

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

The purpose of this chapter is to describe the research process followed to obtain the desired data to develop, implement and pilot test a training programme in the DSM system. Neuman (2011:8) emphasizes that social research aims to find answers for questions about the social world. However, the research relies on scientific processes and evidence. The outcome of the research process supported the researcher's initial belief that a training programme in the DSM system could add value to the social work profession. Social workers in South Africa often use the DSM system in services with regard to mental health without training in the terminology and utilization of the system. In this study, the subjective belief was tested with structured research methodology, which provided objective realistic outcomes, regardless of the researcher's subjective views.

This chapter will focus on explaining how the researcher used scientific research to develop, implement and pilot test a training programme in the DSM system and sets out the research methodology regarding:

- the research goal and objectives
- the research approach (mixed method approach)
- the research design and methodology (applied: intervention research)
- the sampling strategy (population, sample method)

4.2 RESEARCH GOAL AND OBJECTIVES

4.2.1 Goal

The goal of a research study can be either for basic or for applied research. The researcher made use of applied research since the aim of applied research is to induce change in a troublesome situation (Fouché & De Vos,

2011:94; Roll-Hansen, 2009:6), therefore to solve specific problems in practice.

The **applied research goal** for this study is as follows:

To develop, implement and pilot test a programme to train social workers in the utilization of an accredited diagnostic system, namely the DSM system, when dealing with individuals who present with a specific disorder.

4.2.2 Objectives

Walliman (2001:21) defines a research objective as follow: “When a research problem has been identified, in order to indicate what measures will be taken to investigate the problem or provide means of overcoming it, it is necessary to formulate a definition of the research objectives.” Fouché and De Vos (2011:94) are of the opinion that the objectives refer to the steps needed to reach the goal.

The study was guided by the following objectives:

- To do a literature study regarding social workers’ diagnosis and assessment within the context of the DSM system
- To explore social workers’ knowledge, attitude, and utilization of the DSM system
- To develop a training programme and train social workers in the utilization of the DSM
- To implement the developed training programme for social workers in the utilization of the DSM
- To measure the effectiveness of the content of the training programme in a pilot study
- To draw conclusions and make recommendations with regard to the benefit for the social work profession and to multi-professional teamwork, should social workers receive training in the DSM system.

Following the research goal and objectives, the researcher selected a research approach.

4.3 RESEARCH APPROACH

There are primarily two approaches in social science research, namely qualitative and quantitative research as noted by Fouché and Delport (2011:63), Neuman (2011:17), Punch (2005:19) and Tewksburg, (2009:38). Durrheim (2006:47), Punch (2005:28) and Tewksburg (2009:38) explain that a quantitative paradigm is based on positivism, which focuses on the scientific explanation that is nomothetic. Quantitative research collects data in the form of numbers and uses statistical types of data analysis. Therefore, a quantitative research approach will aim to measure the social world objectively and to test hypotheses. The authors also refer to the qualitative paradigm, which, in contrast, is based on the anti-positivistic interpretative approach. This approach focuses on research that elicits a participant's account of meaning and produces descriptive data in the participant's own written or spoken words. It therefore identifies the beliefs and values that underlie the phenomena.

Table 8 refers to the comparison of the quantitative and qualitative approaches in social research (Durrheim, 2006:47–48; Fouché & Delport, 2011:66; Garbarino & Holland, 2009:10; Neuman, 2011:17; Tewksburg, 2009:38-39;).

Table 8: Comparison of the quantitative and qualitative approaches in social research

	Quantitative Approach	Qualitative Approach
Epistemological	Positivism	Phenomenology
Purpose	Cause-and-effect hypotheses regarding social reality	Construct detailed descriptions of social reality
Methods	Deductive	Inductive
Key factor	Reliability	Authenticity
Analysis	Statistical	Thematic
Suitability	Seek to control phenomena	Seek to understand phenomena
Language	Concepts are converted into operational definitions – results are numerous – statistical language	Participants' natural language is used
Design	Standardized with fixed procedures	Flexible and unique
Research Methods	Systematically, standardized	Type of observations are modified to enrich understanding
Unit of analysis	Atomistic (elements that form part of the whole)	Holistic (concentrate on the relationships between elements)
Researcher	Detached	Involved

Delport and Fouché (2011:433) suggest that a researcher must take note of the mixed method approach, an approach combined with at least one element from both the quantitative and the qualitative approach. These authors refer to four types of mixed methods; for the purpose of this study, the researcher will only elaborate on the fourth type, embedded mixed method, since this was applicable in this study.

Plano Clark and Creswell (2008:376) define an embedded mixed method design as:

The design consists of embedding one method (qualitative or quantitative) within a larger study guided by the other method (quantitative or qualitative), having the secondary method address a different question, and using the secondary method to enhance the implementation and/or interpretation of the primary method.

For the purpose of this study, the researcher employed intervention research in the form of a combined quantitative/qualitative approach, with the embedded mixed method design.

The reasons why the researcher chose the embedded mixed method are based on the definition above, with a primary and a secondary method in this study. The primary method is based on the quantitative approach, while the qualitative approach was followed as a secondary method.

The researcher's motivation for utilizing the quantitative method as the primary method was based upon the following discussion:

- This study's hypothesis states that if social workers receive formal training in the utilization of the DSM system, it will equip them with knowledge and insight with regard to assessment of their clients. This will enhance the profession, since social workers could be able to participate in the multi-professional team with insight with regard to mental health terminology and assessments. This hypothesis has a clear cause-and-effect purpose. The ability to predict is a central value of a quantitative research study as suggested by Fouché and Delpont (2011:66), Punch (2005:48) and Tewksburg (2009:41).
- The majority of the data was obtained by closed-ended questions in the questionnaire, which limits the possible answers to those identified by the researcher as suggested by Tewksburg (2009:44).
- The majority of the data in this study was processed into numbers and was statistically analysed, which is typical of a quantitative approach (Garbarino & Holland, 2009:7; Neuman, 2011:17).
- The study was based on an experimental design, namely the one-group pretest-posttest design, which is typical of a quantitative approach (Creswell, 2011:12; Delpont & Fouché, 2011:443).

The researcher's motivation for utilizing the qualitative method as the secondary method was based upon the following:

- The study consisted of a few open questions in order to obtain more in-depth data about the respondents' personal experiences and views, and these questions are typical of qualitative research (Tewksburg, 2009:43).
- The study focussed specifically on social workers in South Africa who work with clients on a daily basis and this unit of population is therefore a specific population, which is one of the guidelines for qualitative research (Garbarino & Holland, 2009:10).
- The open questions collected non-numerical information, typical of qualitative research (Creswell, 2011:15).
- The non-numerical information was a text analysis, symbolic of qualitative research (Creswell, 2011:15).

The researcher noted that Delport and Fouché (2011:443) state that the most important advantage of this embedded mixed method design is that the research should:

- be able to collect the two types of data concurrently, which is relevant to this study.
- be based on an established design, such as an experimental design, as with this particular study.

The following explanation for the chosen type of research is needed, after clarifying the research approach.

4.4 TYPE OF RESEARCH

It is human nature to consistently search for an understanding of the environment. Babbie (2011:33) defines research in the social sciences as a humanistic action objectively studying social reality in order to understand phenomena. De Vos, Strydom, Schulze and Patel (2011:4) add that social sciences study human and cultural activity directly and more so in the present rather than the past. Based on discussions with professionals in the field (Gunter, 2004; Olivier, 2004; Pieterse, 2004; Smit, 2012) the researcher

became aware of the need in the social work profession for more or specialized training in methods and terminology in the DSM system for client behaviour with regard to mental health assessments and diagnosis. This can thus be regarded as a relevant problem that needed to be solved.

Durrheim (2006:45) and Roll-Hansen (2009:6) emphasise that applied research aims to contribute towards practical issues of problem solving, decision-making, policy analysis and community development. De Vos and Strydom (2011b:474) and Rothman and Thomas (1994:25) assert that intervention research is an exciting new view of applied research. Intervention research grew from developmental research that denotes the development of a technology, or rather a technological item, essential to professions such as medicine, social work, and psychology and nursing. In this study, the researcher focuses on the development of a training programme in the DSM system, aimed at social workers.

Applied research is applicable for the purpose of this study, since applied research attempts to solve specific problems or help practitioners in accomplishing certain tasks. The researcher is of the opinion that the specific problem, namely that social workers utilize the DSM without training due the mental health industry that dictate the use thereof (as explained in Chapter two), should be addressed and suggests a training programme to equip practitioners with knowledge and insight.

The researcher presents this applied research using intervention research as a developmental research method. Schilling (1997:174) defines intervention research as:

Studies carried out for the purpose of conceiving, creating and testing innovative human services approaches to prevent problems or to maintain quality of life. Social work interventions include strategies that draw on and seek to strengthen the social ties between the individual and the social environment.

This definition is supported by De Vos and Strydom (2011b:475) who state that intervention research is an intervention (which is an applied action) by a social worker (or any other helping professional) in order to improve the functioning or wellbeing of individuals, families, groups or even populations. These definitions are in line with the aim of this study, which is to apply training in the DSM system as intervention in order to improve the service delivery of social workers.

Goldenhar, Montagne, Katz, Heaney and Landsbergis (2001:617) provide a practical guideline for intervention research with the following questions:

- What types of changes are needed to enhance the target group, namely the social workers?
- What are the best ways to bring about the changes?
- What principles/theories in social work and mental health might apply in this situation?
- To what extent do the social workers understand and buy into the need for the changes?

Goldenhar et al. (2001:617) continue by stating that these questions above could lead to the development of new interventions, however to answer these questions, the researcher needs to isolate the problem of interest (and its causes) by looking into surveillance and epidemiological data.

According to Rothman and Thomas (1994:7), intervention research should consist of three main facets, although Comer, Meier and Galinsky (2004:251) state that it is not necessary to use all three facets or even all the phases of the last facet:

- **Knowledge development:** According to Rothman and Thomas (1994: 18-19) and De Vos and Strydom (2011b:475), this facet refers to the contribution of basic knowledge of human conduct. In this study, the researcher aims to explore social workers' knowledge, attitude and utilization of the DSM. The outcome will be increased knowledge about the DSM system and social work in South Africa.

- **Knowledge utilisation:** Rothman and Thomas (1994:18-19) and De Vos and Strydom (2011b:475) explain that: “Intervention knowledge utilisation aims at applying knowledge of human conduct by means of transformation and conversion of available knowledge into the application of concepts and theories relevant to the given target groups’ practices.” The researcher aims with this study to utilize the data in order to obtain concepts and theories relevant to social workers in practice and to utilise the knowledge to inform current practices with regard to DSM utilization.
- **Design and development:** Rothman and Thomas (1994:18-19) and De Vos and Strydom (2011b:475) explain that this last facet aims to create new methods, programmes or service systems by means of problems or process analysis, intervention design, early development, advanced development and dissemination. The research goal for this study correlates with this facet since the entire study focusses on designing/developing a programme with specific aims such as to develop, implement and pilot test a programme to train social workers in the utilization of an accredited diagnostic system.

The researcher has explained the use of an intervention research. The next section discusses the research design and methodology.

4.5 RESEARCH DESIGN AND METHODOLOGY

Since the researcher made use of intervention research, she regarded this phase of the study as highly imperative, since intervention research has specific phases to be followed during the research process.

Neuman (2011:6) states that a research design aims to provide a plan or strategy with practical value in order to answer questions regarding social problems. Creswell (2011:4-5) describes three types of research designs, namely qualitative, quantitative and mixed method designs. The study employs embedded mixed method design with quantitative research as primary

method, as explained in point 4.3. Delport and Fouché (2011:443) state that one of the most important aspects of this embedded mixed method design is that the research should be based on an established design, such as an experimental design.

Fouché, Delport and De Vos (2011:144) refer to two types of quantitative research designs, namely experimental designs and non-experimental designs. In the context of this study, the researcher will incorporate the experimental design.

Fouché et al. (2011:144) refer to the following three types of experimental designs for quantitative research namely:

- Classical experimental design;
- Pre-experimental design, and
- Quasi-experimental and special designs

For the purpose of this study, the researcher focuses on the second mentioned design, the pre-experimental design with a one-group pretest-posttest design (Fouché et al., 2011:147; Neuman, 2011:221). The purpose of a pretest-posttest design is therefore to compare groups or/and to measure the change that took place following an experiment (Dimitrov & Rumrill, 2003:159).

In this study, the researcher used only one group and conducted a pre-test before the intervention, followed by a post-test after the intervention, in order to measure the change that took place.

Diagram 4: One-group pretest-posttest design



According to Diagram 4, the one-group pretest-posttest design is a measurement of a dependent variable when no independent variable is present. Subsequently, an independent variable was introduced, followed by a repeated measurement of the dependent variable at a later stage (Babbie 2011:287; Fouché et al., 2011:147-148; Huysamen, 1994:5).

The researcher followed an intervention research methodology. Comer et al. (2004:258) describe intervention research as "...typically conducted in a field setting in which researchers and practitioners work together to design and assess interventions". The researcher is of opinion that this study correlates with the statement above as it focuses on designing and piloting a DSM training programme for social work practitioners.

Babbie (2011:362) defines social intervention as an action taken within a social context in order to produce some intended results. Intervention research has specific phases during the research process. Fey and Finestack (2009:520) and Rogers [sa] refer to five phases, similar to Fawcett, Suarez-Balcazar, Balcazar, White, Paine, Blanchard and Embree (1994:28) while De Vos and Strydom (2011b:476) and Rothman and Thomas (1994:10-11) concur that intervention research is a phase model consisting of the following six phases:

1. Problem analysis and project planning
2. Information gathering and synthesis
3. Design
4. Early development and pilot testing
5. Evaluation and advanced development
6. Dissemination

4.5.1 Phase 1: Problem analysis and project planning

In this first phase, the researcher had to identify and analyse the problem in order to conduct the project planning. The problem should not be a personal problem, but a social problem that effects a society as suggested by De Vos and Strydom (2011b:476) and Rothman and Thomas (1994:10).

Gibelman (1995:1) cites Bob Dylan's famous words: "The times they are a-changing." The quote is especially true of the social work profession. As times change, so do the needs and expectations of the profession. The economic and socio-political environment of any country has always influenced the goals, priorities and targets of intervention, methodologies and technologies of social work. This is even more applicable to the development of social work within South Africa due to the multitude of transformation processes in the country. The researcher found that currently some social workers already use the DSM system, but without adequate training. Another group of social workers with a special interest in the field trained themselves in order to enhance their skills. The mental health of a client can however not be ignored or seen as a separate component, since it is an integral part of the client's bio-psycho-social functioning.

The researcher found that health care in South Africa is going through a process of restructuring as attempts are made to make it more accessible to the nation, especially with the predicted plans to implement a National Health Insurance for all citizens. Of the approximately 300 psychiatrists in South Africa, half practice in the public sector and therefore serve 80% of the population. The ratio of one psychiatrist per 280 000 people in the public sector compares poorly with a first world ratio of only one psychiatrist per 14 000 people. About one third of patients attending a health care facility will require some form of psychiatric or psychological treatment, often in addition to general medical treatment. Given the ratios detailed above, such treatment cannot be provided. For this reason all health care professionals, including social workers, are expected to possess basic psychiatric knowledge and to be able to apply this knowledge in local situations (Baumann, 1998:32–33).

The researcher is of the opinion that in South Africa, a country in need of National Health Insurance, a nation with diverse cultures, languages and a wide socio-economic diversity, the population experiences a disadvantage with regard to the ratio of psychiatrists when facing a mental health problem. Primary health care workers, such as social workers, who are familiar with the

language and customs of the local community, could be advantaged considerably if trained and familiarized in the understanding of mental health assessment and diagnosis.

Rogers [sa] states that in phase one the intervention and its hypothesized effects are identified. Generally, a small number of participants are recruited, and initial approximations of candidacy criteria are established. The treatment protocol is worked out, as are the specific outcome measures. De Vos and Strydom (2011b:477), Fawcett et al. (1994:27) and Goldenhar et al. (2001:619) further refer to a number of factors about which the researcher must make a decision. These factors include a formal problem formulation, such as identifying and involving individuals; gaining entry and cooperation from settings; identifying concerns of the population; analysing the identified problems; and setting goals and objectives (Rothman & Thomas, 1994:10). Rothman (1994:83) emphasizes that intervention research affects the nature of planning due to the dual intended output of a knowledge product as well as a practical product in the form of an intervention device or method.

4.5.1.1 Identifying and involving individuals

This phase focuses on the selection of a population whose issues are of current emerging interest to the individuals themselves, to researchers and to society (De Vos & Strydom, 2011b:477-478). The researcher found during a professional discussion that some social workers in private practice admitted that they had to utilize the DSM system as part of a contractual agreement with service providers, although these social workers had never received any formal training in this field. Training for social workers in the DSM system has been a point of discussion in first world countries, such as the United States, where the value of such training is under dispute; it has not however been a researched topic in South Africa (Kutchins & Kirk, 1995:160). The researcher identified and involved social workers interested in and utilising the DSM system in some way.

The researcher identified social workers in South Africa, working with clients on a daily basis, as the population. In her professional capacity working in psychiatric hospitals she experienced a need amongst social workers to understand psychiatry better since organisations expect them to refer company employees for assessment and treatment. All the social workers involved would not necessarily be familiar with this system, but the value of utilizing the system and the professional contribution could be explored.

4.5.1.2 Gaining entry and cooperation from settings

De Vos and Strydom (2011b:476) state that key informants can explain local ways to the researcher and introduce the researcher to gatekeepers who control access to the setting. Due to the researcher's current employment at four psychiatric hospitals, she has an existing contact network with various social work departments, the Medical Aids in South Africa, the South African Police Service, the Department of Correctional Services, BADISA (a church-based social welfare organization), as well as social workers in private practice. The researcher knew that the government departments would only allow their social workers to attend training if there was a formal invitation with an outlined programme. She sent the formal invitation to all the social workers on her database, as well as the registered social workers in the Western Cape Province as listed in the *South African Council for Social Service Professions Resource Book* (SACSSP, 2007b).

Gunter (2004), Pieterse (2004) and Smit (2012) stated that they had to utilize the DSM system in South Africa without formal training as part of their agencies' service requirements (Keet, 2009:22). However, they did receive weekly supervision from their peers. This situation caused some confusion and negativism amongst non-trained professionals towards the manual. They were of the opinion that a training programme would grant a positive growing opportunity, and the researcher would therefore find it easier to have access and cooperation from social work settings.

De Vos and Strydom (2011b:478) state that the key informants can explain local ways to the researcher and introduce the researcher to gatekeepers who control access to the setting. Contact, communication and conversation with the key informants will help the researcher understand what they have to offer and how to articulate the benefits for the potential respondents and members of the group. A successful research intervention is based on a collaborative relationship with representatives of the setting by involving them in identifying problems, planning the project and implementing selected intervention. Initial discussions between the researcher and the social workers working with mental health related issues provided collaboration opportunities.

4.5.1.3 Identifying concerns of the population

De Vos and Strydom (2011b:478) are of the opinion that intervention researchers choose a population with whom to collaborate whose issues are of current interest to clients themselves, to researchers and to society. The researcher initiated this study since the organisation that she worked for expected her to use the DSM system, regardless of knowledge and training in this system. The researcher also approached various other professionals for their input and guidance to obtain more views on this matter.

Garb (1998:39) notes that the DSM is the classification system for mental disorders used most often in the world. Huyssen (1999:11) is of opinion that it is also the mostly used system in South Africa. This fact causes more confusion since it seems that only a small portion of social workers in South Africa is familiar with and comfortable with the system, due to the lack of training in any diagnostic system.

The researcher therefore observed controversy regarding social workers' views, knowledge and ethical obligation to diagnose and to utilize the DSM system and found that many social workers proclaimed that it is unethical for a social worker to diagnose, while other social workers utilized a diagnostic system daily as a tool for their assessment. In the process of identifying the

concerns of the population, Sewpaul (2007) noted that she was not aware of any legislation that specifically speaks of the use of the manual by social workers in South Africa. In analysing the problem and working towards planning the intended project, the researcher felt that this discrepancy in opinions confirmed the reason to conduct such a study.

4.5.1.4 Analysing identified problems

De Vos and Strydom (2011b:478-479) and Prinsloo (2001:12) remark that the difference between the ideal and the true standing of the research problem needs to be analysed. The researcher had to raise questions such as to whom the problem was affecting and why a previous intervention could not address the problem. The researcher, in collaboration with the subject specialist at the University of Pretoria, could not find any intervention research in this regard previously conducted in South Africa.

One of the identified problems is that social workers used the DSM system without adequate training. Training could equip social workers with the knowledge and practical tools to utilize this system correctly – to the benefit of the client. Tools such as the DSM could however be dangerous if used without training (Strong, 2007).

The researcher perceived that the ideal condition pertaining to training in the DSM system would be that social workers should have formal access to this knowledge; however, the reality was that social workers did not necessarily have knowledge regarding diagnostic tools such as the DSM system. The negative consequences are that social workers may have a limited assessment scope, since they might miss certain aspects of the client's functioning regarding their mental health and behaviour. Social workers will tend to work with clients and strive to change behaviour, without the realisation that some of the behaviour may be more complicated. The researcher was concerned that nobody, not the client, the social worker, nor any other profession, is benefiting from this shortfall.

4.5.1.5 Setting goals and objectives

De Vos and Strydom (2011b:479) state that goals refer to the broad outcomes or conditions that are desired by the community of interest, while the objectives refer to the more specific changes in programmes, practices or policies that are believed to contribute to the broader goal. Prinsloo (2001:13) mentions that the goals and objectives will support the researcher in the next step since they will structure the information gathering process.

The researcher formulated the goals and objectives for this study as referred to in 4.2.1 in this chapter. De Vos and Strydom (2011b:479) and Rothman and Thomas (1994:10) mention that setting goals and objectives is the final operation of this phase, prior to gathering the information in phase two.

4.5.2 Phase 2: Information gathering and synthesis

Robey (2004:404) and Rogers [sa] refer to phase two as the phase where studies should determine early indications of the presence and magnitude of efficacy. The phase should include refining the nature of the population and the treatment protocol, and develop a manual for consistent implementation and replication (describing the intervention and the methods used to evaluate treatment fidelity are examples of highly valuable contributions).

Creswell (2011:28), Strydom (2011b:480) and Rogers [sa] suggest that the researcher use existing information sources to gather information, study natural examples and identify functional elements of successful models. A literature review usually consists of various selected empirical research studies relevant to the particular theme of the study. With intervention research, the researcher must look even beyond the literature since societal problems do not confine themselves neatly to the various human and social science disciplines. Intervention research must generate new knowledge about behavioural-environment relations and establish new linkages between concepts and

methods of various disciplines. Creswell (2011:28) emphasizes the value of using literature in a quantitative study as a basis for advancing hypotheses.

A particularly useful source of information is observing case studies and how community members face the problem being studied and even attempt to address it (De Vos & Strydom, 2011b:481; Rogers [sa]). The researcher found through discussions with social workers in private practice that they were frustrated with the DSM system, since they often had to use this system, without any training in this regard. Many of these professionals trained themselves in the basic concepts regarding the DSM system, in their attempt to utilize the system correctly.

The information specialist for Social Work at the University of Pretoria conducted a thorough search of applicable databases for existing research pertaining to the topic. The search found literature on other countries' conflict regarding the scope of practice for social work, the right to diagnose, as well as the role of social work within the field of mental health, but very little information existed for the South African context. Although it is not the ideal to compare first world countries' outcomes to the South African context, since their contextual situation regarding access to health care and health care providers, cultural beliefs and language challenges are just some of the constraints, the researcher had to rely on international resources.

A very valuable resource was the information found from experts in the field. It was the researcher's perception that regardless of the lack of written literature, experts shared the same frustrations and uncertainties, and they provided valuable information relating to the reality of the need for a training programme in the DSM system for social workers. Experts, such as social workers in private practice, psychiatrists, psychologists and nurses, admitted that the DSM system is undoubtedly a practical tool, which enhances the operational functions of a multi-professional team with one set of concepts and definitions.

The following table refers to comments made by various professionals:

Table 9: Interviews with professionals

Professional	Field of Expertise	Comments	Date
J Mayhew	MA Psychology; in Private Practice	<i>"The intervention could be very beneficial, training is essential in improving people's self-confidence in using the DSM-IV."</i>	31/03/2004
M Pieterse	MA SW; Psychology Hons; Therapist at SANCA	<i>"In my eyes the DSM-IV is a subjective interpretation. I would recommend that the researcher obtain different views from different professions such as medical doctors and psychiatrists."</i>	31/03/2004
B Olivier	MA SW; Senior Corporate Health Consultant	<i>"There is a great need for this intervention – especially for the therapists in practice. Aim to explore the value that training could add to practitioners in private practice."</i>	31/03/2004
H Opperman	MA SW; Therapist at SANCA	<i>"The intervention will add value. I do not know a lot about the DSM-IV, but will find it very interesting to know much more."</i>	31/03/2004
C Orren	MA SW (EAP); Corporate Health Consultant	<i>"This intervention will be excellent. Within our company, our therapists are obliged to use the DSM-IV with minimal or no training therein. There is a significant need for in-depth training."</i>	31/03/2004
M Smit	BA SW; In Private Practice (associated with four psychiatric clinics)	<i>"Utilization and application of the DSM system is so valuable – working in a psychiatric setup. Training or supervision in the use of this system is essential. Currently that is a great shortfall."</i>	05/02/2007
Dr. P Strong	Private Psychiatrist	<i>"Very interesting field, however diagnosing is a much specialized field."</i>	25/03/2007
Prof V. Sewpaul	PhD; Senior Professor & Head of Department of Social Work, University of KwaZulu-Natal	<i>"I worked in psychiatry for a number of years and worked with a consultant who believed that all of us working in mental health should be treated equally and that all of us should know how to use the manual and to diagnose."</i>	12/05/2007

The researcher found that all the above professionals perceived the identified research problem as a reality in practice. This research could generate new knowledge about behavioural-environment relations within mental health and the scope of practice for social work, and therefore establish new linkages between concepts and methods of various disciplines, typical of intervention research.

4.5.2.1 Using existing information sources

Rogers [sa] and Mouton (2001:90) agree that the researcher begins with the most recent sources relevant to the research subject. This way the researcher can discover how later studies have developed around the original studies. De Vos and Strydom (2011b:480-481) explain that the researcher must look beyond literature of their particular fields, since societal problems do not confine in only one particular field. Intervention research therefore contributes not only to the discovery of new knowledge about behaviour and relations, but also to the linkages between concepts and methods of various disciplines. The researcher made use of different sources to obtain information, including scientific books, articles in professional journals, standard reference materials, research reports and dissertations, the Internet, newspapers, magazines and periodicals.

The researcher found limited literature in the South African context, although various forms of data were available at an international level. The researcher did not only obtain information from literature, but also from psychiatric professionals and psychiatric hospitals.

4.5.2.2 Studying natural examples

A particularly useful source of information is observing how a community faced with the problem under study has attempted to deal with it. Interviews with people who have actually experienced the problem (such as mental health care practitioners) or those with knowledge about the problem can provide

insight into which interventions might or might not succeed (De Vos & Strydom, 2011b:481).

In her previous position as a full-time clinician for an international wellness company, the researcher found that part of the contractual obligation in intervention with a client was to provide a suggested psychiatric diagnosis. After consultations with practitioners and experts in the clinical social work field as well as in the psychiatric field, the researcher found that the majority of clinicians contracted with this company had no training or orientation in the utilization or understanding of any psychiatric diagnostic model.

4.5.2.3 Identifying functional elements of successful models

Once all the information was gathered, the researcher analysed critical features of the programmes and practices that previously addressed the problem in question (De Vos & Strydom, 2011b:481). The researcher found research conducted in the United States by Dziegielewski et al. (2002:27) to be a valuable guideline for the research process. They also made use of an intervention strategy utilizing a pre-test and post-test design as a measuring tool. The researcher was of the opinion that this study could add value, even though it was not within the South African context.

4.5.3 Phase 3: Design

During this phase, the researcher had to design an observational system as well as specifying procedural elements of the intervention. Prinsloo (2001:16) states that the researcher must design a system that can observe incidents related to the research problem naturally. The professionals affected by the research problem had to be involved in the process in order to specify the behaviour or/and environment that needs to change.

In phase three, many types of designs are appropriate but should be experimental, in the sense that designs must entail comparisons of treatment

with no-treatment control conditions or withdrawal of treatment or other experimental conditions that permit inferences of a causal relationship between the treatment and the effect (Fey & Finestack, 2009:524; Goldenhar et al., 2001:620; Rogers [sa]).

According to Goldenhar et al. (2001:620), in intervention research the goal of the design is that the:

... intervention made a difference, in other words the training must change the views and opinions of the social workers prior to the training; Results must be generalizable (while addressing the limitation of resources such as time, funding, etc.), which means that the results should be applicable for most social workers in the same field of practice.

The researcher designed a questionnaire to explore social workers' knowledge, attitude and utilization pertaining to mental health and the DSM system. After the intervention period, which would consist of a two-day intensive training programme in the DSM system, the respondents would complete a similar questionnaire, in order to draw conclusions with regard to the impact of the intervention.

4.5.3.1 Designing an observational system

De Vos and Strydom (2011b:482) note that in this phase the researcher "... must design a way of naturalistically observing events related to the phenomenon, as well as a method system for discovering the extent of the problem and detecting effects following intervention." Such an observational system consists of three working parts namely:

- Defining the definitions of the behaviours or products associated with the problem
- Providing examples and non-examples of the behaviours or products with the aim to discern occurrences of the behaviours or products
- Scoring instructions are prepared to guide the recording of the desired behaviours or products.

The researcher identified social workers' utilization of the DSM system, without formal training, as the first aspect associated with the research problem, and the second as the social workers' lack of knowledge regarding mental health. It was the researchers' opinion that social workers are often ignorant regarding the effect and impact that mental health problems could have on their clients' functioning. The result of the lack of knowledge to assess and address mental health issues could be that social workers rather avoided clients' mental health problems. No research within the South African context was available to confirm or disconfirm the researcher's opinion.

While in private practice conducting clinical sessions for an international wellness company, the researcher observed that a significant number of social workers were expected to provide a view on a client's psychiatric diagnosis. A need for proper training in this field was identified as an urgent requirement (Mayhew, 2004; Opperman, 2004; Orren, 2004).

Dziegielewski et al. (2002:27) identified a similar need when they conducted a six-hour group training session (pretest-posttest design) in which they explored social workers' utilization skills and comfort in using the DSM, as well as assessing the continuing education experience provided. The researcher was of the opinion that Dziegielewski et al. (2002:27) provided an ideal observational system, since they identified a similar need, and conducted similar research, although within a United States context, and not a South African context. Regardless, the researcher believed that a similar intervention focusing on the South African context could be of value.

4.5.3.2 Specifying procedural elements of the intervention

Elements of intervention procedures may become part of the final practice model as the final product of the research (De Vos & Strydom, 2011b:482). These elements can include information, skills and training and include the preparatory phase, beginning phase, working phase and termination. Based upon the literature study and the interviews with experts and service providers,

the researcher specified the elements of the intervention. To provide a holistic overview of the DSM system, the researcher decided to include the following sections in the proposed training programme:

- **MODULE 1: Mental Health**
 - 1.1 Mental Health and Mental Illness
 - 1.2 Psychosis
 - 1.3 Mental Health Classification Framework
 - 1.4 Mental Health Approach
- **MODULE 2: Mental Health Team**
 - 2.1 Social Work Scope of Practice
 - 2.2 Assessments & Diagnosis
- **MODULE 3: Department of Health**
 - 3.1 Prescribed Minimum Benefits
 - 3.2 Algorithms & Guidelines
- **MODULE 4: DSM**
 - 4.1 History of the DSM
 - 4.2 DSM Purpose
 - 4.3 Multi-axial Assessment
 - 4.4 DSM-IV-TR Classification System with V-Codes
- **MODULE 5: DSM Disorder Classification Criteria**
- **REFERENCE LIST**
- **PRACTICAL TOOLS**
 - Initial Assessment
 - FAMHA and GAF Scale
 - Substance Related Disorder Algorithms
 - Resource list

The researcher acknowledges the words of Newman et al. (2007:1044) who state:

The profession of social work has long struggled to view human behaviour and client functioning. This effort has led to many debates about what content should be included as essential social work knowledge. The DSM of the American Psychiatric Association and its conceptualization of human

behaviour and mental health have been lightning rods with the field for how to conceptualize human behaviour and implement the best way to be helpful to clients and reduce social problems. Social work educators have demonstrated ambivalence about including the DSM and its view of human behaviour as preparation for social work practice.

To develop a training programme with an accompanying manual for social workers in the DSM, the researcher needed to address human behavioural issues by providing an opportunity for the respondents to obtain knowledge with regard to human behaviour, mental health regulation and practice as well as guidance with regard to utilizing the DSM, referral processes, assessment tools and disorder criteria's. The programme and manual therefore did not only focus on the DSM, but also on information that guided the respondents in order to understand the DSM.

Module 1 was based on the literature study as referred to in Chapters 2 and 3. This module clarified the difference between mental health and mental illness in order to understand human behaviour and mental health disorders. Mental illness received attention with regard to psychosis, taking into consideration the value of this information, as discussed in Chapter 2. The researcher addressed the criteria for psychotic conditions as well as the signs and symptoms so that the social workers would be able to identify a psychotic episode.

The next focus was on the two different mental health-coding systems namely the ICD-10 coding versus the DSM-IV-TR. The module concluded with mental health approaches in social work. The module aimed that social workers should be able to think differently about their clients, and start viewing them holistically, and not only with regard to the social component. The need to understand what a mental health disorder is to avoid confusion with a social problem, and the need to know how to approach such a client within acknowledged social work approaches were included in the content. The researcher was concerned that knowledge on the DSM alone would be

dangerous and would support concerns about 'labelling of clients' (Newman et al., 2007:1045).

Module 2 focused on the mental health team. Kerr et al. (2007:64) note that there has been a lack of research on therapeutic service deliveries by mental health teams, and the quality or the functioning of the team as a whole. They also identified a need for research with regard to training 'or the lack thereof' for mental health teams with regard to psychotherapy. It was therefore essential that the researcher included a focus on the mental health team. This module consisted of the following, related to the mental health team:

- The *South African Mental Health Care Act* (Act 17 of 2002 section 1: xvii) defining the mental health team
- The Social Work Scope of Practice in mental health with regard to the the Social Services Profession Act
- The views of South African universities with regard to social work training in mental health
- Mental health assessments and diagnosis in terms of assessment scales with information on the Functional Assessment of Mental Health and Addiction as well as discussions around diagnoses

The purpose of this module was to guide social workers to identify their role in the mental health team, and to be able to make appropriate contributions and referrals. In order to do so, social workers needed to know what they could and could not do (scope of practice), a limitation in the field of social work within South Africa, with implications for this study.

The content of module 3 included the practical implications of the regulations of mental health in South Africa with regard to the National Department of Health who regulates the Public Sector and the Private Sector with prescribed minimum benefits and algorithms (treatment plans) and how all of this impacts on social work practice in mental health. The researcher was of the opinion that it was important to discuss the treatment plans for mental health, as provided by the South African Society of Psychiatrists, since these algorithms

indicate to the possible role players what needs to be addressed with regard to various mental health disorders (Allers, 2008).

Module 4 specifically addressed the DSM, and commenced with a history of the system followed with the purpose of the system. The multi-axial structure received attention, especially when referring a client to another mental health practitioner. This module concluded with an outline of the 17 classifications of the DSM. The purpose of this module was to guide the respondents into what the DSM is, and what the purpose of such a system is. Insight into the multi-axial structure could assist social workers with referrals since this could be a summary of an assessment, since all other mental health team members utilize it in such a format.

Module 5 focused on the DSM disorder Classification Criteria. The researcher decided to define each of the 17 disorders and where possible, provided a short history of that disorder, the genetic role with categorising each disorder with regard to Axis I, Axis II, characteristics, causes and the DSM-IV criteria. The purpose of this module was to provide a summary of the DSM-IV criteria and experts' views to be used as a practical assessment tool.

The manual included a reference list as well as the following practical tools:

- Draft initial assessment
- Functional Assessment of Mental Health and Addiction scale (FAMHA)
- GAF Scale and Substance Related Disorder Algorithm.

4.5.4 Phase 4: Early development and pilot testing

A pilot study is defined as: "The process whereby the research design for a prospective survey is tested" (*New Dictionary of Social Work*, 1995:15). This phase consists of the process by which the intervention was implemented on a trial basis, in a shorter period, in order to assess its adequacy, quality and practicality. The pilot study determined whether the intervention – the DSM training programme – would work, and would be implemented in settings

similar to the ones in which the intervention will take place. The pilot test would help to determine the effectiveness of the intervention (De Vos & Strydom, 2011b:483).

The researcher approached five social workers, a psychiatric nurse and clinical psychologist who were not part of the main study. The pilot study was based on a prototype-training programme where the content of the entire intervention was discussed and the social workers had to identify and assess the quality of the content. The participants also had to complete the pre-test and post-test questionnaire. The pilot study would determine whether the intervention – the DSM training programme – would work effectively as an intervention programme. The researcher made some adjustments based on the outcome of the pilot study; however, the overall feedback regarding the training was positive and encouraging.

The researcher found that there were logistical implications during the course of this study, since the number of respondents increased so significantly that the venue, as provided by the researcher's employer, Life Path Health Group, a group of private psychiatric hospitals in the Western Cape, was no longer suitable to cater for and accommodate 100 individuals. The CEO of the Life Path Health Group agreed sponsorship for all the catering (beverages) for the one hundred respondents over two days at a different venue. The researcher further found that there were cost implications to the printing and distribution of the 130 pages training manual handed to each respondent.

For purposes of this study, the researcher employed the one-group pretest-posttest design, which is a form of the experimental designs (Fouché, Delpont & De Vos, 2011:145-146). Dziegielewski et al. (2002:27) refer to their pretest-posttest design where they explored social workers' utilization skills and comfort in using the DSM as well as assessing the continuing education experience provided. The researcher could not access the content of this study's intervention, but decided to use a similar intervention process, focusing on the South African context. Prior to this intervention, the researcher also

conducted a pre-test to assess the respondents' knowledge and comfort in using this system and then again a post-test on completion of the training. This provided valuable information into the intensity of training /intervention needed.

The pre-test questionnaire included a section with biographical questions and another section focused on the respondents' views and utilization of the DSM system. The researcher compiled these questions based on all the integrated views and statements found in the literature, made by various experts.

The pre-test was distributed and completed on the commencing date of the training programme. The research intervention included a two-day training session designed to provide information with regard to the role of social workers using the DSM, as well as equipping participants to utilize this system, should they wanted to or be expected to do so. The training focused on the following:

- an assessment into social workers' current understanding and utilization of the DSM-IV;
- an introduction into the history and general utilization of the DSM-IV;
- an explanation into DSM-IV classifications and multi-axial assessments;
- information and assessment tools;
- practical implementation; and
- summary and evaluation.

On completion of the pre-test, the respondents were introduced to the intervention – a training programme in the DSM system.

De Vos and Strydom (2011b:485) comment that an **experimental design** helps to illustrate the relationships between the targeted conditions for change and the intervention and behaviour. The researcher selected a pre-experimental pretest-posttest design by employing the one-group pretest-posttest design. It was the researcher's aim to conduct a two-day group training intervention where social workers would receive training in utilizing the DSM system with their clients.

De Vos and Strydom (2011b:486) further state that the **data collection** from the pilot test of the intervention are analysed so that the researcher can determine when the initial intervention should be implemented and whether supplemental procedures are necessary. Durrheim (2006:51) refers to data as the basic material with which researchers work. To draw valid conclusions from a research study, it is essential that the researcher have sound data to analyse and interpret. Creswell (2011:218) states that the researcher needs to be specific about the type of data, both quantitative and qualitative, to be collected during the study.

The data collection method for both the quantitative and qualitative methods was the questionnaire, including open-ended questions (qualitative) and close-ended questions (quantitative). The following data was collected from these questionnaires:

Section A – Pre-test questionnaire: Biographical information: The researcher gathered data from all the respondents regarding the following aspects:

- their expectations for the training;
- their employment;
- qualifications;
- age;
- number of clients assessed on a monthly basis;
- reason for attending the training;
- prior training received in the DSM system, and
- the use of alternative diagnostic tools.

Section B – Pre-test questionnaire: DSM System: The researcher gathered data from all the respondents regarding the following aspects:

- current utilization of the DSM system;
- current management of mental health clients;
- knowledge regarding mental health issues;
- need for training in other mental health related issues;

- views/opinions regarding the use of diagnostic tools by social workers,
- the perception of the value that the social worker's assessment would provide to other professionals.

Section A – Post-test questionnaire: DSM Training Programme: The researcher gathered data from all the respondents regarding the following aspects:

- Does training in the DSM system enhance social work assessments?
- Would a training programme assist social workers in their profession?
- Would the respondents recommend this training programme to their colleagues?
- Recommendations regarding the course content;
- Other areas in mental health that also require training; and
- General remarks.

Section B – Post-test questionnaire: DSM Training Programme: The researcher gathered data from all the respondents regarding the following aspects:

- current utilization of the DSM system;
- current management of mental health clients;
- knowledge regarding mental health issues;
- need for training in other mental health related issues;
- views/opinions regarding the use of diagnostic tools by social workers,
- the perception of the value that the social worker's assessment would provide to other professionals.

Section B of both the pre- and post-test included similar questions, in order to make comparisons and assess any change of perception and opinions.

Creswell (2011:218) states that **analysing the collected data** occurs both within the quantitative (with numeric analysis) and qualitative (text or image analysis) approach. The quantitative questions in the pretest-posttest questionnaires were developed in such a way to enable use of a computer for

analysing the data. According to Creswell (2011:219), this is typical of the 'examine multiple levels' whereby the researcher will gather quantitative results with the quantitative questions, and then explore the phenomenon with qualitative questions.

On completion of the training in the above, the researcher included a post-test after the intervention with a similar questionnaire and checklist as the pre-test questionnaire. This post-test measured the value and necessity of such an intervention. The researcher and the Department of Statistics at the University of Pretoria jointly developed the pre-test and post-test questionnaires. The department conducted the statistical processing and analysis of all the data.

The researcher used self-administered questionnaires, developed by the researcher and the Department of Statistics at the University of Pretoria who offered statistical support. This department analysed the data and provided the processed data in a statistical order. The open questions were categorised by the researcher and themes selected with regard to the categories.

The intervention was pilot tested under actual **field conditions** (De Vos & Strydom, 2011b:486). This intervention took place in the Western Cape in the format of one training session with 100 participants over a period of two days. The Life Path Health Group sponsored a venue and beverages. The number of respondents slightly differed due to last minute cancellations, transport and work related issues.

4.5.5 Evaluation and advanced development and dissemination

The researcher did not complete the last two phases but was able to make valuable conclusions and recommendations to be able to complete the full process of intervention research. The need for further evaluation and advanced development is identified as both a limitation and a recommendation or future research.

In the last two phases, the intervention needs to be refined so that the results of the field-testing can be used to resolve problems arising from the intervention and measurement system. Repeated tinkering with the intervention assists to ensure a reliable intervention (De Vos & Strydom, 2011b:486). The researcher received valuable feedback on the intervention with regard to areas where more information was needed as well as feedback on the measurement with regard to the type of questions, the interpretation of questions and the perceptions of the respondents following the field test.

Goldenhar et al. (2001:620) note that it is important to close the intervention research loop in terms of the positive and negative findings. The findings must be reported to the intervention participants directly or in a form that is understandable. De Vos and Strydom (2011b:487) and Goldenhar et al. (2001:620) describe the focus of the last phase of intervention research as:

- **Preparing the product** where the researcher should select a brand name, establish a price for training and training manuals and ensure standards to ensure the integrity of the training (product). The researcher should identify potential markets for the intervention and create demand for the intervention.
- **Identifying potential markets for the intervention** forms part of the dissemination phase. The researcher will have to ask who will benefit from the training, which market segment is the focus group, and what type of media approach will be needed (De Vos & Strydom, 2011b:488).
- **Creating a demand for the intervention** is necessary and can be obtained by modelling where the researcher could for example request a psychiatrist/expert in the field to open the training with a topic that would interest attendees. The researcher could also create a demand; by sampling (if attendees know that there will be products, such as manuals, they are more willing to attend); and advertising whereby the researcher has to advertise not only the training, but also the modelling and sampling that accompanies the training (De Vos & Strydom, 2011b:488).

Goldenhar et al. (2001:621) summarize the phases of intervention research, by stating that if a researcher is making use of an intervention for research, the following issues should be considered:

- **The evaluative potential of the intervention:** In this regard, the researcher did a literature study to obtain information and knowledge about the potential of such training in the DSM, and this intervention was tested through a pilot study to prepare for the final training programme.
- **Inclusion of resources required to conduct the evaluation:** The researcher found that the pre-test and post-test questionnaires, developed according to literature, guided the evaluation process. The researcher asked independent professionals such as clinical social workers, clinical psychologists and psychiatrists to provide their input on the intervention, prior to the implementation.
- **Controversy over the intervention design, implementation or effectiveness:** Goldenhar et al. (2001:621) state that intervention research should have on-going links to development and implementation studies in order to have better intervention effectiveness. The researcher is of opinion that this intervention could stimulate new questions and concerns. This would be an indication of the need to maintain a cycle of intervention research whereby more comprehensive and effective studies can be conducted.
- **The intervention timelines:** The rationale for conducting the study was the identified need for more training in a mental health diagnostic system, such as the DSM. This research process would test the hypothesis. The researcher should however remember that the process of implementing such a training on a formal level would be time consuming since:
 - The controversy pertaining to the scope of practice for social workers in mental health is not clear, as discussed in Chapter 2. Any changes in this regard consist of a legislative process, since

the Social Service Profession Act 110 of 1978 should then be amended. Such changes would be time consuming and intensive.

- Only when the social workers' scope of practice is clear with regard to mental health services, medical funds will be in a position to consider social work claims on a broader scope for mental health services.
- The researcher found in Chapter 2 that social work training in a diagnostic system is also unique to each university in South Africa. Every graduate social worker from a different university will have a different knowledge base and approach due to the unique curricula. A standardized module in all the universities is ideal, but the implementation of such a process could be challenging.

The researcher concluded from the above discussion that the intervention research design would be the most appropriate design, since this intervention, the training programme, would be the first programme in South Africa of its kind and could provide a platform for more intervention research or even evaluation research, focusing on evaluating existing programmes.

The following section will provide a discussion on the research population and sampling method.

4.6 DESCRIPTION OF THE RESEARCH POPULATION AND SAMPLING METHOD

4.6.1 Research population

Neuman (2011:341) defines a research population as “the abstract idea of a large group of many cases from which a researcher draws a sample and to which results from a sample are generalized”. Babbie (2011:366) specifies the population as the subjects that will be the focus point to draw conclusions. He is of opinion that in a research study one is almost never able to study all the members of the population that interest the researcher, and that is why the

researcher selects a sample. Social researchers are more deliberate in their sampling.

Strydom (2011:222) refers to a universe as all the potential subjects who possess the attributes in which the researcher is interested, while a population is the totality of persons, events, organizational units, case records or other sampling units with which the research problem is concerned. The researcher identified the population as all the social workers working with a client base in South Africa.

4.6.2 Sample Method

A sample is a smaller selection of individuals from the population (Neuman, 2011:240). Babbie (2011:178) mentions two types of sampling methods:

- Non-probability sampling includes techniques in which samples are selected in a way not suggested by probability theory.
- Probability sampling refers to samples selected in accordance with probability theory, involving some random-selected mechanism.

For the purpose of this study, the researcher used non-probability sampling, specifically purposive sampling. Neuman (2011:267) explains that purposive sampling is based on “the judgement of an expert in selecting cases, or it selects cases with a specific purpose in mind”. In this study, the defined target sample will be by means of a purposeful, systematic method.

Durrheim and Painter (2006:139) refer to non-probability sampling as any kind of sampling in which the selection of elements is not determined by the statistical principle of randomness. In practice, probability samples are expensive and difficult to obtain, and so the vast majority of research in social science relies on non-probability sampling. The purposive sampling in this study would be based on the judgement of the researcher, since the researcher was looking for specific characteristics representative of or typically

attributable to the population. The criteria for the selection of participants would be:

- Social workers intervening with clients in a one-to-one therapeutic process
- Social workers based in the Western Cape

For the purpose of this study, the purposive sampling would take place through a contact list of social workers, provided by the *South African Council for Social Service Professions* (SACSSP, 2007b) as well as a personal database of social workers working for the government sector, such as South African Police Service and Department of Correctional Services. The researcher studied the lists and invited all social workers in the Western Cape, who according to this list, deal with clients on a one-to-one level, to participate in the study. Unfortunately, this list does not differentiate between social workers dealing specifically with mental health issues, and therefore the researcher approached social workers, based on her own judgement, according to the speciality fields provided on the SACSSP list.

4.7 SUMMARY

The goal of this research was to develop, implement and pilot test a programme that would train social workers in the utilization of an accredited diagnostic system such as the DSM system.

The following research objectives were formulated namely: completing a literature study regarding social workers' diagnostic and assessment tools and techniques; exploring social workers' knowledge, attitude, and utilization of the DSM system; developing a training programme in the utilization of the DSM system to social workers; measuring the effectiveness and utilization of the content of the training programme; and making conclusions and recommendations regarding the benefit of a training programme for social workers in the DSM system.

A combined quantitative/qualitative research approach was followed since methods from both approaches, with the embedded mixed method design were followed. The primary method is based on the quantitative approach (close-ended questions), while the qualitative approach (open-ended questions) was followed as a secondary method. .

This research is applied intervention research since the aim of the entire study was to contribute towards the practical issue, namely social workers who either use the DSM system without training and social workers who have a need to be more knowledgeable regarding the DSM system.

The respondents would attend a two-day training programme in the DSM system. Prior to the commencement of the training, the respondents had to complete a pre-test questionnaire in order to assess their knowledge, attitude and utilization of mental health and the DSM system. After two days, on completion of the training programme, the respondents had to complete a post-test questionnaire to assess their knowledge, attitude and utilization of the DSM system after the training. This pre-experimental design, namely the 'one-group pretest-posttest design' enabled valuable interpretations and comparisons regarding the impact and value of the training programme.

The research methodology was based on the six phases of an intervention research process. In the first phase, the researcher identified the research problem, namely social workers using the DSM system, without training, and the need amongst social workers for more knowledge regarding mental health. This phase also focused on the project planning, where the researcher not only identified and involved social workers, but also received cooperation from departments such as the Social Work Departments of the South African Police Service and Department of Correctional Services, as well as various private institutions.

The second phase of an intervention research process focuses on the gathering of information. Very little literature exists regarding this field of study,

especially within the South African context. Experts in the field, such as social workers in private practice, clinical social workers, clinical psychologists and psychiatrists were approached for their expert view and guidance regarding this subject.

Within the third phase, the researcher addressed the research design, namely the one-group pretest-posttest design, for which an observational system was developed. The researcher developed a training programme in the DSM system for social workers. The intervention design, the programme and the quantitative data capture methods and questionnaires were tested in the pilot study with various experts in the field to assess the adequacy, quality, and practicalities of the training programme. In pilot testing the training programme, the researcher collected data pertaining to biographical information, the DSM system, the DSM training.

The research population was all social workers working with a client base in South Africa, while the sample consisted of purposively selected social workers from the Western Cape.