposed to objective testing. These tests included true-false questions, matching columns, and multiple- choice questions (Nugent & Vitale, 1993:27). The SRH module only made use of multiple-choice questions to assess knowledge formatively.

2.5.3.1.1 Multiple choice questions

A multiple-choice question is an objective test item. It is objective because the perceptions or opinions of another person do not influence the grade. In a multiple-choice question, a question is asked, three or more potential answers are presented, and only one potential answer is correct. Either the student answers the question correctly or not (Varughese & Glencross, 1997:177; Nugent *et al*., 1993:27). There are several advantages and disadvantages one has to take note of when this method is used.

The advantage of using Multiple Choice Questions as assessments are that they are very reliable. Multiple Choice Questions are fast to answer, fast to mark and are reasonably objective. They do not rely on individual judgements of examiners but have a pre- determined set of correct answers, which can be marked by computer if necessary (Quinn, 2000:216; McMillan, 1997:151-152; Nugent *et al*., 1993:27; Ewan & White, 1989:202). A broad sampling of knowledge can be provided using this method and depth as well as breadth of knowledge can be assessed (McMillan, 1997:151-152; Nugent *et al*., 1993:27).

Disadvantages of using Multiple Choice Questions are that they are very time-consuming to set up, as they are not to be ambiguous, too easy, too hard or give too many clues or realistic alternatives (Quinn, 2000:216; Ewan & White, 1989:202). It is especially difficult to write good distracters, with the third or fourth distracter often being a giveaway to students. This increases the probability that students will guess the right answer. Students learn that the way to study multiple-choice items is to read and reread the material to focus on recognition. Much less energy is spent to recall information (Quinn, 2000:216; McMillan, 1997:151-152). Unfortunately, while these exams are very reliable they are not valid for a wide range of objectives in nursing (Ewan & White, 1989:219). The type of mental preparation prompted by multiple-choice items is not consistent with more contemporary theories of learning and information processing. It is however less problematic when the

learning targets is focused on understanding (McMillan, 1997:151-152). Well-structured multiple-choice-questions items broaden the scope for using this method.

Criteria have been set to use as a guideline when compiling multiple-choice-question items. Aspects multiple-choice-questions' items should adhere to are that the:

- Item should be clearly presented with the main problem stated in the stem (Quinn, 2000:216; Varughese & Glencross, 1997:177; Mehrens & Lehman 1991:134);

- Item should be written without any repetition of key words or phrases in each option (Quinn, 2000:218; Mehrens & Lehman 1991:135);

- Options should be placed at the end of the stem (Quinn, 2000:221; Mehrens & Lehman, 1991:135);

- Responses should be arranged in a systematic fashion (Quinn, 2000:219; Varughese & Glencross, 1997:177; Mehrens & Lehman, 1991:135);

- The distracters should be plausible or related to the subject matter (Quinn, 2000:219; Mehrens & Lehman, 1991:136);

- Presentation of all irrelevant clues should be avoided (Quinn, 2000:219; Mehrens & Lehman, 1991:137);

- *"I don't know"* option could be considered (Mehrens & Lehman, 1991:138);

- Question have only one correct (or best) answer (Varughese & Glencross, 1997:177; Mehrens & Lehman, 1991:138);

- Choice of 'all the above' have been avoided (Quinn, 2000:219; Mehrens & Lehman, 1991:139);

- The *"none of these"* option should be used sparingly- only when appropriate (Quinn, 2000:219; Mehrens & Lehman, 1991:139);

- Overlapping options should be avoided (Quinn, 2000:221; Mehrens & Lehman, 1991:140);

- Negative statements should be avoided, or if used, the negative statement should be underlined or written in capital letters (Quinn, 2000:219; Mehrens & Lehman, 1991:142); and

- Type K multiple – choice should be avoided. These multiple-choice-items tend to be more difficult, less efficient to construct and more laborious to read (Mehrens & Lehman, 1991:136).

The assessment of the multiple-choice-questions will be described in more detail in the methodology chapter. The multiple-choice-questions were used as pre and post-tests during the presentation of the SRH module.

2.5.3.1.2 Pre- and post-tests

Pre and post-tests are methods of assessment that are usually locally developed. The tests are administered and written at the beginning and end of a module (Stassen *et al.*, 2001:44). Pre and post-tests are given to learners before they begin a module or course and repeated after completion of the module. They serve the following purposes:

- They check that the learner has the necessary prior knowledge, skills and attitude;

- The results obtained in pre-tests can be compared with those obtained in the subsequent post-tests to establish how much the learner has learned in order to monitor student progression and learning across pre-defined periods of time;

- Results can be used to identify areas of skill deficiency and to track improvement within the assigned time frame; and

- Tests used for assessment purposes are designed to collect data that can be used along with other institutional data to describe student achievement. (Stassen *et al*., 2001:44; Hodgson, 1993:99).

The pre- and post-tests used in this study were standardised as they were compiled by the SRHU for use during the presentation of all SRH training courses. Using pre and post-tests do pose certain limitations to the user.

This method does require additional time to develop and administer. Care should be taken to ensure that the tests measure what they are intended to measure (Stassen *et al*., 2001:44). Asking learners what they know about something they will learn about may be intimidating and create anxiety amongst the learners. The validity of the information is often questionable and the effect on the classroom environment and teacher-learner relationship may be negative (McMillan, 1997:96).

Pre and post-tests can be of use if the test is short and targeted to specific knowledge and skills. Learners need to be motivated to do their best work and the teacher needs to make it clear to the learners that the purpose is to help them learn more and help the teacher plan more effective instruction (McMillan, 1997:97).

Multiple-choice questions were exclusively used as pre and post-tests during the presentation of the SRH module. The same questions used in the pre-tests were repeated in the post-tests. In a study conducted by Pratt, Mcguigan and Katzev (2000:341), post-tests were also identical to pre-tests used. Kirkpatrick (1998:47) adds another dimension to pre and post-testing by stating that if the knowledge is new, no need for pre-testing exists. According to Kirkpatrick, pre-testing is only of use, if teaching concepts, principles and techniques that learners may already know is compared with the results of a post-test. The SRH module contained a majority of new information.

In nursing education learners clinical performance and cognitive competency are assessed. Performance depicts whether learners did what they were supposed to do and cognitive competency whether they knew what they were supposed to know (Nugent *et al.*, 1993:27). Multiple-choice-questions used in pre and post-tests were used to measure learners' cognitive competency. Learners clinical performance were measured making use of Competency Based Skills Assessment Tool.

2.5.3.1.3 Assessing skills

A skill has been gained if a person is able to perform a task well. Skills are learnt through training or through experience. A systematic and coordinated pattern of mental and or physical activity is followed to be able to gain a skill (IIME, 2004: Online). Since different types of skills exist, it is very difficult to find a universally accepted terminology describing what skills entail. There does seem to be a universal acceptance of a need for learners to develop the following skills: communication, information, people skills (such as working in groups) and personal skills (such as time management) (Fallows & Steven, 2000:8-9). It can be argued that skills assessment is unavoidably a feature of all assessment within education since learners must use some or all of their

skills to produce the work that is assessed (Fallows & Steven, 2000:227). The SRH module proposed the use of a Competency Based Assessment Tool, (see Addendum A) to assess skills of learners.

2.5.3.1.4 Competency based skills assessment tool

The Competency Based Skills Assessment Tool was an example of a standardized test instrument that was used. A standardised test instrument is an instrument developed outside the institution for application to a wide group of learners using national norms and standards (Stassen *et al.*, 2001:45). The Competency Based Skills Assessment Tool was compiled by the Reproductive Health Research Unit and forms part of the SRH module implemented by the Department of Health (Foy *et al.*, 2001:190). Standardised tests have particular strengths and weaknesses.

The strength of making use of standardised tests is that it is immediately available for use, is less expensive to develop and learners' performance can be compared to national norms. The weakness to be aware of is that standardised tests may not contain enough locally relevant information that would be useful to the learner (Stassen *et al.*, 2001:45). This was however not a problem with the Competency Based Skills Assessment Tool used as the same SRH services are nationally rendered and measured against the same standards.

2.5.3.2 Assessing attitude

Attitudes are descriptions of how people feel or typically behave, rather than descriptions of what they know or can do. It reflects tendencies to respond explicitly to social objects (Mehrens & Lehmann, 1991:201). Attitudes, *per se*, are not directly observable but inferred from a person's behaviour, both verbal and non-verbal. You cannot see prejudice, but prejudiced behaviour can be observed. A person's consistent behaviour pattern to a stimulus, would

lead to the conclusion that he displays a specific attitude (Shaw cited in Mehrens & Lehmann, 1991:201). As will be seen in the coming discussion of Newble's model on the components of competence, attitude plays an important role in the clinical competence and performance of the learner. The SRH model made use of reactionnaires completed by learners to assess the attitude (reaction) they displayed during the SRH training.

2.5.3.2.1 Reactionnaires

Attitudes can be measured by observation of subjects in normal (or simulated situations) and by self-report inventories and scales. Self-report techniques are most often used to measure attitudes (Reckase & Young cited in Mehrens & Lehmann, 1991:201). The reactionnaire completed by primary health care clinicians undergoing the SRH training was a self-report as clinicians were given the opportunity to report on how they experienced specific aspects of the course, therefore reflecting their attitude towards the identified aspects. Reactionnaires often address matters outside the evaluation of the learning itself. Items that can be addressed in a reactionnaire are domestic arrangements, style and pace of delivery and training administration (Rae, 2004: Online; Lanigan, 2002: Online). The reactionnaire used during the SRH training did address the above-mentioned aspects as well as their perception towards the content presented. The reactionnaire was presented in the form of a Likert scale as well as open-ended questions.

The Likert technique presents a set of attitude statements and persons are asked to make use of a rating scale to indicate the measure they agree or disagree with the statement or question (Trochim, 2005: Online; Usability by Design, 2004: Online; Underwood, 2003: Online). By using a well-constructed and effective reactionnaire useful data can be obtained to help plan future training (Rae, 2004: Online). Should a self-efficacy section be made part of the reactionnaire, content validity and internal consistency reliability of training can also be established (Lanigan, 2002: Online). The

reactionnaire used during the SRH training did not contain a self-efficacy section as training objectives were not linked to this evaluation instrument. Valid and reliable reactionnaires can also predict behaviour transfer. Since the assessment of knowledge, attitude and skills have been explored; it is logic to now explore competence, as the assessment would hopefully lead to a learner being found to be competent in a task.

2.6 COMPETENCE

A person is deemed to be competent when he/she has acquired a satisfactory level of relevant knowledge and a range of relevant skills that include interpersonal (attitude) and technical components at a certain point in the educational process (IIME, 2004: Online; Van Rooyen & Prinsloo, 2003:24). According to Wojtczak (2002: Online) competence is the synthesis of all attributes necessary to do the task for which one is being trained.

Competence is not the same as *"knowing",* on the contrary, it may well be about recognising one's own limits. The more experienced the professional being tested, the more difficult it is to create a tool to assess their actual activities and the complex skills of the task they undertake. A holistic integration of all facets leads to seeing competence as not necessarily directly observable, but rather inferred from performance (IIME, 2004: Online). A solid performance is like fruit packed with vitamins and minerals. The vitamins and minerals are integrated into the fruit when enjoying it. The same way a good performance integrates knowledge, understanding, skills and attitude (LGWSETA, 2002:14). To know that a student is competent, one needs to observe the learner performing in the actual setting, not as an isolated performance under test conditions (Wojtczak 2002: Online). Traditional education programs largely targeted cognitive skills (knowledge). In order for a learner to proof competency, it is now expected of the learner to demonstrate that they can do what the job requires of them. Learners are expected to apply their knowledge in actual practice rather than merely

verifying that the knowledge exist (Alspach, 1995:72). Competence is therefore assessed at Level 3 of Kirkpatrick's model of training evaluation.

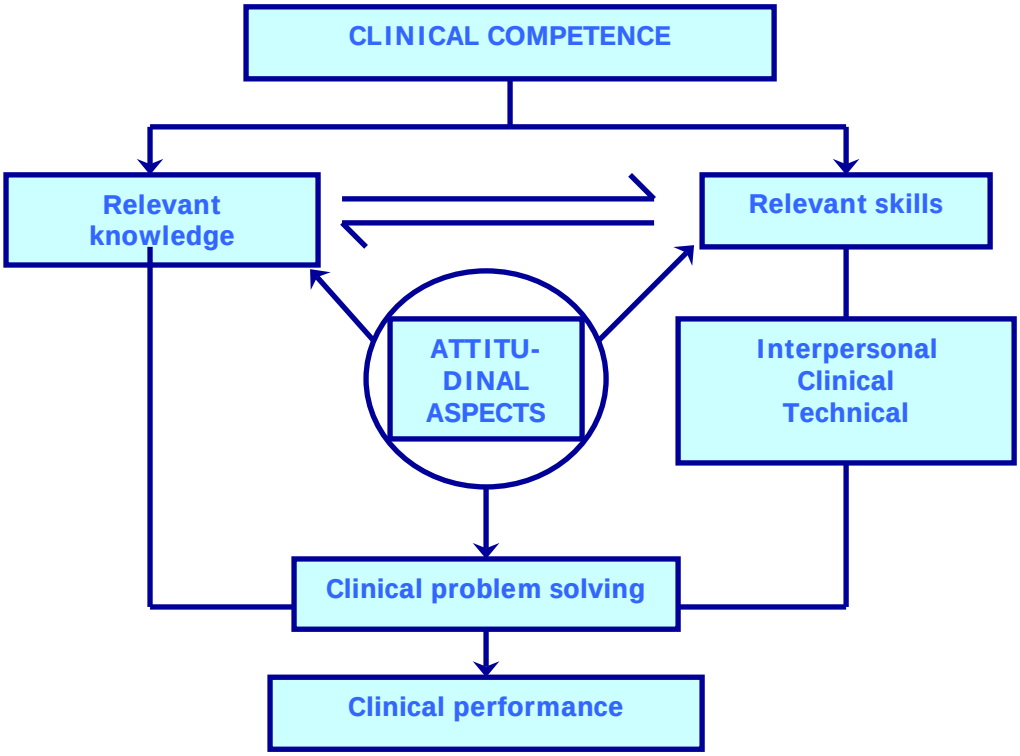

FIGURE 2.2: Newble's model on the components of competence

Newble's model is analytical in nature, as competence is broken up into separate parts called skills, knowledge and attitudes. This approach ensures assessment of competence to be conducted in a variety of situations, allowing all three parts of competence to be assessed. The term clinical competence is separated from the term clinical performance. Competence is defined as that which the learner should be able to do at an expected level of achievement. Performance on the other hand, is defined as that which the learner does under specific conditions. Unfortunately, competence does not always correlate highly with performance in practice. Both competence and performance is influenced by professional attitudes (Wojtczak, 2002: Online). Pratt (cited in White & Ewan, 1991:28), uses a very similar model to Wojtczak but does not distinguish between clinical and performance competencies.

Newble's model on the components of competence links very closely with Kirkpatrick's model for training evaluation discussed in 2.5.2. Where Newble's model illustrates the interaction attitude, knowledge and skills have on the clinical performance of the learner, Kirkpatrick's model assesses attitude, knowledge and skills on different levels in order to evaluate the clinical performance of the learner after the completion of training.

2.7 EVALUATION

Evaluation is the process by which a judgement is made concerning the relative value of something. It is a process that considers the various components of an endeavour and then ascribes some qualitative assessment to each of those components with the purpose to give feedback in order to better the situation if needed (Ministerial Committee on NQF, 1996:16; Alspach, 1995:112; Bernhard & Walsh, 1990:190). Evaluation also refers to another process that attempts to systematically and objectively determine the relevance, effectiveness, and impact of activities in the light of their objectives. Evaluation can be related to structure, process, or outcome (IIME, 2004: Online). This study will attempt to address the relevance, effectiveness and impact SRH training had on rendering SRH services within a primary health care setting after completion of SRH training. It is therefore important to explore what transfer of knowledge and skills entails.

2.7.1 Transfer of knowledge and skills

Transfer of learning is defined as ensuring that the knowledge and skills acquired during a learning intervention are applied on the job. Therefore transfer of knowledge and skills links with Kirkpatrick's Level 3 on-the-job evaluation. The goal is for learners to transfer 100% of their newly gained knowledge and skills to their jobs, resulting in a higher level of performance and an improvement in the quality of services at their facilities (JHPIEGO, 2002:6). Outcomes are set in terms of expected knowledge, attitude and skills

and are therefore the standard against which the transfer of knowledge would be measured (McNamara, 1999: Online). Somehow the learner does not always meet the standards set.

There are many possible reasons as to why learners who demonstrated skills competently and passed the knowledge test during training, are not able to perform the same skills in their work place. Training interventions can only be the solution to a problem if learners have a lack of knowledge and skills. Training would not address any other problem in the workplace. In some situations, learners acquire knowledge and skills during training only to find out they are not supported in using this new information in their work environment. Before investing in training, it is important to identify whether training would address the problem. Investing in training has to be followed up by on the job support for the learners. Support from the organisation, work environment, supervisors and co-workers are essential to facilitate transfer of learning (JHPIEGO, 2002:4). Before being able to provide support performance has to be analysed.

Performance factors have been identified that can be used to analyse performance and provide exemplary support. The identified performance factors are:

- Job expectations;
- Performance feedback;
- Physical environment and tools;
- Motivation; and
- Skills and knowledge required doing the job (JHPIEGO, 2002:5).

These factors link closely to the individuals identified in 2.4 who play an important role to improve the performance of health workers. The final factor on the list, required knowledge and skills, is addressed primarily through training and learning interventions (JHPIEGO, 2002:5). As has been mentioned training alone cannot address the transfer of knowledge.

According to Tidd (2001:312), research has proven that performance is improved the more practise the learner is exposed to. In order to evaluate the extent to which transfer of knowledge took place after completion of the SRH module evaluation methods were used.

2.7.2 Evaluation methods used

According to Kirkpatrick's Level 3 assessment, on-the-job performance of learners were assessed six to 12 months after completion of the SRH training. Table 2.4 depicts the evaluation methods used.

TABLE 2.4: Evaluation methods used after presentation of SRH module

METHOD USED	Kirkpatrick's level of assessment	Knowledge	Attitude	Skills
Adapted Competency Based Skills Assessment Tool	3	X	X	X
Client Exit interview	3	X	X	X
Number of pap smears taken	3	X		

The evaluation methods used were the Adapted Competency Based Skills Assessment Tool (Addendum B1), a client exit interview (Addendum C1) held with SRH clients who received a service from the primary health care clinician who underwent the SRH training as well as a summary of existing statistical data reflecting the number of pap smears taken before and after SRH training. Table 2.4 depicts whether the evaluation method evaluated knowledge and/ attitude and /skills. Each of the mentioned methods will be briefly discussed.

2.7.2.1 Adapted competency based skills assessment tool

The Adapted Competency Based Skills Assessment Tool (Addendum B1) has been adapted from the Competency Based Skills Assessment Tool (Addendum A). The difference between the two instruments being that the Competency Based Skills assessment Tool was used during SRH training and the adapted version during on-the-job evaluation after completion of SRH training. The tool was adapted to exclude items that would be difficult to analyse and to ensure that the adapted tool measures a more comprehensive field of knowledge, attitude and skills.

2.7.2.2 Exit interview

During interviews persons are asked to respond to a series of questions or statements about their experience. Questions can be both open-ended (respondents create their own answers) or close-ended where respondents select the answer from a list of simple unambiguous responses. Interviews can be conducted in writing or orally (face-to-face) or by phone. Interviews can also include structured in-person interviews and focus group interviews (Stassen *et al.*, 2001:46). During the SRH module a structured oral face-to -face interview was used (see Addendum C1). A structured interview provides the person being interviewed with a choice of answers from which they can choose (McNamara, 1999: Online). The strength of an interview lies in the possibility to follow-up on evasive answers and explores topics in-depth, collecting rich data, new insights and focused details. It can be difficult to reach the sample and data can be time-consuming to analyse. The respondent who feels a lack of privacy and anonymity, may distort information. The success of the interview depends often on the skills of the interviewer (Stassen *et al.*, 2001:46; McNamara, 1999: Online). How, when

and where exit interviews were conducted in this study will be explored in the methodology chapter.

2.7.2.3 Number of pap smears taken

The number of pap smears taken after completion of the SRH module was compared with the number of pap smears taken before undergoing the SRH module training. The information was derived from the Health Information System Program of the Department of Health. Existing records often provide insights into a program that cannot be observed or noted in any other way. This information can be found in document form as reports, historical accounts and minutes of meetings, letters and photographs. Advantages of using existing information is that it is readily available, requires minimal cost to gather, can be assessed on a continuing basis and is generally perceived as a credible source of information. One may even uncover issues not revealed through other sources. The disadvantages are that it tends to be descriptive, may represent estimates or projections, is frequently limited and may be a biased view of reality. Interpretations or explanations may also be lacking complicating the interpretation of data (Summerhill & Taylor, 1992: Online; McNamara, 1999: Online). Exactly why and how data was captured to record the number of pap smears taken will be discussed in the methodology chapter, as well as why the disadvantage of this method did not have an impact on the evaluation of the implementation of the SRH module.

2.8 SUMMARY

SRH problems and illness constitutes the major part of health services rendered in SA. Legislation has been put in place on a national and international level in an effort to recognise sexual and reproductive health care as a basic human right. Training has been identified as one possible intervention to improve the quality of care rendered. The DoH implemented the SRH module that was registered as a short course with the SANC. The

outcomes of this module were set to be in line with the SAQA requirements in order to be accredited as a short course. The researcher could not find any proof of the SRH course being registered with SAQA. The SRH module's content is in line with the latest guidelines set by the WHO regarding the rendering of SRH services. Training methods suggested by the DoH and those used during this study were discussed.

In service training was the training method used when presenting the SRH module to the primary health care clinicians in this study. Teaching methods used were a combination of facilitation, lecturing, group discussions, demonstrations, role plays, case studies and supervised clinical practice sessions. The assessment strategies used during the study were discussed.

Assessment methods used to judge individual learners performance were done according to well-documented principles of assessment. Assessment was classified into Kirkpatrick's identified three levels of assessment. Level 1 assessing participant reaction, Level 2 participant learning and Level 3 assessing on-the-job performance after the course. Assessment methods were further classified into whether they assessed knowledge, attitude or skills. After assessment has been completed a learner's competence in performing a specific task could be verified. The study attempted to evaluate the outcome of the SRH training module, specifically whether transfer of learning and skills took place after completion of the module.

Transfer of learning coincides with Kirkpatrick's Level 3 assessment, where evaluation of on-the-job performance is done. Knowledge, attitude and skills assessed after completion of the SRH training reflected whether transfer of knowledge actually took place. Methods used to assess the on-the-job performance of primary health care clinicians who underwent the training, reflected the expected outcomes set for the module in terms of knowledge, attitude and skills.

CHAPTER 3

Methodology

3.1 INTRODUCTION

This chapter will clarify the plan and structure of the study by discussing the methodology of this study. The methodology refers to the research design, research techniques, population and sampling, data gathering, data analyses, validity and reliability and ethical considerations taken into account with this study. The research design is discussed by exploring quantitative research, quasi-experimental studies, descriptive research and comparative research as design methods used in this study.

The aim of this study was to evaluate the Sexual and Reproductive Health module as implemented by the Department of Health. Objectives have been set to achieve this aim. The objectives have been divided into three levels; Level 1 assessing participant reaction, Level 2 participant learning during and at the end of the module and Level 3 on–the-job performance after the course. The discussion will be done per level, following the order mentioned from Level 1 to Level 3. The ethical considerations taken into account with Level 1 and 2 will be discussed together, whereas the ethical considerations of Level 3 will be discussed separately. No pilot study was conducted during Level 1 and 2 assessments, as retrospective data was utilised.

3.2 RESEARCH DESIGN

The research design of a study refers to the defined structures within which the study is implemented. The design of a study leads the researcher

concerning how the study will be implemented (Burns & Grove, 2001:223). Babbie & Mouton (2003:647) describes the research design as the plan or structured framework of how the researcher intends to conduct the research process in order to solve the research problem.

A quantitative research design was followed, with the exception of one objective (in Level 3). Quantitative research can be defined as a formal, objective, systematic process to describe and test relationships, and to examine cause–and–effect interactions among variables (Burns & Grove, 2001:808). Quantitative research is classified into four categories: descriptive, correlational, quasi-experimental and experimental (Burns & Grove, 2001:30).

A descriptive, comparative, quasi-experimental, post-test-only design was used, as the study examined and described the differences in variables in two groups that occur naturally in the setting (Burns & Grove, 2001:249).

3.2.1 Quantitative research

Quantitative research is conducted to describe and examine relationships and determines causality among variables (Burns & Grove, 2001:28). Quantitative studies collect data in the form of numbers (Neuman, 1994: 28). Babbie & Mouton (2003:646) adds to this by stating that quantitative analysis can be seen as the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. This type of research makes use of structured interviews, questionnaires, observations, scales or physiological instruments that generate numerical data. Statistical analysis conducted is used to organise data, determine significant relationships, and identify differences among groups (Burns & Grove, 2001:28). The manner in which data collection in quantitative research is conducted originates from positivism (Babbie & Mouton, 2003:49).

Positivists theorized that social sciences should follow the lead of natural sciences and model its own practices on that of the successful natural sciences. This led to research emphasizing the search for universal laws of human behaviour, quantification of measurement and the purposeful strive to ensure objectivity of the researcher towards the subjects (Babbie & Mouton, 2003:645).

Quantitative researchers try to stay as objective as possible towards the study, by not influencing the study with their own values (Burns & Grove, 2001:28). The researcher is expected to follow a logistic reasoning pattern. Specific steps are developed with attention given to detail, aiming to exclude any weaknesses or errors in the study. Reducing these errors and weaknesses are essential to ensure that the research findings are an accurate reflection of reality. Precision, - referring to accuracy, detail and order of a study, - is another important aspect focused on during quantitative research. A clear research purpose, study design and treatment protocols are needed to ensure precision are adhered to in this type of study (Burns & Grove, 2001:39). The researcher's objectivity and logistic reasoning pattern followed during the study will be highlighted during each of the identified levels. The researcher was guided by a clear research protocol enabling her to follow a high level of precision throughout the study.

3.2.2 Descriptive research

A descriptive study aims at collecting accurate data on the phenomenon to be studied. The researcher describes accurately and carefully *"that which is"* (Uys & Basson, 2000:38). The key aim in descriptive research is to describe (Terre Blanche & Durrheim, 1999:316). This description can be done through narrative type descriptions, classification or through measurement of relationships (Terre Blanche & Durrheim, 1999:39). Description can also be presented through a highly structured statistical analysis, characterised by a systematic classification of variables by means of frequency tables, arithmetic

means, medians or cross tabulations (Babbie & Mouton, 2003:272; Mouton & Marais, 1991:44). The descriptive data used in this study is retrospective in nature as data was collected during the implementation of the SRH training. Descriptive research should be utilized in the correct study in order to make the most of the strengths of this type of research.

Descriptive research determines the answers to who, what, when, where and how questions asked by the researcher. It provides important information and is sometimes all that is needed to solve problems. The researcher does have to take notice that no explanation as to the cause of such findings can be given through descriptive research (Zikmund, 2000:50). The descriptive research design followed in this study describes the process and structure of the reproductive health module implemented by the Department of Health.

3.2.3 Comparative research

Researchers develop comparisons to provide a context for interpreting results (Polit & Beck, 2004:162). Comparative studies study intact groups, comparing them to some dependent variable (Brink, 2003:206). A comparison group was identified that did not receive a specific treatment (Burns & Grove, 2001:792). The researcher identified two groups of primary health care clinicians. The competence of primary health care clinicians who have undergone the SRH training were compared to the competence of primary health care clinicians who have not undergone the SRH training as yet. Comparative research techniques were used during Level 3. Researchers making use of comparative research should be aware of the limitations and strengths of this type of research.

Limitations to comparative research is that it is susceptible to faulty interpretations. This situation arises because the researcher works with pre-existing groups that were not randomly selected. The researcher can therefore not assume that the groups being compared were similar before the

independent variable was introduced (Polit & Beck, 2004:193). This study did, however, aspire to have similar characteristics in both the experimental and control groups. Both these groups consisted of male and female primary health care clinicians, rendering SRH services within primary health care clinics within the same health district. All SRH services received protocols and guidelines from the same SRH directorate. Data capturing of SRH services was done according to the same set of provincial guidelines. All the clinics received and ordered medical stock from the same medical depot. The primary health care clinicians were all rendering SRH services for a six month period prior to the study (January 2003 to June 2003). The major difference being that the experimental group had undergone SRH training prior to the study and the control group not. The results of a comparative descriptive study cannot be generalized to a population (Burns & Grove, 2001:250).

Strengths of this research are that a large amount of data can be collected about a problem. A large number of interrelationships can be discovered in a short amount of time. Practical problems can also be addressed in these studies, as this research is often strong in realism (Polit & Beck, 2004:195). This comparative study also followed a quasi-experimental design.

3.2.4 Quasi-experimental research

Quasi-experimental research is a type of quantitative research conducted to explain relationships, explain why certain events happen, and examine causality between selected independent and dependent variables (Burns & Grove, 2001:808; Terre Blanche & Durrheim, 1999:321). A quasi-experimental study does not meet the three components of a true experimental design, namely: random sampling, control groups and manipulation of the treatment (Burns & Grove, 2001:259). As in true experiments the independent variable is manipulated, but randomisation of treatment groups lacks in this type of study (Polit & Beck, 2004:181). Nurse researchers conduct more quasi-experimental than experimental studies due

to their being unable to manipulate certain variables. It is mostly the selection of subjects on the basis of convenience rather than random selection of subjects leading to the use of quasi-experimental studies (Burns & Grove, 2001:30). This study followed a quasi-experimental design as the group was not randomly compiled.

Sampling was not conducted randomly in this study, as primary health care clinicians were allocated to be part of the control or experimental group through their clinic location as well as whether they have undergone the SRH training or not. The clinic location corresponded with the SRH training status of the clinicians, as the primary health care clinicians in Bloemfontein had completed their SRH training in 2003 and those in Botshabelo and Thaba Nchu did not undergo SRH training. Making use of quasi-experimental design studies pose certain advantages and disadvantages.

The advantages of quasi-experimental design is that it is practical and may be generalised. A large group of people can also be involved. Possible disadvantages are the inability to manipulate the independent variable, the inability to assign subjects randomly to treatment groups and the risk of erroneous interpretation of results (Uys & Basson, 2000:45). This study allowed the researcher to manipulate the independent variable. Subjects were selected on a convenience basis. Every effort was made to ensure that the subjects selected to the two groups were as equal as could be, with the exception of the presence or absence of the independent variable, as discussed in 3.2.5 when discussing the limitations of the post-test-only design.

3.2.5 Post – test - only design with non-equivalent groups

Burns and Grove (2001:259) explain this design as follows: a post – test - only design is followed when a dependent variable cannot be measured before treatment is administered. No pre-test measurement is administered (Brink, 2003:103).

This study has made use of a post – test –only design with non-equivalent groups. Non-equivalent groups refer to groups not being randomly selected but rather selected on a convenience basis (Burns & Grove, 2001:260). Primary health care clinicians in Bloemfontein who have undergone the SRH training were allocated to the experimental group and primary health care clinicians in Thaba Nchu and Botshabelo who have not undergone the SRH training were allocated to the control group. No evaluation of the SRH competencies of primary health care clinicians have been done before the clinicians belonging to the experimental group underwent their SRH training. Evaluation was only conducted once - within six to twelve month period after the primary health care clinicians belonging to the experimental group had completed their SRH training. Although this design is convenient to use, it has some disadvantages that need to be considered.

Limitations to this study design lies mainly in the selection process. The lack of a pre-test remains a serious obstruction to defining change. Differences in post-test scores between groups may be caused by the treatment or by differential selection processes. This could pose a threat to validity of the study (Burns & Grove, 2001:262). This study tried to address this limitation by ensuring that all primary health care clinicians were exposed to similar work situations. They all rendered SRH service within a primary health care clinic within the same municipality. All the participants were actively involved in SRH service rendering and have been exposed to this service for at least

six months prior to the study. The researcher is unaware of any factor that might have had a confounding influence on the study.

3.3 RESEARCH PROCESS

The research process is depicted in Figure 3.1.

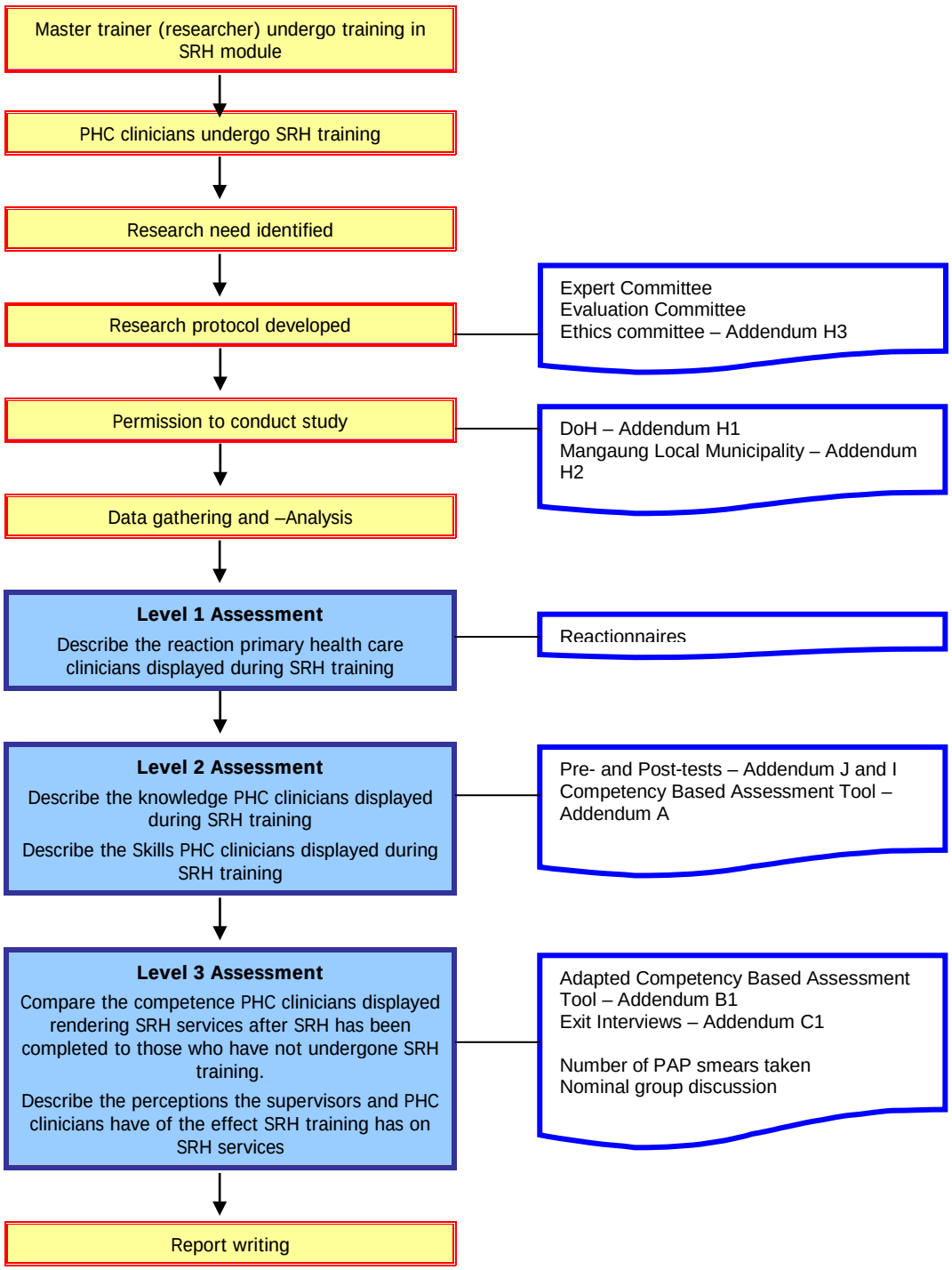

FIGURE 3.1: Research process of this study

The master trainer, who is also the researcher in this study, underwent the SRH master training course. This was essential as primary health care clinicians could only undergo SRH training presented by the master trainer. After the master trainer completed the SRH training of primary health care clinicians she was responsible to train, a research need was identified. The need identified was to evaluate the outcome of the SRH module implemented. A research protocol was compiled and initially presented to the Expert Committee within the School of Nursing at the University of the Free State (UFS). Acceptance of the protocol by the Expert Committee, led to the presentation of the protocol to the Evaluation Committee at UFS. The members of the Evaluation Committee consisted of research experts within other faculties at the UFS. The final permission to conduct the study was given by the Ethics Committee of the Faculty of Health Sciences at UFS. The protocol presented to this committee was accompanied by written permission from the Department of Health as well as Mangaung Local Municipality to conduct the research on their premises. Data gathering took place on three levels. Figure 3.1 depicts how research objectives were linked to specific research techniques as well as to the assessment levels. Level 1 described participant reaction during the SRH module presentation. Data gathered for Level 2 described participant learning during and at the end of the SRH module, whilst data gathered on Level 3 described on-the-job performance after training completion. A comparison of the on-the-job performance of two identified groups were also made. Data gathered was analysed and a report compiled on the findings. Each of the three levels will be described in more detail regarding the research technique, population and sampling, data gathering, data analysis, validity and reliability. The ethical considerations for Level 1 and 2 will be described simultaneously as the same principles apply to both.

3.4 LEVEL 1 – PARTICIPANT REACTION

The purpose of Level 1 assessment according to Kirkpatrick's training evaluation model is to determine the reaction of the learner to the training received (Rae, 2004: Online; Lanigan, 2002: Online). Figure 3.1 depicts the Level 1 objective of this study as aiming to describe the reaction primary health care clinicians displayed during SRH training. The reaction of clinicians was measured by using a reactionnaire. A reactionnaire usually addresses domestic arrangements, style and pace of delivery, training administration and content covered (Rae, 2004: Online; Lanigan, 2002: Online).

3.4.1 Technique

The reactionnaire was presented in the form of a Likert scale. The Likert scale used was compiled by the SRHU and all master trainers of the SRH module had to use it. Figure 3.2 presents an example of a reactionnaire used during the study.

Please circle the number below that best describe your responses to the module.

Rating scale:
1 Poor
2 Good
3 Very Good
4 Excellent

Session 1: Orientation to the course

Content	1 2 3 4
Relevance	1 2 3 4
Mode of Presentation	1 2 3 4

Comments: .....

List the 3 most useful learning experiences and give reasons

.....

List the 3 least useful learning experiences and give reasons

.....

List any suggestions for improving these modules:

.....

FIGURE 3.1: Example of Likert scale used in study (Foy et al., 2001:183)

A Likert scale is an instrument designed to determine the opinion or attitude of a subject. It contains a number of declarative statements with a scale after each statement (Burns & Grove 2001:802). Likert questions are typically a five-point scale. Some research designs prefer an even number of possible responses so that there is no midpoint in the scale. In this case, the respondent is forced to make a choice that leans either to agree or disagree (Hitchcock and Porter, [n.d.]: Online). As can be seen in Figure 3.2 this study did not make provision for a midpoint in the scale. Declarative statements were replaced by key words forcing learners to rate certain aspects of the SRH module. Aspects highlighted were the content, relevance and mode of presentation and skills development exercises used. Making use of the Likert scale poses specific advantages and disadvantages the researcher should be aware of.

The advantage of this methodology is that the scale can be used again and again after a useful set of statements has been set up. It is easy to use and fairly easy to aggregate the results. It also gives an idea of people's reactions to chosen issues. Information of a large group can be collected and participants tend to be more comfortable with the choices they make. Disadvantages being that it takes time to set up and trial the scale and it depends on the honesty of the person filling in the scale (Development Education Project, 2004: Online; Hitchcock & Porter, [n.d.]: Online). The researcher made use of the Likert scale that was already prepared as part of the SRH module. Primary health care clinicians who completed the scale did so anonymously making it easier for them to be honest in reflecting their reaction. The latter part of the reactionnaires asks the learners to write comments in their own words. The comments can be seen in the same light as an open-ended question since the comments allowed the primary health care clinicians to answer in their own words. The advantages and disadvantages taken note of regarding open-ended questions are highlighted.

The advantage of using open-ended questions is that the researcher does not have to structure responses and would therefore not overlook some important responses (Babbie, 2004:245; Polit, Beck & Hungler, 2001:466). Open-ended questions can also be used by the researcher to explore variables in order to obtain some idea of the spectrum of possible responses (De Vos, 2002:179). Disadvantages of using open-ended questions are that the answers have to be coded before they can be processed by computer analysis. The coding process often requires that the researcher interpret the meaning of the response, opening the possibility of misunderstanding and researcher bias. There is also the danger that some respondents will give answers that are essentially irrelevant to the researcher's intent (Babbie, 2004:245). Having many open questions lengthens the time of completion and respondents may be tempted to leave notes incomplete, which decreases the real value of the data obtained from the questionnaire (De Vos, 2002:179).

3.4.2 Population and sampling

A population is the entire aggregation of cases (individuals, objects, events or substances) in which a researcher is interested. The researcher's interest is stimulated due to common characteristics shared by the specific population (Polit & Beck, 2004:289; Brink, 2003:213; Burns & Grove, 2001:806). Cases are included into a population, if set sample criteria are met. A population meeting sample criterion is also known as the target population (Burns & Grove, 2001:806). In research, sampling goes hand-in-hand with population identification.

A sample by definition is part of a whole, selected by the researcher to participate in a research project. The portion of the population chosen is to represent the entire population (Polit & Beck, 2004:291; Brink, 2003:133; Burns & Grove, 2001:810). This study also identified a population during Level 1 assessment.

The population of this study was identified as primary health care clinicians of Bloemfontein who underwent the SRH training during 2003. Eight groups underwent the training during the course of 2003. The group sizes varied between eight and 12 learners. These eight groups will be seen as one group for the purpose of this study as the same master trainer facilitated all SRH training courses, the SRH course content stayed the same and the same assessment instruments were used throughout the training. No sampling was done during Level 1 assessment due to the small population size. Table 3.1 gives an indication of the population and therefore sampling used during Level 1 assessment.

TABLE 3.1: Population and sampling: reactionnaires

RESEARCH TECHNIQUE: REACTIONNAIRE	Population = N	Sample = n
Day one	75	73
Day two	75	73
Day three	75	70
Day four	75	46
Day five	75	47
Day six	75	47
Day seven	75	47
Day eight	75	45

All the primary health care clinicians who underwent the SRH training had the opportunity to complete eight reactionnaires during the SRH course. The content of all available reactionnaires were included in the sample. Completion of the reactionnaires was voluntarily. Voluntarism and unforeseen absenteeism being the reason for the discrepancy between the population and sample size, as well as an administrative mishap leading to the exclusion of day four to day eight's reactionnaires of two groups. The groups, whose data could not be accessed, represented 18 members of the population. The reactionnaires of seven non-professional primary health care nurses who also attended the SRH training's, reactionnaires could not be excluded as the reactionnaires were anonymously completed.

3.4.3 Data gathering

The reactionnaires were completed during the SRH training course by primary health care clinicians undergoing the SRH training. The reactionnaires were individually completed at the end of each day per training unit completed. Sixty-eight primary health care clinicians and seven non-professional nurses who underwent the SRH training completed a reactionnaire for eight of the 10 days the SRH course was presented. The last two days were spent in a SRH clinic making it impractical to complete a reactionnaire. The master trainer of the SRH training course presented in Bloemfontein gathered the data. Learners received feedback on the reactionnaires twice during the training. Feedback was given after completion of module one and module two. Reactions identified in module one was taken into consideration as far as possible with the presentation of module two.

3.4.4 Data analyses

The researcher and a biostatistician from the Department of Biostatistics, UFS did the analysis of the reactionnaires. As the Likert scale was used, the rating each evaluation item received per day per training group was totalled. Participants also had the opportunity to write comments on a daily basis. Answering the open-ended questions did not restrict the respondents' answers to pre-established alternatives (Polit & Beck, 2004:726; Brink, 2003:212). The researcher followed the audit-trail proposed by Polit *et al.* (2001:412) in order to ensure that an independent auditor would come to the same conclusions about the data. All comments received were considered. This raw data were then categorised per basic idea per day. The number of times the specific idea was mentioned over the eight days the comments were written was totalled. Comments and therefore categories receiving a high total were deemed to be of importance to learners.

3.4.5 Validity

Validity implies that the measurement technique is actually assessing what it is supposed to measure (Trochim, 2002: Online; Burns, 2000:127; Marneweck & Rouhani, 2000:292).

It does seem as if the reactionnaire used during Level 1 assessment does have *face validity*, as the instrument seems to be assessing the reaction of learners towards the SRH module. Face validity is however highly subjective and is not statistically very strong (Uys & Basson, 2000:81). The fact that learners did not resist completing the reactionnaires, could be another indication of face validity as learners accepted the instrument to be measuring their reaction towards the SRH module (De Vos, 2002:167; Burns, 2000:356).

Content validity focuses on a higher degree of balance and representativeness than face validity and is established by determining the extent to which a measure reflects a specific domain of content (Uys & Basson, 2000:81; Terre Blanche & Durrheim, 1999:85). Content validation is a judgemental process that can be undertaken by the researcher alone or with the assistance of others (De Vos, 2002:167). The researcher is of the opinion that as all units within the SRH module were covered in the reactionnaires, using the same key words/headings to guide learners in reflecting their reaction, content validity of the reactionnaires was ensured.

The reactionnaires used in the study were conducted so as to transfer the data gained in this specific context, to other SRH training courses. The transferability of the data implies that the reactionnaires used had *external validity* (Terre Blanche & Durrheim, 1999:63). An adequate sample ensures that generalizability of results are also enhanced, strengthening external validity (Polit *et al.*, 2001:195). This study did not sample and took the population's data, therefore ensuring representability of data and therefore strengthening the instruments external validity.

The validity of data obtained from the reaction of learners towards the most and least useful learning experience was ensured by following the suggested steps in the process of reduction of data of Tesch (1990:142-145).

3.4.6 Reliability

Reliability refers to the consistency with which the same results can be repeated, using the same measuring instrument (Trochim, 2002: Online; Burns, 2000:127; Uys & Basson, 2000:75).

Test reliability is influenced by the comprehensiveness of the test. The more comprehensive the test, the better the person's knowledge can be assessed (Uys & Basson, 2000:75). The reactionnaire used during Level 1 assessment did not assess knowledge, but was comprehensive in assessing the reaction of learners towards the SRH training course, as the instructors presentation techniques, how completely the topics were covered, how valuable they perceived each module and the relevance of the content to their specific job were covered in the reactionnaire (Clark, 1997: Online).

The *length of the test* also influences test reliability. Increasing the length of a test increases its reliability. The Spearman – Brown formula is often used to determine the number of items needed to get maximum reliability results (Burns, 2000:346). The master trainer/researcher made use of an already compiled reactionnaire where no evidence could be found of testing being done to test the reliability of the reactionaire by taking its length into consideration. Content validity of the reactionaries could suggest that the length of the reactionnaires did not influence the assessment negatively.

Open-ended questions and general comments that were part of the reactionnaire were coded by the researcher and independently co-coded by a colleague. A high correlation was found between the coding completed by the

two persons. After discussions consensus was reached on the coding of all items. This was a further effort to enhance the reliability of the reactionnaires used.

3.4.7 Ethical considerations

Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal, and social obligations to the study participants (Polit & Beck, 2004:717). Ethical considerations therefore consider the mentioned aspects of ethics in research. A nurse researcher has the responsibility to conduct nursing research in an ethical manner. Failure to meet this responsibility undermines the whole scientific process and may lead to many unfortunate and problematic consequences (Brink, 2003:38). Data gathered from the reactionnaires, multiple-choice tests and Competency Based Skills Assessment Tools, during Level 1 and Level 2 assessment of this study, was derived from information gathered during the presentation of the SRH module. Permission was granted by Mangaung Local Municipality to conduct the research and therefore to make use of the data gathered during the SRH training. Verbal permission was granted by each SRH client before a skills assessment (making use of the Competency Based Skills Assessment Tool), was conducted on the learner. Confidentiality of primary health care participants who underwent this training module was adhered to.

Researchers should ensure that their research is not more intrusive than it needs to be and that participants' privacy is maintained throughout the study. Participants have the right to expect that any data they provide will be kept in strictest confidence. This can either be done through ensuring anonymity or through other confidentiality procedures. Anonymity occurs when even the researcher cannot link participants to their data (Polit & Beck, 2003:147; Uys & Basson, 2000:98). During Level 2 assessment, the data gathered from the multiple-choice tests and Competency Based Skills Assessment Tools were

handled confidentially where as the completion of the reactionnaire was done anonoumously.

Assessing the reaction of learners towards the training they have undergone is extremely important (Level 1). Learners are very aware of what they need to know to accomplish a task. If the training program fails to satisfy their needs one should be able to determine whether the problem lies with the program design or delivery. The interest, attention and motivation of participants are critical to the success of any training program. People learn better when they react positively to their learning environment (Clark, 1997: Online). Establishing the reaction of learners towards the SRH training was thus of utmost importance in evaluating the outcome of the SRH module implementation.

3.5 LEVEL 2 – PARTICIPANT LEARNING

According to Kirkpatrick's training evaluation model, Level 2 evaluation determines whether learning took place during the training event. Learning objectives can assess knowledge, skills and/or attitudes (Kirkpatrick, [n.d.]: Online). Knowledge and skills were assessed with objectives set for this study. The objectives for Level 2 were to:

- Describe the knowledge primary health care clinicians displayed during SRH training; and

- Describe the skills primary health care clinicians displayed during SRH training.

The research technique used to assess the knowledge gained during training was pre- and post-tests, consisting of multiple-choice questions. Skills were assessed by means of a checklist, referred to as a Competency Based Skills Assessment Tool.

3.5.1 Technique

Pre- and post-tests in the form of multiple-choice-questions were used during the presentation of the SRH module. A multiple-choice question is an objective test item. It is objective because the perceptions or opinions of another person do not influence the grade. In a multiple-choice question, a question is asked, three or more potential answers are presented, and only one potential answer is correct. Either the student answers the question correctly or not (Varughese & Glencross, 1997:177; Nugent & Vitale, 1993:27).

When making use of pre- and post-tests, assessment uses locally developed and administered tests and exams at the beginning and end of a module in order to monitor student progression and learning across pre-defined periods of time (Stassen *et al.*, 2001:44). During the SRH training pre-tests were followed up by a post-test (consisting of the same questions used in the pre-test), within a week of writing the pre-test. According to Burns (2000:340) there is no standard duration of time, which should separate the two tests.

A Competency Based Skills Assessment Tool was used to assess the skills primary health care clinicians displayed during SRH training. This tool is a structured observation tool, making use of a checklist. Checklists are techniques to indicate whether behaviour occurred or not when behaviour other than that on the checklist is ignored (Burns & Grove, 2001:419). The Competency Skills Assessment Tool identified behaviour a learner should show in order to be found 'competent'. In the absence of the behaviour the criteria used would be 'not competent yet'. Specific behaviours were identified as critical to perform and should these behaviours be absent, the learners were found to be 'not competent yet' and the assessment had to be repeated. A minimum of 60% was needed to be found 'competent' in performing the

identified skills. See Addendum A for an example of the Competency Based Skills Assessment Tool.

Checklists are specifically aimed at cancelling out the *"halo"* effect, where a respondent develops an impression of a person or situation based on a single characteristic or event and then extends this to all characteristics of that person. Researchers should be aware of the danger of using a checklist that has not been developed carefully (De Vos, 2002:184). The content of the checklist used during SRH training is based on the content of the SRH module presented. The researcher did not contribute to the development of the checklist.

3.5.2 Population and sampling

The population used for Level 1 assessment (discussed in 3.4.2) differs from the population applicable to Level 2 assessments. It was possible to exclude the seven non-professional primary health care nurses from all Level 2 assessments. See Table 3.2 for a depiction of the population and sampling used in research techniques applicable to Level 2 assessments.

TABLE 3.2: Population and sampling: Pre and post-tests and Competency Based Skills Assessment Tool

RESEARCH TECHNIQUE – TESTS	Population=N	Sample=n
Pre-course test	68	54
Module 1, unit 1 test	68	68
Module 1, unit 2 test	68	67
Module 1, unit 3 test	68	67
Module 1, unit 4 test	68	67
Module 1, unit 5 test	68	66
Module 1, unit 6 test	68	53
Module 2, unit 2 test	68	64
Module 2, unit 3 test	68	65
Module 2, unit 4 test	68	68

RESEARCH TECHNIQUE – TESTS	Population=N	Sample=n
Module 2, unit 5 test	68	64
Module 2, unit 6 test	68	65
Post test module1, unit1-3	68	68
Post test module1, unit 4-6	68	68
Post test module 2, unit 2-3	68	68
Post test module 2, unit 4-6	68	68
Competency Based Skills Assessment Tool	68	68

Sixty-eight primary health care clinicians completed the SRH course. Participants wrote 16 tests that consisted of multiple-choice questions. Four of the tests were post-tests and 12 were pre-test tests. Due to absenteeism each participant did not necessarily complete all 16 tests. All participants completed the post-tests.

A Competency Based Skills Assessment Tool was used to assess the skills of all primary health care clinicians at the end of their SRH training. All 68 primary health care clinicians who underwent the training were assessed in this way. Each learner was assessed 10 times by means of the Competency Based Skills Assessment Tool. The average each student obtained is the data that would be used.

Sampling was also conducted on the multiple-choice questions used in the pre- and post- tests in order to analyse the questions. Table 3.3 depicts the population and sampling done on the multiple-choice questions.

TABLE 3.3: Population and sampling: Multiple-choice question test items

RESEARCH TECHNIQUE	Population – number of questions	Sample – number of questions selected
Multiple-choice-questions	220	45

The pre-tests consisted of 220 multiple-choice questions. As the post-tests made use of the same questions used in the pre-tests the questions used in the post-test was not deemed to be part of the population. The biostatician of the Department of Biostatistics, UFS assisted in identifying 20% of the population to be sampled. Questions were numbered from one to 220. The sampling was done randomly with computer assistance, selecting 45 questions.

3.5.3 Data gathering

The pre- and post-tests were completed during the SRH training course by primary health care clinicians undergoing the SRH training. These data was thus collected retrospectively. Primary health care clinicians who underwent the SRH training wrote pre- and post-tests before and after completion of a study unit of the SRH module. The master trainer of the SRH training course presented in Bloemfontein gathered the data. The post-tests were written within a week of the pre-test. See Addendum I for an example of a post-test used. In order to be found 'competent' on the theoretical tests, learners had to score at least 60% for each of the four post-tests. Should the minimum of 60% not have been reached, the learner had the opportunity to rewrite the same multiple-choice test.

The competence of Primary Health Care Clinicians', who underwent the SRH training module in Bloemfontein, had their competence assessed. This assessment took place in a clinical environment. See Addendum A for an example of the Competency Based Assessment Tool used. This checklist has critical items identified. Primary health care clinicians could only be found to be *'competent'* if they scored at least 60% on the checklist and adhered to items identified as critical on the checklist. The percentage scored was calculated to be the average scored over the 10 clients who received a SRH service whilst being assessed. The master trainer (researcher), as well as peer evaluators consisting of co-learners, conducted the assessments. The possible

influence this practice could have on the study will be discussed under 3.5.6 referring to the reliability of instruments used. Data gathered from pre- and post-tests were analysed.

3.5.4 Data analysis

In order to describe the knowledge primary health care clinicians displayed during SRH training the results of pre- and post-tests written were analysed. The pre- and post-tests data analysis was done by the biostatistician of Department of Biostatistics, UFS. Descriptive statistics were calculated for the pre-tests. Descriptive statistics are statistics used to describe and summarize data (Polit & Beck, 2004:716). The difference from pre- to post-test were calculated and described by means of 95% confidence intervals for paired data. Confidence intervals refer to the range in which the value of the parameter is estimated to be, with the parameter being a measure or numerical value of a population (Burns & Grove, 2001:793, 805).

A test item analysis of multiple-choice tests used in the pre- and post-tests was conducted; this was a direct effort by the researcher to establish the validity of this instrument. The multiple-choice questions were not compiled by the researcher, but were part of the SRH module itself, presented by the Department of Heath. Forty-five multiple-choice questions were randomly selected of the total 220 multiple-choice questions. A computer did the selection. This was possible since all the questions were numbered. The analysed questions represented 20% of the questions used in the pre-tests. The randomly selected questions were analysed by the researcher according to 13 identified criteria multiple-choice questions should adhere to. Mehrens and Lehmann's (1991:134-141) criteria were used as a guideline to conduct the analyses. See 2.5.3.1.1 for aspects scrutinised in the questions. Questions meeting 11 out of the expected 13 criteria were deemed acceptable. This norm could not be found in literature and was decided upon after input from an education expert. A grid was compiled consisting of the identified criteria

and the randomly selected questions were measured against the criteria. The researcher and educational expert completed the grid independent of each other and had follow-up discussions in order to ensure consensus was reached on all items. The educational expert is a senior lecturer who taught Nursing Education modules at a well-respected university and has several years of experience in her field.

The researcher did the analysis of the Competency Based Assessment Tool's data. Each primary health care clinician was assessed using this instrument. Each clinician saw a minimum of 10 SRH clients. The average percentage per clinician was calculated.

3.5.5 Validity

The researcher made use of multiple-choice questions previously compiled by the RHRU to be utilised during the SRH course. The *face validity* of the multiple-choice questions used was compromised by the construction of the questions. According to the researcher the construction of the multiple-choice questions compromised the validity of the tool. The researcher came to be of this opinion due to her knowledge and experience in nursing education. Criteria used to analyse the multiple-choice questions have already been discussed in 2.5.3.1. An example of a multiple choice-question used is:

Informed consent:

1) *Entails a person making a thought-out decision based on accurate, useful information*
2) *Is a medical and legal doctrine based on the premise that every person is competent to give consent to personal matters*
3) *Means that clients make their own decisions without pressure from providers*

4) Means that clients make decisions based on the opinions of their family and the provider

a) 1,2,3

b) 1,2,4

c) 2,4,3

d) 1,2,4

The content covered in the multiple-choice questions did reflect the content of the relevant units within the SRH module. *Content validity*, referring to the representativeness of the content, was thus adhered to (De Vos, 2002:167; Burns, 2000:352).

The researcher made use of a Competency Based Skills Assessment Tool also compiled by the RHRU to be utilised during the SRH course. The content covered in the checklist also reflected the content of the SRH module ensuring that *content validity* were adhered to in the Competency Based Skills Assessment Tool.

3.5.6 Reliability

The reliability of a measuring instrument, in this study the multiple-choice tests and Competency Based Skills Assessment Tool, can be influenced by non-uniform test administration. The same training program, master trainer, training presentations and venue were used for all eight groups who underwent the SRH training. Reducing test irregularities contribute to a *high reliability coefficient* (Uys & Basson, 2000:81).

Inter-observer reliability is enhanced when two or more trained observers watch some event simultaneously and independently record the relevant variables according to a category (Polit *et al*., 2001:307). Examples of when inter-observer reliability was adhered to during this study were when:

- The researcher made use of an educational expert when analysis of multiple-choice questions used in the pre- and post-tests were compiled; and

- The practical evaluation of the primary health care clinicians attending the training were completed, the master trainer assisted the learners in peer evaluation whilst assessing each other making use of the Competency Based Skills Assessment Tool.

Level 2 assessment of any training is essential. The question: *"Did the learners learn anything?"* is addressed. Pre- and post-testing is required in order to differentiate between what learners knew prior to learning to what they actually learned during the training. Measuring the learning that takes place during training is needed in order to validate the learning objectives. Measurements at Level 2 might indicate that a program's instructional methods are effective or not, but will not prove if the newly acquired skills will be used back in the working environment (Kirkpatrick, [n.d.]: Online; Clark, 2001: Online). Level 3 evaluation can, however, address this void.

3.6 LEVEL 3 – ON –THE –JOB PERFORMANCE

According to Kirkpatrick's training evaluation model, Level 3 evaluation's aim is to assess if a training program's participants change their on-the-job performance as a result of their having attended and participated in a training program (Kirkpatrick, [n.d.]: Online). A learner can only be deemed competent if he/she is observed performing in the actual setting and not in an isolated performance under test conditions (Wojtczak, 2002: Online). The objectives addressed by Level 3 were to:

- Compare the competence primary health care clinicians displayed when rendering SRH services after SRH training has been completed to those who have not undergone SRH training; and

- Describe the perceptions the supervisors and primary health care clinicians have of the effect SRH training has on SRH services.

The research techniques used to assess whether training influenced on-the-job performance were a checklist (Adapted Competency Based Assessment Tool), Client Exit Interview, statistical data (Number of pap smears taken) and a Nominal group discussion.

3.6.1 Technique

Each one of the mentioned techniques will be described in detail, with the exception of the nominal group discussion that will be discussed as an entity on its own, as it is the only qualitative technique used. The Adapted Competency Based Skills Assessment Tool (Addendum J) used during Level 3 assessments, were compiled from the Competency Based Skills Assessment Tool described in 3.5.1, as well as from the Guidelines for Observation of clinic-based family planning services, by the University of North Carolina (QIQ, 2001:99). The Adapted Competency Based Skills Assessment Tool evaluated whether transfer of knowledge and skills to the workplace actually took place. Outcomes of the expected competencies were set in terms of knowledge, attitude and skills. The Client Exit Interview (Addendum C) was also adapted from the same Guideline for Observation of clinic-based family planning services by the University of North Carolina. The tool compared competence of the primary health care clinicians as observed by the fieldworkers through the Adapted Competency Based Skills Assessment Tool with the way clients experienced the competency of the primary health care clinicians who rendered a SRH service to them. Table 3.4 depicts the classification of the competencies measured by the Adapted Competency Based Skills Assessment Tool and Client Exit Interview. The researcher and a colleague classified the questions according to the mentioned competencies: knowledge, attitude and skills. Although a specific question may measure

more than one competency, each question was classified so as to only measure one competency.

TABLE 3.4: Classification of competencies measured by Adapted Competency Based Skills Assessment Tool and Client Exit Interview

COMPETENCY MEASURED	Adapted Competency Based Skills Assessment Tool	Client exit Interview	Questions being cross referenced	
			Adapted Competency Based Skills Assessment Tool	Client exit Interview
Attitude	2.1 –2.6	8	2.5	20
	2.9	20 - 21	2.4	23
	7.12 –7.13	23 - 28	7.13	16
	7.18			
Knowledge	2.8	2 - 7	2.8	2
	3.1 – 3.38	9 - 19	5.1	3
	5	22	2.8	9
	7.3 – 7.6.11	29 - 30	5.1	13
	7.10		5.1	14
	7.14 – 7.15.3		7.6.2	17 a
	7.15.5 – 7.17		7.6.3	17 b
			7.6.9	17 c
			7.10	17d
			7.6.1	19
			4.8.12	22
			7.10	30
Skills: Interpersonal	2.7			
	4.1			
	7.2			
	7.11			
	7.15.4			
Skills: Clinical	4.2 – 4.3			
	4.5 – 4.8.13			
	6			
	7.1.1 – 7.1.4			
Skills: Technical	4.4			
	7.8 –7.9			

According to Newble's model (Figure 2.2) attitude, knowledge and skills interact with one another to influence the clinical performance of the learner. This concept links closely with Kirkpatricks' model assessing attitude, knowledge, and skills on different levels in order to evaluate the clinical

performance and therefore competencies of a learner after completion of training. Specific questions related to attitude, knowledge and skills have been identified in both the Adapted Competency Based Skills Assessment Tool and Client Exit Interview. Questions that would be cross - referenced between the two mentioned instruments have also been highlighted in Table 3.4. In order to have a better comprehension of the data cross-referenced, one should explore the Client Exit Interview used further.

All clients who received a SRH service by a primary health care clinician who partook in the study were asked to partake in a structured client exit interview. A structured interview is an interview where a set of questions has been decided on before the interview and only these questions are asked in the interview. This resembles a questionnaire, except that the researcher personally asks the questions. The greatest advantage of an interview is that the researcher can clarify information immediately. A disadvantage being that sensitive information discussed can be threatening for the researcher and the participant. The researcher should not become directional in the interview, strengthening preconceived ideas (Rossouw, 2003:150). The field workers assisting the researcher, made the clients aware of the possibility of feeling threatened when divulging sensitive information. This was part of getting informed consent from clients before undertaking the interview. They kept themselves from becoming directional by keeping strictly to structured questions being part of the interview. Completing checklists (referring to the Adapted Skills Assessment Tool) and interviewing clients (Client Exit Interview) was not the only measures used by the researcher to assess whether transfer of knowledge took place after training. Another research technique used was the utilisation of statistical data.

Data gathered by the Department of Health's District Health Information System was used to determine if primary health care clinicians implement their newly gained knowledge regarding SRH policies. The element used was the number of pap smears done. The researcher was aware of the low

number of pap smears taken in the primary health care clinics prior to the SRH training. As pap smear taking, as well as the pap smear policy was part of the SRH curriculum, the number of pap smears taken after completion of SRH training could be utilised to determine if newly gained knowledge was indeed transferred to the workplace.

In existing statistics research, a researcher makes use of previously collected information. This information can be in the form of government reports or previously conducted surveys. Descriptive research frequently makes use of existing statistics as a data source. Locating resources can be time-consuming and the researcher needs to know exactly what is wanted. The researcher frequently does not know whether the information of interest is available when the study begins. Fortunately making use of previously collected information does give the researcher the opportunity to cross reference information with other data banks (Neuman, 1994:29). In this study the researcher is in the clinical field and was therefore aware of statistics being recorded in the SRH field. The competency of primary health care clinicians were also assessed according to a structured interview conducted with clients.

3.6.2 Population and sampling

Experimental researchers often divide subjects into two or more groups for comparison purposes. A simple experiment has two groups, only one of which receives treatment. The experimental group is identified as the group who receives the treatment or where the treatment is present. The group that does not receive the treatment is called the control group (Babbie & Mouton, 2003:210; Neuman, 1994:175). The treatment referred to in this study is the exposure to the SRH training course.

Except for one group receiving treatment and the other not, both groups would be identical. The reactions of both groups are measured. The controlling of the groups makes it possible to conclude that any differences in reactions of the groups are due to the treatment alone (Neuman, 1994:28). Control is needed in an experiment to act as a baseline against which experimental manipulation can be assessed. Participants belonging to such a group are known as the control group. A control group has nothing done to it – it serves as a baseline of no intervention (Terre Blanche & Durrheim, 1999:322). The control group allows the researcher to detect any effects of the experiment itself (Babbie & Mouton, 2003:211). The control group consisted of primary health care clinicians who rendered SRH services for the period January – June 2004, without having received SRH training. The primary health care clinicians rendering SRH service in Thaba Nchu and Botshabelo were allocated to the control group.

The groups in a true experiment must be equivalent in all possible ways. In a quasi-experiment equivalence is only required in terms of relevant characteristics. These refer to characteristics that could have a probable impact on any observed effects (Terre Blanche & Durrheim, 1999:322). As a quasi- experimental study this study has made use of primary health care clinicians rendering SRH services within primary health care clinics. Therefore the most relevant characteristic identified was the fact that all participants of the study were rendering SRH services for at least six months prior to the study, within a primary health care clinic, in Mangaung Local Municipality. Clinics served by primary health care clinicians from both the control and experimental groups have access to the same SRH equipment and stock. The study area (primary health care clinics in Mangaung Local Municipality) consists of three towns, Bloemfontein, Thaba Nchu and Botshabelo. Since the SRH training of primary health care clinicians in Bloemfontein was completed and the SRH training of clinicians in the other two towns is in an early phase of cascading, the primary health care clinicians of Bloemfontein were allocated to the experimental group. Table 3.5 depicts the population and

sample sizes of the experimental and control groups regarding the Competency Based Skills Assessment Tool and Exit Interview.

TABLE 3.5: Population and Sample: Level 3 (Competency Based Skills Assessment Tool and Client Exit Interview)

STUDY GROUP	Population	Sample	
		Competency Based Skills Assessment Tool	Exit Interview
Experimental group	68	57	57
Control group	66	62	62

Sixty-eight primary health care clinicians completed the SRH training during 2003 in Bloemfontein and therefore formed the population of the experimental group. All primary health care clinicians that were trained could not form part of the study. The clinicians that were lost to follow-up were due to leaving of service, maternity leave or sick leave. Fifty-seven assessments were conducted in the experimental group. No sampling was done due to the small population size and all available members of the population were included in the sample.

Control group participants were conveniently selected. Their nursing services manager identified the 66 primary health care nurses rendering SRH services in Thaba Nchu and Botchabelo. The 61 control group participants were selected purely on the basis of their granting permission to partake in the study, as well as their being on duty rendering SRH services on the day the field workers visited the particular clinic. SRH clinics were not visited in any specific order. As one fieldworker conducted assessments and interviews in the experimental group and another fieldworker conducted assessment and interviews in the control group, the sample size varied.

The structured client exit interview was conducted with all clients who received SRH services, from primary health care clinicians who partook in the

study. Clients gave written permission to participate in the study. This permission was gained before the primary health care clinician was assessed. None of the clients refused to partake in the study. The tool compared competence of the primary health care clinicians as observed by the fieldworkers through the Adapted Competency Based Skills Assessment Tool, with the way clients experienced the competency of the primary health care clinicians who rendered a SRH service to them. As the interview was coupled with the Adapted Competency Based Skills Assessment Tool the population and sample size correlated.

The number of pap smears done in primary health care clinics prior to SRH training was compared to the number of smears done after completion of the SRH training. This data was only collected in the experimental group. The average smears taken in the primary health care clinics in Bloemfontein in 2002 were compared to the average of smears taken in 2004 in the same area. The primary health care clinicians of Bloemfontein received their SRH training during 2003.

3.6.3 Pilot study

A pilot study is a small-scale version or trial run that is done in preparation for a major study (Polit & Beck, 2004:727; Brink, 2003:60). It is developed much like the proposed study, using similar subjects, the same setting, the same treatment and the same data collection and analysis techniques (Burns & Grove, 2001:49). A small sample of the population is used, but this group is excluded in the actual study (Uys & Basson, 2000:103). A pilot study can be used to determine the feasibility of a larger study. Such a study provides methodological guidance as protocols, data collection instruments and sample recruitment strategies can be tested through a pilot study (Polit & Beck, 2004:196; Brink, 2003:174; Burns & Grove, 2001:806). An opportunity is created to refine or adjust techniques or instruments proposed in the research protocol. Field workers' acquaintance with instruments, respondents and

analysis of data are invaluable to the study. Intervening variables that are identified can be eliminated (Burns & Grove, 2001:50; Uys & Basson, 2000:103). The time and effort spent in conducting a pilot study is usually well spent as pitfalls and errors may prove costly in the actual study (Brink, 2003:174). No pilot study was conducted before compiling the statistics of the number of pap smears done in the experimental group. This was not necessary as the researcher made use of previously collected and existing research data. The instruments piloted were the Adapted Competency Based Assessment Tool and Client Exit Interview.

The Adapted Competency Based Assessment Tool and Client Exit Interview were piloted on five primary health care clinicians and clients receiving a SRH service from the clinicians partaking in the pilot. The clinicians had not as yet completed the SRH training. The reason for selecting primary health care clinicians who had not undergone the SRH training was that clinicians would have to be excluded from the actual study if they partook in the pilot study. All effort was made to use as many of the SRH trained clinicians in the study as possible. If a study is done on a sample, which is too small, the results produced will neither be useful nor conclusive (Zikmund, 2000:362). Foy *et al.* (2001:190) proposed a 20-minute time allowance for primary health care clinicians to complete the Competency Based Skills Assessment Tool in order to gather reliable data. The pilot study confirmed that the duration to complete the Adapted Competency Based Skills Assessment Tool would be the same. Although no time limitation was set regarding the exit interview, it was completed within 10 minutes. The fieldworkers excluded ambiguity by asking clients whether questions asked were clear. Trained fieldworkers who gathered the data of the main study were also responsible for data gathered during the pilot study. After completion of the pilot study some amendments to the instruments were made.

The Adapted Competency Based Assessment Tool coding of answers was simplified. Answers were, as far as possible, restricted to a choice between

"yes" or *"no",* with the use of *"not applicable"* being used sparingly. One question referring to gender and cultural sensitivity was left out in the final tool, as it was not possible for the fieldworkers to be knowledgeable on all cultural groups receiving SRH services. Objective criteria on cultural sensitivity for all cultural groups who received SRH services were also not available. No amendments were made to the Client Exit Interview. Discussions between the fieldworkers after completion of the pilot study ensured that the interpretation of instruments was the same.

3.6.4 Data gathering

The two fieldworkers who assisted in the completion of the Adapted Competency Based Assessment Tool successfully completed the SRH training course during 2003. It was essential that both had the same experience and theoretical background before commencing with data gathering. The study protocol suggested the use of only one fieldworker. This arrangement had to be amended due to the different SRH time schedules followed by the different clinics and the availability of the fieldworkers. The two fieldworkers signed a confidentiality document, undertaking not to disclose information exposed during the study. Before data gathering could take place, preparation of the personnel and primary health care settings in Bloemfontein, Thaba Nchu and Botshabelo were undertaken.

The researcher had a meeting with senior nursing management and primary health care clinicians of Bloemfontein primary health care clinics. All personnel were informed about the research project. A list of personnel who had undergone the SRH training was made available to the fieldworkers. A map of where the Bloemfontein clinics were located was also given to the fieldworkers. The researcher and fieldworkers compiled a roster as to when and where clinic visitation was to take place. The researcher informed the relevant clinic management of visitation dates a month in advance.

Added to the already mentioned, the researcher and local SRH Program Co-ordinator visited all the primary health care clinics in Botshabelo and Thaba Nchu. During this visit personal contact with nursing management and primary health care clinicians rendering SRH services was established. Personnel were informed about the research project. A data list was compiled identifying primary health care clinicians in the various primary health care clinics who met the inclusion criteria of the study. (The primary health care clinician should at least have been rendering SRH services for the period January to June 2004). A map directing the fieldworker to the various clinics was also compiled. As these clinics were in informal settlements, such a map was essential.

Written consent was obtained from each primary health care clinician and SRH client before they partook in the study. The two field workers used the Adapted Competency Based Assessment Tool as a checklist when observing a SRH service being rendered by the primary health care clinicians in Mangaung. The researcher assisted in gathering data, but did so only in the control group as she was the SRH master trainer of the primary health care clinicians belonging to the experimental group. The structured client exit interview was undertaken directly after completion of the Adapted Competency Based Skills Assessment Tool. This interview was conducted with each client who received a SRH service from a primary health care clinician partaking in the study. The fieldworker conducted the interview immediately after completion of the Adapted Competency Based Assessment Tool. Written permission was obtained from each client before commencing with the interview. Clients interviewed could understand either Afrikaans or English and an interpreter was only needed in four interviews. The interpreter was a health care worker within the clinic where the research took place. As the questions posed during the interview were very simplistic and well structured, no problems were encountered during the interpreted interviews. The last quantitative research instrument used was the statistics depicting the number of pap smears taken.

The health system information officer of Mangaung, made the statistics depicting the number of pap smears taken in the clinics the trained SRH primary health care practitioners worked, available. These statistics were gathered from the Department of Health's District Health Information System. This system captures specific data elements. The number of pap smears taken in primary health care clinics is one such an element. The number of pap smears taken from January to December 2002 and during January to December 2004 was collected. These statistics were only gathered for Bloemfontein since this was where the SRH trained primary health care clinicians worked.

3.6.5 Data analysis

A biostatistician of the Department of Biostatistics at UFS analysed the data of the Adapted Competency Based Assessment Tool and Client Exit interview. Descriptive statistics, namely frequencies and percentages for categorical data and medians and percentiles for continuous data, was calculated per group. The groups were compared by means of 95% confidence intervals. The analysis was done with SAS version 8.2.

Terminology referred to above can be explained as follows: *Frequency* is the number of times that a result occurs. Frequencies are obtained by simply counting the occurrence of scores or values represented in the data (Brink, 2003:180). *Percentage* on the other hand, is a statistic representing the proportion of a subgroup to a total group, expressed as a percentage ranging from 0 to 100 percent (Brink, 2003:213). The *mean* refers to a descriptive statistic that measures a central tendency, computed by summing all scores and dividing them by the number of subjects (Polit & Beck, 2004:723; Burns & Grove, 2001:802). A *standard deviation* is a measure of variability. This statistic indicates the average deviation of all the values in a set of data from the mean value of that data (Brink, 2003:215). The *median* is the midpoint

score or value in a group of data ranked from lowest to highest. Half of the scores are above the median and half of the scores are below (Brink, 2003:185). The *percentile* is a data point below which lie a certain percentage of the values in a frequency distribution (Brink, 2003:213; Uys & Basson, 2000:124). A *confidence interval* gives an estimated range of values, which is likely to include an unknown population parameter, the estimated range being calculated from a given set of samples. Confidence intervals are usually calculated so that this percentage is 95% (Easton & McColl, [n.d]: Online). The number of pap smears taken was also calculated.

A computer totalled the number of pap smears taken in the 21 primary health care clinics in Bloemfontein during January 2002 to December 2002. A computer also totalled the number of pap smears taken in the same clinics over the period January 2004 to December 2004. These totals were used to compare the number of pap smears done before SRH training was presented with the number of pap smears done after SRH training. This data was compiled through the District Health Information System Program of the Department of Health in South Africa. It is of utmost importance to prove the validity of all data analysed.

3.6.6 Validity

The validity of the Adapted Competency Based Skills Assessment Tool will be discussed according to the manner in which the instrument met or did not meet set criteria for validity. The Adapted Competency Based Skills Assessment Tool has been compiled from the Competency Based Skills Assessment Tool used during training and a similar tool that has previously been tested and used in similar studies in Turkey, Uganda and Zimbabwe (QIQ, 2001: Online). Unfortunately *construct validity* could not be established as the alpha coefficient reflecting the internal consistency of the items was not established in any of the two instruments used to compile the Adapted Competency Based Skills Assessment Tool (Burns, 2000:355).

Content validity is confirmed when a tool captures the entire meaning it is supposed to (Neuman, 1994:131). The Adapted Competency Based Skills Assessment Tool's content corresponds with the content of the SRH module ensuring content validity is adhered to. *Internal validity* refers to the extent to which it is possible to make an assumption that the independent variable is truly related to the dependent variable. History did not pose a threat to the internal validity when making use of the Adapted Competency Based Skills Assessment Tool as the researcher is not aware of any simultaneous events that could effect the measurement of the competence of primary health care clinicians partaking in the study. Internal validity was however compromised, as no random selection of primary health care clinicians to groups was possible. As has been highlighted in 3.6.2, every effort was made to ensure equivalence in the groups. Using the Adapted Competency Based Skills Assessment Tool directly with each SRH client consultation ensured that no loss of subjects occurred. Not losing any study subjects enhanced the internal validity of the instrument further (Polit *et al*., 2001:194; Babbie, 2001:226).

External validity refers to the generalizability of research findings to other settings (Polit *et al*., 2001:194; Babbie, 2001:228). As the findings of a comparative descriptive study, such as this study, can't be generalised, external validity was compromised. Apart from the Adapted Competency Based Skills Assessment Tool an exit interview with SRH clients was also held as part of Level 3 assessments.

The exit interview presented with *face validity* as the questions posed to SRH clients were directed towards the way clients experienced the competency of the primary health care clinicians who rendered a SRH service to them (Neuman, 1994:394). *Content validity* also occurred as the questions posed to SRH clients during the exit interview, could be cross-referenced with observations made by the fieldworker when completing the Adapted Competency Based Skills Assessment Tool (Burns & Grove, 2001:793). The

fieldworkers were sensitised on excluding *courtesy bias* as far as possible in order not to influence the validity of the exit interview negatively. Comparative researchers have to be wary of courtesy bias. Courtesy bias occurs when strong cultural norms cause respondents to hide anything unpleasant or give answers that the respondent thinks the interviewer wants. Respondents may even seriously understate or overstate some characteristics (e.g. income, education) because of cultural norms. The manner in which an answer is given may also influence its meaning. The tone of voice or social situation could be other possible influences on the meaning of a statement (Neuman, 1994: 394). This was a possible threat since the fieldworkers were white Afrikaans speaking females, often interviewing Sotho speaking black females, conducting the interview mostly in English. A Client Exit Interview Guideline (Addendum C2) did, however, assist the fieldworkers in the interpretation of questions posed and answers received from clients. A clinical interpreter was needed in four (4) interviews, therefore not necessitating the translation of the exit interview into Sotho. Most of the clients could speak English. Except for interviewing clients statistical data was also gathered.

The number of pap smears taken by the experimental group prior and after SRH training was collected from previously collected statistical data. Primary health care clinicians rendering SRH services collated the data. They were guided by *Definitions on Minimum Data Set Form, updated 01/04/2004*. This guideline clearly defines the data element and includes the policy as to when the pap smears should be taken. This enhances the validity of the statistics used.

3.6.7 Reliability

Both fieldworkers attended the SRH course presented by the same master trainer, also the researcher of this study. They have therefore received the same theoretical and practical background, leading them to evaluate the SRH service delivered from the same viewpoint. The fieldworkers also conducted

the pilot study where both the Adapted Competency Based Skills Assessment Tool and Exit Interview were tested. Making use of a pilot study improves the reliability of a study (Neuman, 1991:130). Discussions took place between the fieldworkers and the researcher ensuring that they would be in agreement on the interpretation and capturing of data. The experimental and control groups were assessed by the same field workers, using the same instruments (Adapted Competency Based Skills Assessment Tool and Exit Interview), enhancing the reliability of the results. Field workers were also guided by guidelines as to how to complete the Adapted Competency Based Skills Assessment Tool (guideline Addendum B2) and Exit interview guideline (Addendum C2). As have been highlighted in Table 3.4 more than one question in the Adapted Competency Based Skills Assessment Tool measured the identified aspects namely knowledge, attitude and skills. Research suggests that multiple indicator measures tend to be more stable than measures with one item (Neuman, 1991:130). Making use of more than one question to measure the same aspect therefore enhances the reliability of the tool used.

The reliability of the pap-smear data is dependant on the accuracy of the data capturers. In this case the initial capturers are the primary health care clinicians rendering SRH services within the primary health care clinics. It is almost impossible to know exactly how accurately the data was captured. The District Health Information System used to capture data, has a range of built-in tools for data validation. Identification of missing data, identification of outliers and interpolation through linear regression are examples of tools used to validate data and therefore enhancing the reliability of data results (South Africa, Department of Health, 2002:8). Though reliability of all data used is pursued, it has to be done within the ethical framework set for researchers.

3.6.8 Ethical considerations

During Level 3 assessments ethical consideration had to be given to a number of aspects before the Adapted Competency Based Skills Assessment Tool or Exit Interview could be conducted.

National and international ethical standards guide researchers. One of the first internationally recognised efforts to establish ethical standards is referred to as the Nuremberg Code, developed after the Nazi atrocities were made public in the Nuremberg trials. The Declaration of Helsinki that was revised in 2000, refined these standards (Polit & Beck, 2004:143; Brink, 2003:38; Uys & Basson, 2000:97). In 1990 the South African Nursing Association published *Ethical Standards for Nursing Research* which had been developed by the SA Society of Nurse Researchers (Brink, 2003:39). Several ethical principles have been set in the mentioned standards. Researchers have to aim to meet these standards in their studies.

Humans need to be treated as autonomous agents, capable of controlling their own activities. The principle of self – determination means that prospective participants have the right to decide voluntarily whether to participate in a study, without risking any penalty. Participants need to be assured that their participation or information they might provide will not be used in any way against them. It also means that people have the right to ask questions, to refuse to give information, to ask for clarification or to terminate participation (Polit & Beck, 2004:147; Brink, 2003:39). Clients interviewed and primary health care clinicians observed were given the option to partake or not to partake in the study. The principle of respect for human dignity encompasses people's right to make informed, voluntary decisions about study participation, which includes full disclosure. Full disclosure means that the researcher has fully described the nature of the study, the person's right to refuse participation, the researcher's responsibilities and likely risks and benefits (Polit & Beck, 2003:147; Uys & Basson, 2000:99). The client also

gave verbal consent allowing the primary health care clinician to be observed by the fieldworker. The patient should be informed about the research in such a way that they thoroughly understand it. The information given, should comprise the following:

- The purpose of the research;
- The method of the procedure to be followed;
- The duration of the study;
- The nature of the participation expected from the patient;
- How the results will be used and published;
- The identity of the fieldworkers involved;
- Possible side-effects; and
- The manner in which confidentiality and privacy will be ensured (Uys & Basson, 2000:99).

The information in Addendum E1 (for clients interviewed) and Addendum F (primary health care clinicians observed) did meet the applicable criteria set by Uys and Basson. This meant that participants in the study were given the opportunity to give informed consent as they were given background information regarding the need for the study. Informed consent means that participants have adequate information regarding the research, are capable of understanding the information and have the power of free choice, enabling them to consent to or decline participation voluntarily (Polit & Beck, 2003:151; Brink, 2003:42; Burns & Grove, 2001:206). When a nurse is approached with a request to participate in research while on duty, she should only agree if she has been given the information mentioned, if she is sure that the research involved will conform to ethical requirements and provided that she can participate without neglecting her patient care in any way (Uys & Basson, 2000:101). Primary health care clinicians who took part in the study did feel they could meet above set criteria as they gave their written permission to be part of the study.

The anonymity of all research participants was ensured as the mechanisms proposed by Brink (see below), were upheld. The only exception being that participants did not generate their own identification code, as these codes were allocated per computer. Mechanisms to ensure anonymity are:

- Providing each participant with a number or code name;
- Keeping the master list of participant names and matching code numbers in separate locations;
- Destroying the list of actual names;
- Using code names when discussing data;
- Reporting group data only; and
- Having participants generate their own identification code (Brink, 2003:45).

Except for research principles that were taken into consideration, permission to conduct the study also had to be obtained.

Research ethics committees have been established within the health services to scrutinise research plans or proposals before they are put into operation. The submission of the research plans for review by a committee provides protection for both the researcher and the research subjects (Brink, 2003:46).

Each aspect of the study plan needs to be reviewed to determine whether the rights of subjects have been adequately protected (Polit & Beck, 2003:51). This was also the case with this study as the Ethics Committee of the Faculty of Health Sciences of the University of the Free State granted permission for the continuance of the study, being satisfied that no ethical principles were disregarded. When research is undertaken at a health service, permission for such research should be obtained from the authority in charge of the service (Uys & Basson, 2000:99).

A letter asking permission to conduct the SRH research was written. Permission was granted to observe SRH services, interview the primary health care clinicians as well as the SRH clients in both the experimental and control groups. The Department of Health and Mangaung Local Municipality granted permission to conduct the study. The Department of Health was in charge of the primary health care clinics in Botshabelo and Thaba Nchu and Mangaung Local Municipality of the primary health care clinics in Bloemfontein.

It is important to measure on-the-job performance of learners after training, because the primary purpose of training is to improve results by changing behaviour. New learning is no good to an organization unless the participants actually use the new skills, attitudes or knowledge in their work activities. Collecting behaviour data provides insight into the transfer of learning from the classroom to the work environment and the barriers encountered when attempting to implement new techniques learned in the program (Clark, 1997: Online).

3.6.9 Nominal group

This study mostly made use of quantitative research methods, with the nominal group technique being added as a qualitative research method during Level 3 assessment. The researcher/master trainer was of the opinion that the SRH training did not influence the practice of primary health care clinicians rendering SRH services dramatically. The researcher made this observation after SRH training was completed, when follow-up clinic visitation sessions were done. The question arose as to what perceptions the primary health care clinicians had as to what the effect of the SRH training had on their SRH practice. The nominal group technique was used to address this question and to triangulate data gathered from techniques already discussed.

3.6.9.1 Qualitative research

Qualitative research is a way of gaining insight through the discovery of meanings to improve our comprehension of the whole. It is a means of exploring the depth, richness and complexity inherent in phenomena within a holistic framework (Burns & Grove, 2001:61). Qualitative researchers collect data in the form of words or pictures (Uys & Basson, 2000:51; Neuman, 1994:28). They use unstructured observations and interviews to gather data. The interaction between the researcher and the subjects are not controlled. It is a reflection of the shared interpretations of the researcher and subjects (Burns & Grove, 2001:29). The findings from a qualitative study can not be generalized as those from quantitative studies. Although qualitative findings are unique to a study, understanding the meaning of a phenomenon in a particular situation is useful in understanding similar phenomena in similar situations (Burns & Grove, 2001:29). The significance of this type of study does not lie within the data per se, but in the meaning the researcher makes of the data (Piantanida & Garman, 1999:145).

The strength in qualitative research lies within its unique characteristics. Qualitative research has a quest for understanding and for an in-depth inquiry of a phenomena (Henning, van Rensburg & Smith, 2004:4). Words, rather than numbers form the basis of qualitative data analysis (Burns & Grove, 2001:591). Cresswell (1994: 16) adds to these strengths by stating that data analysis is done inductively giving specific attention to particulars. The biggest limitation of qualitative research is that it is subjective in nature and much of the measurement process is left to the discretion of the researcher (Zikmund, 2000:121). This study has however made use of the nominal group discussion where the measurement process is not left in the hands of the researcher.

3.6.9.2 Research technique

Figure 3.1 depicts the use of the nominal group discussion as the technique used to describe the perceptions of supervisors and primary health care clinicians of the effect SRH training had on SRH service rendering.

A nominal group technique is a structured meeting facilitated by a *'third party'*. This person assists in the identification and ranking of problems or issues affecting the group and thus prioritising issues. It is also used for managing participation in such processes as planning, performance improvement and measurement. The method is effective at gaining consensus with all types and levels of participants in a wide range of settings (Dobbie, Rhodes, Tysinger & Freeman, 2004:402; Debold, 1999: Online). This study benefited from the advantages of this method.

The primary advantage of this technique over other strategies is the enhanced opportunity for all participants to contribute to ideas and to minimise the domination of the process by more confident and outspoken individuals (Jones, 2004:23; Dobbie *et al.*, 2004:402). Dunham (1998: Online) added the following benefits when using nominal group technique, by stating that the nominal group technique:

- Produces more creative ideas and a greater number of ideas than interacting groups;
- Results in greater satisfaction for participants;
- Reduces the conforming influence common to most face-to-face group meetings;
- Encourage participants to confront issues on a problem-solving basis rather than on a personal assault basis; and

- Leads to greater sense of closure and accomplishments for members, as the results are available immediately after the session.

Dunham (1998: Online) identified three possible limitations. The nominal group technique requires an extended preparation period, tends to be limited to a single-purpose, single-topic meeting and needs agreement from all participants to use the same structured method. These limitations did not influence this study. Preparation time did not hamper the use of the technique. A single topic for discussion was needed in order to ensure that the set objective was met. Participants were given the opportunity to give informed consent before partaking in the group discussion. It could happen that participants of nominal groups find it easier to give positive rather than negative feedback in face-to-face discussions. It should, (and has been) stressed, that researchers are equally interested in the negative perceptions as in positive perceptions (Dobbie, *et al.*, 2004:405).

3.6.9.3 Population and sampling

A population includes all the members of some clearly defined group (Uys & Basson, 2000:86). A sample is a subset of the population that is selected to represent the population (Brink, 2003:214). Quantitative and qualitative researchers have different approaches to sampling. Quantitative researchers seek to select samples that will allow them to generalize their results to broader groups. The sampling plan used by these researchers provides them with a plan as how to select participants and how many to include. Qualitative researchers are interested in the holistic understanding of a phenomenon and not with generalizing results. Sampling decisions are made during the course of data collection based on informational and theoretical needs (Polit & Beck, 2004:289). Table 3.6 explains the population and sampling applicable to the nominal group discussion of this study.

TABLE 3.6: Population and sampling: Level 3 (nominal group)

STAFF CATEGORY	Population	Sample
Supervisors	5	4
Primary health care clinicians	68	5

The population comprised of all the primary health care clinicians who underwent SRH training, as well as the SRH supervisors in the clinics these primary health care clinicians render a SRH service. This represented 66 members. Purposive sampling was used to construct the one nominal group discussion. Purposive sampling refers to a type of non-probability sampling in which the researcher selects the units to be observed on the basis of the researcher's own judgement about which ones will be most useful or representative (Babbie, 2001:G8). Of the five supervisors, of the primary health care clinicians rendering SRH services, invited to the nominal group discussion, four supervisors were themselves not SRH trained, whereas one was SRH trained. One supervisor was not available for the discussion and therefore the supervisors comprised of four members. The five primary health care clinicians rendering SRH services in Bloemfontein were SRH trained and were from a clinic of each of the SRH supervisors. The clinicians were all practicing SRH services. The SRH supervisors were invited to be part of the group discussion as they were responsible for the implementation and evaluation of SRH in the primary health care clinics. Although not all supervisors underwent the SRH training, they were kept abreast of how the SRH training would impact service delivery e.g. SRH record cards to be used and minimum record keeping standards to be followed. The researcher was of the opinion that by inviting the supervisors to be part of the nominal group discussion, a more objective view of how SRH training influenced on-the- job performance of primary health care clinicians would be received. Due to the limited number of supervisors no follow-up group could be held.

3.6.9.4 Pilot study

A pilot study is a smaller version of a proposed study conducted to develop and or refine the methodology, such as the treatment, instrument or data collection process (Burns & Grove, 2001:806).

The protocol of the study proposed a pilot of the nominal group consisting of a group of five primary health care clinicians and SRH supervisors from the experimental group. The discussion was structured around the instruction to *"Write down any positive or negative perceptions you have about the effect SRH training had on your practice as primary health care clinician in sexual reproductive health".* Instead of a pilot study the question was posed to colleagues to clarify their understanding of the question. Their response satisfied the researcher that the desired information would be collected during the nominal group discussion.

The four supervisors of SRH services and the five primary health care clinicians rendering SRH services who partook in the nominal discussion, were the only members of the experimental group that could have been included in the nominal group discussion. As has been mentioned, the limited number of supervisors forced the researcher to have only one nominal group discussion in the study.

Nominal groups can be used with whole cohorts or representative groups of learners (Dobbie *et al.*, 2004:403). Transferability in qualitative research refers to a process of inductive generalisation taking place - from the sample to the target population (Rossouw, 2003:183). Loyd-Jones (cited in Dobbie *et al.*, 2004:403) study proved to be highly generalizable to the whole class of 206 students, using the results of their sample of ten (10) students. Large samples are not always possible. However, the saturation of data is important to be able to generalise findings from the sample to the population (Rossouw,

2003:183). The nominal group discussion did meet these criteria as the same topics emerged from a number of participants within the group.

Dobbie *et al.* (2004:403) proposes that questions used in nominal group discussions should follow the rules of constructive feedback. The first should elicit positive comments and the second, weaknesses. The discussion for this study was structured in this two fold way, by asking for positive as well as negative perceptions about the effect SRH training had on their practice as primary health care clinicians in SRH services. All participants understood the posed question. Before the nominal group discussion was held the researcher had to make certain preparations.

3.6.9.5 Data gathering

Permission was received from the Nursing Services Manager of Mangaung Local Municipality to invite primary health care clinicians of Bloemfontein to participate in the nominal group discussion. Due to purposive sampling (discussed in 3.6.9.4), invitations to participate in the group discussion were extended to each of the five (5) SRH supervisors and one primary health care clinician serving under each of the SRH supervisors. A date was confirmed that suited the primary health care clinicians and moderator who facilitated the discussion. The moderator was a highly credited researcher who had conducted several nominal group discussions.

In preparation of the nominal group discussion the meeting room was prepared according to the combined recommendations of Creswell (1994:124) and Dunham (1998: Online). The criteria taken into consideration were that the:

- Room needed to be large enough to seat the participants comfortably, yet small enough to create an atmosphere of security; and

- The participants should be able to work in silence, free from environmental distractions.

The nominal group was held in the Training Room of the Sub Directorate Health of Mangaung Local Municipality. This room was accessible for participants and met the criteria mentioned above. The meeting room contained a large table that could comfortably seat at least 12 participants. The seating was arranged in a *"U – formation",* with the flip chart and moderator at the open end of the table. Supplies for the session included a written statement of the question to be discussed, two stacks of removable self-adhesive notes (yellow and blue coded) and writing utensils in front of each participant. The question to be discussed was written on the flip chart in a clear legible handwriting.

The nominal group was implemented in three phases, the introduction, the nominal group session itself and the closure of the session. As part of the introduction, participants were put at ease on arrival by engaging in general conversation and by ensuring their comfort (Uys & Basson, 2000:62, 63). Light refreshments were served. The researcher introduced the moderator to the group. (The researcher could not be part of the discussion as she was also the master trainer of the SRH course.) The moderator welcomed all participants present and thanked them for their willingness to participate in the study. The purpose of the nominal group discussion and time frame for the discussion were discussed. Written consent from the participants was obtained (Addendum G). The value of each participant's contribution was emphasised and they were assured that no answer could be incorrect (Uys & Basson, 2000:62).

The nominal group session started off by the moderator reading the discussion question out aloud. The question was: *Write down any positive or negative perceptions you have about the effect SRH training had on your practice as primary health care clinician in sexual reproductive health.* Positive

and negative perceptions were colour coded in yellow and blue respectively as the discussion unfolded. This is in accordance with suggestions by Dunham (1998: Online). Participants were given time to generate ideas in silence. The round-robin recording of ideas started after all participants completed their individual exercise of writing positive perceptions on yellow papers and negative perceptions on blue papers.

The moderator asked each participant to read one of her positive perceptions. As it was read out the paper was attached to the flip chart. Duplicated perceptions were also attached to the flip chart. This procedure was continued around the table enough times for each participant to exhaust her list. The process was repeated with participants' negative perceptions (ST7000, 2004: Online). During this phase concepts are clarified and validation of data takes place simultaneously (Dobbie *et al*., 2004:405). The use of open-ended questions facilitates the process.

Each perception pasted on the flip chart was briefly discussed to clarify the meaning and to verify understanding of the logic of the item. Regarding the positive perceptions, participants had the opportunity to silently vote on prioritising the most beneficial element of the course and the least beneficial element of the course. Each element counted one point and positive and negative perceptions thus carried the same weight. Negative perceptions were also rated in order to identify the perception being of most importance. The rank ordering of items was done with the assistance of the participants by moving the colour- coded paper around on the flip chart. This was practical since the papers were self-adhesive.

Participants were congratulated on their achievement and thanked for their participation. Participants vocalised a sense of accomplishment after the session and left the venue in high spirits.

3.6.9.6 Data analysis

The purpose of qualitative data analysis is to reduce, organise, provide structure and elicits meaning from data (Burns & Grove, 2001:794). Two distinctive characteristics of qualitative data analysis are that data collection and analysis take place concurrently and that words rather than numbers are used as the basis of analysis (Burns & Grove, 2001:591). The data from the nominal group was presented as categories and themes and arranged according to priorities.

As previously mentioned data collection and analysis took place simultaneously whilst the nominal group discussion took place. The round-robin technique assisted in this process. Data captured on the flip chart was immediately categorised. Self-adhesive, colour coded note- papers assisted in the easy categorising of data. The moderator was led by the group members in the categorising and ranking of the data (Dunham, 1998: Online). The group identified five positive perceptions. These perceptions were ranked from most beneficial to least beneficial elements of the course. Participants were able to express their negative perceptions in only two items. These two were voted on as to decide which one would have the most negative influence on SRH service rendering.

3.6.9.7 Trustworthiness

The product of research is knowledge. The knowledge that is generated from the processes of research aims to comply with the standard of validity (Rossouw, 2003:176). Lincoln and Guba (cited in Rossouw, 2003:178) have outlined procedures by which the quality or worth of a qualitative study can be evaluated. Table 3.7 presents a classification of the trustworthiness perspective applied to in this study.

TABLE 3.7: Classification of the trustworthiness perspective (Krefting, 1991:217)

UNIVERSAL STANDARDS	Quantitative methodology	Qualitative methodology
Good definitions	Theoretical validity	Theoretical validity
Truth value and neutrality	Internal validity Measurement validity	Credibility
Applicability	External validity	Transferability
Consistency	Reliability	Dependability
Logic	Inferential validity	Inferential validity

For the purpose of this section of the chapter, the qualitative methodology will be discussed as applicable to the nominal group technique used. Standards for *theoretical validity* includes a definition that is not ambiguous, circular, too narrow or broad and not described in figurative language (Rossouw, 2003:178). This study had a clearly defined statement for discussion.

Credibility in qualitative research is the concept equivalent to internal validity in quantitative studies. The threat to *credibility* relates to collecting data, analysing data and choosing the population and sample (Rossouw, 2003:180). The collection and analysis of data using the nominal group technique has already been discussed. From this discussion it was clear that all participants had an equal opportunity to participate and add to the base of data obtained. The moderator was not aware of any primary health care clinician being intimidated by their SRH supervisor's participation in the group discussion. Nominal discussions encourage participants to confront issues on a problem-solving basis rather than on a personal assault basis (Dunham, 1998: Online). Participant validation is also inherent to the nominal group technique. Analysis was likewise done with the input and blessing of the participants. The correct population used was identified, as this was the group who had undergone the SRH training or were responsible for the implementation of SRH services and had been exposed to the effect the SRH training had on their practice as primary health care clinicians. Purposive

sampling was done. The sample was, however, representative of the population as the SRH supervisors represented all the primary health care clinics in Bloemfontein. Each supervisor brought one primary health care clinician along to the discussion group.

Transferability is influenced by sample selection and the dense description of the methodology. Sample selection concerns selection of individuals and the context from which a great deal can be learned about the phenomenon (Mayon, 2001:10). The primary health care clinicians who partook in the nominal group discussion were directly involved with SRH services and could therefore render a meaningful input. Dense descripting concerns the complete and thorough description of methodology presented in the study. Information is provided as to how repeatable the study might be (Krefting, 1991:220). A step-by-step description of the methodology followed was given.

Dependability in qualitative research can be ensured in an indirect way by applying the measures of credibility. Having a step–by-step procedure can ensure dependable repetition of research methods (Rossouw, 2003:183). The nominal group technique followed has been reported in this manner. Triangulation is another way to enhance dependability of a study. Triangulation is the use of multiple methods, usually quantitative and qualitative research, in the study of the same research problem. This leads to the converging of an accurate description of reality (Polit & Beck, 2004:734; Denzin cited in Burns & Grove, 2001:29). Method triangulation specifically was used in this study as multiple methods of data collection about the same phenomenon were used (Polit & Beck: 2004:432). This study mostly made use of quantitative research methods, with the nominal group technique being added as a qualitative research method.

Inferential validity has to do with the logic of arguments in the research. Logical arguments justify research decisions and findings and in this way convince the research community of the validity of the research (Rossuw, 2003:183). A logical flow of arguments has been put forward throughout all the steps in this research process.

3.6.9.8 Ethical considerations

The need for sensitivity may be greater in qualitative studies, which often involve in-depth exploration into highly personal areas. In qualitative research the risk of exploitation may become especially acute because the psychological distance between investigators and participants typically declines as the study progresses (Polit & Beck, 2004:145).

The researcher did not partake in the nominal group discussion, as she was also the master trainer who presented the SRH training to the participants. Her participation could have placed participants under strain to freely partake in the discussion. The researcher made use of an expert in nominal group technique to conduct the session.

Permission to conduct the nominal group discussion was part of the initial permission granted by the Ethical Committee of the University of the Free State (Addendum H3). Permission was obtained from Mangaung Local Municipality to use their premises as well as to withdraw personnel during work hours to take part in the nominal group discussion (Addendum H2).

Each participant also signed written consent to partake in the discussion (Addendum G). Informed consent should meet the following requirements:

- The right to voluntarily withdraw from the study at any time;

- An explanation of the central purpose of the study and the procedure to be used in data collection;

- Protection of the privacy of respondents by taking measures to ensure confidentiality; and

- Information about the known risks associated with participation in the study (Creswell, 1994: 115, 116).

The consent form was designed to meet the above - mentioned criteria. Anonymity is not wholly possible in qualitative research as the researcher has face-to-face contact with each participant (Berg, 2001:58). An anonymous process was followed for the voting on priorities during the nominal group. Group participants had the opportunity to prioritise data by numbering. The numbered self-adhesive papers were sent to the moderator without the participants name attached, thus ensuring anonymous voting.

This study involved no risk with regard to physical harm, but precautions were taken to protect the participants from ethical dangers. The informed consent form did include a clause exempting participants from harm should they choose not to participate in the study. The involvement of members was used in data verification during the nominal group process, preventing non-accurate data from being tabled. Data collected during the nominal group discussion have been safely stored, ensuring the exclusive use of the data for this study. Data can in no way be linked to individuals who partook in the study.

3.7 LIMITATIONS OF THE STUDY

This study made use of a comparative descriptive research design. The results of a comparative descriptive study cannot be generalised to the larger population (Burns & Grove, 2001: 250). Conclusions of this study can therefore not be made applicable to SRH training presented elsewhere in South Africa. The SRH module evaluated also differed from the training method proposed by the DoH. The DoH proposed a distance-learning programme with PHC clinicians forming their own study groups (Foy *et al*., 2001: 7). The master trainer of the SRH course evaluated in this study did not follow the suggested proposal, but made use of an In-Service-Training approach.

This study did not analyse the possible influence a well-established support system could or could not have on the transfer of knowledge to the work environment. The support system would encompass aspects such as administrative, managerial and community support structures.

3.8 SUMMARY

The methodology discussed in this chapter referred to research techniques utilised, population and sampling, data gathering, data analyses, validity and reliability and ethical considerations taken into account with this study. Discussions were conducted according to Kirkpatrick's training evaluation Model. Level 1 assessed participant reaction, Level 2 participant learning and Level 3 on-the-job-performance. A quantitative research design was followed, with the exception of the nominal group technique as part of Level 3 evaluations. A descriptive, comparative, quasi-experimental, post-test only design was used.

The methodology of the reactionnaire used during Level 1 assessment and pre- and post-tests and the Competency Based Skills Assessment Tool used during Level 2 was discussed. During methodology discussions of Level 3 the Adapted Competency Based Skills Assessment Tool, Client Exit Interview, analysis of pap smear data and nominal group technique was described. The nominal group technique was the only qualitative research method used in the study. The chapter ended with an identification of limitations of the study.

CHAPTER 4

Data analysis

4.1 INTRODUCTION

This chapter aims to analyse data collected. Data analyses refer to the process conducted to reduce, organise and give meaning to data (Burns & Grove, 2001:794; Polit *et al.*, 2001:460). With the exception of the nominal group technique (representing qualitative data), all other research techniques represent quantitative data. Table 4.1 depicts how data elements are linked to the study objectives by taking Kirkpatrick's four level model for training evaluation into consideration. The discussion of the analysed data is done per level per objective, following Level 1 to Level 3. The discussion explores the:

- Aim of data analysed;
- Sampling of data analysed;
- Data collection methods;
- Data compiled;
- Interpretation of the data;
- Validity and reliability of data obtained; and
- Conclusions stemming from data.

TABLE 4.1: Data analysed according to Kirkpatrick's level of training evaluation linked with study objectives

KIRKPATRICK'S LEVEL OF EVALUATION	OBJECTIVE	TECHNIQUE
• Level 1	• Describe the reaction primary health care clinicians displayed during SRH training	• Reactionnaire
• Level 2	• Describe the knowledge primary health care clinicians displayed during SRH training • Describe the skills primary health care clinicians displayed during SRH training	• Pre- and post-tests • Competency Based Skills Assessment Tool
• Level 3	• Compare the competence primary health care clinicians displayed rendering SRH services after SRH has been completed to those who have not undergone SRH training • Describe the perceptions the supervisors and primary health care clinicians have of the effect SRH training has on SRH services	• Adapted Competency Based Skills Assessment Tool • Client Exit interviews • Number of pap smears taken • Nominal group discussion

4.2 LEVEL 1 – PARTICIPANT REACTION

Participant reaction towards the SRH training was measured through a reactionnaire (Kirkpatrick, [n.d]: Online). The reactionnaire was compiled by the RHRU and master trainers were expected to ask learners undergoing the training to complete the reactionnaire on a daily basis. The same reactionnaire was completed every day (see Figure 3.2) and the master trainer collected the data. The reactionnaire was presented in the form of a Likert scale with three key concepts that had to be rated, as well as an open-ended section that gave primary health care clinicians the opportunity to identify the most useful and least useful learning experiences.

The aim of using the reactionnaire during SRH training was to measure the reaction of the primary health care clinicians towards the:

- Content of the SRH course;
- Relevance of the content presented;
- Mode of presentation;
- Most useful learning experiences; and
- Least useful learning experiences (Foy, *et. al.*, 2001:183).

Although eight groups underwent the SRH training in Bloemfontein during 2003, the results will be presented as one group. All the primary health care clinicians who underwent the SRH training had the opportunity to complete eight reactionnaires at the end of the first eight days of the training. The content of all available reactionnaires were included in the sample. Completion of the reactionnaires was voluntarily. Voluntarism and unforeseen absenteeism being the reason for the discrepancy between the population and sample size, as well as an administrative mishap leading to exclusion of day four to day eight's reactionnaires of two groups. The groups, whose data could not be accessed, represented 18 members of the population. The reactionnaires of seven non-professional primary health care nurses who also attended the SRH's training's, reactionnaires could not be excluded as the reactionnaires were anonymously completed.

4.2.1 Reactionnaire: Measurement of content, relevance and mode of presentation

Figure 4.1 depicts the reaction of primary health care clinicians towards the content, relevance and mode of presentation in percentage for the eight days the reactionnaire was completed.

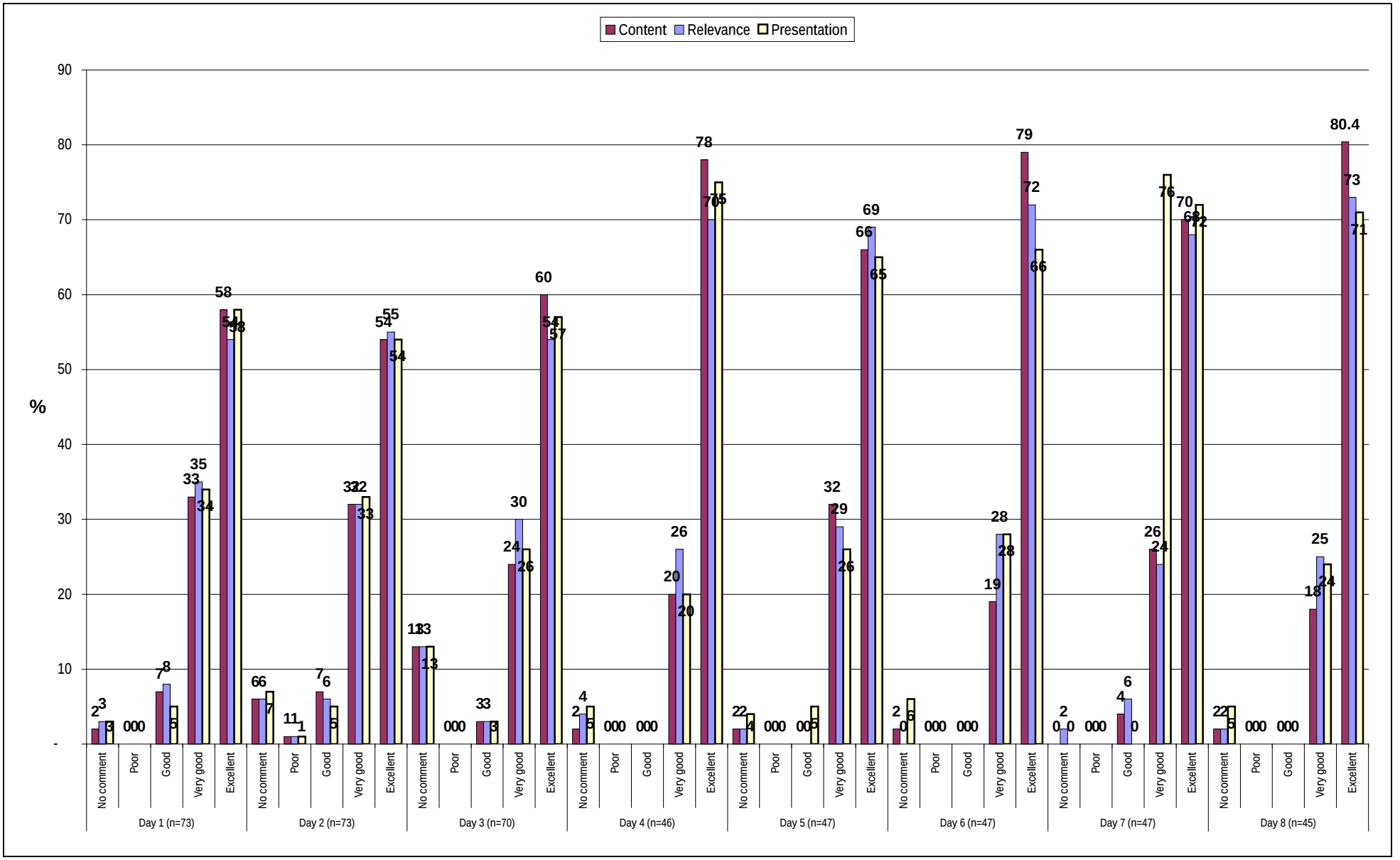

FIGURE 4.1: Reaction of primary health care clinicians towards the content, relevance and mode of presentation reflected in %

In order to derive any meaning from reactionnaires, one has to remember that reactionnaires are subjective self-reporting instruments. As has been stated, trainee's perceptions, opinions, feelings and attitudes about a training event are indicated in this way. They cannot measure learning, changes in attitude or beliefs, transfer of knowledge and skills, or the organizational impact of training. Reaction evaluations are also not linked with other levels of evaluation (Pershing & Pershing, 2001:77). It is clear from Figure 4.1 that learners rated the content, relevance of content and mode of presentation used when presenting the course throughout the course as very good or excellent. The validity of data obtained from reactionnaires has to be investigated.

Trainer ratings could also lead to a conflict of interest, should these ratings influence rewards the trainer receives from management (Mckay, [n.d.]: Online). During this study one can accept that learners were satisfied and enjoyed the course presented. The trainer's rating was not communicated to management and no conflict of interest occurred. The validity of the reactionnaire results is also influenced by the construction of the reactionnaire itself.

It is important to define the focus of the reactionnaire to be used. Reactionnaires can be used for matters outside the evaluation of training, but in this study one could assume that the DoH wanted to evaluate training, as reactionnaire items only addressed training (Trochim, 2002: Online). A well-constructed reactionnaire evaluating training should address:

- The learning program specifically the reaction towards learning that took place, confirmation of previous learning, learning needs that have not been addressed; and

- Evaluation of the learning of the content and objectives of the programme (Rae, 2004: Online).

The reactionnaire used in this study (Figure 3.2) did not clearly address the aspects mentioned by Rae, as only three concepts, stated as single words were used. Levels of reactions are usually measured with a series of statements and not single words (Development Education Project, 2004: Online; Trochim, 2002: Online; Pershing & Pershing, 2001:78; Hitchcock & Porter, [n.d.]: Online). Reactionnaires are a type of survey or questionnaire, which means that guidelines and rules that apply to survey development also apply to reactionnaires. The development of questions is of critical importance in survey development and therefore also for effective reaction evaluation (Lee & Pershing, 2002:73). Having made use of single words in this study, and not the suggested statements as have been proposed in literature, limits the validity of accurate responses.

Test reliability is influenced by the comprehensiveness of the test. The reactionnaire used during Level 1 assessment did not assess knowledge, but was comprehensive in assessing the reaction of learners towards the SRH training course, as the instructors presentation techniques, how completely the topics were covered, how valuable they perceived each module to be and the relevance of the content to their specific job were covered in the reactionnaire (Clark, 1997: Online). Conclusions can be drawn from the data compiled from the reactionnaire on the content, relevance and mode of presentation of the SRH training.

Inconsistent results are often found in vague closed-ended questions (Neuman cited in Pershing & Pershing, 2001:79). Although the reactionnaire used in this study did not make use of clearly defined statements, inconsistent results were not found. All eight groups who underwent the SRH training constantly gave the same high rating towards the three identified aspects. The question can therefore be asked whether the results can be generalized to other primary health care clinicians who have also undergone the SRH training.

The generalizability of a study is influenced by the limitations a study has regarding sample size and design or instruments used (Burns & Grove, 2001:640). In this study the total population was used namely everybody who was SRH trained in Bloemfontein during 2003. The limitations identified in the design of the reactionnaire would therefore influence the generalizibility of the data analysed negatively. Due to mentioned reasons the information gained from the reactionnaires cannot be generalized.

4.2.2 Reactionnaire: Measurement of most and least useful learning experience

Table 4.2 depicts the reaction of primary health care clinicians towards the most useful and least useful learning experiences for the eight days the reactionnaire was completed. The data is presented per most useful and least useful learning experience per day. The learning experiences themselves are grouped according to categories that emerged from the data obtained. The grouping of categories was done in accordance to recommendations made by Tesch (1990:142-145). The most and least useful learning experiences were considered separately. The researcher initially read through the comments made by learners. Topics were then identified and jotted down. Similar topics were then grouped and categorised. This was done for both the most and least useful learning experience. A colleague was asked to independently co-itemise and group the open-ended questions and the researcher and colleague reached consensus as to the itemising and grouping of the items.

TABLE 4.2: The reaction of primary health care clinicians towards the most useful and least useful learning experiences

LEARNING EXPERIENCE	Reactionnaire completed per day (N=75)								
Most useful learning experience	**Day 1 n=73**	**Day 2 n=73**	**Day 3 n=70**	**Day 4 n=46**	**Day 5 n=47**	**Day 6 n=47**	**Day 7 n=47**	**Day 8 n=45**	**TOTAL**
Presenter:									
Course well presented	21	6	13	7	4	5	5	3	**64**
Anxiety allayed by presenter	10		1						**11**
Understandable and entertaining teaching aids used	3	1	5						9
Other related to presenter:									
Positive group dynamics occurred	1	1	1	1					4
Course content:									
Course content very interesting	6	6	4	3	4	3	8	7	**41**
SRH ethical issues and SRH rights very informative	28	1	2						**31**
Skills development exercises exposed us to meaningful scenarios	3	12	8		1		4		**28**
Case studies helped a lot	5	6	8		1	1	5		**26**
Course well structured	9	1	6		1	2	1		**20**
Management of SRH service of great use		11							**11**
Importance of assessment of SRH clients noticed		1	8		1				**10**
Pre- and post-test served as revision/was stimulating	3		4			1			8
Can integrate SRH in other PHC services	3		2	1	1				7
Natural family planning methods very interesting								6	6
Menopause very interesting								6	6
Information on oral contraceptives very good					2	3			5
Video on taking of pap smear very informative			3					1	4
Condom efficiency and use very useful				4					4
Explanation of menstrual cycle very good					2				2
Information on injectable contraceptives very good						1	1		2
Infection control measurements- a lot learned		1							1
Information received by learners:									
Feel empowered by new knowledge	6	7	13	7	15	11	3	14	**76**
Information linked by learner to work situation/ transferred to work (will lead to high quality care)	8	9	5	4	2	1	2	6	**37**
Personal growth experienced:									
Gained insight in how values and attitudes influence behaviour/ interpersonal behaviour skills	6	11	24						**41**
Gained insight on theoretical aspects of SRH	9	2	4	1	4	3	1	1	**25**
Become aware of greater responsibility		1		2	2	1	1		7
Feel motivated to render better SRH services	1	2		1		1		1	6

Least useful learning experience	Day 1 n=73	Day 2 n=73	Day 3 n=70	Day 4 n=46	Day 5 n=47	Day 6 n=47	Day 7 n=47	Day 8 n=45	TOTAL
Pre-course unit									
Was very stressful	2								2
Too long to do as self study	1								1
More information needed on:									
Gender issues difficult to understand/place in SRH context		3							3
Need more information on SRH legal aspects	2								2
Need more information on cultural differences	1								1
Natural Family Planning methods too difficult to grasp								1	1
Time allocation:									
Time allocated for course too short	6	1	9				1	1	**18**
Time allocated for course too long			1						1
Pre- and Post-Tests:									
Tests confusing/tiring	11	1	2						**14**
Should write fewer tests	5	1	3	2					**11**
Time allocation too short	3		1		1				5
Other items:									
Worried if information can / would be transferred to work	2	5	1						8
To much information, feel confused	1		1			1	2		5

Learners identified the most useful learning experiences and the least useful learning experiences. The researcher decided to deem all scores of 10 and above as significant and highlighted these scores. The most useful learning experiences identified by the learners are listed below from the highest to the lowest score:

- Learners feel empowered by knowledge (n=76);
- Course well presented (n=64);
- Course content interesting (n=41);
- Learners gained insight in how values and attitudes influence behaviour (n=41)
- Information can be linked by leaner to work situation (n=37);
- SRH ethical issues and SRH rights very informative (n=31);
- Skills development exercises meaningful (n=28);
- Case studies helpful (n=26);

- Gained insight on theoretical aspects of SRH (n=25);
- Course well structured (n=20);
- Anxiety allayed by presenter (n=11);
- Management of SRH service of great use (n=11); and
- The importance of assessment of SRH clients noticed (n=10).

The least useful learning experiences identified by the learners were:

- Time allocation of the course being too short (n=18);
- Experienced tests to be confusing / tiring (n=14); and
- Proposed fewer tests to be written (n=11).

The validity of data obtained from the reaction of learners towards the most and least useful learning experience was ensured by following the suggested steps in the process of reduction of data of Tesch (1990:142-145). A colleague and the researcher enhanced the reliability of the reactionnaire due to the independent co-itemising and grouping of the open-ended questions. A high correlation was found between the coding completed by the two persons. After discussions, consensus was reached on the coding of all items. In conclusion the generalization of the most and least useful learning experiences should be investigated.

A cascading model is nationally used for SRH training. The principles of distance education are also adhered to. However, in the Motheo district the Bloemfontein municipal staff was all trained by the same master trainer. The master trainer developed her own Power Point slide presentations based on the SRH course content. Instead of adhering to distance training principles an in-service-training approach was followed. Due to these differences the findings from the reactionnaires cannot be generalised.

4.3 LEVEL 2 – PARTICIPANT LEARNING

The goal of Level 2 evaluation is to determine what learners learned during the training event (Kirkpatrick, [n.d.]: Online). The data analysed aimed to describe the knowledge primary health care clinicians gained during SRH training were the writing of pre- and post-tests and the assessment of their skills by using a Competency Based Skills Assessment Tool. Multiple-choice-questions in pre-and post-tests were used during training. An analysis of the multiple-choice-questions used in the pre- and post-tests was conducted. The multiple-choice-questions are discussed according to an analysis conducted on the questions themselves, as well as the results of the pre- and post-tests. The results the learners obtained during skills assessment will also be discussed.

4.3.1 Pre- and post-tests: analysis of multiple-choice-questions

The multiple-choice-questions were not compiled by the researcher, but were part of the SRH module itself, presented by the DoH. The analysed questions are thus being used as part of SRH training throughout South Africa. The aim of analysing the multiple-choice-questions used in the pre- and post-tests was to evaluate whether the multiple-choice-questions adhered to criteria set for multiple-choice-questions in literature.

The pre-tests consisted in total of 220 multiple-choice-questions. A biostatistician of the University of the Free State assisted with the computerized random selection of questions analysed. As the post-tests made use of the same questions used in the pre-tests, the 20% (N=45) questions randomly identified with computer assistance, only consisted of pre-test questions. A grid was compiled consisting of the sampled questions (N=45) and criteria for multiple-choice-questions (see Addendum J). Although the

criteria used to analyse the quality of the multiple-choice-questions have been summarized by Mehrens and Lehmann (1991:134-141), literature references quoted in 2.5.3.1.1 clearly support the 13 criteria against which the multiple-choice-questions were measured. The selected questions were independently analysed by the researcher and an educational expert. Follow-up discussions were held to ensure consensus was reached on all items. The educational expert is a senior lecturer at a well-respected university and has several years experience in her field. Questions meeting 11 out of the expected 13 criteria were deemed acceptable. This norm could not be found in literature and was decided upon after input from the educational expert. Table 4.3 depicts an analysis of the multiple-choice-questions according to the number of questions adhering to each individual identified criterion.

TABLE 4.3: An analysis of multiple-choice-questions according to the number of questions adhering to each individual identified criterion

THIRTEEN IDENTIFIED CRITERIA	Criteria adhered	
	N=45	%
1. Item has been clearly presented / main problem in stem/ no excess verbiage	29	64
2. Item has been cast with no repetition of key words or phrases for each option	23	51
3. Options were placed at end of the stem	39	87
4. Responses arranged in systematic fashion, such as alphabetical or length of response	5	11
5. All distracters plausible/related to subject matter	28	62
6. All irrelevant clues have been avoided (length of correct answer, grammatical)	33	73
7. An *"I don't know"* option been considered	45	**100**
8. There is only one correct or best answer	45	**100**
9. *"All the above"* option has been avoided	39	87
10. The *"none of these"* option has been used sparingly (only when appropriate)	44	**98**
11. Overlapping options have been avoided	38	84
12. Negative statements have been avoided. If used the negative statement should have been underlined or written in capital letters	31	69
13. Type K multiple-choice questions have been avoided	43	**96**

From Table 4.3 it is clear that 4 of the possible 13 criteria items obtained scores higher than 90%. However, if the multiple-choice questions sampled are analysed according to the number of questions adhering to all 13 identified criteria, the picture seems to change. Figure 4.2 illustrates that 27% of the multiple-choice-questions adhered to the set criteria, with 73% not adhering to the criteria. The validity of using the multiple-choice-questions as instrument to describe the knowledge primary health care clinicians displayed during SRH training can therefore be questioned.

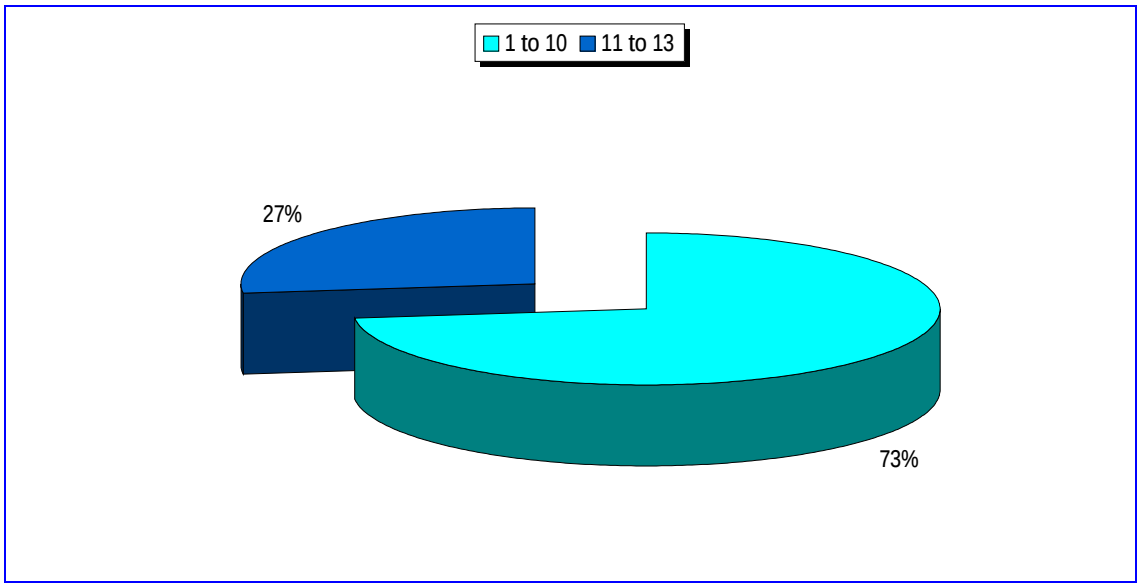

FIGURE 4.2: Analysis of multiple-choice-questions according to the number of questions adhering to all 13 identified criteria

Reducing test irregularities contribute to a high reliability coefficient (Uys & Basson, 2000:81). This has been the case in this study as the same training program, master trainer, training presentations and venue were used for all eight groups who underwent the SRH training. The researcher enhanced the reliability of the analysis of the multiple-choice-questions further by arranging an independent analysis of the selected questions by an educational expert.

The questionable validity of the instrument does have a negative impact on the SRH training programme in South Africa. The importance of basing findings on the questionable data obtained from the multiple-choice-questions in the SRH training should therefore be explored. SRH trainers cannot rely on results obtained from the multiple-choice-questions used in pre-and post-tests to describe knowledge displayed by primary health care clinicians during SRH training. Except for analysing the multiple-choice-questions used in the pre- and post-tests, the researcher has further explored the results of learners who wrote the pre-and post-tests.

4.3.2 Analysis of results of pre- and post-tests

The multiple-choice-questions used in the pre- and post-tests, aimed to describe the knowledge primary health care clinicians displayed during the SRH training. Analysing the results of these tests the researcher wanted to establish whether a test result difference occurred between learners pre- and post- test results, thus indicating that knowledge was gained.

No sampling of test results was done as all the test results (12 pre-tests and four post-tests) of all the learners (N=73) were taken into consideration. The pre-tests were written before commencing with a new unit. The post-tests consisted of a combination of the same questions that comprised the pre-tests. Table 4.4 depicts the compilation of pre- and post-tests used in the study as well as medians and confidence intervals identified from results obtained from the pre- and post-test data.

A median is a descriptive statistic that is a measure of a central tendency, representing the exact middle score in a distribution of scores. The median is the value above and below which 50 percent of the score lie (Polit *et. al*., 2001:465; Uys & Basson, 2000:121). The median of each of the pre-test groupings has been compared with the median of the post-test written on the content of that specific group of pre-tests.

A confidence interval gives an estimated range of values, which is likely to include an unknown population parameter, the estimated range being calculated from a given set of sample data. Confidence intervals are usually calculated so that this percentage is 95% (Easton & McColl, [n.d.]: Online). Intervals identified as statistically significant with the 95% confidence interval for median difference has been indicated as such with an asterix in Table 4.4.

TABLE 4.4: Compilation of pre-and post-tests and the 95% confidence intervals for median difference

CONTENT	Pre-test		Post-test		95% Confidence interval for median difference
	Test number	Median	Test number	Median	
Pre-course	1	46	-	-	-
Module 1, Unit 1	**2**	**49**	**1**	**90**	**[32,7%; 45%] ***
Module 1, Unit 2	**3**				
Module 1, Unit 3	**4**				
Module 1, Unit 4	**5**	**61**	**2**	**88**	**[17,7%; 27,7%] ***
Module 1, Unit 5	**6**				
Module 1, Unit 6	**7**				
Module 2, Unit 1	No test, self study unit	-	-	-	-
Module 2, Unit 2	**8**	**68**	**3**	**96**	**[22,5%; 30%] ***
Module 2, Unit 3	**9**				
Module 2, Unit 4	**10**	**63**	**4**	**88**	**[18,7%; 25%] ***
Module 2, Unit 5	**11**				
Module 2, Unit 6	**12**				

It is clear from Table 4.4 that the learners who underwent the SRH training in this study scored markedly higher in their post-tests than in their pre-tests. As has been indicated, all four post-tests were found to be statistically significant according to a 95% confidence interval.

Statistical significance means that results would be likely to occur by chance a certain percentage of the time. The observed statistical relationship can be seen as a real difference, but not necessarily an important difference. Statistical significance is influenced by sample size, significance level and a valid research design (Gay & Airasian, 2003:495). As has been mentioned no sampling of test results were done and the 192 tests (comprising of a total of 16 tests written by 73 learners), can be seen as an adequate sample size. Statistical significance has been allocated to items according to the 95% confidence interval, making it likely to include the parameter at stake (Easton & McColl, [n.d.]: Online). The research design used can be questioned as the pre- and post-tests were completed within one week of each other making use of the same questions. The possibility is that learners remembered answers and that the content and context was not necessarily tested. Validity and reliability of data obtained also plays an important role in the interpretation of data.

The analysis of the quality of the multiple-choice-questions (4.3.1) used in the pre- and post-tests already revealed a serious problem with the construction of these questions. Poorly constructed multiple-choice-questions will surely impact on the validity of test results derived from such an instrument. Learners themselves identified the test questions as *"too many and confusing"* (Table 4.2). No literature reference could be found to investigate the possible effect the rather short interval (one week) could have between the writing of the pre-and post-tests. The possibility of learners' performance in the post-tests being influenced by the time interval should, however, not be ignored as a possible factor influencing the validity of the results negatively. The reliability of the test results has been influenced by the lack of variation and depth of the questions as proposed according to Bloom's taxonomy (CSc 3315, [n.d.]: Online). The phrasing of the multiple-choice-questions (refer to Table 4.3 and Table 4.4) also had a negative impact on the reliability of the test results.

Taking the limited credibility of the pre- and post-tests into consideration, it would be presumptuous to claim that primary health care clinicians' knowledge displayed during SRH training bettered from writing the pre-test to writing the post-test. Since the pre- and post-tests are an integral part of the SRH module presented by the DoH, the findings in this study regarding the results of the pre- and post-tests can be generalized to all primary health care clinicians undergoing the SRH training in South Africa. This can be done in spite of not following the proposed teaching method. In both the proposed distance based teaching method and the followed in-service-training teaching method pre- and post-tests were written within a week of each other.

4.3.3 Results of Competency Based Skills Assessment Tool

The aim of analysing the Competency Based Skills Assessment Tool's data was to assess the competency primary health care clinicians displayed while undergoing SRH training. This was possible as this instrument assessed the knowledge, attitude and skills the clinicians displayed. The Competency Based Skills Assessment Tool forms part of the SRH module implemented by the DoH (Foy *et al*., 2001:190). No sampling was done as all the learners' (N=73) data was used. Each primary health care clinician was assessed at the end of their two week training period using this instrument. The clinicians saw a minimum of 10 SRH clients. The average percentage each learner obtained after completion of the 10 Competency Based Skills Assessment Tools was calculated with the assistance of a computer program (Excel). The average percentage obtained by all the learners was then again calculated. The learners (N=73) obtained an average percentage of 94% during their assessment using the Competency Based Skills Assessment Tool. The high average score obtained by learners when assessed with the Competency Based Skills Assessment Tool seems to reflect that learners were found to be competent after completion of the SRH training course. The tool was compiled by the RHRU to be utilised during the SRH course. The content

covered in the checklist also reflected the content of the SRH module ensuring that content validity was adhered to. The recording instruments used in the clinical setting also guided learners. These records were compiled to be in accordance with standards set by the SRH course and therefore in line with the Competency Based Skills Assessment Tool. The reliability of the tool was enhanced in various ways. The same tool was used during the assessment of all the learners. A guideline (Addendum A1) as to how to interpret the Competency Based Skills Assessment Tool was made available to all the learners. The master trainer also assisted the learners in peer evaluation whilst assessing each other on the Competency Based Skills Assessment Tool. In conclusion one could state that the Competency Based Skills Assessment Tool assessed the competency of learners who completed the SRH training course. The availability of structured records within the clinical facility seemed to have influenced the transfer of knowledge, skills and attitude positively.

4.4 LEVEL 3: ON-THE-JOB-PERFORMANCE

According to Kirkpatrick's training evaluation model, Level 3 evaluation's aim is to assess if a training program's participants change their on-the-job performance as a result of their having attended and participated in a training program (Kirkpatrick, [n.d.]: Online). Different sets of data were analysed to assess if PHC clinicians who underwent the SRH training changed their on-the-job behaviour after completion of the SRH module. The Adapted Competency Based Skills Assessment Tool and Client Exit Interview were used to compare the competence of SRH trained PHC clinicians with PHC clinicians who had not undergone SRH training. The number of pap smears taken prior to SRH training by the trained SRH PHC clinicians was compared to the number of pap smears taken after completion of SRH training by the same group. Results obtained from a nominal group discussion were analysed, describing the perceptions of supervisors and PHC clinicians of the effect SRH training had on SRH services.

4.4.1 Analysis of Adapted Competency Based Skills Assessment Tool and Client Exit Interview

Competence reflects the knowledge, skills and attitude acquired by a learner (IIME, 2004: Online; Van Rooyen & Prinsloo, 2003:24). The Adapted Competency Based Skills Assessment Tool and Client Exit Interview analysed and compared SRH competence of the two mentioned groups. The researcher and a colleague classified the questions according to the three competencies. Although a specific question may measure more than one competency, each question was classified so as to only measure one competency. Table 4.5 to Table 4.10 respectively reflects the percentage *'yes'* answers regarding questions reflecting knowledge, skills and attitude as depicted by the Adapted Competency Based Skills Assessment Tool and Client Exit Interview. The 95% confidence interval for the percentage difference for the SRH trained and untrained PHC clinicians are also depicted in these tables. Statistically significant intervals have been highlighted in bold and with an asterix.

No sampling was done in the experimental group (n=57) due to the small population size and all available members of the control population (N=68) were included in the sample. Control group participants were selected purely on the basis of their granting permission to partake in the study, as well as their being on duty rendering SRH services on the day the field workers visited the particular clinic (N=68; n=62).

Two fieldworkers that underwent SRH training used the Adapted Competency Based Skills Assessment Tool as a checklist when observing a SRH service being rendered by a PHC clinician. The one fieldworker observed PHC clinicians who had undergone SRH training and the other fieldworker and researcher, PHC clinicians who had not as yet underwent SRH training. The structured Client Exit Interview was undertaken directly after completion of the Adapted Competency Based Skills Assessment Tool. This interview was

conducted with each client that received a SRH service from a PHC clinician partaking in the study.

TABLE 4.5: Percentage yes answers regarding questions reflecting knowledge during first visits, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference

KNOWLEDGE REFLECTED DURING FIRST VISITS						
CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n[1]	%	n[1]	
History- age	(a3.1)	50	7	40	5	[-38,4%; 52,1%]
History-marital status	(a3.2)	50	6	20	5	[-22,7%; 65,3%]
Used contraceptive before	(a3.3)	66,6	6	80	5	[-53,5%; 35,3%]
Last method	(a3.4)	66.6	6	80	5	[-53,5%; 35,3%]
Side effects	(a3.5)	50	6	40	5	[-38,4%; 52.1%]
Name effects	(a3.6)	16,6	6	40	5	[-62,7; 25,4%]
Reason stopping method	(a3.7)	66,6	6	40	5	[-25,4%; 63,5%]
Gravida	(a3.8)	66,6	6	80	5	[-53,5%; 35,3%]
Para	(a3.9)	50	6	80	5	[-65,3%; 22,7%]
Last pregnancy date	(a3.10)	50	6	80	5	[-65,3%; 22,7%]
Breastfeeding	(a3.11)	50	6	6	5	[-52,1%; 38,4%]
Problems experienced	(a3.12)	50	6	4	5	[-38,4%; 52,1%]
Ectopic pregnancy	(a3.13)	33,3	6	20	5	[-35,3%; 53,5%]
Periods regular	(a3.14)	50	6	2	5	[-22,7%; 65,3%]
Periods painful	(a3.15)	50	6	20	5	[-22,7%; 65,3%]
Time period of period	(a3.16)	50	6	20	5	[-22,7%; 65,3%]
Heaviness of flow	(a3.17)	33,3	6	0	5	[-16,1%; 70,0%]
Last menstrual date	(a3.18)	50	6	100	5	[-81,2%; 3,5%]
Abnormal bleeding	(a3.19)	33,3	6	0	5	[-16,1%; 70,0%]
Vaginal discharge	(a3.20)	33,3	6	60	5	[-63,5%; 25,4%]
Dyspareunia	(a3.21)	33,3	6	20	5	[-35,3%; 53,5%]
Illnesses or operations	(a3.22)	50	6	60	5	[-52,1%; 38,4%]

[1] = First visits

KNOWLEDGE REFLECTED DURING FIRST VISITS						
CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n[2]	%	n[2]	
Chronic diseases	(a3.23)	50	6	60	5	[-52,1%; 38,4%]
Medication	(a3.24)	50	6	20	5	[-22,7%; 65,3%]
Allergies	(a3.25)	33,3	6	20	5	[-35,3%; 53,5%]
Cigarette smoking	(a3.26)	33,3	6	20	5	[-35,3%; 53,5%]
Family history	(a3.27)	50	6	40	5	[-38,4%; 52.1%]
Concerns about STI's	(a3.28)	0	6	20	5	[-62,4%; 22,3%]
At risk of becoming infected	(a3.29)	0	6	0	5	[-43,4%; 39,0%]
Protection used	(a3.30)	0	6	0	5	[-43,4%; 39,0%]
Used condoms	(a3.31)	0	6	20	5	[-62,4%; 22,3%]
Had previous STI	(a3.32)	0	6	0	5	[-43,4%; 39,0%]
Partner previous STI	(a3.33)	0	6	0	5	[-43,4%; 39,0%]
Concerns about sexual partner	(a3.34)	0	6	0	5	[-43,4%; 39,0%]
New partner	(a3.35)	0	6	0	5	[-43,4%; 39,0%]
How many partners	(a3.36)	0	6	0	5	[-43,4%; 39,0%]
Lived apart from partner	(a3.37)	0	6	0	5	[-43,4%; 39,0%]
Sex with non-regular partner	(a3.38)	0	6	0	5	[-43,4%; 39,0%]

Table 4.5 depicts the percentage *'yes'* answers regarding questions reflecting knowledge during first visits as depicted by the Adapted Competency Based Skills Assessment Tool (Addendum B1). Specific questions were indicated during a clients' first visit to the clinic.

The knowledge related questions were taken from four categories in the Adapted Competency Based Skills Assessment Tool. Establishing the main reason for visiting the SRH clinic was the first category (a2.8.1-2.8.7). This category has not been reflected in Table 4.5 as it was established that most clients' (trained SRH clinicians = 89%; untrained SRH clinicians 91,9%) main reason for visiting the clinic was to get contraceptive supplies as a follow-up visit to the clinic.

[2] = First visits

History taken during a client's first visit to the clinic was the second category (a31-a38). According to the 95% confidence interval for percentage difference, no statistical significant difference could be identified between the manner in which SRH trained and SRH untrained clinicians took the history of SRH client visiting the clinic for the first time.

Questions (a5.1.1-5.1.11) tried to establish which contraceptive method the client of the SRH trained and SRH untrained clinician was using at the time she/he visited the SRH clinic. This category has also not been reflected in Table 4.5 as it was found that the majority of SRH clients (clients of SRH trained clinicians = 82,3%; clients of SRH untrained clinicians = 87,7%) made use of an injectable contraceptive on visitation to the clinic.

The researcher has decided to highlight al checklist items in Table 4.5 scoring less than 50%, looking at the possible effect these low scores could have on the quality of SRH care being rendered by either the trained or untrained SRH clinicians. Quality care can be measured by considering standards that have the most impact on clients, such as procedures that are high risk, that have the potential for complications; are done frequently or lack compliance to standards (Foy *et al.*, 2002:103). The Adapted Competency Based Skills Assessment Tool can be considered, as the standard SRH providers should adhere to when rendering SRH services. If one should take into consideration literature statements added to each of the checklist items, SRH clinicians who omitted these items compromised the quality of SRH care rendered. Checklist items scoring less than 50%, that were part of the history taking done whilst consulting SRH clients visiting the clinic for the first time were categorised according to trained and untrained SRH PHC clinicians.

- Items scoring less than 50% by SRH trained and untrained PHC clinicians were:

  - *naming side-effects (a3.6)* – Clients should be encouraged to name side-effects in order to reduce method dissatisfaction and subsequent discontinuation of method use (Foy *et al*., 2002:30).

  - *previous ectopic pregnancy (a3.13)* – Clients with a history of a previous ectopic pregnancy should be informed of the higher risk they would have of a repeat ectopic pregnancy should they use progesterone only pills, and also the protection they would experience against such a pregnancy should they make use of combination pills or progesterone–only injectables (Hatcher, Rinehart, Blackburn & Geller, 1997;5-3; Foy *et al*.,2002:49,67, 80).

  - *heaviness of flow (a3.17)* – If other pathological reasons for menorrhagia has been excluded, a progestogen-dominant pill would be indicated. Continued monitoring of the client is however needed (Gillebaud, 1994:157).

  - *abnormal bleeding (a3.19)* – Undiagnosed vaginal bleeding is a contra-indication to initiate hormonal contraceptives (Foy *et al*., 2002:53, 69, 83).

  - *dyspareunia (a3.21)* – Could be due to vaginal dryness, being a side-effect of progesterone (Theron & Grobler, 1998:67). A oestrogenic dominant method would therefore be indicated, if no contra-indications for oestrogen usage exist.

- *allergy history (a3.25)* – Although very rare the provider should take note of the possible allergy clients may have towards certain contraceptive methods e.g. the copper used in some Intra Uterine Devices (Guillebaud, 1994:331).

- *cigarette smoker (a3.26)* – Providers can not prescribe contraceptives containing oestrogen to any smoker of 35 years of age or older (Foy *et al.*, 2002:53).

- *risk assessment for exposure to STI/HIV (a3.28-3.38)* – These were all examples of risk assessment questions that could have been asked of clients, in order to assess their risk status for exposure to STI/HIV (Foy *et al.*, 2002:28). By not making use of these risk assessment questions, providers were not following a holistic centred health approach, neither contributing to the HIV awareness campaign.

- Items scoring less than 50% by SRH untrained PHC clinicians were:

  - *age of client (a3.1) and marital status/stable relationship (a3.2)* – The provider should find out relevant details about the client's personal history that may influence contraceptive use. All these factors play a role when classifying a client according to the WHO's medical eligibility criteria (Foy *et al.*, 2002:20, 28).

  - *side-effects experienced with previous contraceptive method (a3.5)* – Side-effects should be categorised as undesirable (annoying or serious), beneficial or controversial. The provider should be led by this categorisation as to decide which method would be the best choice for the client (Theron & Grobler, 1998:116).

- *reason for stopping previous method (a3.7)* – Understanding the reason why a client stopped using a previous contraceptive can assist the provider in assessing whether the reason provided by the client is of substance or not.

- *breastfeeding at present (a3.11)* – Combined oral contraceptives are not to be prescribed within the first six months of breastfeeding as it would diminish milk supply (Hatcher *et. al.*; 1997:4-18).

- *problems experienced during pregnancy, labour or after childbirth (a3.12)* – The provider should take note of a variety of problems that could have occurred during pregnancy, labour or after childbirth that could influence the choice of contraceptive being prescribed to the client. The oestrogen component of combined oral contraceptives can increase the risk of thrombosis, being a contra-indication to a client who already had such a problem during or after delivery (Theron & Grobler, 1998:131).

- *menstrual periods regular (a3.14)* – Clients with irregular menstrual periods can be placed on a low dose combined oral contraceptive that could assist in regulating their menstrual cycle (Foy *et. al.*, 2002:52).

- *menstrual period painful (a3.15)* and *duration of period (a3.16)* – All combined oral contraceptives often relieve dysmenorrhoea. Progestogen dominant pills are again recommended for severe menorrhagia (Theron & Grobler, 1998:130).

- *taking any medication at present (a3.24)* – Possible interaction between medication used and the contraceptive used must always be considered (Theron & Grobler, 1998:127). It is specifically certain anticonvulsants, anti-tuberculous therapy and broad spectrum antibiotics that may cause a reduced contraceptive effect (Foy *et.al.*, 2002:49, 67, 80).

- *family history of serious illnesses (a3.27)* – Providers should screen clients with a family history of any illness being genetically predisposed carefully.

- The item scoring less than 50% by SRH trained PHC clinicians was:

  - *vaginal discharge (a3.20)* – Vaginal discharge is not always abnormal. The vagina is not meant to be dry as there are some discharges which are physiological. Abnormal discharges may be caused by infections (Farber, 1996:41). The provider should be able to distinguish between normal and abnormal discharges. It has been generally accepted that patients presenting with one STI are at increased risk of acquisition of others, including HIV (Ballard *et al.*, 2000:52).

Table 4.6 reflects the percentage yes answers regarding questions reflecting knowledge during follow-up visits, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference.

TABLE 4.6: Percentage yes answers regarding questions reflecting knowledge during follow-up visits, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference

KNOWLEDGE REFLECTED DURING FOLLOW-UP VISITS						
CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n	%	n	
Medical problems encountered recorded	**(a5.2)**	**21**	**57**	**4,8**	**62**	**[4,2 %; 28,9 %]** *
Concerns about STI's	(a5.3.1)	3,5	57	3,2	62	[-7,9%; 9%]
At risk of becoming infected	(a5.3.2)	1,7	57	0	62	[-4,3%; 9,3%]
Protection used	(a5.3.3)	100	57	100	62	[-6,3%; 5,8%]
Used condoms	(a5.3.4)	1,7	57	4,8	62	[-11,7%; 5,1%]
Had previous STI	(a5.3.5)	1,7	57	1,6	62	[-7%; 7,8%]
Partner previous STI	(a5.3.6)	100	57	100	62	[-6,3%; 5,8%]
Concerns about sexual partner	(a5.3.7)	3,5	57	0	62	[-2,9%; 11,9%]
New partner	(a5.3.8)	0	57	3,2	62	[-11%; 3,5%]
How many partners	(a5.3.9)	100	57	100	62	[-6,3%; 5,8%]
Lived apart from partner	(a5.3.10)	1,7	57	1,6	62	[-7%; 7,8%]
Sex with non-regular partner	(a5.3.11)	100	57	100	62	[-6,3%; 5,8%]
Use WHO criteria	**(a7.3)**	**28**	**57**	**0**	**62**	**[16,5%; 40,8%]***
Receive preferred contraceptive	(a7.4)	96,4	57	95,1	62	[-7,7%; 10,2%]
Work in legal framework	(a7.5)	100	57	100	62	[-6,3%; 5,8%]
Return date	**(a7.6.1)**	**63,1**	**57**	**87,1**	**62**	**[-38,3%; -8,5%] ***
Efficiency of method influenced	(a7.6.2)	21	57	20,9	62	[-14,4%; 14,9%]
Side effects of method	(a7.6.3)	21	57	25,8	62	[-19,3%; 10,6%]
Return of fertility	(a7.6.4)	7	57	3,2	62	[-5,1%; 13,8%]
Breast self examination	**(a7.6.5)**	**36,8**	**57**	**4,8**	**62**	**[17,9%; 45,4%] ***
Pap smear	**(a7.6.6)**	**28**	**57**	**4,8**	**62**	**[10,1%; 36,4%] ***
Emergency contraception	(a7.6.7)	5,2	57	1,6	62	[-4,1%; 12,9 %]
Dual protection	**(a7.6.8)**	**38,6**	**57**	**11,2**	**62**	**[11,9%; 41,5%] ***
What to do if problems arise	**(a7.6.9)**	**45,6**	**57**	**22,5**	**62**	**[6,0%; 38,5%] ***
Drug interaction	(a7.6.10)	5,2	57	3,2	62	[-6,5%; 11,4%]
Missed pills	(a7.6.11)	5,2	57	3,2	62	[-6,5%; 11,4%]
Mentioned condoms protect against STI	**(a7.10)**	**35**	**57**	**11,2**	**62**	**[8,7%; 38,0%] ***
HISP / data capture sheet	**(a7.14)**	**89,4**	**57**	**50**	**62**	**[23,4%; 52,8%] ***

KNOWLEDGE REFLECTED DURING FOLLOW-UP VISITS						
CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n	%	n	
Laboratory tests	(a7.15.1)	0	3	0	1	[-43,4%; 39%]
Treated STI	(a7.15.2)	0	3	0	1	[-43,4%; 39%]
Referred	(a7.15.3)	0	3	0	1	[-43,4%; 39%]
Provided counselling	(a7.15.4)	0	57	1,6	62	[-8,6%; 4,8%]
Other	(a7.15.5)	0	0	0%	0	[-43,4%; 39%]
Referring correctly	(a7.16)	1,7	57	1,6	62	[-7,0%; 7,8%]
Return date correct	(a7.17)	98,2	57	95,1	62	[-5,1%; 11,7%]

Table 4.6 reflected the next category of knowledge related questions in the Adapted Competency Based Skills Assessment Tool, namely the diagnosis and management of the SRH client (a7.1-7.18). These questions were indicated to be assessed during a client's follow-up visit. The data will be presented according to questions in which the trained SRH PHC clinicians performed significantly better than the untrained SRH PHC clinicians, followed by questions in which the untrained SRH PHC clinicians performed significantly better than the trained SRH PHC clinicians. Checklist items (questions) in which a score of less than 50% was obtained will be grouped according to such a low score being scored by the trained and untrained SRH PHC clinicians, untrained SRH PHC clinicians and trained SRH PHC clinicians.

The trained SRH PHC clinicians performed significantly better than the untrained SRH PHC clinicians in the following aspects:

- *Medical problems encountered recorded (a5.2).* The scope of practice of a registered nurse clearly states that clear and accurate records of patient should be kept and that omitting to keep records could lead to disciplinary actions being taken against such a person (South Africa, Nursing Act 1978: 2).

- *Provider used the WHO Medical Eligibility Criteria (a7.3).* Although 28% of the trained SRH PHC clinicians made use of the criteria, 100% of the trained SRH clinicians should have made use of the criteria, since the criteria acts as a guideline for implementation of the SRH module. These guidelines are evidence-based and consensus driven. They are reviewed and updated in a timely manner (WHO, 2002:2). The untrained SRH PHC clinicians would have no prior knowledge of the criteria since they could only have been exposed to the criteria during SRH training.

- The *health education* given by trained SRH PHC clinicians was significantly more comprehensive than that given by the untrained SRH PHC clinicians regarding the following aspects:

  - *breast self examination given (a7.6.5)* – Nine out of ten breast lumps are detected by women themselves, so breast self-examination once a month is vitally important (Pantanowitz & Benn, 2002:80).

  - *taking of a pap smear (a7.6.6)* – Cancer of the cervix is the second most common form of cancer amongst South African women. Approximately one in every 41 women will, within their lifetime develop this form of cancer (Department of Health, [n.d.]: 1). Educating women on the importance of being screened for cervical cancer by taking a pap smear is thus essential.

  - *dual protection (a7.8)* – Clients should be informed that in addition to protection against pregnancy, condoms provide some direct protection against STI's/HIV and their possible consequences (Foy *et al.*, 2002:36).

- *what to do if problems arise (a7.6.9)* – Clients should be encouraged to attend at any time if they have any health concerns (Foy *et al.*, 2002:32). It is to the advantage of the client to be well informed, since problems can be given the necessary attention early on (Theron & Grobler, 1998:134).

- *condoms protect against STI (a7.10)* – Clients should be made aware that condoms effectively protect HIV transmission ranging from 46-82% and other STI's 67% (Foy *et al.*, 2002:38).

- *Captured statistical data on HISP/ data capture sheet (a7.14).* A statistical significance has been established between the percentage of trained SRH PHC clinicians capturing their statistical data and the untrained SRH PHC clinicians capturing data. The reliability of data obtained from the HISP can be questioned in the light of the low coverage found in both groups (SRH trained clinicians 89,4% and untrained SRH clinicians 50%). The DoH in principle accepted the use of the HISP to capture data for all public and private health care facilities (Department of Health, 2002:1).

The untrained SRH PHC clinicians performed significantly better in only one aspect. The *importance of the return date (a7.6.1)* was emphasized more by the untrained SRH PHC clinicians than the trained SRH clinicians. It is important that appropriate arrangements for follow-up visits are scheduled according to sound medical reasoning, taking the recommended timing of follow-up visits for each contraceptive method into consideration (Foy *et al.*, 2002:32).

Checklist items scoring less than 50%, by SRH trained and untrained PHC clinicians that were part of the diagnosis and management conducted whilst consulting SRH clients visiting the clinic were statistically significant items scoring less than 50% have already been discussed, as well as omitting possible side-effects of methods (a7.6.3) and drug interaction with methods (a7.6.1.):

- *factors influencing efficiency of method (a7.6.2)* – The theoretical efficiency of contraceptives differs from its use effectiveness, as it is influenced by factors such as client error, absorption defects and interaction with other medication(Theron & Grobler, 1998:34).

- *return of fertility after discontinuance of method (a7.6.4)* – Each contraceptive method has a specific period identified as to when fertility would return after discontinuance of the specific method (Foy *et al.*, 2002:49, 67, 80). This is important information the client should have in order to plan the spacing of children.

- *emergency contraception (a7.6.7*) – Emergency contraception can be used at any time of the menstrual cycle after occurrence of sexual intercourse without contraceptive cover (Foy *et al.*, 2002:111). Clients should be aware of this method as a protection that could be used in the case of rape.

- *missed pills (a7.6.11)* – If one hormonal pill has been missed during the first seven days of a packet and the client has had unprotected sexual intercourse the missed pill should be taken at once, continuing with the rest of the pills as usual. Should two or more hormone pills be missed within any seven day cycle, a pill should be taken at once and a barrier method used as extra protection for the next seven days (Foy *et al.*, 2002:56).

- *requested laboratory tests (a7.15.1)* – It is recognised that basic laboratory facilities are lacking in many areas necessitating the use of the syndromic approach. However, serological tests remains the most frequent means of establishing a diagnosis of syphilis (Ballard, Htun, Fehler, Neilsen, 2000:2, 23). Clients with a history of repeated STI's should be given the opportunity to be tested for syphilis and HIV.

- *treated STI (a7.15.2)* – Since it was found that STI risk assessment was not conducted on SRH clients by either the trained or untrained SRH PHC clinicians (Table 4.5 and Table 4.6), STI's would not have been identified and therefore not treated.

- *referred clients elsewhere (a7.15.3) and correctly (a7.16)* – Clients in need of contraceptives and classified as a category three client, according to the Medical Eligibility Criteria, should be referred to be seen by a medical doctor. Only 28% (Table 4.6) of trained SRH PHC clinicians made use of these criteria that should act as guidelines for treatment and referral. It is thus possible that since clients were not properly assessed and therefore not referred to the next level of treatment.

- *provided counselling (a7.15.4)* – Through counselling providers help clients make and carry out their own choices about reproductive health and family planning. Good counselling makes clients more satisfied and helps clients to use family planning methods longer and more successfully (Hatcher *et al.,* 1997:3-1).

As Table 4.5 and Table 4.6 reflected the percentage *'yes'* answers regarding knowledge as depicted by the Adapted Competency Based Skills Assessment Tool, Table 4.7 reflect the same aspect as depicted by the Client Exit Interview. No differentiation was made between client exit interviews held with clients visiting the clinic for the first time or those coming for a follow-up visit.

TABLE 4.7: Percentage yes answers regarding questions reflecting knowledge, as depicted by the Client Exit Interview with 95% confidence interval for percentage difference

KNOWLEDGE						
CHECKLIST ITEM NUMBER OF CLIENT EXIST INTERVIEW		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n	%	n	
Ask about problems	(c4)	77,1	51	64,5	60	[-3,7%; 28,0%]
Any problems experienced	(c5)	8,7	51	9,6	60	[-12%; 10,5%]
Provider understand problems	(c6)	8,7	5[3]	6,4	7[5]	[-8%; 13,2%]
Suggestions received from provider	(c7)	8,7	5[5]	8	7[5]	[-10%; 11,9%]
Come for a specific contraceptive	(c9)	96,7	56	100	62	[-14,4%; 1,5%]
Method preferred	(c10)	85,4	55	88,7	62	[-16,2%; 9,1%]
Method discussed-injectable	**(c11)**	**84,2**	**57**	**62,9**	**62**	**[5,4%; 35,7%]***
Received a method	(c12)	98,2	57	95,1	62	[-5,1%; 11,7%]
Methods received - injectable	(c14)	82,5	57	83,9	62	[-15,2%; 12,1%]
Received method of choice	(c15)	78,9	57	83,8	62	[-19,1%; 9,1%]
How to use method	**(c17a)**	**57.8**	**56**	**33,8**	**61**	**[6,1%; 39,9%] ***
Describe side- effects	**(c17b)**	**14**	**56**	**38,7%**	**61**	**[-38,8%; -8,8%] ***
What to do when having problems	(c17c)	38,6	56	51,6	60	[-29,6%; 4,8%]
Method offers no protection against STI	(c17d)	29,8	56	20,9	61	[-6,7%; 24,1%]
Testing of knowledge on education received-injectable	(c18c)	97,8	47	68,5	54	[-15,3%; 42,7%]
Follow-up visit told about	(c19)	98,2	56	98,3	61	[-7,8%; 7%]
Pelvic exam	(c22)	1,75	57	1,6	62	[-7%; 7,8%]
STI / AIDS discussed	**(c29)**	**31,5**	**57**	**14,5%**	**62**	**[1,9%; 31,6%]***
Condom usage encouraged	(c30)	33,3	57	17,7	61	[-0,1%; 30,6%]

[3] = First visits

The aim of obtaining the data complied in Table 4.7 was to establish the knowledge gained by SRH clients after their encounter with either a trained or untrained SRH PHC clinician when visiting a SRH service.

Questions (c2-c3) have not been included in Table 4.7. The clients confirmed findings of the Adapted Competency Based Skills Assessment Tool in Table 4.5 that most of their (Clients of SRH trained clinicians = 89,4%; Clients of SRH untrained clinicians = 88,7%) main reason for visiting the SRH service was to collect contraceptive methods as a follow-up visit to previous visits to the clinic (c2). The clients indicated that the contraceptive method in use (c3) was an injectable contraceptive (Clients of trained SRH clinicians = 82,6%; Clients of untrained SRH clinicians = 81,9%). This finding correlated with what was found with the Adapted Competency Based Skills Assessment Tool in Table 4.5.

According to the SRH clients, the trained SRH PHC clinicians highlighted specific topics/issues significantly more during their health education with the clients than the untrained SRH PHC clinicians. The topics/issues receiving significantly more attention by the trained SRH clinicians were the:

- *Discussion of the injectable contraception as contraceptive method (c11) and Explanation as to how the contraceptive method should be used (c17a)* – During method specific counselling clients should be informed as to how to use the method, the common side-effects and their management. The method itself should also be supplied and follow-up requirements been given (Foy *et al.*, 2002:30)*;* and

- *Discussion of STI/ AIDS with clients (c29)* – A risk assessment for the exposure to STI/HIV should be conducted with each SRH client. STI/HIV prevention strategies should also be discussed (Foy *et al*., 2002: 32). Fieldworkers completing the Adapted Competency Based Skills Assessment Tool did however not observe the SRH clients having a risk assessment been completed on (Table 4.5 and Table 4.6).

Untrained SRH PHC clinicians emphasized possible side effects of methods (c17b) more so than the trained SRH PHC clinicians. Questions reflecting clients' knowledge on specific contraceptive methods (a18a-a18g) have been omitted in Table 4.6 as clients received injectable contraceptives, as have been reflected in question 18c, and were therefore not tested on their knowledge of other contraceptive types.

Checklist items scoring less than 50% during the Client Exit Interview will not be discussed as these items overlap with items already discussed in Table 4.5.

Except for knowledge being assessed by the Adapted Competency Based Skills Assessment Tool and Client Exit Interview, the Adapted Competency Based Skills Assessment Tool assessed skills of trained and untrained SRH PHC clinicians. Table 4.8 depicts the percentage *'yes'* answers regarding questions reflecting skills, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference.

TABLE 4.8: Percentage yes answers regarding questions reflecting skills, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference

CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n	%	n	
SKILLS – INTERPERSONAL						
Use of non-technical language	**(a2.7)**	**94,7**	**57**	**77,4**	**62**	**[4,8%; 29,6%] ***
Explain procedure	(a4.1)	16,6	6[4]	40	5[4]	[-62,7%; 25,4%]
Inform about outcome of examination	(a7.2)	56,1	57	50,1	62	[-11,5%; 23,2%]
Validating understanding	(a7.11)	17,5	57	19,3	62	[-15,7%; 12,4%]
Provided counselling	(a7.15.4)	0	57	1,6	62	[-8,6%; 4,8%]
SKILLS – CLINICAL						
Wash hands before examination	(a4.2)	16,6	6[4]	20	5[4]	[-47,9%; 39,6%]
Ensure bed is clean	(a4.3)	0	6[4]	20	5[4]	[-62,4%; 22,3%]
Weigh patient	(a4.5)	66,6	6[4]	100	5[4]	[-70%; 16,1%]
Vital signs	(a4.6)	83,3	6[4]	100	5[4]	[-56,4%; 28,7%]
Pulse	(a4.7)	50	6[4]	0	5[4]	[-3,5%; 81,2%]
Hair	(a4.8.1)	50	6[4]	40	5[4]	[-38,4%; 52,1%]
Eyes	(a4.8.2)	50	6[4]	40	5[4]	[-38,4%; 52,1%]
SKILLS – TECHNICAL						
Face	(a4.8.3)	50	6[4]	60	5[4]	[-52,1%; 38,4%]
Tongue	(a4.8.4)	50	6[4]	20	5[4]	[-22,7%; 65,3%]
Skin	(a4.8.5)	50	6[4]	60	5[4]	[-52,1%; 38,6%]
Ears	(a4.8.6)	0	6[4]	0	5[4]	[-43,4%; 39%]
Extremities	(a4.8.7)	50	6[4]	60	5[4]	[-52,1%; 38,6%]
Heart	(a4.8.8)	33,3	6[4]	0	5[4]	[-16,1%; 70%]
Lungs	(a4.8.9)	33,3	6[4]	0	5[4]	[-16,1; 70%]
Breast	(a4.8.10)	66,6	6[4]	60	5[4]	[-39,6%; 50,5%]
Abdomen	(a4.8.11)	66,6	6[4]	80	5[4]	[-53,5%; 35,3%]
Pelvic/external genitals	(a4.8.12)	16,6	6[4]	20	5[4]	[-47,9%; 39,6%]
Pap smear	**(a4.8.13)**	**100**	**6[4]**	**40**	**5[4]**	**[6,3%; 88,2%] ***
BP taken	**(a6.1)**	**95,5**	**45**	**68,4**	**57**	**[12,3%; 40,4%] ***

[4] = First visits

CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n	%	n	
BP recorded	**(a6.2)**	**95,5**	**45**	**54,3**	**57**	**[25,1%; 54,4%] ***
Record on clinic card	**(a7.1.1)**	**61,4**	**57**	**16,1**	**62**	**[28,2%; 58,8%] ***
Record on client's appointment card	(a7.1.2)	100	57	95,1	62	[-2,2%; 13,3%]
Record papsmears	(a7.1.3)	100	57	100	62	[-5,8%; 6,3%]
Use HISP data sheet	**(a7.1.4)**	**89,4**	**57**	**50**	**62**	**[23,4%; 52,8%] ***
Prepare equipment	(a4.4)	33,3	6[5]	60	5[5]	[-63,5%; 25,4%]
IEC materials used flip chart	(a7.8.1)	0	57	0	62	[-5,8%; 6,3%]
Brochure available and used	(a7.8.2)	1,7	57	1,6	62	[-7%; 7,8%]
Samples available and used	(a7.8.3)	3,5	57	6,4	62	[-12,3%; 6,3%]
Posters available and used	(a7.8.4)	0	57	0	62	[-5,8%; 6,3%]
Anatomical models available and used	(a7.8.5)	0	57	0	62	[-5,8%; 6,3%]
None available	(a7.8.6)	82,5	57	72,4	62	[-9,6%; 19,2%]
Other	(a7.8.7)	0	57	1,6	62	[-8,6%; 4,8%]
IEC materials visible, not used flipchart	(a7.9.1)	1,7	57	0	62	[-4,3%; 9,3%]
Brochure visible not used	**(a7.9.2)**	**22,8**	**57**	**0**	62	**[12,1%; 35,2%] ***
Samples visible not used	(a7.9.3)	52,6	57	64,5	62	[-28,5%; 5,7%]
Posters visible not used	(a7.9.4)	49,1	57	40,3	62	[-8,8%; 25,9%]
Anatomical models visible not used	(a7.9.5)	0	57	0	62	[-5,8%; 6,3%]
None visibly available	(a7.9.6)	31,5	57	22,5	62	[-6,9%; 24,5%]
Other	(a7.9.7)	0	57	0	62	[-5,8%; 6,3%]

Table 4.8 identified 3 types of skills evaluated with the Adapted Competency Based Skills Assessment Tool and skills that have been identified as statistically significant have been highlighted in bold print.

The trained SRH PHC clinicians performed significantly better than the untrained SRH PHC clinicians in the following skills related aspects:

- *use of non-technical language (a2.7)* – SRH clinicians who underwent the SRH training were specifically taught to use simple, non-technical language when engaging with SRH clients (Foy *et al.*, 2002:28). This

[5] = First visits

was one way of ensuring that clients understood SRH health education given.

- *Taking a pap smear (a4.8.13)* - The pap smear policy of the DoH was followed, namely screening women aged 30 years or older three times in succession, utilising cervical cytological smears (Department of Health, [n.d.]: 4).

- *Blood pressure taken (a6.1) and recorded (a6.2)* - The monitoring and recording of blood pressure measurements of SRH clients are essential, as the blood pressure reading of clients plays an important role in classifying clients according to the WHO's Medical Eligibility Criteria for the use of specific contraceptive methods (Foy *et al.*, 2002:53, 68, 82).

- *Record on clinic card (a7.1.1)* - SRH trained clinicians recorded SRH data on the HISP data capture sheets significantly more than the untrained SRH clinicians (a7.1.4). This occurrence has already been discussed as part of the discussion of Table 4.5.

The only item where the untrained SRH PHC clinicians scored a significantly higher percentage then the trained SRH PHC clinicians, was where the untrained SRH PHC clinicians had brochures available that could have been used during health education sessions, but the untrained clinicians did not make use of it (a7.9.2). The National Contraceptive Policy Guideline emphasises the fact that SRH clinicians should increase public knowledge on contraception by using a variety of innovative methodologies and appropriate information and education materials (Foy *et al.*, 2002:17).

Checklist items scoring less than 50%, that were part of the assessment of skills of SRH PHC clinicians, whilst consulting SRH clients visiting the clinic were categorised according to trained and untrained SRH PHC clinicians.

- Items scoring less than 50% by SRH trained and untrained PHC clinicians were:

  - *explain procedure (a4.1)* – The National Contraception Policy promotes human and reproductive rights for each client seeking contraceptive services (Department of Health, 2001a:5). Adherence also improves if a clear understanding exist as to the reason a procedure need to be performed.

  - *validating understanding (a7.11)* – Without validating information and education shared with SRH clients the essence of the message may get lost (Foy *et al*., 2002:110).

  - *provided counselling (a7.15.4)* – this has been discussed in Table 4.5.

  - *wash hands before examination (a4.2) and ensure bed is clean (a4.3)* – Infection control is critical for both providers and clients for the safe provision of SRH services, particularly in view of the current epidemic spread of HIV infection (Foy *et al*., 2002:95).

  - *examined ears, heart, lungs, pelvic area (a4.8.6, a4.8.8, a4.8.9, a4.8.12)* – After history taking, the next step in client assessment is to perform a physical examination in order to obtain an initial assessment of the client's general health, exclude conditions that may contraindicate a management option and to detect medical conditions that have not been mentioned by the client (Foy *et al*., 2002:139). This is normally done during a client's first visit to the clinic, there after yearly or when the client has specific system complaints.

- Items scoring less than 50% by untrained SRH PHC clinicians were:

  - *pulse counting (a4.7), examination of hair, eyes, tongue (a4.8.1, a4.8.2, a4.8.4)* – the same principles applies as have been discussed in previous paragraph.

Attitude is the last component of competence to be analysed using the data gathered through the Adapted Competency Based Skills Assessment Tool and Client Exit Interview. Table 4.9 depicts the percentage *'yes'* answers regarding questions reflecting attitudes, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference.

TABLE 4.9: Percentage yes answers regarding questions reflecting attitude, as depicted by the Adapted Competency Based Skills Assessment Tool with 95% confidence interval for percentage difference

ATTITUDE						
[6]CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	N	%	n	
Greet friendly	(a2.1)	91,2	57	79	62	[-0,9%; 24,9%]
Introduce self	**(a2.2)**	**31,5**	**57**	**8,0**	**62**	**[9,3%; 37,2%] ***
Wears name tag	(a2.3)	10,5	57	16,1	62	[-18,0%; 7,2%]
Ensure privacy	(a2.4)	82,4	57	74,1	62	[-6,8%; 22,6%]
Encourage question asking	**(a2.5)**	**66,6**	**57**	**46,7**	**62**	**[2,1%; 36,0%] ***
Listen	**(a2.6)**	**85,9**	**57**	**53,2**	**62**	**[16,4%; 46,7%] ***
Explain reason for asking personal questions	**(a2.9)**	**15**	**57**	**0**	**62**	**[6,5%; 27,4%] ***
Asked about preferred method	(a7.12)	59,6	57	70,9	62	[-27,6%; 5,6%]
Give medical reason for unsuitable method	(a7.13)	3,5	57	9,6	62	[-16,4%; 3,7%]
Told patient where to go for follow-up	(a7.18)	98,2	57	93,5	62	[-3,8%; 13,8%]

[6] Checklist item numbers reflect questions from the Adapted Competency Based Skills Assessment Tool as numbered with an *"a"* and questions from the Client Exit Interview as numbered with a *"c"*. Questions do no follow the sequence of the checklist, but rather the competency that is measured by the question.

The trained SRH PHC clinicians scored significantly higher than the untrained SRH clinicians on 4 of the 10 questions identified as to be reflecting the attitude projected by SRH PHC clinicians when rendering a SRH service. The questions where the trained SRH clinicians faired significantly better than the untrained SRH clinicians were:

- *Introducing themselves to the client (a2.2)* – The Patients Rights Charter clearly states that the client has the right to be treated by a named health care provider (Foy *et al*., 2002:43);

- *Encouraging the client to ask questions (a2.5)* – PHC clinicians who underwent the SRH training were taught to listen to the client by giving them the opportunity throughout the consultation to ask questions, raise issues and voice concerns without embarrassment or fear of ridicule (Foy *et al*., 2002:28) This promoted a trusting relationship between provider and client ;

- *Actively listening to the client (a2.6)* - Active listening is not just hearing what a client says but paying full attention to what is said, how it is said and what is not said in order to try to correctly interpret what the client is conveying (Foy *et.al*., 2002:116). Active listening will assist the provider in accurately assessing the needs of the client and

- *Explaining to the client the reason for asking personal questions during the consultation (a2.9)* – It should be explained to the client that the reason for asking personal questions is to assist the client in choosing the best contraceptive method (Foy *et al*., 2002:28).

Checklist items scoring less than 50%, that were part of the assessment of the attitude reflected by SRH PHC clinicians, whilst consulting SRH clients, were categorised according to trained and untrained SRH PHC clinicians (Items scoring less than 50% that have been identified as statistically significant will not be discussed again).

- Items scoring less than 50% by SRH trained and untrained PHC clinicians were:

  - *Wears a name tag (a2.3)* – The Patients' Rights Charter clearly states that the client has the right to be treated by a named health care provider (Foy *et al.,* 2002:43);

  - *Give medical reason for unsuitable method (a7.13)* - The Batho Pele Principles states that the public has the right to information (Foy *et al*., 2002:43). Informing a client as to the reasons why a particular method would be considered as unsuitable is in line with the Batho Pele Principles.

During the Client Exit Interview clients were given the opportunity to state how they experienced the attitude of the SRH trained and untrained PHC clinicians. Table 4.10 depicts the percentage *'yes'* answers regarding questions reflecting attitude, as depicted by the Client Exit Interview with 95% confidence interval for percentage difference.

TABLE 4.10: Percentage yes answers regarding questions reflecting attitude, as depicted by the Client Exit Interview with 95% confidence interval for percentage difference

ATTITUDE						
[7]CHECKLIST ITEM NUMBER OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL		SRH trained PHC clinicians		SRH untrained PHC clinicians		95 % Confidence Interval for % difference
		%	n	%	n	
Satisfied with treatment	(c8)	100	5	71,4	7	[-19,4%; 64,1%]
Feel comfortable to ask questions	(c20)	94,7	57	90,3	62	[-6,1%; 14,9%]
Information enough	**(c21)**	**96,4**	**57**	**69,3**	**62**	**[14,0%; 39,7%] ***
Privacy enough	(c23)	100	57	96,6	62	[-62,5%; 16,7%]
Other clients overheard consultation	(c24)	89,4	57	83,8	62	[-7,2%; 18,0%]
Information be kept confidential	**(c25)**	**96,4**	**57**	**75,8**	**62**	**[8,4%; 32,9%] ***
Positive treatment received by provider	**(c26)**	**82,4**	**57**	**58,0**	**62**	**[7,9%; 39,0%] ***
Positive treatment received by other staff	(c27)	64,9	57	25,8	62	[-2,3%; 23,1%]
Waiting time	(c28)	7,0	57	9,6	62	[-23,2%; -10,6%]

In Table 4.10 SRH clients identified a difference in the attitude of SRH trained PHC clinicians and SRH untrained clinicians. The following items were identified to be of statistical significance:

- *information enough (c21) and information being kept confidential (c25)* – The provider should establish interactive communication within a trusting and caring relationship (Foy *et al.*, 2002:31).Conflict between the rights and responsibilities of parents and their sexually active teenager's right to confidentiality when seeking a prescription for contraceptives, is one of the situations the PHC SRH provider would have to know how to handle (Pera & van Tonder, 2005:36).

[7] Checklist item numbers reflect questions from the Adapted Competency Based Skills Assessment Tool as numbered with an *"a"* and questions from the Client Exit Interview as numbered with a *"c"*. Questions do no follow the sequence of the checklist, but rather the competency that is measured by the question.

- *positive treatment received by provider (c26)* – The Batho Pele principles set the standard for service delivery in South Africa. Providers are expected to act courteously towards clients (Foy *et al.*, 2002:43).

Checklist items scoring less than 50% during the Client Exit Interview will not be discussed as these items overlap with items already discussed in previous tables.

The Adapted Competency Based Skills Assessment Tool and the Client Exit Interview were both instruments that adhered to content validity. The Adapted Competency Based Skills Assessment Tool's content corresponds with the content of the SRH module. The content of the Client Exit Interview could also be cross-referenced with observations made by the fieldworker when completing the Adapted Competency Based Skills Assessment Tool. The knowledge and attitude related questions cross-referenced between the Adapted Competency Based Skills Assessment Tool and Client Exit Interview can be seen in Table 4.10 and Table 4.11. The reliability of the results has been enhanced by the fieldworkers themselves that undergone SRH training and used a guideline (Addendum B2 and C2) to respectively guide them in the completion of the Adapted Competency Based Skills Assessment Tool and Client Exit Interview. A reputable biostatistician performed data analysis with the assistance of the SAS computer program, further bettering the reliability of results obtained. Confidence intervals identified on the 95% interval in itself states that the researcher can be confident that results obtained are indeed of statistical significance.

Data obtained from the Adapted Competency Based Skills Assessment Tool also measured the time the trained SRH PHC clinicians spent with SRH clients and compared it to the time PHC clinicians who had not underwent SRH training spent with SRH clients. A statistically significant 95% confidence interval for median difference [1%; 6%] was found. The PHC clinicians who

have undergone SRH training's median were 11 (25% = 8, 75% = 21) and the PHC clinicians who had not undergone SRH training's median were 7,5 (25% = 5, 75% = 11).

As has been mentioned knowledge and attitude related questions used in the Adapted Competency Based Skills Assessment Tool and Client Exit Interviews have been cross-referenced in order to enhance reliability of results obtained from these instruments. Table 4.11 and 4.12 respectively reflect the percentage knowledge and attitude related questions whose answers changed from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview with 95% confidence interval for percentages. Skills related questions were not part of the Client Exit Interview and could therefore not be cross-referenced.

TABLE 4.11: Percentage knowledge related questions' answers that changed from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview with 95% confidence interval for percentages

KNOWLEDGE			
[8]ASPECTS BEING CROSS-REFERENCED	Percentage %		95 % Confidence Interval for % difference
	SRH trained PHC clinicians (n=57)	SRH untrained PHC clinicians (n=62)	
Factors influencing efficiency of method (a7.6.2; c17a)	36,8	41,9	[-21,9%; 12,2%]
Possible side-effect of method (a7.6.3; c17b)	40,3	38,7	[-20,2%; 14,2%]
What to do if problems arise (a7.6.9; c17c)	**18,6**	**41,9**	**[-32,9%; -4%]***
Condoms protect against STI (a7.10; c17d)	4	16,1	[-22,5%; 0,7%]
Told about follow-up visit (a7.6.1; c19)	42,5	100	[-17%; 19,7%]
Pelvic examination (a4.8.12; c22)	5,3	3	[-5,1%; 13,8%]
Condoms protect against STI (a7.10; c30)	4	9,6	[-14,9%; 6,1%]
Main reason for visit – specifically follow-up visits (a2.8; c2)	87,7	87	[-12,0%; 12,9%]
Main reason for visit- specific method (a2.8; c9)	87,7	91,1	[-16,1%; 7,1%]
Contraceptive in use (a5.1; c14)	71,9	79	[-22,3%; 8,3%]
Contraceptive in use (a5.1; c3)	70,1	77,4	[-22,7%; 8,4%]

[8] Checklist item numbers reflect questions from the Adapted Competency Based Skills Assessment Tool as numbered with an *"a"* and questions from the Client Exit Interview as numbered with a *"c"*. Questions do no follow the sequence of the checklist, but rather the competency that is measured by the question.

Table 4.11 only highlighted one knowledge related question that changed significantly from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview (a7.6.9; c17c). Although fieldworkers observed untrained SRH PHC clinicians informing SRH clients what to do should any problems occur (a7.6.9), these clients could not remember that they had been informed of what to do should problems arise (c17c). Counselling always involves two-way communication between the client and provider. The provider should be an active listener and validate the understanding of a client on issues discussed (Foy *et al.*, 2002:110, 116).

Checklist items scoring less than 50% during the Client Exit Interview will not be discussed as these items again overlap with items already discussed in Table 4.6 and Table 4.7.

In Table 4.12 the percentage attitude related questions' answers that changed from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview with 95% confidence interval for percentage will be depicted.

TABLE 4.12: Percentage attitude related questions' answers that changed from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview with 95% confidence interval for percentage

ATTITUDE			
[9]ASPECTS BEING CROSS-REFERENCED	Percentage %		95 % Confidence Interval for % difference
	SRH trained PHC clinicians (n=57)	SRH untrained PHC clinicians (n=62)	
Encourage client to ask questions (a2.5; c20)	29,8	46,7	[-32,9%; 0,5%]
Privacy ensured (a2.4; c23)	82,4	43,5	[21,8%; 25,8%]
Reason for contraceptive being unsuitable (a7.13; c16)	8,3	9	[-36%; 26%]
Importance of the return date (a7.6.1; c19)	**38,5**	**14,5**	**[8,3%; 38,7%] ***

As can be seen in Table 4.12 one attitude related question changed significantly from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview (a7.6.1; c19). Clients consulted by SRH trained PHC clinicians indicated that they have been informed by the clinician about the importance of the return date, whereas the fieldworker observing the consultation (using the Adapted Competency Based Skills Assessment Tool) did not note the clinician stating the importance of the return date.

Checklist items (whose attitude related answers changed from the Adapted Competency Based Skills Assessment Tool to the Client Exit Interview), scoring less than 50% will not be discussed as these items also overlap with items already discussed in Table 4.9.

[9] Checklist item numbers reflect questions from the Adapted Competency Based Skills Assessment Tool as numbered with an *"a"* and questions from the Client Exit Interview as numbered with a *"c"*. Questions do no follow the sequence of the checklist, but rather the competency that is measured by the question.

4.4.2 Analysis of number of pap smears taken

The number of pap smears taken by PHC clinicians (who underwent SRH training), prior to their SRH training was compared to the number of pap smears taken by the same group after completion of their SRH training. The pap smear taking procedure, as well as the pap smear policy was part of the SRH curriculum, the number of pap smears taken after completion of SRH training could be utilised to determine if newly gained knowledge was indeed transferred to the workplace. This concept thus links again to Kirkpatrick's training evaluation model that states that Level 3 evaluation's aim is to assess if a training program's participants change their on-the-job performance as a result of their having attended and participated in a training program (Kirkpatrick, [n.d.]: Online).

Data was gathered from the DoH's District Health Information System (DHIS). PHC clinicians rendering PHC gather the data. The clinicians are led by a set of definitions for data elements guiding them as to when and how statistical data has to be compiled. The definition used as criteria for a pap smear reads as follows:

- *A pap smear done for women between 36 years for screening purposes according to the national policy of screening all women in this age category every 10 years. Diagnostic smears or repeat smears are not included, and the smear must be of sufficient quality to enable screening (e.g. include endo-cervical cells)* (DoH, 2003c).

In spite of the definition stating that only smears including endo-cervical cells should be recorded on the DHIS, the researcher found that not to be the case amongst the data collected from the trained SRH clinicians. All smears taken were recorded, irrespective of their quality status. This finding correlates with what the DoH found in a recent study in the Western Cape. The study showed that only 14% of all cervical smears counted actually fitted the

definition. The rest were wrong age groups, repeat smears or smears without endo-cervical cells (DoH, 2003c). The DoH has identified a numerator and denominator for each indicator description occurring as part of the DHIS. A yearly target has also been set as a percentage. Table 4.13 depicts the pap smear coverage in percentage for 2002 and 2004 for Bloemfontein. The percentage has been calculated by dividing the numerator by the denominator.

TABLE 4.13: Pap smear coverage in Bloemfontein for 2002 and 2004

INDICATOR DESCRIPTION: PAP SMEAR COVERAGE					
Numerator: pap smear 30-59 years		**Denominator: female target population 30-59 years**		**Percentage achieved (Target 15%)**	
2002	2004	2002	2004	2002	2004
589	849	56630	102614	1%	0,8%

The results in Table 4.13 clearly shows that although more smears were recorded as being taken during 2004, no real difference was made by the trained SRH clinicians in reaching the set target of 15%.

However, the validity of the findings have been influenced by the already mentioned misinterpretation of the definition of recording a pap smear by the PHC clinicians capturing the data. This could have influenced the number of smear being recorded negatively, as not all smears taken reflect the presence of endo-cervical cells. Due to the misinterpretation of the pap smear definition and the incorrect recording of pap smears as a result of this, it is not clear what is being measured. Data captured in Table 4.13 is therefore not reliable to determine whether the target of 15% pap smears per targeted female population was indeed reached or not.

The assumption must be made that the DoH has taken note of the fact that not all women attend a PHC clinic for pap smear investigations when they set the target of 15% of pap smears to be taken on a yearly basis at PHC clinics. In spite of all the mentioned facts that could have influenced the data reflecting the number of pap smears taken prior and after SRH training, it is clear that trained SRH PHC clinicians did not implement the pap smear policy after undergoing SRH training.

4.4.3 Analysis of nominal group discussion

This study mostly made use of quantitative research methods, with the nominal group technique being added as a qualitative research method during Level 3 assessment. The researcher/ master trainer was of the opinion that the SRH training did not influence the practice of PHC clinicians rendering SRH services dramatically. The researcher made this observation after SRH training was completed, when follow-up clinic visitation sessions were done. The question arose as to what the effect of the SRH training had on their SRH practice. The nominal group technique was used to address this question and to triangulate data gathered from techniques already discussed.

4.4.3.1 Operationalising of the nominal group

Permission to conduct the nominal group discussion was part of the initial permission granted by the Ethical Committee of the University of the Free State (Addendum H3). The nominal group discussion was conducted after permission was obtained from Mangaung Local Municipality to use their premises as well as to withdraw personnel during work hours to take part in the discussion. Each participant also gave written consent to partake in the discussion (Addendum G).

The population comprised of all the PHC clinicians who underwent SRH training (N=68), as well as the SRH supervisors (N=5) in the clinics these PHC clinicians render a SRH service. Purposive sampling was used to construct the nominal group discussion. All SRH supervisors were invited to take part in the nominal group discussion, but one supervisor was not available (n=4). A PHC clinician from a clinic of each of the SRH supervisors, rendering SRH services were also invited to take part in the nominal group discussion (n=5).

A highly credited researcher who had conducted several nominal group discussions facilitated the nominal group discussion. The nominal group was implemented in 3 phases, the introduction, the nominal group session itself and the closure of the session. The phases have been discussed in 3.6.9.5. The question put to participants of the nominal group discussion was:

> *"Write down any positive or negative perceptions you have about the effect SRH training had on your practice as primary health care clinician in sexual reproductive health".*

Participants were given the opportunity to generate ideas and to record positive perceptions on yellow papers and negative perceptions on blue papers. Through a round-robin exercise perceptions were clarified and positive and negative perceptions rated in order to identify their importance. The moderator asked each participant to read one of her positive perceptions. As it was read out the paper was attached to the flip chart. Duplicated perceptions were also attached to the flip chart. This procedure was continued around the table enough times for each participant to exhaust her list. The process was repeated with the participants' negative perceptions (ST7000, 2004: Online).

4.4.3.2 Discussion of research findings and literature control

The responses to the research question will be discussed according to:

- The positive perceptions identified by participants regarding the effect SRH training had on their practice as PHC clinicians in rendering SRH; and

- The negative perceptions identified by participants regarding the effect SRH training had on their practice as PHC clinicians in rendering SRH.

Literature findings will be shared in relation to the positive and negative perceptions of the participants concerning the question in discussion.

4.4.3.2.1 Positive perceptions identified by participants

The positive perceptions identified by participants about the effect SRH training had on their practice as PHC clinicians in SRH are listed in Table 4.14. The participants rated each positive perception. Participants were asked to rate the most important positive aspect as one and the least important positive aspect as five. The lower the total score, the more important the positive aspect was thus rated. The total score of each identified perception is also given with a description of how the score was compiled. The validated perceptions agreed upon after the Round-Robin listing is stated as well as the statements leading to the perception made by the participants.

TABLE 4.14: Positive perceptions identified by participants regarding the effect SRH training had on their practice as PHC clinicians rendering SRH

PRIORITY OF POSITIVE PERCEPTION	Total score / perception obtained	Positive perception	Participant statement
1	20 (3+2+4+4+1+ 3+1+1+1)	Quality service rendered.	• Treatment is given to person in totality; • Caregiver is made aware of ideal method to specific client; • Uniformity in SRH services reinforced; and • Continuation of client care possible
2	20 (3+1+2+2+2+ 3+3+2+2)	Better client assessment	• Can detect other illnesses after examination of client • Helps in identifying problems clients were unaware of e.g. breast lumps • Clients problems are easily identified • Underlying problems are detected • Client is attended to holistically
3	24 (3+1+3+2+5+ 3+1+1+5)	Skills development	• Beneficial to client who is attended to by a professional with updated information; • SRH training was a refresher course for staff trained long ago; • SRH refreshed personal knowledge and skills; • Self confidence in SRH field boosted, through new and reinforced information; and • Has brought forward new practices found by continuous research
4	35 (4+5+3+5+4+ 4+5 4+1)	Client/provider relationship	• Engagement between provider and client good; • Client no longer *"a number";* and • Gets to know client
5	36 (2+4+5+5+4+ 2+5 5+4)	Client information	• More information available to give to clients e.g. STI, contraceptive methods; • Knowledge enhanced by new information on SRH; • Client can make well informed choice; and • Client is also aware of self examination of breasts

In Table 4.14 participants identified that the quality SRH service rendered by SRH trained PHC clinicians bettered after completion of the SRH module. Participants also perceived that they were able to render better client assessment. This was rated as an equally important positive outcome after SRH training. Other positive perceptions identified by the participants were

that their skills were developed; their client-provider relationship bettered and they were in a position to render more information to SRH clients.

Improved quality service rendering after training, as was the perception of participants of the nominal group discussion, is not a new concept. It was found that when organizations properly train their employees the quality of their work greatly improves (RA training, [n.d.]: Online). Quality of care influence health outcomes through improved client satisfaction and contraceptive use behaviour (WHO, [n.d.]: Online; JHPIEGO, 2002:8).

Participants of the nominal group perceived their client assessment skills to have bettered after SRH training. Table 4.5 to Table 4.12 analysed data regarding the knowledge, attitude and skills displayed by trained and untrained SRH PHC clinicians. No baseline data (pre-SRH training) is available for the trained SRH PHC clinicians. The trained SRH PHC clinicians did perform significantly better in specific items related to knowledge, attitude and skills. One can thus agree that their perception of having bettered their skills after SRH training is true, since assessment is a process of passing judgement on individual competence. Competence again is the reaching of a satisfactory level of knowledge, attitude and skills (LGWSETA, 2002:7; IIME, 2004: Online). The extent to which their client assessment have bettered has to be seen in the light of analysed data in the above mentioned tables, highlighting important aspects in which transfer of knowledge did not take place.

Participants of the nominal group perceived their skills to have bettered after SRH training. A study conducted by Greco, Powell, Joliffe, Sweeney and Wyatt (2004:125) found that delegates who attended training perceived that the training had a positive impact on their skills. The skills were also sustained over time. Training also allows the department to enhance staff member skills to achieve departmental and organizational performance goals. It can also benefit employees by expanding their competencies and enabling them to grow professionally and personally (Spath, 2004: Online; Brown, 2001:

Online). Participants of the nominal group stated that their *"personal skills and self confidence"* was boosted after completion of the SRH training.

Nominal group participants perceived their relationship with SRH clients to have bettered after completion of their SRH training. The John Hopkins School of Public Health (1994: Online) found that family planning programs increasingly recognise the importance of training to empower staff members to improve their interpersonal skills. Client-provider interaction (counselling, information provision and duration of visit) has been consistently associated with contraceptive use and continuation across geographic settings and service environments (Patel cited in WHO, [n.d.]: Online).

Trained SRH PHC clinicians perceived themselves to be in a better position to give more information to clients after completion of their SRH training. The importance of client information can never be underestimated. Studies suggest that adolescents desire better education about contraception and sexuality (Amazigo cited in WHO, [n.d.]: Online) and may be more willing to receive information from providers than from parents, teachers or friends (Orinoye cited in WHO, [n.d.]: Online).

4.4.3.2.2 Negative perceptions identified by participants

In Table 4.15 the priority of importance of the perceived negative aspect, the score obtained through rating the aspect, the negative perception identified and the perceptions listed by participants will be depicted. As was the case with the positive perceptions, the same process was followed to identify and rate the negative perceptions. The lower the total score, the more important the negative aspect was rated.

TABLE 4.15: Negative perceptions identified by participants regarding the effect SRH training had on their practice as PHC clinicians in rendering SRH

PRIORITY OF NEGATIVE PERCEPTION	Total score / perception obtained	Negative perception	Participant statement
1	12 (1+1+2+1+1+ 1+1 2+2)	Staff shortage hampers implementation of SRH training	• Number of staff in comparison to number of patients/clients is an obstacle to implementation • It makes comprehensive PHC package more complex and it needs more staff with one PHC nurse specifically allocated for SRH • Shortage of staff to implement • We don't get to do all the examinations at once after the Enrolled Nurse did the history taking, due to other clients waiting to be helped • It needs a dedicated person • Circumstances difficult to implement in one man clinics, professional nurse ends by postponing the admission of new patients • Sometimes it is impossible to do all the clients as we're most of the time short staffed • Personnel away from clinic during SRH training aggravated personnel shortage, time away was to long
2	15 (2+2+1+2+2+ 2+2 1+1)	Time	• Takes a lot of time with a new client, as a result brings unhappiness to client for time spent in the clinic • Clients always in a hurry – don't want to wait • Most client become impatient due to long waiting • Other SRH clients are impatient during SRH intervention • Takes a lot of time especially when the clinic is busy • With examining the client we don't always have a fast queue • The service is no longer a *"fast lane"* as time spent with one client is +- 20 min, if there are many clients they wait like other clients of other services • Too much time spent on writing if admitting a new patient • It takes time in a new clinic • Time consuming • Staff not motivated enough to implement due to lack of time • Time spent on one client long • Only few clients are being attended to

The trained SRH PHC clinicians identified two negative perceptions hindering the implementation of knowledge and skills gained during the SRH training; a human resource need, as well as limited time to attend to clients. Studies conducted by Shaver and Lacey (2003:166) confirmed the perception that a staff shortage impacts negatively on service delivery. Registered nurses felt that if they are short staffed it interfered with their ability to meet patient care needs. This in turn leads to them being less satisfied with both their job and career. Client workload has a direct link with errors in the workplace. A study conducted in the United Kingdom in intensive care units indicated that the adjusted mortality in patients exposed to high intensive care unit workloads was 3.1 times that of those exposed to low workloads. Insufficient time for clinical procedures have been postulated as a causal factor (Jarman, 2000: Online). This finding links closely to the concern the nominal group participants raised, namely that insufficient time being spent with clients compromises rendering quality SRH care.

4.5 TRIANGULATION OF DATA

Triangulation of data refers to the use of two or more theories, methods, data sources, investigators, or analysis methods in a study (Burns & Grove, 2001:814). This study made use of several quantitative research methodology methods and the nominal group discussion as a qualitative research method. Triangulation of data can thus be done due to the availability of data obtained from different methods and data sources.

During the analysis of data, obtained from the various instruments used in the study, specific items emerged that identified the extent of transfer of knowledge that took place. The identified items were:

- Client information shared with SRH clients;
- History taking;
- STI identification;

- The client-provider relationship; and
- Skills gained-taking of pap smear.

Data triangulated regarding pre- and post-tests written, as well as the time spent with SRH clients after SRH training will be also be discussed.

During the nominal group discussions the perception was identified that client information shared with SRH clients were of a better quality after SRH training than prior to the training. PHC clinicians who underwent SRH training completed a reactionnaire, indicating that some of the most useful learning experiences were the gaining of new knowledge and their ability to link the newly gained information to the work situation. Data analysed from the Adapted Competency Based Skills Assessment Tool (Table 4.5 and Table 4.6), indicated knowledge related items where the trained SRH PHC clinicians performed significantly better than the untrained SRH PHC clinicians. However, the SRH trained PHC clinicians scored less than 50% on a number of crucially important knowledge related items, compromising the quality of SRH care rendered and providing proof of limited transfer of knowledge having taken place. Clients with whom exit interviews (Table 4.10) were held after their SRH consultation with the SRH PHC clinician, were nevertheless satisfied with the information received from the trained SRH PHC clinicians and rated the trained SRH PHC clinicians as rendering a statistically significant better service regarding the receiving of information.

During Level two assessments the SRH clinicians who underwent SRH training, scored an average of 94% when assessed with the Competency Based Skills Assessment Tool. The master trainer was of the opinion that availability of structured client records assisted the learners in achieving the high percentage. Data obtained from Table 4.5 reflected the items in which less than 50% were scored by the trained SRH PHC clinicians when the client's history was taken. The low score suggested that the structured client records were not used at all or not fully completed. Although the trained SRH

PHC clinicians performed well during SRH training (as was illustrated with the results of the Competency Based Skills Assessment Tool), the clinicians did not implement this knowledge fully in the workplace (as have been illustrated in Table 4.5).

Participants of the nominal group discussion perceived themselves to be able to detect other illnesses better after SRH training than before (Table 4.14). The identification of a client's STI risk assessment and treatment of such an infection has been part of the training and assessment (Competency Based Skills Assessment Tool) of the trained SRH PHC clinicians. Data analysed in Table 4.5, however, shows that this group of clinicians did not perform STI risk assessment and neither have they considered the history of previous vaginal discharges as important during history taking after completion of their SRH training. The trained SRH PHC clinicians did promote condoms as a protection method against STI's (Table 4.6). Although fieldworkers did not observe trained SRH PHC clinicians discussing STI's with their clients, the clients stated that they did receive STI information during the specific consultation (Table 4.7). This discrepancy could be due to courtesy bias. The identification of other illnesses, specifically STI's, was therefore limitedly implemented after SRH training.

Data analysed from Table 4.9 and Table 4.10 showed a statistical significant difference between the client-provider relationship reflected between the trained SRH PHC clinicians and their SRH clients and the untrained SRH PHC clinicians and their SRH clients. Several questions in the above mentioned tables identified the client-provider relationship between the trained SRH clinicians and their SRH clients, to be much healthier than that between the untrained SRH PHC clinicians and their clients. This therefore confirms the perception of the participants of the nominal group discussion that the client-provider relationship bettered after the PHC clinicians had undergone their SRH training.

Another positive perception by participants of the nominal group was that skills were developed during SRH training. Again this perception was also identified with data analysed from the reactionnaire (Table 4.2) completed by PHC clinicians who underwent the SRH training. The Competency Based Skills Assessment Tool's data confirmed that trained SRH PHC clinicians could implement their knowledge and skills at the end of the SRH training. A skill that was specifically evaluated was the taking of pap smears (Table 4.13). In spite of not making any real difference in reaching the set target of 15%, it was found that the trained SRH PHC clinicians did promote the taking of pap smears significantly more to SRH clients than did the untrained SRH clinicians (Table 4.8). The extent to which the transfer of this specific skill (taking of pap smears) took place was thus limited.

SRH PHC clinicians who underwent the SRH training identified the pre-and post-tests to be confusing (Table 4.2). The pre- and post-tests consisted of multiple-choice-questions. With the analysis of the multiple-choice-questions (Figure 4.2), it was found that 73% of the questions did not adhere to the set criteria for multiple-choice-questions. This explains the confusion learners experienced when completing the pre- and post-tests.

A negative perception identified by participants of the nominal group was that they had limited time to spend with SRH clients and that it took longer to assess and treat SRH clients, should the guidelines be followed received during SRH training (Table 4.15). Data obtained from the Adapted Competency Based Skills Assessment Tool measured the time the trained SRH PHC clinicians spent with SRH clients and compared it to the time PHC clinicians who have not underwent SRH training spent with SRH clients. A statistically significant 95% confidence interval for median difference [1%; 6%] was found. The perception of the nominal group participants was thus correct in that trained SRH PHC clinicians spend longer time with SRH clients.

4.6 SUMMARY

Data analysed followed Kirkpatrick's four level Model for training evaluation. The discussion of the analysed data was done per objective, following Level 1 to Level 3 (Table 4.1). Level 1 evaluated participant reaction and the reaction was measured through a reactionnaire. Participant learning was evaluated during Level 2. Data analysed from Level 2 consisted of the results of pre- and post-tests written, as well as an analysis of multiple-choice questions used in the pre- and post-tests. The competency of PHC clinicians undergoing SRH training was evaluated by analysing the data obtained from the Competency Based Skills Assessment Tool. According to Kirkpatrick's training evaluation model, Level 3 evaluation's aim is to assess if a training program's participants change their on-the-job performance as a result of their having attended and participated in a training program (Kirkpatrick, [n.d.]: Online). Transfer of knowledge was assessed by analysing data obtained from the Adapted Competency Based Skills Assessment Tool, Client Exit Interviews, Number of pap smears taken before and after SRH training and perceptions identified by a nominal group discussion concerning the effect SRH training had on their practice as SRH clinicians.

Data analysed from all three levels was triangulated in order to identify the extent of transfer of knowledge that took place, with specific items emerging identifying the extent of transfer of knowledge. Items that gave an indication of the extent of transfer of knowledge after SRH training were client information shared with SRH clients, history taking of SRH clients, STI identification and treatment, client-provider relationship and the implementation of skills, specifically the taking of pap smears. Triangulated data indicated that limited transfer of knowledge took place to the work environment, after completion of SRH training.

CHAPTER 5

Recommendations

5.1 INTRODUCTION

The problem this study aimed to address was the lack of evaluation of SRH training in Mangaung Local Municipality in order to identify whether transfer of learning took place.

A caution to be taken note of is that it is imperative to make certain that one is dealing with a performance issue that can be *"fixed"* by training. Once one has invested in training, one must then ensure that learners are supported on-the-job by their organizations, their work environment, their supervisors and co-workers (JHPIEGO, 2002:4). The trained SRH PHC clinicians received limited support after training. Training is often necessary but usually not sufficient activity to ensure results (Herns series, 1996: Online). The DoH, RHRU and the WHO undertook a needs assessment of reproductive health services in South Africa in 1994. A SRH training need for PHC clinicians was identified (Foy *et al.*, 2001:4). The SRH module was however only made available as an answer to this need analysis in 2001. Since 1994 a new health dispensation was implemented in SA, with free comprehensive primary health care services instituted in all primary health care clinics. The possible impact of the comprehensive primary health care services rendered at PHC clinics, on the rendering of SRH services (being part of the comprehensive service rendered at primary health care level), need to be researched. The almost decade that lapsed between the identification of the SRH training need

amongst PHC clinicians and the SRH training of these clinicians could possibly also have allowed other factors to influence the SRH needs of PHC clinicians.

The purpose of evaluating training is to determine which aspects of the training were effective and which not; provide information to management to assist in designing future training; document the effectiveness of training to stakeholders and to justify budgets for training (Garrison, 2003:16). Recommendations for changes in the training content, delivery and staff participation will be better received if they are based on evaluation results (Spath, 2004: Online). Recommendations for this study will be done according to the data analysed from the various research techniques, following Kirkpatrick's model for training evaluation.

5.2 LEVEL 1

Reactionnaires were utilised to measure the reaction of PHC clinicians towards the content of the SRH course, relevance of the content presented, the mode of presentation and the most and least useful learning experiences. Lee and Pershing (2002:175) identified five design criteria, each consisting of several sub-criteria, judged important in the design of reactionnaires. The criteria include:

- Introduction and directions;
- Question format;
- Question construction;
- Questionnaire layout; and
- Data analysis.

The reactionnaire in this study did not consist of the mentioned dimensions. No introduction or directions were given to learners stating the purpose of the reaction evaluation, including an appeal for co-operation, confidentiality procedures to be followed or procedure to be followed for reporting evaluation findings. The problem experienced with the question format and

question construction has already been highlighted. The professional appearance of the reactionnaire was also compromised by the layout of the document. No guidelines for analysing data were available (Lee and Pershing, 2002:175). Taking the above-mentioned deficiencies into consideration the credibility of the reactionnaire could be enhanced if the following adjustments are made:

- By adapting the lay-out of the questionnaire the document would have a more professional appearance;

- An introductory statement is needed, stating the purpose of the reactionnaire as well as an appeal to the learner to complete the instrument;

- Guidelines/procedures are needed addressing the confidential management of data, the way to go about in analysing the data and how to report research findings; and

- The format of the questions should also be adapted. Instead of single words that learners have to respond to, a clear statement is needed. Learners should be given the opportunity to comment on the relevance of training objectives and the relevancy of the content to their jobs.

5.3 LEVEL 2

The researcher had the perception that transfer of learning might have been hampered due to poor or incorrect assessment techniques used during SRH training. Assessment techniques used during Level 2 evaluation consisted of multiple-choice-questions used in the pre and post-tests and a checklist (Competency Based Skills Assessment Tool).

5.3.1 Pre- and post-tests

The multiple-choice-questions used in the pre- and post-tests were used exclusively to assess knowledge primary health care clinicians displayed during SRH training. With the analysis of the multiple-choice-questions it was found that 75% of the questions did not adhere to criteria set in literature for such questions. Questions were also not set according to Bloom's Taxonomy requiring thinking skills on different levels from learners (CSc 3315, [n.d.]: Online). The questionable validity of the instrument does have a negative impact on the SRH training programme in South Africa. The importance of basing findings on the questionable data obtained from the multiple-choice-questions in the SRH training should therefore be explored. SRH trainers cannot rely on results obtained from the multiple-choice-questions used in pre-and post-tests to describe knowledge displayed by primary health care clinicians during SRH training. Taking the limited credibility of the pre- and post-tests into consideration, it would be presumptuous to claim that primary health care clinicians' knowledge displayed during SRH training bettered. The importance of this claim needs to be considered. The following recommendations could be of assistance in re-evaluating the pre- and post-tests, expanding the use of the results obtained from these tests:

- The multiple-choice questions should be restructured according to criteria identified in literature (discussed in 2.5.3.1.1) and questions should be set according to Bloom's Taxonomy;

- The writing of 12 pre-tests seems to be unnecessary. The majority of the information in the SRH module contained new information. According to Kirkpatrick pre-testing need not be done in the case of new information (Kirkpatrick, 1998:47). The number of pre-test written could therefore be reduced;

- The possibility of learners' performance being influenced by the short time interval (1 week), between the writing of the pre- and post-tests should be further researched; and

- The use of other techniques to evaluate the knowledge of learners should be further explored, so as not to rely fully on multiple-choice-questions to reflect knowledge gained during SRH training.

5.3.2 Competency based skills assessment tool

Part of establishing a monitoring and evaluation strategy a tool (e.g. a skills checklist) should be developed to monitor and evaluate performance on-the-job after training (JHPIEGO, 2003:11). The Competency Based Skills Assessment Tool was developed to assist in the evaluation of learners' performance at the end of their SRH training. Learners were informed about when, where and how skill evaluations would be conducted. Learners also had copies of the performance checklists and knew how well they had to perform the skills to demonstrate achievement of the learning objectives (JHPIEGO, 2003:34). One could state that the Competency Based Skills Assessment Tool assessed the competency of learners who completed the SRH training course. The researcher recommends that structured SRH records within the clinical facility should be created or be made available, as it seemed to have influenced the transfer of knowledge, skills and attitude positively.

5.4 LEVEL 3

According to Kirkpatrick's training evaluation model, level 3 evaluation's aim is to assess if a training program's participants change their on-the-job performance as a result of their having attended and participated in a training program (Kirkpatrick, [n.d.]: Online). The Adapted Competency Based Skills Assessment Tool and Client Exit Interview were used to compare the

competence of SRH trained PHC clinicians with PHC clinicians who have not underwent SRH training. The number of pap smears taken prior to SRH training by the trained SRH PHC clinicians was compared to the number of pap smears taken after completion of SRH training by the same group. Results obtained from a nominal group discussion were analysed, describing the perceptions of supervisors and PHC clinicians of the effect SRH training had on SRH services.

5.4.1 Adapted competency based skills assessment tool and client exit interview

The Adapted Competency Based Skills Assessment Tool and Client Exit Interview were successfully used to compare the competence of SRH trained PHC clinicians with PHC clinicians who have not underwent SRH training. These instruments could be utilised to evaluate whether transfer of learning took place. Further recommendations regarding the utilisation of data of these two mentioned tools are that:

- Before or simultaneously with utilising the data obtained from the Adapted Competency Based Skills Assessment Tool and Client Exit Interview a structured follow-up support program should be implemented to assist learners as they implement newly learned skills. Udell (2000: Online) states that when the intent of training is implementation of new knowledge and skills, specific plans for providing follow-up support to the learners must be woven into the training, not tacked as an afterthought. The support program could entail:

    - Promoting that learners complete an action plan based on what they have learned during training and what they intend to implement on their return to work. This action plan should not only include a description of the action intended but comments

on how they intend to implement it, a time scale for starting and completing it and resources required. This would assist learners to consolidate their thoughts. The learners should also be encouraged to show and discuss their action plans with their line managers on return to work. The onus for implementation should not rest entirely on the learner. The support of the supervisor is essential (Rae, [n.d.]: Online; Clemmer, [n.d.]: Online);

- Training follow-up activities should take place soon after training. Learners' performance should be supported by using checklists (e.g. Adapted Competency Based Skills Assessment Tool and Client Exit Interview), modelling new skills, coaching and providing feedback, monitoring and supporting learners' action plans and identifying other performance support issues (JHPIEGO, 2003:14);

- The supervisors' skills in supporting learners' performance on-the-job need to be kept updated (JHPIEGO, 2003:14). While supervisors may not be proficient in all the clinical services provided by health workers they supervise, being involved in the transfer of learning process could help them stay up-to-date (JHPIEGO, 2002:8).

5.4.2 Data obtained from number of pap smears taken

Data obtained aimed to establish whether trained SRH PHC clinicians transferred their knowledge and skills regarding the taking of pap smears to the work environment after SRH training was not usable. The reasons being that PHC clinicians who captured the data misunderstood the definition/criteria stipulated by the HISP and an unsatisfactorily coverage of SRH data was found amongst the trained and untrained SRH clinicians

(trained SRH clinicians captured 89% of SRH data and untrained SRH clinicians only 50% of SRH data). In spite of the mentioned facts that could have influenced the data reflecting the number of pap smears taken prior and after SRH training, trained SRH PHC clinicians did not implement the pap smear policy after undergoing SRH training. Recommendations that could strengthen the problem areas detected are to:

- Arrange follow-up training sessions with SRH PHC clinicians enlightening them of the correct interpretation of the definition/criteria of pap smears according to the HISP;

- Establish reasons as to the low statistical coverage provided by SRH PHC clinicians, as this could also influence the capturing of other data elements;

- Research the reasons why trained SRH PHC clinicians did not implement the pap smear policy after SRH training, since the trained SRH clinicians did promote the taking of pap smears more aggressively than the untrained SRH clinicians, but did not take more smears after training

5.4.3 Nominal group

During the nominal group discussion participants identified five positive perceptions they felt the SRH training had on their practice as PHC clinician rendering SRH care. The positive aspects identified were that quality SRH care was rendered, a better and more thorough client assessment was done, their skills developed, their relationship with their clients bettered and they were in a position to render more information to clients. In order to strengthen these positive aspects identified by the participants the following recommendations are made:

- A strong support system (as discussed in 5.4.1) is needed to assist PHC clinicians to stay motivated and focused on their positive perceptions of the effect of SRH training;

- At present no standardised *"refresher"* training is available. The trained SRH clinicians indicated their need to be updated on SRH related issues. This could be done as part of lectures during an in-service-training program as well as a more structured presentation highlighting essential elements covered during the SRH module; and

- A SRH training course for assistant and enrolled nurses, taking the scope of practice into consideration, is also needed.

Nominal group participants were able to group all their negative perceptions regarding the effect SRH training had on them as practicing SRH clinicians into two aspects. Participants felt that a staff shortage hampered them in implementing their newly gained SRH knowledge. Due to the staff shortage they secondly perceived a lack of sufficient time to spend with clients as an obstacle to implementation. Recommendations as to address the identified negative perceptions of nominal group participants are:

- Research has to be undertaken to establish whether staff shortage is a real or perceived problem. As mentioned in 5.1 the impact of the new health dispensation on SRH services (and for that matter on other PHC services as well), should be further researched;

- The DoH, SANC and the RHRU should be enlightened on the outcome of this study in order to take staff shortage and time limitations in PHC clinics into consideration so as to have realistic expectations as to the level of transfer of knowledge to the workplace would and could take place

There are many complex factors that influence transferability back to the job. These factors may include the manager, the culture, the environment, peer pressure and the infrastructure's readiness to accommodate change. Many studies have shown that incentives to performance may be wiped out when the environment does not reward or reinforce what was learned during training (McKay, [n.d.]: Online). With the attempt to evaluate the SRH module implemented by the DoH, it was found that a training module cannot stand on its own and that many factors influence transferability of knowledge and skills. A number of possible further research studies have been identified from this study. As Matthew Perry from the New Zealand Herald puts it:

> "*While this door is closing, another door is opening. It's our job to go and find that door"*

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ADDENDUM A

Competency Based Skills Assessment Tool

SRH CLINICAL PRACTICE EVALUATION TOOL

SRH Course Module 1: Framework for the Provision of SRH Services

Date: *Facility:*
Name of proviser assessed:

Competency scale:	*Tick the appropriate column*
Satisfactory	S
Unsatisfactory	US
Not applicable	N/A

		S	US	N/A	Comments
1.	**ESTABLISHING RAPPORT : Does the provider:**				
1.1	Greet the client and introduce herself/himself				
1.2	Ensure privacy				
1.3	*treat the client with dignity and respect				
2.	**CLIENT-PROVIDER INTERACTION: Does the provider:**				
2.1	*Have an overall non-judgemental, accepting and empathetic approach towards the client?				
2.2	Use positive body language?				
2.3	Use appropriate active listening techniques?				
2.4	Use simple, non-technical language with the client?				
2.5	*Cover difficult areas (e.g. sexual history) with due sensitivity?				
2.6	*Without bias, give information on available management choices and assist the client to make an informed choice regarding his/her care.				
2.7	Encourage the client to express his/her concerns and ask questions.				
3.	**HISTORY-TAKING: Does the provider take an appropriate history which includes:**				
3.1	Personal details (age, marital status)				
3.2	Presenting complain(s)				
3.3	Past medical and surgical problems				
3.4	O & G history (pregnancies, children, TOP's etc.)				
3.5	Menstrual history				
3.6	Contraceptive history				
3.7	Sexual history				
3.8	Risk assessment				
3.9	Social history (home situation, smoking, alcohol, drugs)				
3.10	Family medical history				
3.11	Review of systems				
3.12	Regular medication and allergies				

4*	**EXAMINATION: Does the provider examine the client appropriately which includes:**				
4.1	Explaining the procedure to the client.				
4.2	Preparation of necessary equipment for examinations/ procedures before starting.				
4.3	Performing examinations according to case management guidelines/protocols.				
4.4	Performing all relevant examinations required for the presenting complaint.				
4.5	Carrying out investigations according to case management guidelines.				
4.5	Record information fully and appropriately.				
4.6	Complete data collection forms				
4.7	Inform client about outcome of examination				
4.8	*Adhere to proper infection control protocols/guidelines?				
5.	**DIAGNOSIS AND MANAGEMENT**				
5.1	**Does the provider make a correct diagnosis?**				
5.2	**Does the provider manage in line with appropriate service delivery guidelines/protocols in terms of:**				
5.2.1	*Working within the established professional practice, ethical and legal framework.				
5.2.2	Applying an appropriate gender and cultural knowledge, skills and attitudes.				
5.2.3	Giving correct/relevant information for the identified problem(s).				
5.2.4	Validating that the client understands information given.				
5.2.5	Prescribing the correct and specific treatment.				
5.2.6	Explaining about prescribed medicines (e.g. why, how, including possible side effects and compliance).				
5.2.7	Giving health education on risk reduction and other relevant issues.				
5.2.8	Using the opportunity to address the client's other SRH needs (e.g. for dual protection)				
5.2.9	Referring correctly, if necessary.				

Critical factors: If the provider's performance is unsatisfactory he/she fails.

TOTAL SATISFACTORY MARKS SCORED	
1. Number of N/A	
2. TOTAL POSSIBLE MARKS Female: (43 – No. of N/A); Male (41 – No. of N/A)	
PERCENTAGE (Total satisfactory marks/total possible marks x 100)	

Evaluator
Name: _____
Designation: _____
Signature: _____
Date: _____

Provider
Name: _____

Signature: _____
Date: _____

ADDENDUM A1

Guidelines for SRH Clinical Practice Evaluation Tool

GUIDELINES FOR SRH CLINICAL PRACTICE EVALUATION TOOL

SRH Course Module I: Framework for the Provision of SRH Services

Purpose of the tool

The SRH Clinical Practice Evaluation Tool has been designed to assess whether participants who have completed the theoretical component of Module I of the SRH Course satisfactorily translate the principles covered into practice when consulting with SRH clients. The tool integrates the following aspects of provision of SRH services that are relevant in a consultation setting:

- Sexual and reproductive health rights and clients' rights
- Professional practice, ethical and legal framework
- Gender
- Organisation and management
- Client-provider interaction
- Client assessment.

Using the tool

Time: 20 minutes

- For each item of the tool tick whether the provider's performance was satisfactory or unsatisfactory.
- If the item is not applicable for a particular consultation (e.g. menstrual history for a male client), mark N/A in the appropriate column, make a note under comments and deduct mark allocation from the total marks.
- Entries in the comments column can be made for items not done or where the provider has showed excellence.
- Pass mark: 60% is required for the provider to successfully complete her/his evaluation. If a student does not satisfactorily perform against a critical factor she/he fails.
- To pass the clinical practice componen of Module I of the SRH Course participants are required to have completed and passed five consultations with SRH clients (preferably first visits).

Notes for evaluators on some of the items in the tool

Item:

1.1 Provider uses creative ways to ensure privacy if a separate consultation room is unavailable (e.g. use of screens and sitting close enough to the client to avoid being overheard by others.)

Section 3 & 4: Details of questions and complete examination checklist can be found in Unit 6 of the Participant's Manual for Module I.

2.2 Positive body language or nonverbal cues include, in accordance with the mnemonic **SOLER**:
S....sit squarely
O...open posture
L....lean forward slightly
E...eye contact
R...relax.
These of course need to be modified according with cultural norms.

2.3 Provider uses the following active listening techniques as appropriate during the counselling process: paraphrasing, clarification, open-ended questions, reflecting, summarising. The purpose of this is to establish a helping relationship whereby the client can express her/his thoughts and feelings in such a way as to clarify her/his own situation, come to terms with some new experience, see her/his difficulty more objectively, and so face her/his problem with less anxiety and tension. In other words the provider helps the client to gain insight towards making an informed decision from the choices available to her/him.

4.2.1: Provider ensures that the service she/he provides is in line with professional practice, ethical code of conduct and the law. This is particularly relevant for services such as the provision of termination of pregnancy and contraception. (See Unit 2 of the Participant's Manual for Module I.)

4.2.2 Provider's approach and management takes cognisance of relevant gender and socio cultural aspects for that client. Thus for example, proposed choices and interventions should be in line of what is acceptable and possible for the client to achieve given their gender and socio-cultural setting.

4.2.7 Provider takes full advantage of the client's focused attention to provide health education in order to promote healthier SRH behaviour, particularly safer sexual practices. Education involves not only providing the client with practical facts about their condition but also helping her/him understand how they can prevent the condition in the future and/or improve their SRH.

4.2.8 Provider should offer comprehensive SRH care, and at the very least discuss safer sexual practices whenever appropriate.

6.1 Provider adheres to proper infection control protocols (see Unit 4) including: hand washing, use of gloves, safe injection and other work practices, decontamination of reusable items and proper disposal of medical waste.

ADDENDUM B1

Adapted Competency Based Skills Assessment Tool

Adapted Competency Based Skills Assessment Tool

Mark the appropriate block with a X or write your answer on the space provided.

For Office Use: [ ][ ][ ] 1-3

Time interview started: _____ [ ][ ] : [ ][ ] 4-8
H H M M

1. A: TYPE OF FACILITY

	Community health centre	1	[ ] 9
	Primary Health Care Clinic	2	

2. B: ESTABLISHING RAPPORT

Does the provider:

2.1	Greet the client in a friendly manner	Yes 1	No 2		[ ]	10
2.2	Introduce herself/himself	Yes 1	No 2		[ ]	11
2.3	Staff member wears a name tag	Yes 1	No 2		[ ]	12
2.4	Ensure privacy	Yes 1	No 2		[ ]	13
2.5	Encourage client to ask questions	Yes 1	No 2		[ ]	14
2.6	Listen to the client	Yes 1	No 2		[ ]	15
2.7	Use non-technical language	Yes 1	No 2		[ ]	16
2.8	Determine main reason for visit:					
2.8.1.	Contraception 1st visit	1			[ ]	17
2.8.2.	Contraception Follow-up visit	2			[ ]	18
2.8.3.	STI treatment	3			[ ]	19
2.8.4.	Pregnancy testing	4				
2.8.5.	Yearly visit	5				
2.8.6.	Pap smear	6				
2.8.7.	Emergency contraception	7				
2.9	Explain reasons for asking personal questions and taking a sexual history	Yes 1	No 2		[ ]	20

3. **C: HISTORY TAKING: FIRST VISIT**

Does the provider take an appropriate history which includes?:

Personal Details

3.1	Age	Yes 1	No 2	Not Applicable 3	[ ]	21
3.2	Marital status / stable relationship	Yes 1	No 2	Not Applicable 3	[ ]	22

Contraceptive History

3.3	Used contraception before	Yes 1	No 2	Not Applicable 3	[ ]	23
3.4	Last method used	Yes 1	No 2	Not Applicable 3	[ ]	24
3.5	Side effects experienced	Yes 1	No 2	Not Applicable 3	[ ]	25
3.6	If side effects - name	Yes 1	No 2	Not Applicable 3	[ ]	26
3.7	Reason for stopping contraception	Yes 1	No 2	Not Applicable 3	[ ]	27

Obstetric & Gyneacological History

3.8	Gravida	Yes 1	No 2	Not Applicable 3	[ ]	28
3.9	Para	Yes 1	No 2	Not Applicable 3	[ ]	29
3.10	Last pregnancy date	Yes 1	No 2	Not Applicable 3	[ ]	30
3.11	Breast feeding currently	Yes 1	No 2	Not Applicable 3	[ ]	31
3.12	Any problems during pregnancy, labour or after childbirth	Yes 1	No 2	Not Applicable 3	[ ]	32
3.13	Have you ever had a pregnancy outside the womb?	Yes 1	No 2	Not Applicable 3	[ ]	33

Menstrual History

3.14	Are your periods regular	Yes 1	No 2	Not Applicable 3	[ ]	34
3.15	Are your periods painful	Yes 1	No 2	Not Applicable 3	[ ]	35
3.16	How many days do you bleed	Yes 1	No 2	Not Applicable 3	[ ]	36

3.17	How many times /day do you change your pad	Yes	1	No	2	Not Applicable	3			37
3.18	Date of last menstrual period	Yes	1	No	2	Not Applicable	3			38
3.19	Any abnormal genital bleeding (i.e. bleeding between periods / after sexual intercourse?)	Yes	1	No	2	Not Applicable	3			39
3.20	An abnormal vaginal discharge?	Yes	1	No	2	Not Applicable	3			40
3.21	Pain during intercourse	Yes	1	No	2	Not Applicable	3			41
	Basic Medical History									
3.22	Any serious illnesses or operations	Yes	1	No	2	Not Applicable	3			42
3.23	Suffer from any diseases (Diabetes Mellitus, anaemia, hypertension, TB, epilepsy?)	Yes	1	No	2	Not Applicable	3			43
	Regular Medication and Allergies									
3.24	Taking any medication at the moment?	Yes	1	No	2	Not Applicable	3			44
3.25	Allergy to any medicines or anything else	Yes	1	No	2	Not Applicable	3			45
	Social History									
3.26	How many cigarettes do you smoke a day	Yes	1	No	2	Not Applicable	3			46
	Family Medical History									
3.27	Family history of any serious illnesses? *Heart attack, stroke, hypertension, DM, breast cancer.*	Yes	1	No	2	Not Applicable	3			47
	Risk Assessment for Exposure to STI / HIV									
3.28	Do you have any concerns about STI's or HIV/AIDS	Yes	1	No	2	Not Applicable	3			48
3.29	Do you think that you could be at risk of becoming infected with an STI or HIV	Yes	1	No	2	Not Applicable	3			49
3.30	What do you do to protect yourself against STIs and HIV	Yes	1	No	2	Not Applicable	3			50
3.31	Have you ever used condoms	Yes	1	No	2	Not Applicable	3			51
3.32	Have you had an STI in the last 6 months	Yes	1	No	2	Not Applicable	3			52
3.33	Has your partner had an STI in the last 6 months	Yes	1	No	2	Not Applicable	3			53
3.34	Do you have any concerns about your regular partners sexual behaviour	Yes	1	No	2	Not Applicable	3			54
3.35	Do you have a new partner	Yes	1	No	2	Not Applicable	3			55
3.36	How many partners have you had in the last six months	Yes	1	No	2	Not Applicable	3			56
3.37	Have you lived apart from your regular partner in recent times	Yes	1	No	2	Not Applicable	3			57
3.38	Have you had sex with a non-regular partner in the past year	Yes	1	No	2	Not Applicable	3			58
4	**D: EXAMINATION: FIRST VISIT OR YEARLY EXAMINATION** *Does the provider examine the client appropriately which includes:*									
4.1	Explain the procedure to the client	Yes	1	No	2	Not Applicable	3			59
4.2	Wash hands before the examination	Yes	1	No	2	Not Applicable	3			60
4.3	Ensure that bed is clean (sprayed or linen changed)	Yes	1	No	2	Not Applicable	3			61
4.4	Prepare necessary <u>equipment</u> for examinations/procedures before starting	Yes	1	No	2	Not Applicable	3			62
4.5	Weigh patient	Yes	1	No	2	Not Applicable	3			63
4.6	Take vital signs: blood pressure	Yes	1	No	2	Not Applicable	3			64
4.7	Pulse	Yes	1	No	2	Not Applicable	3			65
4.8	Full physical examination:									
4.8.1.	Hair	Yes	1	No	2	Not Applicable	3			66
4.8.2.	Eyes	Yes	1	No	2	Not Applicable	3			67

4.8.3.	Face	Yes 1	No 2	Not Applicable 3		68
4.8.4.	Tongue	Yes 1	No 2	Not Applicable 3		69
4.8.5.	Skin	Yes 1	No 2	Not Applicable 3		70
4.8.6.	Ears	Yes 1	No 2	Not Applicable 3		71
4.8.7.	Extremities	Yes 1	No 2	Not Applicable 3		72
4.8.8.	Heart	Yes 1	No 2	Not Applicable 3		73
4.8.9.	Lungs	Yes 1	No 2	Not Applicable 3		74
4.8.10.	Breast	Yes 1	No 2	Not Applicable 3		75
4.8.11.	Abdomen	Yes 1	No 2	Not Applicable 3		76
4.8.12.	Pelvic / external genitals (males)	Yes 1	No 2	Not Applicable 3		77
4.8.13.	Pap smear according to protocol	Yes 1	No 2	Not Applicable 3		78
5	**E: HISTORY FOLLOW-UP**					
5.1	Method currently using:					
5.1.1.	Oral contraceptives	1				79-80
5.1.2.	Condoms	2				1-2
5.1.3.	IUD	3				
5.1.4.	Spermicidal	4				
5.1.5.	Diaphragm	5				
5.1.6.	Injectable	6				
5.1.7.	Natural method	7				
5.1.8.	Lactational amenorrhoea	8				
5.1.9.	Voluntarily surgical sterilization	9				
5.1.10.	Emergency contraception	10				
5.1.11.	Abstinence	11				
5.2	Medical problems encountered are recorded	Yes 1	No 2	Not Applicable 3		3
5.3	**Risk Assessment for Exposure to STI / HIV**					
5.3.1	Do you have any concerns about STI's or HIV/AIDS	Yes 1	No 2	Not Applicable 3		4
5.3.2	Do you think that you could be at risk of becoming infected with an STI or HIV	Yes 1	No 2	Not Applicable 3		5
5.3.3	What do you do to protect yourself against STIs and HIV	Yes 1	No 2	Not Applicable 3		6
5.3.4	Have you ever used condoms	Yes 1	No 2	Not Applicable 3		7
5.3.5	Have you had an STI in the last 6 months	Yes 1	No 2	Not Applicable 3		8
5.3.6	Has your partner had an STI in the last 6 months	Yes 1	No 2	Not Applicable 3		9
5.3.7	Do you have any concerns about your regular partners sexual behaviour	Yes 1	No 2	Not Applicable 3		10
5.3.8	Do you have a new partner	Yes 1	No 2	Not Applicable 3		11
5.3.9	How many partners have you had in the last six months	Yes 1	No 2	Not Applicable 3		12
5.3.10	Have you lived apart from your regular partner in recent times	Yes 1	No 2	Not Applicable 3		13
5.3.11	Have you had sex with a non-regular partner in the past year	Yes 1	No 2	Not Applicable 3		14
6	**F: PHYSICAL ASSESSMENT FOLLOW-UP**					
6,1	BP taken	Yes 1	No 2	Not Applicable 3		15
6,2	BP recorded	Yes 1	No 2	Not Applicable 3		16
7	**G: DIAGNOSIS AND MANAGEMENT**					
7.1	*Record information fully and appropriately on:*					
7.1.1.	Client card in clinic	Yes 1	No 2			17
7.1.2.	Client's appointment card	Yes 1	No 2			18
7.1.3.	Papsmear records	Yes 1	No 2			19
7.1.4.	HISP/ data capture sheet	Yes 1	No 2			20
7.2	Inform client about outcome of examination	Yes 1	No 2			21

7.3	Does the provider use the WHO medical eligibility criteria?	Yes 1	No 2	Not Applicable 3			22
7.4	Did the client receive the preferred contraceptive method?	Yes 1	No 2	Not Applicable 3			23
7.5	Working within the established legal framework	Yes 1	No 2	Not Applicable 3			24
7.6	Giving correct/relevant information on the following topics: (Tick all that applies)						
7.6.1	Importance of return date	Yes 1	No 2	Not Applicable 3			25
7.6.2	Factors influencing efficiency of method	Yes 1	No 2	Not Applicable 3			26
7.6.3	Possible side effect of method	Yes 1	No 2	Not Applicable 3			27
7.6.4	Return of fertility after discontinuance of method	Yes 1	No 2	Not Applicable 3			28
7.6.5	Breast self examination	Yes 1	No 2	Not Applicable 3			29
7.6.6	Pap smear	Yes 1	No 2	Not Applicable 3			30
7.6.7	Emergency contraception	Yes 1	No 2	Not Applicable 3			31
7.6.8	Dual protection	Yes 1	No 2	Not Applicable 3			32
7.6.9	What to do if problems arise	Yes 1	No 2	Not Applicable 3			33
7.6.10	Drug interaction	Yes 1	No 2	Not Applicable 3			34
7.6.11	Missed pills	Yes 1	No 2	Not Applicable 3			35
7.8	Which IEC materials were used during the visit? (Tick all that applies)						
7.8.1	Flipchart	1					36
7.8.2	Brochure / handouts	2					37
7.8.3	Contraceptive samples	3					38
7.8.4	Posters	4					39
7.8.5	Anatomical models	5					40
7.8.6	None	6					41
7.8.7	Other (specify_____)	7					42
7.9	IEC materials visible in room, but not used :						
7.9.1	Flipchart	1					43
7.9.2	Brochure / handouts	2					44
7.9.3	Contraceptive samples	3					45
7.9.4	Posters	4					46
7.9.5	Anatomical models	5					47
7.9.6	None	6					48
7.9.7	Other (specify_____)	7					49
7.10	Did the provider mention explicitly that condoms protect against HIV and STI?	Yes 1	No 2	Not Applicable 3			50
7.11	Validating that the client understands information given	Yes 1	No 2	Not Applicable 3			51
7.12	Was the client asked what contraceptive method is preferred?	Yes 1	No 2	Not Applicable 3			52
7.13	Did the provider give a medical reason or other explanation for why a particular contraceptive method was not suitable?	Yes 1	No 2	Not Applicable 3			53
7.14	Giving health education on risk reduction and other relevant issues	Yes 1	No 2	Not Applicable 3			54
7.15	If risk assessment was done, what did the provider do regarding risky behaviour?						
7.15.1.	Requested laboratory tests	Yes 1	No 2	Not Applicable 3			55
7.15.2.	Treated STI	Yes 1	No 2	Not Applicable 3			56
7.15.3.	Referred elsewhere	Yes 1	No 2	Not Applicable 3			57
7.15.4.	Provided counselling	Yes 1	No 2	Not Applicable 3			58
7.15.5.	Other specify_____	Yes 1	No 2	Not Applicable 3			59
7.16	Referring correctly, if necessary	Yes 1	No 2	Not Applicable 3			60
7.17	Was the return date given accurate according to the contraceptive method	Yes 1	No 2	Not Applicable 3			61
7.18	Was the client told where to go for re-supply or follow-up?	Yes 1	No 2	Not Applicable 3			62

Time interview ended: _____

		:			63-67
H	H		M	M	

ADDENDUM B2

Guideline: Completion of Adapted Competency Based Skills Assessment Tool

GUIDELINE: COMPLETION OF ADAPTED COMPETENCY BASED SKILLS ASSESSMENT TOOL

Below in boldface type are the questions found in the Adapted Competency based Skills Assessment Tool. Instructions for the person completing the tool follow after each question. Before completion of the tool be sure to thoroughly familiarise yourself with this question-by-question guide, so that you understand what each question is asking.

1 Type of facility:
The type of facility refers to the services offered.

Does the provider:

2.1 Greet the client in a friendly manner
See if providers act approachable and friendly towards client

2.2 Introduce herself/himself
See if provider introduces herself to client

2.3 Staff member wears a nametag
See if provider is identifiable with a nametag

2.4 Ensure privacy
Determine if other clients or staff can hear or see client

2.5 Encourage client to ask questions
See if provider gives client many opportunities to ask questions. A provider may discourage a client to ask questions by not providing an opening for her to speak in the conversation

2.6 Listen to client
See if providers provides an opportunity for the client to speak and does the provider respond attentively to what was said

2.7 Use non-technical language
See if provider can make use of lay terminology if needed

2.8 Determine main reason for visit
See if provider established reason for visit e.g. contraception, STI, pregnancy testing, yearly examination, pap smear or emergency contraception

2.9 Explain reasons for asking personal questions and taking sexual history

Provider to inform client that personal questions will be asked in order to guide provider in selecting correct treatment and advice

3 History taking

3.1 Age

See if provider notes age of client. A client may either state her date of birth or age as a number

3.2 Marital status/ stable relationship

Note whether or not the client's marital/ relationship status is discussed

3.3 Used contraceptive before

Note if provider asks about previous contraceptive usage

3.4 Last method used

Provider to enquire specifically about which method was used most recently

3.5 Side-effects experienced

Provider to enquire specifically regarding possible side-effects experienced

3.6 If side-effects – name

Side-effects to be named

3.7 Reason for stopping contraception

Should client have discontinued method, reason should be noted

3.8 Gravida

The provider should ask how many pregnancies the client had

3.9 Para

The provider should ask how many children she has

3.10 Last pregnancy date

Date of last pregnancy should be noted

3.11 Breast feeding currently

Client to be asked whether she is currently breastfeeding or not

3.12 Any problems during pregnancy, labour or after childbirth

Client to be led by provider to specify possible problem encountered during mentioned periods

3.13 Have you ever had a pregnancy outside the womb?

Provider to establish history of previous ectopic pregnancies

3.14 Are your periods regular
Regularity of menstrual cycle to ask by provider

3.15 Are your periods painful
Dysmenorrhoea to be established

3.16 How many days do you bleed
Length of menstruation during menstrual cycle to be established

3.17 How many times do you change your pad
Provider to establish the heaviness of the menstrual flow

3.18 Date of last menstrual period
Provider to establish when last menses where

3.19 Any abnormal genital bleeding
Provider to ask if bleeding occurs mid-cyclic or after sexual intercourse

3.20 An abnormal vaginal discharge
Provider to enquire about vaginal discharge that could be an indication of possible vaginal infection

3.21 Pain during intercourse
Provider to enquire about pain during intercourse

3.22 Any serious illnesses or operations
History on any serious illnesses or operations to be collated by provider

3.23 Suffer from any diseases
Provider to enquire about possible suffering of Diabetes, anaemia, hypertension, TB, epilepsy

3.24 Taking any medication at the moment?
Medication usage to be excluded by provider

3.25 Allergy to medication
Provider to note allergies on client card

3.26 How many cigarettes do you smoke a day
Provider to take history on cigarette usage

3.27 Family history of any serious illnesses
Provider to ask about possible heart attack, stroke, hypertension, DM or breast cancer

3.28 Do you have any concerns about STI's/HIV/AIDS
Does the provider initiate a discussion on above-mentioned topic?

Does the provider ask questions of 3.29-3.38 in a sensitive manner?

3.29 Do you think that you could be at risk of becoming infected with an STI or HIV

3.30 What do you do to protect yourself against STI/HIV

3.31 Have you ever used condoms

3.32 Have you had an STI in the last 6 months

3.33 Has your partner had an STI in the last 6 months

3.34 Do you have any concerns about your regular partners sexual behaviour

3.35 Do you have a new partner

3.36 How many partners have you had in the last 6 months

3.37 Have you lived apart from your regular partner in recent times

3.38 Have you had sex with a non- regular partner in the past year

Examination

4.1 Explain the procedure to client
Provider to explain to client what and why examination is to be performed

4.2 Wash hands before the examination
Provider to clean hands, preferably with soap and water. If not available hand spray is indicated

4.3 Ensure bed is clean
Bed to have clean linen or sprayed in between clients

4.4 Prepare necessary equipment for examination
Scale, thermometer, baumonometer, ENT set to be available in examination room
With examination of client see that 4.5-4.8.13 is examined

4.5 Weigh patient

4.6 Take vital signs

4.7 Pulse

4.8 Full physical examination

4.8.1 Hair
4.8.2 Eyes
4.8.3 Face
4.8.4 Tongue
4.8.5 Skin
4.8.6 Ears
4.8.7 Extremities
4.8.8 Heart
4.8.9 Lungs
4.8.10 Breast
4.8.11 Abdomen
4.8.12 Pelvic/ external genitals (Males)
4.8.13 Pap smear according to protocol

History Follow-up

5.1 Method currently using
Client to ask as to which method she is using, stating a possible choice as indicated in 5.1.1-5.41.11

5.1.1 Oral contraceptives
5.1.2 Condoms
5.1.3 IUD
5.1.4 Spermicidal
5.1.5 Diaphragm
5.1.6 Injectable
5.1.7 Natural method
5.1.8 Lactational amenorrhoea
5.1.9 Voluntarily surgical sterilization
5.1.10 Emergency contraception
5.1.11 Abstinence

5.2 Medical problems encountered are recorded
Client's medical conditions to be stated e.g. hypertension

5.3 Risk assessment for exposure to STI/HIV
Note which of the following risk assessment questions the provider asks in 5.3.1-5.3.11

5.3.1 Do you have any concerns about STI's or HIV/AIDS?

5.3.2 Do you think that you could be at risk of becoming infected with an STI or HIV

5.3.3 What do you do to protect yourself against STI's and HIV

5.3.4 Have you ever used condoms

5.3.5 Have you had an STI in the past 6 months

5.3.6 Do you have any concerns about your regular partners sexual behaviour

5.3.7 Do you have a new partner

5.3.8 How many partners have you had in the past 6 months

5.3.9 Have you lived apart from your regular partner in recent times
5.3.10 Have you had sex with a non-regular partner in the past year

6 Physical assessment follow-up
Note whether provider does 6.1-6.2

6.1 Bp taken
6.2 Bp recorded

7 Diagnosis and management
Provider to record information fully and appropriately on documents stated in 7.1.1-7.1.4

7.1.1 Client card in clinic
7.1.2 Client's appointment card
7.1.3 Pap smear records
7.1.4 HISP/data capture sheet

7.2 Inform client about outcome of examination
Provider to clearly state any abnormalities found during examination or the absence of any abnormalities

7.3 Does the provider use the WHO medical eligibility criteria/STI protocol/EDL correctly
Provider to refer to above mentioned guidelines as is applicable during consultation

7.4 Did the client receive the preferred contraceptive method
Did the client receive the method she initially asked for?

7.5 Working within the established legal framework
Did the provider act within her/his legal framework

7.6 Applying appropriate gender and cultural knowledge, skills and attitudes
Provider to act sensitively towards gender and cultural background of client

7.7 Giving correct/relevant information on the following topics

Indicate which aspects the provider covered when giving information as stipulated in 7.7.1-7.7.11

7.7.1 Importance of return date
7.7.2 Factors influencing efficiency of method
7.7.3 Possible side-effect of method
7.7.4 Return of fertility after discontinuance of method
7.7.5 Breast self examination
7.7.6 Pap smear
7.7.7 Emergency Contraception
7.7.8 Dual protection
7.7.9 What to do if problems arise
7.7.10 Drug interaction
7.7.11 Missed pills

Indicate which IEC materials the provider used as indicated in 7.8.1-7.8.6

7.8.1 Flipchart
7.8.2 Brochure/handouts
7.8.3 Contraceptive samples
7.8.4 Posters
7.8.5 Anatomical models
7.8.6 Other specify

Indicate whether the provider asked the questions mentioned in 7.9-7.13

7.9 Did the provider mention explicitly that condoms protect against HIV/STI

7.10 Validating that the client understands information given

7.11 Was the client asked what contraceptive method is preferred

7.12 Did the provider give a medical reason or other explanation for why a particular contraceptive method was not suitable

7.13 Giving health education on risk reduction and other relevant issues

7.14 What did the provider do regarding risky behaviour

Indicate what the provider did regarding risky behaviour identified as depicted in 7.14.1-7.14.5

7.14.1 Requested laboratory tests
7.14.2 Treated STI
7.14.3 Referred elsewhere
7.14.4 Provided counselling
7.14.5 Other specify

7.15 Did the provider refer correctly if it was needed

See if H301 form was correctly completed and referred to the correct institution

7.16 Was the return date given accurate according to the contraceptive method

Look at returns date given to client and whether the date is correct

7.17 Was the client told where to go for re-supply or follow-up

Did the provider inform the client where to go for re-supply or follow-up?

ADDENDUM C1

Client Exit Interview Tool

CLIENT EXIT INTERVIEW TOOL

Mark the appropriate block with a X or write your answer on the space provided.

For Office Use: ☐☐☐ 1-3

No	Question		Response	Go	
1	Have you ever visited this site for family planning before today?	1	Yes		☐ 4
		2	No		
2	What was the reason for your visit today? Probe until you are able to classify the main reason for the client's visit.	1	Get information and / counselling about a contraceptive method.	9	☐ 5
		2	Receive, get prescribed or referred for a contraceptive method for the first time or for the first time at this site.	9	
		3	Restart contraceptive method use (after not using for 6 months or more)	9	
		4	Get supplies for method already using or have routine follow-up visit for method already using	3	
		5	Restart same method (after not using less than 6 months)	3	
		6	Switch contraceptive methods or restart a different method (after not using for less than 6 months)	3	
		7	Discuss a problem about contraceptive method that you are currently using		
3	What contraceptive method are you using (in the past 6 months?)	1	Pill		☐☐ 6-7
		2	IUD		
		3	Injectable		
		4	Female sterilization		
		5	Condom		
		6	Spermicide		
		7	Rhythm / periodic abstinence		
		8	LAM		
		9	Condom + other method		
		10	Other		
4	Did the provider ask if you were having a problem with the method (probe : or did you mention a problem) ?	1	Yes		☐ 8
		2	No		
5	Have you had a problem with your method (probe ; that you wanted to discuss with your provider)?	1	Yes		☐ 9
		2	No	9	
6	Did the provider try to understand the nature of the problem?	1	Yes		☐ 10
		2	No		
7	Did the provider suggest what you should do (action you should take) to resolve the problem?	1	Yes		☐ 11
		2	No		
8	Were you satisfied with the advice or treatment that you received for your problem?	1	Yes		☐ 12
		2	No		
9	Did you come here today to obtain a specific contraceptive method?	1	Yes		☐ 13
		2	No	11	
10	Which method did you want when you came here ? (Probe: Before your consultation , did you have a specific method in mind?)	1	Pill		☐☐ 14-15
		2	IUD		
		3	Injectable		
		4	Female Sterilisation		
		5	Condom		
		6	Spermicide		
		7	Natural family planning		
		8	LAM		
		9	Condom + other method		
		10	Other		
11	What methods did the provider discuss with you?	1	Pill		☐ 16
		2	IUD		☐ 17
		3	Injectable (Depo Provera / Nur		☐ 18
		4	Female Sterilisation		☐ 19
		5	Condom		☐ 20
		6	Spermicide		☐ 21
		7	Rhythm / periodic abstinence		☐ 22
		8	LAM / Breastfeeding		☐ 23
		9	Condom + other method		☐ 24
		10	Other……		☐☐ 25-26
		11	Don't know		☐☐ 27-28
12	Did you receive a contraceptive method today?	1	Yes	14	☐ 29
		2	No		
13	Were you given a prescription or a referral for a method today?	1	Yes , prescribed method		☐ 30
		2	Yes , referred for a method		☐ 31
		3	No (but a method was named in 10)	15	☐ 32
		4	No (no method was named in 10)	20	☐ 33

14	Which method(s) did you receive or were you given a prescription or a referral ?(probe :any others) Mark all that apply	1	Pill			34-35
		2	IUD			36-37
		3	Injectable (Depo Provera/ Nur			38-39
		4	Female Sterilisation			
		5	Condom			
		6	Spermicide			
		7	Rhythm/periodic abstinence			
		8	LAM / Breastfeeding			
		9	Condom + other method			
		10	Other…….			
15	*To be answered by the interviewer: Did the client receive her method of choice?(check questions 10 & 14) Is the method named in 10 & 14 the same?*	1	Yes (client received her method of choice)	17		40
		2	Client had no preference	17		
		3	No (client did not receive her method of choice)	16		
16	Why do you think you did not get (method named in 10) Mark most important reason only Other response: …….. . ……..	1	Chose not to accept a method this	20		41-42
		2	Preferred method was not			
		3	Provider recommended another			
		4	Changed mind after listening to			
		5	Not available at clinic today			
		6	Not available at all			
		7	Not available, referred to another			
		8	No appropriate provider available			
		9	Other (specify to left)			
		88	Don't know / can't remember			
Note ; If more than one method received / prescribed / referred for , only mark nr 17 and 18 for the MOST EFFECTIVE method (see guidelines) . If NO method is received / prescribed / referred , go to nr 20						
17	For the method you just decided to accept, did the provider:					
	A Explain to you how to use the method effectively? Do not ask if method=sterilisation	1	Yes			43
		2	No			
		8	Don't know / can't remember			
		9	Not applicable(*method* =			
	B Describe possible side effects	1	Yes			44
		2	No			
		8	Don't know/ can't remember			
	C Tell you what to do if you have any problems?	1	Yes			45
		2	No			
		8	Don't know / can't remember			
	D Explain that this method does not provide protection against STI/AIDS? Do not ask if method = condoms	1	Yes			46
		2	No			
		8	Don't know / can't remember			
		9	*Not applicable (method=condoms)*			
18	Circle the method(s) received/ prescribed/ referred in nr 14 and ask the question(s) that correspond to the method					
	A Pill : How often do you take the pill?	1	Take the pill once a day			47
		2	Other			
		8	Don't know			
	B IUD : What should you do to make sure that your IUD is in place?	1	Check strings			48
		2	Other			
		8	Don't know			
	C Injectable : How long does the injection you use provide protection against pregnancy?	1	Depo Provera 3 months / Nur Isterate 2 months			49
		2	Other			
		8	Don't know			
	D Female sterilisation : Once you have been sterilised, could you ever become pregnant again?	1	No			50
		2	Other			
		8	Don't know			
	E Condom : How many times can you use a condom?	1	Once			51
		2	Other			
		8	Don't know			
	F Periodic abstinence / Rhythm	1	Body temperature rises			52
		2	Mucus in the vagina			
		3	Days 12-16 of the menstrual cycle			
		4	Other			
		8	Don't know			
	G LAM : How do you recognise the days on which you should not have sexual intercourse?	1	Yes			53
		2	No			
		8	Don't know			
19	Were you told when to return for a follow-up visit?	1	Yes			54
		2	No			
		8	Don't know / can't remember			
20	Did you feel comfortable to ask questions during the session?	1	Yes			55
		2	No			
		8	Don't know			

21	Do you feel the information given to you during your visit today was too little, too much, or just about right?	1	Too little		☐	56
		2	Too much			
		3	About right			
		8	Don't know			
22	Did you have a pelvic exam during your visit today?	1	Yes		☐	57
		2	No	24		
23	Did you have enough privacy during your exam? (probe: clients or staff, other than those caring for you, could not see you)	1	Yes		☐	58
		2	No			
		8	Don't know / can't remember			
24	When meeting with the provider during your visit, do you think other clients heard what you said?(note: This does not include the outside provider)	1	Yes		☐	59
		2	No			
		8	Don't know			
25	Do you believe that the information that you shared about yourself with the provider will be kept confidential?	1	Yes		☐	60
		2	No			
		8	Don't know			
26	During your visit to the clinic how were you treated by the provider?	1	Very well		☐	61
		2	Well			
		3	Not very well / poorly			
27	During your visit to the clinic how were you treated by the other staff?	1	Very well		☐	62
		2	Well			
		3	Not very well / poorly			
		4	There was no other staff			
28	Do you feel that your waiting time was reasonable or too long?	1	No waiting time		☐	63
		2	Reasonable/ short			
		3	Too long			
		8	Don't know			
29	During your talk with the provider was STI's / AIDS discussed?	1	Yes		☐	64
		2	No			
		8	Don't know			
30	Do not ask if method = condoms. Did the provider encourage you to use condoms at the same time (probe: simultaneously) as the family planning method you chose or are currently using?	1	Yes		☐	65
		2	No			
		8	Don't know/ can't remember			
		9	Not applicable *(method = condoms)*			

ADDENDUM C2

Guideline: Completion of Client Exit Interview Tool

CLIENT EXIT INTERVIEW GUIDELINES

Question–by-question guide:

Instructions: Below in **boldface** type are the questions found in the Client Exit Interview.

Instructions for the person conducting the exit interview appear in *italics*. These instructions are not to be read to the respondent. Before interviewing be sure to be thoroughly familiar with this question-by-question guide, so that you understand what each question is asking.

1 Have you ever visited this site for family planning services before today?

We are interested in finding out if the client has EVER been to this site for family planning services in the past. If she has been to the site specifically for family planning services in the past, mark "yes." If she has NEVER been to the site specifically for FP services, mark "no." NOTE: If a woman has visited the site before, but only for an MCH visit, you should mark "no."

2 What was the reason for your visit today? (*Probe until you are able to classify the main reason for the client's visit.)*

The main reasons a client may come to a family planning clinic are listed below. The Client Exit Interview is structured such that the client is asked specific questions depending upon the reason for the visit. Consequently, it is extremely important to accurately determine which category best describes the reason for the client's visit so that each client is asked questions that apply to her particular situation. If a woman comes to

- **Get information and/or counseling** about a contraceptive method, go to # 9;
- **Receive, get prescribed or referred for a contraceptive method** for the first time ever or for the first time at this site, go to # 9;
- **Restart** contraceptive method use (after not using for 6 months or more), go to # 3;
- **Get supplies** for a method you are already using or **have a routine follow-up** for method already using, go to # 3;
- **Restart same method** (after using for less than 6 months), go to # 3;
- **Switch** contraceptive methods or **restart different method** (after not using for less than 6 months), go to # 3;
- **Discuss a problem** with the contraceptive method that you are currently using, go to # 3

3 What contraceptive method are you using/were you last using (in the past 6 months)?

Write down the name of the contraceptive method that the client is currently using. If the client has recently (within the last 6 months) stopped using a contraceptive method due to a problem, mark the name of the last contraceptive method she used. If the client is using the condom in addition to another method, mark "condom + other" and record the name of the 'other" method.

4 Did the provider ask if you were having a problem with the method (Probe: or did you mention a problem)?

Determine if the provider and the client discussed any problem that the client is having with her contraceptive method. Mark "yes" if the client has discussed a problem (serious or minor) with her provider. If the provider did not ask is she is having a problem, mark "no."

5 Have you had a problem with your method (Probe: that you wanted to discuss with your provider)?

Find out if the client has had a problem that she wanted to discuss with her provider concerning the method that she is currently using. If the client has not had a problem with her contraceptive method, go to question # 9

6 Did the provider try to understand the nature of your problem?

Here we would like to know if the provider probed the client for more information about her problem. Find out if the provider asked her about her medical history or about any potential contraindications that she may have.

7 Did the provider suggest what you should do (action you should take) to resolve the problem?

Find out if the provider gave her information about what to do to resolve her problem. For example, the provider may have suggested that she change her brand of pill if she is experiencing problems with the brand she is currently using. If the client is allergic to spermicides, the provider may have suggested that she try a different contraceptive method.

8 Were you satisfied with the advice or treatment that you received for your problems?

Here we are interested in the client's opinion. Clients who are satisfied with the services they receive may be more likely to continue to use contraception.

9 Did you come here today to obtain a specific contraceptive method?

If the client is here to obtain a specific family planning method, mark "yes" and continue to the next question. If the client is not at the clinic to obtain a particular contraceptive, mark "no" and go to question #

10 Which method did you want when you came here? (PROBE: Before your consultation, did you have a specific method in mind?)

Here we would like to know if the client wanted a specific method before she came into the clinic. Clients who have a preference for a method and who receive that method may be more likely to continue using it.

11 Which methods did the provider discuss with you?

Research indicates that is important for providers to discuss a range of methods with clients to ensure "choice of methods." Clients who re offered a greater range of methods are more likely to be satisfied. Additionally, family planning clients who do not receive their *preferred* method tend to have lower satisfaction and/or continuation rates, regardless of the effectiveness of the method. NOTE: Mark "yes" for all methods discussed and "no" for methods not discussed.

12 Did you receive a contraceptive method today?

We are interested in finding out which method the client actually received today. If the client received a method, mark "yes" and go to question # 14. If she did not receive a method today, continue to question # 13.

13 Were you given a prescription or a referral for a method today?

Mark if the client was prescribed or given a referral for a particular method today. If the client was not given a prescription or a referral and DID name a method in #10 (she does have a preference for a method) go to # 15. If the client was not given a prescription or a referral and DID NOT name a method in # 10 (she does not have preference for a method), go to question # 20. Here, we are interested in finding out if those clients who **did not** receive a method were provided a means for obtaining the method in the near future.

14 Which method(s) did you receive or were given a prescription or a referral?

(PROBE: any others?)

We would like to know which method(s) the client either received or for which she was given a referral or a prescription. Mark the method as appropriate. For example, if a woman received condoms today and was given a prescription for the pill, she should mark "yes" for condom and "yes" for the pill. If the client did not receive the method, mark "no."

15 To be answered by the interviewer. Did the client receive her method of choice?

If the method the client received or got a prescription or referral for in # 14 is the same method mentioned in #10, go to #17. If the client had "no preference" (answered "no" to # 9), go to #17. If the preferred method (#10) and method received, prescribed or referred for are not the same, continue to # 16.

16 Why do you think you did not get (method named in 10)?

There are a number of reasons that the client may not have received her method of choice. We are interested in finding out why the client did not receive her preferred method. If the client's response is one of the categories on the questionnaire, mark the appropriate category. If the client's response does not correspond with any of the pre-defined categories, mark *"other"* and write down her response verbatim in the space provided. NOTE: If the client provides more than one response, ask her for the **most** important reason.

17 **Note:** If more than one method received, prescribed, or referred for, only mark for the most effective method. If no method received, prescribed, or referred for, go to #20.

Methods from most to least effective (as commonly used) are: NORPLANT, vasectomy, injectables, female sterilization, IUD, LAM (for 6 months only), pill, male condom, diaphragm (with spermicide), rhythm and periodic abstinence, female condoms and spermicide.

For the method you just decided to accept, did the provider:

A. Explain to you how to use the method? (Do not ask if method = sterilization)

B. Describe possible side effects?

C. Tell you what to do is you have any problem? Research demonstrates that clients are more likely to continue to use a method if they are knowledgeable not only about how to use the method, but also about possible side effects or complications.

D. Explain that this method does not provide protection against STIs and AIDS?

(Do not ask if method =condoms) Providers should explain if a method protects against STIs or HIV. If the client's method is condom, you do not need to ask this question because condoms do protect against HIV/STIs

18 *Circle the method(s) received, prescribed, or referred for in # 14 and ask the question(s) that correspond to the method(s).*

A. Pill
B. IUD
C. Injectable (e.g. Depo Provera)
D. Female sterilization
E. Condom (male/female)
F. Periodic abstinence? Rhythm
G. LAM

First circle the contraceptive method(s) that the client has decided to use today or is currently using. Next, ask the client the question that corresponds with the contraceptive method that she has chosen or is currently using. Last, note her answer to the question that corresponds with the contraceptive method.

19 Were you told when to return for a follow-up visit?
Contraceptive users who are aware of when they should return for a follow-up visit may be more likely to continue to use contraception.

20 Did you feel comfortable to ask questions during the session?
Providers who encourage clients ask questions may indicate quality of service and could affect the client's continuity with the method.

21 Do you feel the information given to you during your visit today was too little, too much, or just about right.
This information may be used to ascertain what length of time is considered appropriate for most clients. In addition, it serves as an indirect measure of whether providers are tailoring their consultations to meet the particular needs of the specific client.

22 Did you have a pelvic exam during your visit today?
If the client had a pelvic exam, mark "yes." If the client marked "no" go to #24

23 Did you have enough privacy during your examination? (PROBE: clients or staff, other than those caring for you, could not see you?)
Mark the answer that best describes the client's opinion of whether or not she had enough privacy.

24 When meeting with the provider during your visit, do you think other clients could hear what you said? (This does not include the observer.)
Again mark the appropriate response based on the client's opinion.

25 Do you believe that the information that you shared about yourself with the provider will be kept confidential?
Probe the client by asking is she thinks that the clinic staff will talk about the information that she disclosed outside of the clinic.

26 During your visit to the clinic how were you treated by the provider?
Probe to see if the client feels like she has been treated well. We are interested in the client's opinion of whether or not she has been treated well. Read the responses and mark as appropriate.

27 During your visit to the clinic how were you treated by the other staff?
Here we are interested in finding out about how the client feels about the rest of the staff. The rest of the staff refers to everyone working in the clinic with whom she has interacted with the exception of her provider. Again, we are interested in the client's opinion of whether she has been treated well or not. Read the responses and mark as appropriate.

28 Do you feel that your waiting time was reasonable or too long?
This question is to determine if the amount of time that the client waited **before** she received the services was reasonable or too long.

29 During your talk with the provider was STIs/AIDS discussed?
Some ways to protect against STIs and AIDS are as follows: use a condom (male or female), practice monogamy, or abstain from sex (not likely to be mentioned if client is obtaining family planning). Even if the provider gave the client incorrect information, mark down the response that best reflects the client's opinion of whether or not this topic was discussed.

30 (Do not ask is method=condoms) Did the provider encourage you to use condoms at the same time (Probe**:** simultaneously) as the family planning method you chose or are currently using?
For clients who are at high risk for STIs and HIV/AIDS, providers may recommend that a client use condoms along with the contraceptive method that she decided to accept. Ask this question to all respondents that are not currently using condoms. NOTE: The question asks for use of condoms in addition to another contraceptive method.

THANK THE RESPONDENT FOR HER TIME.

Time interview ended: Note the time that the interview ended. Record both the hour and minutes the interview ended using a 24-hour clock (military time). For example, if the first patient arrived at 8:00 AM record 08:00. If the patient arrived at 1:00PM record 13:00.

ADDENDUM D

Biographic Data: Registered Nurse Rendering Sexual and Reproductive Health Care

BIOGRAPHIC DATA
REGISTERED NURSE RENDERING SEXUAL AND REPRODUCTIVE HEALTH CARE

Mark the appropriate block with a X or write your answer on the space provided.

For Office Use: [ ][ ][ ] 1-3

Have you undergone Family Planning Training?	Yes	1	No	2	[ ]	4
When did you last attend a course(state year)	_____				[ ][ ][ ][ ] **(Year)**	5-8
Specify course followed	SRH	1	Family Planning	2	[ ]	9
	Other 3 - Please Specify _____					
Have you been attending to SRH clients since June 2003?	Yes	1	No	2	[ ]	10

ADDENDUM E1

Greeting / Verbal Consent Form of Client – English

GREETING / VERBAL CONSENT FORM OF CLIENT – ENGLISH

Thank you for taking the time to talk with me. The Mangaung Municipality and the School Of Nursing at the University of the Free State is conducting a study, asking questions of women such as yourself throughout Mangaung. We are studying quality of family planning services and way to improve quality. This clinic has been chosen to be included in the study. If you agree to be interviewed, I will be asking you questions about yourself and your ideas, attitudes, and behaviour on various issues. We are interested in finding out what women think about the family planning services that they have received. This information will be used to help develop better services for women in our country.

If you decide that you do not want to participate in the study, or decide at any time in the future that you do not want to participate, it will not effect the services you receive at the clinic now or in the future. While the results of this study may be published, your privacy will be protected and you will not be identified in any way. No one, including your nurse, will know your answers.

Your opinions and experiences are important to us, so please be honest and truthful in answering our questions. Your answers will be confidential and secret. If you agree to be interviewed, we will go to a place where no one can hear us talking. Some of the questions I will ask you are personal. If you are uncomfortable with a question, you do not have to answer it if you do not want. You may also stop the interview at any time.

It will take about 15 minutes for us to complete the questionnaire. Do you have any questions about the study? If you have any questions about the study in the future please feel free to contact Prof. Y. Botma, tel 0581-4013476.

…… ……
(Signature of person administering consent) (Date)

If client refuses to be interviewed, please check this box: ☐

ADDENDUM E2

Greeting / Verbal Consent Form of Client - Sotho

GREETING / VERBAL CONSENT FORM OF CLIENT - SOTHO

Dumelang. Nna lebitso la ka ke .....

Ke lebohela sebaka seo o mphileng sona hore ke buisane le wena .....

E botsa basadi dipotso motseng ha rona.. Re thuta ka tlhophiso ya malapa , le ho leka ho bona moo re ka etsang diphethoho ho ntlafatsa maemo a tlhophiso ya malapa. Tleliniki ena e kgethilwe e le e nngwe ya tseo re ka ithutang ho tsona . Haeba o dumela ,ke tla o botsa dipotso tse mmalwa ka dintho tse fapaneng. Re batla ho tseba hore na basadi ba nahana eng ka dishebeletso tsa tlhophiso ya malapa tseo ba di newang. Dintlha tseo re tlang ho di fumana mona di tla sebedisetswa ho ntlafatsa maemo a ditshebeletso tsa bo mme motseng wa rona.

Haeba ha o batle ho nka karolo, kapa o qeta le maikutlo a hao hore ha o sa batla ho nka karolo nakong e tlang, hono ha hona ho ama thuso eo o tlang ho e fumana tleliniking ena, hona jwale le nakong e tlang. Diphetho tsa dipatlisiso tsena di tla phatlalatswa empa ha ho moo lebitso la hao le tla hlahiswa teng. Ha ho mooki kapa ngaka ya hao ba tlang ho tseba dikarabo tsa hao.

Maikutlo a hao le maitemohelo a hao di bohlokwa ho rona. Re kopa ke hona hore o re arabe ka bolokolohi le ka botshepehi ha re o botsa dipotso. Dikarabo tsa hao e tla ba lekunutu le sephiri. Haeba o dumela hore re o botse dipotso, re tla ya tulong ya sephiri , moo ho seng motho ya tla re utlwa. Tse ding tsa dipotso di ka o kenya bosula, ha ho le jwalo o na le tokelo ya hore o seke wa di araba. O na le hona ho kgaotsa dipuisano tsa rona nako e nngwe le e nngwe.

Ho tla re nka metsotso e 15 ho tlatsa foromo ya dipotso. O na le diputso ka dipatlisiso tse? Haeba o ka ba le dipotso nakong e tlang o ka ikamahanya le Prof. Y. Bothma , tel 051-40113476.

....
(Signature of person administering consent) (Date)

If client refuses to be interviewed, please check this box: ☐

ADDENDUM F

Informed Consent / Performance

INFORMED CONSENT / PERFORMANCE

Dear Colleague,

This letter is to ask you to participate in a research project of Mangaung Local Municipality and the University of the Free State. The researchers are trying to determine if training has any effect on performance and the quality of service rendered. A researcher will observe your actions and tick your performance on a tick sheet. As this assessment is done for research the observer (researcher) is not allowed to discuss the assessment with you. All information will be handled confidentially and will only be used for the research purpose. No names of any participant will be recorded during the observation. Participation is anonymous and voluntarily, with no retribution should you refuse to participate or want to withdraw.

Your participation will be much appreciated and valued. If you are willing to participate will you please complete the form below.

I, _____ am willing to participate in the research dealing with the evaluation of performance and effect of training. The researcher may come and observe my activities.

Signature of participant	**Signature of witness**
Date permission given	**Date permission witnessed**

ADDENDUM G

Informed Consent / Nominal Group

INFORMED CONSENT / NOMINAL GROUP

Dear Colleague,

This letter is to ask you to participate in a research project of Mangaung Local Municipality and the University of the Free State. The researchers are trying to determine if training has any effect on performance and the quality of service rendered. A group discussion, using the nominal group technique, will be held. During this group discussion you will be ask to air your views on the effect of sexual reproductive health training. There after the opinions will be clustered and prioritised according to the group's consent. All information will be handled confidentially and will only be used for the research purpose. Participation is voluntarily with no retribution should you refuse to participate or want to withdraw.

Your participation will be much appreciated and valued. If you are willing to participate will you please complete the form below.

I, _____ am willing to participate in the group discussion dealing with the effect of sexual and reproductive health training.

Signature of participant	**Signature of witness**
Date permission given	**Date permission witnessed**

ADDENDUM H1

Permission to Conduct Research

UNIVERSITEIT VAN DIE VRYSTAAT

UNIVERSITY OF THE FREE STATE

YUNIVESITHI YA FREISTATA

Fakulteit Gesondheidswetenskappe/Faculty of Health Sciences

Skool vir Verpleegkunde/School of Nursing

✉ 339 BLOEMFONTEIN 9300
REPUBLIEK VAN SUID-AFRIKA / REPUBLIC OF SOUTH AFRICA

Tel: (051) 401 3476
Faks / Fax: (051) 448 0108 SA
E-Pos/ E-mail: gnvkyb.md@mail.uovs.ac.za
www.uovs.ac.za/faculties/med/nursing

5 November 2003

Me Daleen Grobler
Assistant Manager
Mangaung District
Bloemfontein

Me Grobler,

PERMISSION TO CONDUCT RESEARCH: "EVALUATION OF PERFORMANCE AND EFFECT OF TRAINING"

The researchers hereby kindly request permission to conduct research regarding the efficacy of Sexual Reproductive Health (SRH) training in the primary health care settings in Mangaung. An experimental design will be used, as the one group will consist of nurses who underwent SRH training according to the curriculum accredited by SAQA[1] and SANC[2]. The control group will be randomly selected from those who have not undergone training. A fieldworker, who is trained in SRH will complete a ticksheet by means of direct observation.

Nominal groups will be conducted to determine the managers and trainees' perception of the impact training had on the quality of service rendered.

With your permission the research will be started in April 2004 and continued up until end of July 2004. The research results will be presented as a paper at an international conference and published as a paper in an accredited research journal.

---

1 SAQA South African Accreditation Authority.

2 SANC: South African Nursing Council.

The research will be submitted for approval to the Ethics Committee of the Faculty of Health Sciences. Informed consent will be obtained from all participants and participation will be voluntarily. All participants have the right to withdraw at any stage during the research with no retribution.

Thank you for your kind consideration.

Yours truly,

_____

Prof. Y. Botma
RESEARCH CO-ORDINATOR

ADDENDUM H2

Application to Conduct Research / Complete a Study

MANGAUNG

LOCAL MUNICIPALITY/PLAASLIKE MUNISIPALITEIT/LEKGOTLA LA MOTSE

DIRECTORATE
COMMUNITY & SOCIAL SERVICES

Sub - Directorate Health

PO Box 3704, Bloemfontein, 9300	Tel: 4058329 Fax:4058329	Our ref: letters/ application research
E-mail:genees18@civic.bfncouncil.co.za		Your ref::

Mangaung Local Municipality
Dr AH Hiemstra
PO Box 3704
9301

Date: 01/06/04

Prof/Dr/Me/Mr

APPLICATION TO CONDUCT RESEARCH / COMPLETE A STUDY

Researcher:
Name M Reid

Address: 5 Howard Street, Hillsboro, Bloemfontein

Tel: 4066360 Fax: 4066360

I hereby request your permission to do the following study / research:

Title/ Topic
Evaluation of the Sexual and Reproductive Health Module as implemented by the Department of Health

Aim of research:
To identify whether primary health acre clinicians who underwent the SRH training transferred their knowledge to the workplace after completion of their training

Target group of study:
Primary health care nurses who underwent the SRH training in Bloemfontein during 2003

Method / format of study:

A fieldworker will ask permission from the SRH trained primary health care nurse, as well as the SRH client she will be serving to sit in while he/she is rendering a SRH service. The fieldworker will be using a checklist to identify specific behaviour and actions.

Envisaged effect / disruption on services rendering in the Sub - Directorate Health:
Minimal, as the fieldworker will only enter the consulting room when a SRH service need to be rendered. The fieldworker will visit the clinic during the days and times SRH services are regularly rendered at that specific clinic

Proposed date of commencement of research
03 June 2003
Proposed date of completion of research:
30 June 2003

Permission of Ethical Committee attached: Yes

I undertake to disclose the findings by January 2006 and understand that research can't commence until such time as written consent has been obtained from the above office. I also undertake not to disclose research findings on above mentioned study, before availing a copy of the findings to the office of the Medical Officer of Health.

M. Reid

ADDENDUM H3

Letter of Director: Faculty Administration

UNIVERSITEIT VAN DIE VRYSTAAT
UNIVERSITY OF THE FREE STATE
YUNIVESITHI YA FREISTATA

Direkteur: Fakulteitsadministrasie / Director: Faculty Administration
Fakulteit Gesondheidswetenskappe / Faculty of Health Sciences

Research Division
Internal Post Box G40
☎(051) 4052812

E-mail address: gndkhs.md@mail.uovs.ac.za

Mrs H Strauss

2004-05-28

MS M REID
C/O PROF Y BOTMA
SCHOOL OF NURSING
UFS

Dear Ms Reid

ETOVS NR 35/04
RESEARCHERS: MS M REID
PROJECT TITLE: EVALUATION OF THE OUTCOME OF THE SEXUAL AND REPRODUCTIVE HEALTH MODULE IMPLEMENTED BY THE DEPARTMENT OF HEALTH.

You are hereby informed that the above-mentioned study was finally approved by the Ethics Committee during their meeting held on 25 May 2004

Your attention is kindly drawn to the following:

- A progress/final report have to be submitted after completion of the study or within a year after approval of the project
- That all extentions, amendments, serious adverse events, termination of a study etc have to be reported to the Ethics Committee
- These documents have been accepted as complying with the Ethics Standards for Clinical Research based on FDA, ICH GCP and Declaration of Helsinki guidelines as well as the Clinical Trials Guidelines 2000: Dept of Health RSA.

Will you please quote the Etovs number as indicated above in subsequent correspondence, reports and enquiries.

Yours faithfully

For DIRECTOR: FACULTY ADMINISTRATION

339, Bloemfontein 9300, Republiek van Suid-Afrika, Republic of South Africa ☎ (051) 405 3013, 401 2847, (051) 444 3103, gndklt.md@mail.uovs.ac.za

ADDENDUM I

Post-test: Module 1, Unit 1-3

POST –TEST: MODULE 1, UNIT 1-3

Please choose the one most correct answer to each question or statement

1 The concept of health rights encompasses:

a) Health promotion, access to clean water, sanitation, nutrition and housing
b) Health promotion, treatment, rehabilitation and referral
c) Health promotion, access to clean water, sanitation and nutrition
d) None of the above

2 **Reproductive health means**:

a) Having a satisfying safe sex life and good communication with one's partner
b) Having the capability to reproduce and access health services
c) Having the freedom to decide on the number of children you want
d) Being physically and mentally fit, in all matters relating to the reproductive system

3 Sexual and reproductive health rights (SRHR):

a) Have only been recognised in the last ten years
b) Encompass the right of women to have sexual pleasure
c) Refer to the right of men to express their sexual feelings in the way they need
d) Refer to the right of all individuals to attain the highest standard of SRH and access services

4 Fundamental achievements of the following global conferences were:

1 Clearly defining the concept of reproductive health and rights (ICPD 1994)
2 Reinforcing gender equity (The FCWC 1995)
3 Reinforcing gender equality (Copenhagen 1995)
4 Redefining the concept of SRHR (The World Conference on Human Rights 1993)

a) 1 and 3
b) 1 and 2
c) 2 and 4
d) 3 and 4

5 The Batho Pele (People First) principles include:

a) Consultation, privacy, respect and supervised health care services
b) Value for money, courtesy, comfort, dignity and continuity
c) Value for money, responsiveness, service standards and information
d) Transparency, service standards and comfort

6 **The Patients' Rights Charter includes the right of patients to**:

a) A healthy and safe environment and participation in decision-making
b) Confidentiality and privacy of information and informed consent
c) Complain about health services and refusal of treatment
d) All of the above

7 According to the NAFCI Adolescent SRHR Document, 2000 the right to sexual orientation, experience and pleasure, means the right to:

a) Make decisions for your partner about sex
b) Enjoy sex or abstain from sex
c) Choose to marry a person of the opposite sex
d) Decide the position for sexual intercourse

8 Teenage pregnancy is not:

a) A serious problem in SA
b) Less prevalent among African and rural girls
c) More common in girls with little or no education
d) A significant reason for dropping out of school

9 Rules and regulations under the Nursing Act does not relate to:

a) The scope of practice of persons who are registered or enrolled
b) The conditions under which registered or enrolled nurses may carry out their profession
c) The acts and omissions for various categories of nurses/ midwives
d) Schedules for appraisal of work performance

10 The following ethical principles are of particular importance for SRH ethical decision making:

1) Each individual should be free to act as she/he chooses so long as this does not interfere with the rights of others
2) A society's actions should not seek to provide the greatest good for the greatest number of people
3) The duty of universal fairness, equity, equality and non-discrimination
4) A society's actions should be truthful and honest
   a) 1,2 and 3
   b) 1,3 and 4
   c) 2,3 and 4
   d) 1,2 and 4

11 An ethical dilemma is:

a) The same as a ethical problem
b) Easy to solve as long as someone is prepared to take the responsibility to find a practical solution
c) Difficult to solve, as the options derive from equally undesirable alternatives
d) Complex but there is always an absolute answer

12 In terms of SRH and SRHR, ethically women and men have the right to:

a) Bodily integrity with or without access to services for fertility regulation
b) Basic primary health care services
c) Be free from coerced relationships, discrimination and violence
d) All of the above

13 Informed consent:

1 Entails a person making a thought-out decision based on accurate useful information
2 Is a medical and legal doctrine based on the premise that every person is competent to give consent on personal matters
3 Means that clients make their own decisions without pressure from providers
4 Means that clients make decisions based on the opinions of their family and the provider
   a) 1,2 and 3
   b) 1,2 and 4
   c) 2,4 and 3
   d) 1,2 and 4

14 With respect to HIV positive patients:

a) No health worker ethically may refuse to treat them because of their HIV status
b) No provider may withhold normal standards of care because of their HIV status
c) Treatment should not be sub-optimal because of a perceived potential risk to providers
d) All the above

15 **Ethical issues in SRH include**:

a) Sex selection, sexual perversion and surrogacy
b) Sex selection, sexual perversions and adoption
c) Artificial insemination, adoption and surrogacy
d) Cloning, sex fantasies and homosexuality

16 The Child Care Act states that:

a) Children of 16 years and older may consent to their own medical treatment without the assistance of a parent / guardian
b) Any person of 21 years and older may consent to surgical procedures
c) Girls under the age of 18 can have an abortion without their parents/ guardians permission
d) None of the above

17 The Sterilisation Act states that:

a) Any person over the age of 18 years has the right to be sterilised provided he/she is capable of consenting
b) Sterilisation is prohibited to any person capable of consenting without his/her consent
c) Strict criteria will be laid out for performing sterilization on persons incapable of consenting or incompetent to consent due to severe mental disability
d) All of the above

18 The National Contraception Policy Guidelines (NCPG):

a) Were developed to address the identified current major reproductive health challenges
b) Are in line with international agreements and national legislation and policies
c) Focus on the rights of patients and the needs of providers
d) All of the above

19 Gender refers to the:

a) Economic, social and cultural attributes associated with being female or male
b) Economic, social and physical attributes associated with being female or male
c) Economic, cultural and religious attributes associated with being female or male
d) Social, cultural and physical attributes associated with being female or male

20 Gender roles are:

a) Largely shaped by parents
b) Mainly shaped by parents
c) Mainly shaped by parents and other role models
d) Shaped by parents, peers, the media and society

21 Gender equality implies that:

a) Men and women have the same opportunities
b) There are equal numbers of males and females in influential positions in society
c) Poor women have the same opportunities as rich women
d) Men and women develop the same qualities

22 Gender bias refers to:

a) A person's own biases on the basis of gender-related stereo types
b) The way women are made to be subordinate to men
c) The prejudices against women as seen in the church and the justice system
d) The biases of individuals and institutions on the basis of gender related stereotypes

23 Gender mainstreaming refers to:

a) All initiatives specifically-directed towards the empowerment of women
b) Initiatives specifically-directed towards achieving equality between men and women
c) A and b
d) The inclusion of women's interest and needs during the development of all policies and programmes

24 Health strategies with a gender perspective:

a) Will result in better health for women and men
b) Will result in a better health for women
c) Are the same for all cultures
d) A, b and c

25 Which of the following statements is correct?

a) SRH services should be made accessible particularly for married women and men
b) The same health promotion messages should be used for men and women
c) Health implications of gender inequalities can be addressed only within the health sector itself
d) Women provide most of the unpaid and paid health care

ADDENDUM J

Checklist MCQ

CHECKLIST NO.	CHECKLIST	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10	Question 11	Question 12	Question 13	Question 14	Question 15	Question 16	Question 17	Question 18	Question 19	Question 20
1	Item been clearly presented?/ main problem in stem/ no excess verbiage	no	x	x	no	no	x	x	no	x	x	x	x	x	x	no	x	x	x	no	x
2	Item been cast with no repitition of key words or phrases for each option	no	no	x	no	no	x	x	x	x	x	no	x	x	no	no	x	no	no	x	x
3	Options at end of the stem?	x	x	x	n/a	x	x	x	x	x	x	x	n/a	x	no	no	x	x	no	x	x
4	Responses arranged in systematic fashion, such as alphabetical or length of response	x	no	no	no	no	no	no	no	no	no	no	no	x	no	no	no	no	no	no	no
5	All distracters plausible/ related to subject matter	no	x	x	x	no	x	x	X	X	no	x	no	x	x	no	no	no	x	x	x
6	All irrelevant clues been avoided (length of correct answer, grammatical)	no	x	x	x	no	x	x	x	no	no	no	no	x	x	no	no	x	no	x	x
7	Has an "I don't know option been considered"	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
8	Is there only one correct (or best) answer	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
9	Has "all the above" been avoided	x	no	x	x	x	no	no	x	x	x	x	x	x	x	x	x	x	no	x	x
10	Has the "none of these" option been used sparingly? Only when appropriate	x	x	x	x	x	no	no	x	x	x	x	x	x	x	x	x	x	x	x	x
11	Have overlapping options been avoided	no	n/a	x	x	x	n/a	n/a	x	x	x	x	x	x	x	x	x	x	n/a	x	x
12	Have negative statements been avoided? If used, has the negative been underlined or written in capital letters	n/a	x	x	x	x	x	x	n/a	x	x	x	x	x	n/a	n/a	n/a	x	x	n/a	x
13	Type K multiple choice to be avoided	x	x	x	x	no	x	x	x	x	x	x	x	x	no	x	x	x	x	x	x
	Total	**8**	**8**	**11**	**9**	**7**	**9**	**10**	**10**	**11**	**10**	**10**	**9**	**13**	**8**	**6**	**9**	**10**	**7**	**10**	**12**

Key : All questions marked with a X adhered to set criteria

Question 21	Question 22	Question 23	Question 24	Question 25	Question 26	Question 27	Question 28	Question 29	Question 30	Question 31	Question 32	Question 33	Question 34	Question 35	Question 36	Question 37	Question 38	Question 39	Question 40	Question 41	Question 42	Question 43	Question 44	Question 45	n	not applicable	%
x	x	no	x	x	no	no	no	x	x	no	no	x	x	x	x	x	no	x	x	x	x	no	no	x	29		64
x	no	no	no	no	x	x	no	no	x	no	no	x	x	x	x	no	x	no	x	x	x	no	no	no	23		51
x	x	x	x	x	x	x	x	x	x	no	x	x	x	x	x	x	x	x	x	x	x	x	x	x	39	2	90
no	x	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	x	no	no	no	x	no	5		11
x	x	no	x	x	no	no	no	no	x	x	x	x	x	x	x	x	no	x	x	no	no	no	x	no	28		62
x	x	no	x	x	x	no	no	x	x	no	no	x	x	x	x	x	x	no	no	x	x	x	x	x	33		73
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	45		100
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	45		100
no	no	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	39		90
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	44		97
n/a	n/a	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	no	x	x	x	x	x	38	5	95
x	x	n/a	x	x	n/a	x	x	x	x	x	x	x	x	x	n/a	n/a	n/a	n/a	n/a	x	x	x	x	x	31	12	93
x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	43		7
10	**10**	**7**	**10**	**11**	**9**	**9**	**8**	**10**	**12**	**8**	**9**	**12**	**12**	**12**	**11**	**10**	**9**	**9**	**10**	**11**	**11**	**9**	**11**	**10**			

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BP	Blood pressure
HISP	Health Information System Program
HIV	Human Immuno Virus
IEC	Information, Education & Counselling
IUD	Intra Uterine Device
LAM	Lactational Amenorrhoea Method
DM	Diabetis Mellitus
DoH	National Department of Health
MCWH	Maternal child and Women's Health
NQF	National Qualifications Framework
PHC	Primary Health Care
RHRU	Reproductive Health Research Unit
SA	South Africa
SANC	South African Nursing Council
SAQA	South African Qualification Authority
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
TRIM	Teaching Research In Service Model
UFS	University of the Free State
WHO	World Health Organisation