Knowledge of NGO personnel on Motivational Interviewing: substance use during pregnancy in Cape Town

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Keywords:

Knowledge

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Substance use in pregnancy
Abstract

**Background**: Motivational interviewing is an approach that relates to a person’s hopes and aspirations. It is individual-focused to enhance intrinsic motivation to change. Over a decade, motivational interviewing has been shown to help achieve positive client outcome regarding substance use at various health settings in high income countries. In the Western Cape, clinical evidence suggests there is increase in number of children born with abnormalities related to prenatal exposure to substance. Anecdotal evidence suggests that the current support system in place for women who have children that are suffering from the effect of prenatal substance exposure seems not to be helping. As agents of change some NGOs in Western Cape are working towards decreasing substance use among pregnant women.

**Problem statement**: The NGOs involve groups of individuals in Cape Town who render their service voluntarily to help pregnant women who have problem of substance use. They help motivate and support pregnant women to live a healthy lifestyle. It is however uncertain if personnel in these NGOs have knowledge of motivational interviewing.

**Aim**: In the absence of the above information, this study is therefore aimed to explore NGO personnel’s knowledge on the use of motivational interviewing in addressing substance use among pregnant women in Western Cape.

**Method**: A quantitative approach using a descriptive design with a non-probability all inclusive sampling was used. A total of 45 participants were drawn from NGO shelters and day centres working with pregnant women who use substance in the Southern sub-urban district of Cape Town metropolis. Structured questionnaires were given to the participants for data collection and the response rate was 53% (n=24). Data was analysed using descriptive statistics.
Results: The results of the study showed that the general performance of the participants on knowledge of motivational interviewing was poor. The score of most participants (i.e. mode) fell within 31 – 40%. Hence, the distribution of the scores was skewed toward the failed side. The percentages of males and females that passed were very low and the values were very close. Hence, gender was found not to influence the performance of the participants in this study. Lack of training in motivational interviewing was found to be responsible for lack of knowledge of the concept. There was no correlation between years of experience and age of participants on performance in the evaluation. The knowledge of participants on characteristics of substance user and the dynamic client-therapist’s interaction was very shallow. Participants who agreed to myths regarding substance users were most likely to exhibit actions that were not consistent with principles of motivational interviewing during their interactions with clients. The participants did not have adequate knowledge of the five basic principles of motivational interviewing. The conclusion of the study was that there was need to train NGO personnel in the concepts of motivational interviewing.
Declaration

I declare that “Knowledge of NGO personnel on Motivational Interviewing: substance use during pregnancy in Cape Town” is my own work, that it has not been submitted for any degree or examination in any other University, and that all sources I have used or quoted have been indicated and acknowledged by complete references.

Fisayo Ruth Abiodun

January, 2016

Signed
Dedication

I would like to dedicate this mini-thesis to my lovely family: my husband, Dr. Babatunde Joseph Abiodun, and my sons, Masters Shalom, Emmanuel, Joel, Samuel, and Daniel Abiodun.
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I would like to thank the almighty God for the grace, courage, wisdom and strength given me to carry on in my studies.

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<th>Description</th>
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<tbody>
<tr>
<td>AEP</td>
<td>Alcohol exposed pregnancy</td>
</tr>
<tr>
<td>FASD</td>
<td>Foetal alcohol spectrum disorders</td>
</tr>
<tr>
<td>FAS</td>
<td>Foetal alcohol syndrome</td>
</tr>
<tr>
<td>MI</td>
<td>Motivational Interviewing</td>
</tr>
<tr>
<td>MITIS</td>
<td>Motivational interviewing treatment integrity scale</td>
</tr>
<tr>
<td>NA</td>
<td>data Not Available</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organizations</td>
</tr>
<tr>
<td>NRF</td>
<td>National Research Foundation</td>
</tr>
<tr>
<td>QC</td>
<td>Question on characteristics of substance user</td>
</tr>
<tr>
<td>QP</td>
<td>Question on principles of motivational interviewing</td>
</tr>
<tr>
<td>QR</td>
<td>Question on relationship between client and therapist</td>
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<td>USA</td>
<td>United States of America</td>
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Chapter I: Introduction

1.1 Introduction
This introductory chapter provides an overview of the study. It begins with the background of the study, followed by the research problem statement; research hypothesis; research question that the study intends to answer; and aim and objectives. Thereafter, the significance of the study is discussed and the operational definitions of key concepts related to the study are provided. The chapter concludes with a chapter outline and remarks.

1.2 Background
Motivational interviewing is an approach that relates to a person’s hopes and aspirations. It is individual-focused to enhance intrinsic motivation to change (Stewart, 2012). The approach uses five strategies namely, “expressing empathy”, “developing discrepancy”, “amplifying ambivalence”, “rolling with resistance”, and “supporting self-efficacy” Leffingwell (2006: p11). Motivational interviewing is based on characteristics such as identifying and mobilising client’s inherent values and aspirations to encourage a positive change in behaviour. The approach allows clients to self-trigger motivation for a change in behaviour rather than being coerced to change. Furthermore, motivational interviewing features in dealing with fluctuation (ambivalence) in behaviour change as it surfaces and helps a client to consider interpersonal interaction as an important factor to behaviour change. It involves positive reinforcement in behaviour change, respect of client’s individuality, sound counselling techniques and style, and directive client-centred approach (Rubak, Sandbæk, Lauritzen, & Christensen, 2005).

Motivational interviewing has been in use over a decade in developed countries and has been shown to be effective in various health settings. It has been used in medical settings (Lundahl, Moleni, Burke, Butters, Tollefson, Butler & Rollnick, 2013; Colby, Monti,
O’Leary, Tevyaw, Barnett, Spirito, Rohsenow, Riggs & Lewander, 2005). It has been effective in maternity settings to decrease cigarette smoking and improve self-efficacy in pregnant women (Petersen, Steyn, Everett-Murphy & Emmelin, 2010; Karatay, Kublay & Emiroğlu, 2010). It was proven to achieve sustained alcohol cessation among adolescents over a long period of time (Wachtel & Staniford, 2010; Colby, et. al., 2005). It was used to achieve a decline in risk of alcohol exposed pregnancy (AEP) at a rural sub-district in Western Cape Province, South Africa (Rendall-Mkosi, Morojele, London, Moodley, Singh & Girdler-Brown, 2013).

Currently there are groups of individuals in Cape Town volunteering through Non-Government Organizations (NGO) to help pregnant women through periods of crisis, such as crisis pregnancy and substance use challenges. The NGO personnel are engaged in poverty stricken settlements and substance use prevalent areas in helping to motivate and support pregnant women to live healthy lifestyles (Rotheram-Borus, Le Roux, Tomlinson, Mbewu, Comulada, Le Roux, Stewart, O’Connor, Hartley, Deşmond, Greco, Worthman, Idemundia, & Swendeman, 2011).

Non-Government Organizations are agents of change (Elliot, 1987). They work closely with individuals faced with diverse challenges including pregnant women or mothers faced with substance use problems in various communities and neighbourhoods (Rotheram-Borus, et. al., 2011). The setting of some of these NGOs is home-based care. The personnel support clients through short or long-term stay at shelters. Other NGOs use day centres to structure daily programs. At the various home-based and day centres within the Southern sub-urban district in Cape Town, both men and women are attended to. In order to provide an alternative to abortion for women, one of the homes attends only to pregnant women in crisis. The home-based centres provide daily basic needs such as food and shelter as well as ongoing supportive counselling to address substance use during pregnancy. They also offer
life skill development training programs for pregnant women. The NGO centres use different calibre of personnel to work with clients. Among the personnel are professional psychologists, doctors, nurses (both clinical and educators), social workers, as well as lay community members who volunteer their time to help the community.

There is a high record of substance use during pregnancy in Cape Town Metropolis (Croxford & Viljoen, 1999). Substance use during pregnancy poses risks of morbidity and mortality to the mother and the foetus. Preterm birth and foetal alcohol spectrum disorders (FASD) could result due to prenatal exposure to substance use among other problems. Low birth weight is associated with preterm birth. An infant born with low birth weight is at increased risk of perinatal morbidity and mortality (Laws, Grayson & Sullivan, 2006). Foetal alcohol syndrome (FAS) is the most severe disorder of FASD and is associated with learning disability as the child develops. One of the possible means to achieve a decrease in the effects of substance use during pregnancy on an offspring and on the socioeconomic status of the province would be to ensure no substance use by pregnant women throughout all the trimesters. Abstinence from substance use during pregnancy may be a difficult task especially in crisis pregnancy and for those women addicted. These women might need constant help and on-going support to achieve a desired outcome in substance use cessation. This outcome may be achieved through motivational interviewing.

Thus, knowledge of motivational interviewing is vital to the effective usage of the approach when working with clients in order to achieve positive results. Although there is no literature stating whether NGO personnel working with pregnant women exposed to substance use in Western Cape have had training on motivational interviewing, some might be using aspects of motivational interviewing principles unaware. Thus the aim of this study was to explore NGO personnel’s knowledge on motivational interviewing.
1.3 Problem statement
Motivational interviewing has been used for over a decade in high income countries. It has been proven effective in achieving behavioural change in various health settings. Motivational interviewing is an important tool for NGO personnel because it targets a self-triggered motivation for a change in behaviour; it helps clients to see the need rather than being coerced to change. Currently, there are groups of individuals in Cape Town volunteering through NGOs to help pregnant women who have problem of substance use. They help motivate and support pregnant women to live a healthy lifestyle (Rotheram-Borus, et.al, 2011). However it is uncertain if the NGO personnel have knowledge of motivational interviewing in their interaction with pregnant women.

1.4 Research question:
- Do NGO personnel in the Southern sub-urban district of Cape Town metropolis in Western Cape have knowledge of motivational interviewing in addressing substance use among pregnant women?

1.5 Research Aim:
- To investigate the knowledge of NGO personnel on motivational interviewing in addressing substance use among pregnant women in the Southern sub-urban district of Cape Town metropolis in Western Cape.

1.6 Objective:
- To assess NGO personnel’s knowledge on motivational interviewing in addressing substance use during pregnancy in the Southern sub-urban district of Cape Town metropolis in Western Cape.
To identify gaps in NGO personnel’s knowledge of motivational interviewing in addressing substance use during pregnancy in the Southern sub-urban district of Cape Town metropolis in Western Cape.

1.7 Significance of study
Motivational interviewing is a tool that has been proven to be effective in achieving sustained behavioural change regarding substance use problems compared to other interventions. Thus, this study, which has the potential to help inform nursing system on NGO personnel’s knowledge of motivational interviewing, could be a key to achieving positive client outcome. Findings would thus spur possible recommendations for NGO personnel skills training on motivational interviewing. A decrease in substance use during pregnancy, hence decrease in substance related abnormalities on offspring would be realised in the Western Cape. This might be enhanced through possible integration of NGO-led motivational interviewing approach to antenatal clinic settings.

1.8 Research methodology
A descriptive quantitative design with a non-probability all inclusive sampling was used. A total of 45 participants were drawn from five NGO shelters and two day centres working with pregnant women who use substance in the Southern sub-urban district of Cape Town metropolis. Data was analysed using descriptive statistics on excel spread sheets. Measures of central tendency and measures of relative position are the two types of descriptive statistics that were used. Data were organized using ordinal and interval levels of measurements. Ordinal data were analysed using median measures of central tendency, while mean values were used to analyse interval data. Percentile ranks were used to represent both ordinal and interval data. The findings were presented by means of tables, frequency tables, and graphs. The research methodology is discussed in detail in Chapter IV.
1.10 Definitions:

Substance use in pregnancy

Substance use in pregnancy is the ingestion of one or more psychoactive substances when a woman is pregnant (Laws, et. al., 2006).

Crisis pregnancy

Crisis pregnancy is a pregnancy which is neither planned nor desired by the woman concerned and which represents a personal crisis for her (Daly, Ryan & Morphy, 2013).

Motivational interviewing

Motivational interviewing is defined: In layman’s term as “a collaborative conversation to strengthen a person’s own motivation for and commitment to change”; in practitioner’s term as “a person-centred counselling method for addressing the common problem of ambivalence about change”; in technical term as “a collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion” Miller & Rollnick (2013; p29).

Using this technical definition therefore implies that clients are guided through supportive counselling and persuaded to experience an inside-out behavioural change against substance use during pregnancy.

1.11 Chapter outline

The study consists of six chapters. Chapter I and Chapter II constitute the Introduction and literature review respectively. Chapter III explain the conceptual framework and Chapter IV
consists of the methodology. Chapter V provides the results and discussion, while Chapter VI deals with conclusion and recommendations.

1.12 Conclusion
This chapter has provided a brief overview of the background as well as the research problem statement, question, aim, objectives, the significance of the study and definition of keywords. Furthermore, the outline of the study has also been provided. The following chapter provides the literature review in relation to knowledge of NGO personnel on motivational interviewing and substance use during pregnancy.
Chapter II: Literature review

2.1 Introduction
This review of literature focused on the effectiveness of motivational interviewing as an approach to behavioural change. It also discusses previous studies done on knowledge of health personnel on motivational interviewing. The various means that have been suggested in addressing substance use during pregnancy is discussed. Medline, Pub med, Ebscohost, open library access, inter-library searches and Google search engines were used to access online databases to obtain materials for the literature review. The keywords employed were: motivational interviewing, substance use, pregnant women and NGO.

2.2 Effectiveness of motivational interviewing
Motivational interviewing could improve care in addressing substance use during pregnancy in the Southern sub-urban district of Cape Town metropolis in Western Cape. Studies (Colby, et. al., 2005; Rubak, et. al., 2005; Wachtel & Staniford, 2010; Lundahl, et. al., 2013; Rendall-Mkosi, et.al, 2013) have shown that motivational interviewing was effective in achieving positive outcomes in clients at various health settings.

According to Colby, et. al., (2005), motivational interviewing was used to achieve smoking cessation in adolescents in a medical setting. The study evaluated the efficacy of brief motivational intervention to reduce smoking among adolescents in the USA. Participants include patients aged 14-19 years who were treated at a hospital outpatient clinic and emergency department. Eighty-five patients were randomly assigned to receive one session of either motivational interviewing or standardized brief advice. Follow up assessment was conducted at 1, 3, and 6 month intervals. Results of the study at the 3 month follow up revealed significant low levels of cotinine in the group of patients who received motivational interviewing intervention compared to the other group that had brief advice. Similarly, in a randomised controlled trials’ study conducted in Australia by Wachtel & Staniford (2010),
fourteen studies (13 were international and one was local) published from 1998-2007 were reviewed to investigate the effectiveness of brief interventions for adolescent alcohol misuse and binge drinking. Participants in the studies aged between 12-25 years. Twelve out of the fourteen studies used motivational interviewing in the intervention. The study’s findings revealed a degree of success in alcohol cessation over a long period of time among the studies that used motivational interviewing.

Lundahl, et. al., (2013) conducted a systematic review and meta-analysis of randomized control trials on motivational interviewing. A total of 48 studies were examined to investigate the efficacy of motivational interviewing in medical care settings. Results revealed that motivational interviewing was very promising in achieving positive outcomes in different areas of health challenge which included alcohol and tobacco use. According to Rubak, et. al., (2005) carrying out motivational interviewing in a scientific setting is more efficient than the common traditional way of dealing with behavioural problems.

In a randomized control trial of motivational interviewing to prevent risk for an alcohol-exposed pregnancy in the Western Cape, South Africa, a total of 165 women at risk of alcohol-exposed pregnancy in a rural population setting were involved in five sessions of motivational interviewing (Rendall-Mkosi, et.al, 2013). A questionnaire was given to participants pre-intervention to measure alcohol use and effective contraception. A follow up questionnaire was administered to the participants at 3 and 12 months post motivational intervention. A significant decline in alcohol-exposed pregnancy was obtained in the group who had motivational interviewing compared to the control group.

The results from the mentioned studies revealed that motivational interviewing was a tool that had been proven to be effective in achieving sustained positive client outcome regarding substance use problems compared to other interventions. Therefore the tool might be effective if adapted for use in addressing substance use during pregnancy in the Western
Cape. Hence knowledge of motivational interviewing by the NGO personnel who work with substance using pregnant women in Western Cape is vital.

2.3 Knowledge, attitudes and practices of motivational interviewing

It is important to integrate knowledge of motivational interviewing to practice in order to achieve a positive client outcome. Although knowledge can be gained through exposure to training on a participant, incorporating the knowledge to practice might depend on individual personnel’s attitude towards clinical practices. For instance, in a study research, motivational interviewing knowledge was tested in a pilot study by Leffingwell (2006). Participants were 71 child and family home-based care providers from the state of Oklahoma. A simple test of knowledge and attitude change following motivational interviewing training was conducted. A pre-test and post-test questionnaire consisting of 19 questions in total; 10 questions on myths on substance abuse, 4 questions on values consistent with motivational interviewing beliefs, and 5 questions on identification of the five principles of motivational interviewing was involved. This study results showed significance increase in knowledge of motivational interviewing after training.

In a study conducted in Sweden on the use of motivational interviewing in smoking cessation at nurse-led chronic obstructive pulmonary disease clinics; two videotaped consultations of clients with nurses were analyzed for the nurses’ smoking cessation communication (Efraimsson, Fossum, Ehrenberg, Larsson & Klang, 2012). Motivational interviewing treatment integrity scale (MITIS) was used to analyze the nurses’ communication with clients. A five-point Likert scale was used to judge five parameters showing best adherence to motivational interviewing in order to get an impression of the consultation. The results of the study showed that although the nurses had knowledge of motivational interviewing through training prior to the study, they did not incorporate the knowledge into smoking cessation communication with clients.
2.4 Suggested means of addressing substance use during pregnancy
The problem of substance use during pregnancy in the Western Cape needs a more aggressive client-centred intervention. Anecdotal evidence suggests that the current support system in place for women who have children that are suffering from the effect of prenatal substance exposure seems not to be helping. It is disturbing that despite support systems in place and various suggested means to address substance use during pregnancy in the Western Cape, increase in alcohol consumption during pregnancy is still being recorded. Several authors (October, 2011; Cloete, 2012; Tomlison, O’Connor, Le Roux, Stewart, Mbewu, Harwood & Rotheram-Borus, 2014; Croxford & Viljoen, 1999; Gifford, Farkas, Jackson, Molteno, Jacobson, Jacobson & Bearer, 2010) have suggested ways to address alcohol use during pregnancy.

October,(2011), suggested public awareness through health talks on the effect of substance use during pregnancy as well as training of medical and social services staff to develop prevention programs. Cloete (2012) and Croxford & Viljoen (1999) suggested identification of the needs of mothers whose children are affected by FASD. They also suggested self-empowerment approach for collaborating with indigenous groups in identifying and initiating processes that will stop alcohol abuse. Tomlison et. al., (2014) suggested a horizontal approach by identifying multiple risk factors for mothers with the focus on holistic care. Treatment programs for both mother and child affected with FAS was suggested by Gifford et. al.,(2010). Fokazi (2012) asserts that, there is currently a support system in place whereby mothers who have children born with FAS and other alcohol spectrum disorders receive monetary compensation. Statistics of children born with substance related abnormality is still on the increase. This is clinically related to consumption of substance by some pregnant women. The question then is why is there no change in alcohol consumption among these pregnant women despite all the intervention currently in place? Could it be that partly the
monetary compensation act to fuel and sustain substance use during pregnancy or intervention need to be readdressed?

In contrast to the other interventions that has been suggested, Rendall-Mkosi, et.al., (2013) asserts that motivational interviewing is the most proven effective intervention in addressing the problem of substance use during pregnancy. Hence it is important to determine if NGO personnel who work with substance using pregnant women in Cape Town has knowledge of the tool.

2.5 Conclusion
In this chapter the effectiveness of the use of motivational interviewing as a tool for achieving behavioural change at various settings has been explored. The knowledge, attitude and practices of motivational interviewing by personnel have been reviewed, as well as various suggested means to help pregnant women who use substance to quit. The literature review revealed that motivational interviewing has been proven to be effective in achieving positive client outcome compared to other interventions, and that knowledge of motivational interviewing by personnel could be improved after training on the participants.
Chapter III: Conceptual Framework

3.1 Introduction
In this chapter the conceptual framework based on motivational interviewing theory by Miller and Rollnick (1991) is presented. The framework comprises micro skills, spirit and principles of motivational interviewing as shown in Figure 3.1.

Figure 3.1: The framework of motivational interviewing

3.2 The micro skills of motivational interviewing
Motivational interviewing involves some micro counselling skills necessary to achieve a positive outcome from the client-therapist interaction. The micro skills are (1) Open-ended questions, (2) Affirmations, (3) Reflections, and (4) Summaries (Miller & Rollnick, 2013). The importance of open-ended question is to help client think extensively and explore the reasons why change is needed. The role of affirmation is to engage and help the client build a strong connection between their present state and what could unfold if change occurs.
Reflective listening helps build the sense of belonging in the client as well as helpful in guiding the client towards resolving ambivalence. Lastly, when the therapist brings all the key points of discussion to light at the end of counselling, it tells the client that the therapist is interested in the client-therapist relationship. Hence, this skill can be effective in helping the client to focus attention on the language of change.

3.3 The spirit of motivational interviewing
Motivational interviewing transcends the mere practical or nominal intervention; it involves stronger client-therapist relationship that enhance and sustains a change in behaviour. The main ingredients of this strong client-therapist relationship are “collaboration”, “evocation”, and “autonomy” (Miller & Rollnick, 2013; p18-23). The goal of collaboration is to build a bond between the client and the therapist, hence solidify the client’s trust in the client-therapist relationship. Furthermore, evocation centres on drawing out client’s own thinking and views instead of compelling them to change behaviour. This is very effective in the sense that it helps the clients to tap into their own intrinsic motivation to change. Finally, in order to ensure client is empowered, substance-using pregnant women need to be given the benefit to exercise personal choice which supports client’s right to autonomy.

3.4 Principles of motivational interviewing
The five basic principles of motivational interviewing are: “expressing empathy”, “developing discrepancy”, “amplifying ambivalence”, “rolling with resistance”, and “supporting self-efficacy” (Leffingwell, 2006; p11). Expressing empathy means that therapist engages with the client by putting self in the client’s shoes, that is, the therapist is able to feel or see matters in client’s perspective. Often times, ambivalence about change may be linked
to a compromise in self-efficacy; perhaps the client have tried in the past to change the behaviour but realised the efforts were not successful hence they decide to give up. Therapist can help client to focus on past success and achievements hence boosting self-efficacy. In addition, if a therapist holds tight to the myth that substance user always deny their problem, there is likelihood for the client-therapist relationship to experience conflict. The conflict may arise when client perceive that their rights to make own decisions has been played on. The principle of amplifying ambivalence focuses on therapist’s skilfulness in identifying and discussing client’s opposing views towards changing substance use behaviour. Finally, developing discrepancy involves helping client to identify the “mismatch” between their current situation and their goal or dreams for the future. Change is likely to occur when clients are helped to see how their present state clashes with their intrinsic values and set goals (Miller and Rollnick, 2013).

Table 3.1: Conceptual framework of motivational interviewing

<table>
<thead>
<tr>
<th>Focus</th>
<th>Framework</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of participants on substance users’ characteristics</td>
<td>Micro skills of motivational interviewing</td>
<td>Question number 1, 2, 5, 7, 9, 11, 12, &amp; 13</td>
</tr>
<tr>
<td>Knowledge of participants on client-therapist’ dynamic relationship</td>
<td>Spirit of motivational interviewing</td>
<td>Question number 3, 4, 6, 8, 10, &amp; 14</td>
</tr>
<tr>
<td>Knowledge of participants on the five principles of motivational interviewing</td>
<td>Principles of motivational interviewing</td>
<td>Question number 15</td>
</tr>
</tbody>
</table>
3.5 Conclusion
This chapter elaborated how motivational interviewing theory which was the conceptual framework for the study was utilized. Apart from informing the study, the framework guided the formulation of the data collection instrument as present in Table 3.1. The next chapter addressed the research methodology.
Chapter IV: Methodology

4.1 Introduction
This chapter presents the methodology and methods used in the study. The research design, study setting, population, target population, sample, ethics statement, procedure, recruitment and data collection process are described. Finally, the step-by-step structuring involved in the analysis of data is elaborated.

4.2 Research Design
A quantitative research approach using descriptive design was used in the study to describe the knowledge NGO personnel had on motivational interviewing. Descriptive design was found appropriate because the study was intended to describe NGO personnel’s knowledge on motivational interviewing as it was presented (Polit & Beck, 2008).

4.3 Study setting
NGO personnel working with substance-using pregnant women at five shelters and two day centres in the Southern sub-urban district of Cape Town were used in this study. The reason for choosing this setting is due to the fact that these sites are the most active in the area.

4.4 Population
The term population is defined as ‘the entire group of objects or persons that is of interest to the researcher’ (Brink et al., 2012). The study population were all NGO personnel working with pregnant women in the Southern sub-urban district of Cape Town. The total number was 85 personnel at the Southern sub-urban district. The population included psychologists, social workers, doctors, nurses, educators, as well as lay community members.

4.5 Target population
The target population for this study is 45 NGO staff in Southern sub-urban district of Cape Town. The personnel render home-based care and support for women in crisis pregnancy,
abused women and their children as well as homeless women in the community. They frequently attend to women with the problem of substance use during pregnancy.

4.6 Sample
Sampling is the process of selecting a sample from the entire population in order to obtain information regarding the phenomena of interest (Brink et al., 2012). Due to the small number of the study population, an all inclusive sampling was done. Twenty-four participants returned completed questionnaires. The other 21 personnel neither completed nor returned their questionnaires due to personal reasons. Thus, response rate is 53% (n=24).

4.7 Ethics statement
Ethics approval (Appendix I) was obtained from the ethics committee at the University of the Western Cape. All participants were given a written informed consent form (Appendix V) to sign. Included in the consent form were: purpose of the study and participants’ right to participate or not to participate without any benefit or consequences. To ascertain that participants understand contents of the informed consent they were given an opportunity to ask questions. The researcher did not in any way infringe on participants’ human rights. The rights to confidentiality, no harm, respect, justice and autonomy were considered. No names or personal identification was written on questionnaire. Decision of some participants not to take part in the study was respected. No participant was coerced or bribed into participating. There were no incentives or direct benefits for the participants. Questionnaire was designed to obtain information which is related to the purpose of the study and was used solely for the research project. Although no potential physical harm was envisaged in this study, however, should the need have arose, arrangements were made to refer participants to the local clinic for counselling services.
4.8 Procedure
After ethics approval from the University of the Western Cape was obtained, a copy of the ethics clearance certificate and the research proposal was given to the person in charge of each NGO facility in the study setting. This was done to request permission to carry out the study in the facilities.

4.9 Recruitment of participants
After permission from the respective persons-in-charge was obtained, the managers informed the staff of the study through meetings. The researcher was invited to meetings which were arranged by the manager to meet with staff. At these meetings, the researcher gave verbal information about the study. Staffs were given an opportunity to ask questions on aspects of the study they were unsure of. Verbal explanation was given regarding anonymity and voluntary nature of the study. An Information sheet (see Appendix IV) containing detailed information on the study and an informed consent form (Appendix V) was given to those who were willing to participate to complete.

4.10 Data collection
All the 45 participants were given questionnaire to take home to complete and return at a set date. Participants were allowed to take the questionnaire home due to the nature of their job which would not have permitted them time to complete the questionnaire on site. Participants were required to complete a 3-page questionnaire (see appendix VI). The questionnaire was adapted from Leffingwell’s motivational interviewing knowledge and attitudes test (MIKAT) and modified for this study. Section A which is part of the modification to MIKAT requested demographic data such as age, gender, years of work experience at the NGO, and qualification. Section B was on participants’ prior knowledge of motivational interviewing, and section C consisted of questions on participants’ knowledge of motivational interviewing. Questions 1, 2, 5, 7, 9, 11, 12, & 13 examined participants’ knowledge of substance users’
characteristics (Table 4.1 Group 1). Questions 3, 4, 6, 8, 10, & 14 examined participants’ knowledge of client-therapist dynamic relationship (Table 4.1 Group 2), and question 15 examined participants’ capability to identify the five principles of motivational interviewing (Table 4.1 Group 3).

4.11 Reliability and validity
Polit & Beck (2012) defines reliability as the consistency with which the instrument measures the targeted attributes. ‘Reliability exists in degrees and is usually expressed as a form of correlation coefficient with 1.00 indicating perfect reliability and 0.00 indicating no reliability’ (Burns & Grove, 2005). A reliability coefficient of 0.80 is considered the lowest acceptable value for a well-developed instrument and for a newly developed instrument; a reliability of 0.70 is considered acceptable (Burns & Grove, 2005). In order to maintain test retest reliability of the questionnaire, the reliability coefficient was set at 0.70. The researcher used the Cronbach Alpha Coefficient, in consultation with a statistician, to test the reliability of the developed questionnaires. The overall Cronbach’s Alpha for the instrument was 0.721.

Face validity was established by consulting the experts in motivational interviewing, the supervisor and a statistician to provide feedback regarding the validity of the questionnaire.

Content validity was established by having the questionnaire reviewed by a statistician, the research ethics committee and the supervisor who all submitted their input.

4.12 Analysis
For ease of analysis, the responses on the questionnaire, which were on the Likert scale were marked and scored using the motivational interviewing quiz key by Lefingwell (2006). Thus, responses ‘Strongly agree’ (SA) and ‘Agree’ (A) were marked as ‘True’, while ‘Unsure’ (U),
‘Disagree’ (D), & ‘Strongly disagree’ (SD) were marked as ‘False’. The data were analyzed using Excel spread sheets. Measures of central tendency and measures of relative position are the two types of descriptive statistics that were used. Data were organized using ordinal and interval levels of measurements. Ordinal data were analysed using median measures of central tendency, while mean values were used to analyse interval data. Percentile ranks were used to represent both ordinal and interval data. The findings were presented by means of tables, frequency tables, and graphs.

The five steps used in the analysis were as follows:

**Step 1: Grouping of the questions**

The questions in section C were divided into three groups: 1. ‘Knowledge of substance users’ characteristics’ (QC). The questions in this group addressed participants’ knowledge of the micro skills essential in motivational interviewing. 2. ‘Knowledge of client-therapist dynamic relationship’ (QR). Questions in this group addressed participants’ knowledge of the spirit of motivational interviewing. 3. ‘Capability to identify the five basic principles of motivational interviewing’ (QP). Questions in this group addressed the respondent’s knowledge of the principles of motivational interviewing. Each question was tagged based on its group with the corresponding question number as shown in Table 4.1(Group 1-3) below:
Table 4.1 (Group.2): Questions on characteristics of substance users.

<table>
<thead>
<tr>
<th>Question code</th>
<th>Question</th>
<th>Answer</th>
<th>Question no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>QC1</td>
<td>Substance users must accept their problem (for example: “I am an alcoholic/addict.”) before they can get help.</td>
<td>False</td>
<td>1</td>
</tr>
<tr>
<td>QC2</td>
<td>Denial is a characteristic of the disease of addiction</td>
<td>False</td>
<td>2</td>
</tr>
<tr>
<td>QC3</td>
<td>Substance users need to “hit bottom” before they can change.</td>
<td>False</td>
<td>5</td>
</tr>
<tr>
<td>QC4</td>
<td>Resistance to talking about substance use is the direct result of denial, a symptom of the disease of addiction</td>
<td>False</td>
<td>7</td>
</tr>
<tr>
<td>QC5</td>
<td>Substance abusers are generally incapable of making sound decisions in their current state of addiction.</td>
<td>False</td>
<td>9</td>
</tr>
<tr>
<td>QC6</td>
<td>Addicts and alcoholics are not capable of exerting control over their substance use behaviour.</td>
<td>False</td>
<td>11</td>
</tr>
<tr>
<td>QC7</td>
<td>Readiness to make change is the client’s responsibility – no one can help them until they decide they are ready.</td>
<td>False</td>
<td>12</td>
</tr>
<tr>
<td>QC8</td>
<td>The best way to motivate substance users is to help them resolve their ambivalence about change.</td>
<td>True</td>
<td>13</td>
</tr>
</tbody>
</table>
Table 4.1 (Group.3): Questions on client-therapist dynamic interaction

<table>
<thead>
<tr>
<th>Question code</th>
<th>Question</th>
<th>Answer</th>
<th>Question no. questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>QR1</td>
<td>Therapists’ expectancies for their client’s abilities to change have no</td>
<td>False</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>effect upon whether change occurs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QR2</td>
<td>Research has failed to find support the existence of an “addictive</td>
<td>True</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>personality.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QR3</td>
<td>If clients are resistant to talk about changing substance use, direct</td>
<td>False</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>confrontation and persuasion are required to help the person change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QR4</td>
<td>Counsellors should emphasize personal choice over clients’ behaviours,</td>
<td>True</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>including substance use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QR5</td>
<td>Resistance is best thought of as a product of the interpersonal context</td>
<td>True</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>in which it is observed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QR6</td>
<td>External pressure and consequences is the only way to make substance</td>
<td>False</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>abusers change.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.1 (Group.4): Principles of motivational interviewing

<table>
<thead>
<tr>
<th>No.</th>
<th>Principle</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop discrepancies</td>
<td>PR1</td>
</tr>
<tr>
<td>2</td>
<td>Express empathy</td>
<td>PR2</td>
</tr>
<tr>
<td>3</td>
<td>Roll with resistance</td>
<td>PR3</td>
</tr>
<tr>
<td>4</td>
<td>Support self-efficacy</td>
<td>PR4</td>
</tr>
<tr>
<td>5</td>
<td>Avoid argumentation</td>
<td>PR5</td>
</tr>
</tbody>
</table>
Step 2: Scoring of the responses.

A correct response was given a score of ‘1’ while an incorrect response was given a score of ‘0’. If a participant chose more than one option or chose no option, he or she was assigned a ‘U’ which is unsure and got a score of ‘0’. Question 15 carried a total score of 5. Participants got a score of ‘1’ for each correct response regarding principles of motivational interviewing. Incomplete demographic data were exempted from analysis relating to the particular demographic characteristic.

Step 3: Assessing the general performance

After scoring of the responses was completed, the total scores of participants were analysed statistically. The average, maximum, and minimum scores were calculated. How the performance varied between genders was examined. Furthermore, correlation between years of experience and performance, and between age of respondent and their performance was done.

Step 4: Identifying the questions that participants found most difficult and those found easy.

In this step, questions that participants found most difficult to answer as well as those questions that participants found easiest to answer were identified. This helped to assess respondent’s overall knowledge of the concept of motivational interviewing.

4.13 Conclusion

This chapter has elaborated extensively on how the current study was carried out. The next chapter explains the results of analysis and discussed the findings thereof.
Chapter V: Results and discussion

5.1 Introduction
In this chapter participants’ demographic data and the results of the relationships between demographic data and participants’ performance are presented. Also presented is the general performance of participants on the assessment. Data was subjected to various descriptive statistical analyses in order to help come up with inferences. The results are presented in forms of pie chart, bar chart, frequency distribution tables and scattered graphs.

5.1.1 Demographic information

The demographic information of the 100% (n=24) participants who participated in the study were as follows: 50% (n=12) of the participants were females, 46% (n=11) were males, while 4%(n=1) did not indicate his/her gender. Their ages range from 15-25, 26-35, 36-45, 46-55, and above 55. Only 25% (n=6) of the participants had at least 3 years or more working experience with substance-use pregnant women. Fourteen, 58% (n=14) of the participants had less than 1 year working experience, while 17% (n=4) did not state their years of experience. Although 17% (n=4) of the participants admitted that they had come across the term ‘motivational interviewing’, all of the participants 100%(n=24) said they had not been exposed to any training in motivational interviewing.

5.1.2 Participants’ general performance

Figure 5.1 shows that the general performance of the participants was poor. Only 29 %( n=7) passed (i.e. scored at least 50% and above), while 71 %( n=17) failed. The average score of the participants was 38%; the highest score was 69%, while the lowest score was 0%. The scores of most participants (i.e. mode) fell within 31 – 40%. Hence, the distribution of the scores was skewed towards the fail side. This result highlighted that majority of the
participants had very little or no knowledge of motivational interviewing. The results are consistent with Leffingwel’s (2006) finding in his study, where it was stated that majority of the participants got most of the questions on motivational interviewing wrong.

![Figure 5.2: The frequency distribution of score.](image)

**5.1.3 Influence of gender on knowledge of motivational interviewing**

The gender of a respondent did not have any influence on their knowledge of motivational interviewing. Figure 5.2a shows that 36% (n=4) of male participants scored above 50%, while 64% (n=7) scored below 50%. Of the female participants, only 25% (n=3) scored above 50%, while 75% (n=9) scored below 50% (Figure 5.2b). Although the percentage pass of males was higher than that of females, the difference was insignificant. This results shows that knowledge of motivational interviewing was not influenced by gender. Gong, He & Evans (2011) state in their study that there is substantial gender difference in brain connectivity which accounts for the difference in cognitive performance between males and females. However, in this study, this was not the case.
5.1.4 Influence of age on knowledge of motivational interviewing

The age of a respondent had no impact on knowledge of motivational interviewing (Figure 5.3). The correlation between these two parameters was very low ($r = 0.28$). For instance, while the youngest respondent (18 years old) scored 15%, and the oldest participant (57 years) scored 45%, a 50 year old participant scored 0%. The participant that scored the highest was 45 years old. Therefore, knowledge of motivational interviewing is not influenced by one’s age.
5.1.5 The relationship between years of service and knowledge of motivational interviewing

The years of experience of working with substance use clients had no impact on participants’ knowledge of motivational interviewing (Figure 5.5). The correlation between the years of experience and the scores was very low ($r = 0.17$). The overall general performance of all 100% (n=2) participants with 10 years of working experience or more was less than 50%. One of the seven participants 14% (n=1) that had less than 1 year of working experience scored above 50%. The respondent with the highest score (69%) had 6 years of experience. This implies that the number of years that one worked with substance users did not enhance their knowledge on motivational interviewing.
5.1.6 Influence of prior knowledge of motivational interviewing on performance.

Out of the four 17% (n=24) participants who stated to have prior knowledge of motivational interviewing 25% (n=1) scored 50% and above (Figure 5.6a). The other 75% (n=3) scored 49% and below. On the other hand, out of the 83% (n=24) participants who stated not having prior knowledge of motivational interviewing, 32% (n=6) scored 50% and above, while 68% (n=14) scored 49% and below (Fig. 5.6b). This result reflects that prior knowledge of motivational interviewing had no influence on the overall performance of participants. However, what could not be elicited by the study was participants’ understanding of ‘prior knowledge’. The reasons being that: some participants might have chosen their responses arbitrarily from the multiple choice options that were provided, while others might have
picked the correct responses because they have unknowingly been practicing some motivational interviewing concepts.

This argument supports Leffingwel’s (2006) finding that showed that in his study participants’ performance improved after training. In Leffingwel’s study, training gave participants prior knowledge the next time they were exposed to concept of motivational interviewing. Hence, in relation to this study, the performance of participants could be improved if training on motivational interviewing is provided.

Figure 5.6a and 5.6b: Influence of prior knowledge of motivational interviewing on performance.

5.2.1 Participants’ knowledge of characteristics of substance users

Participants’ knowledge of characteristics of substance users was inadequate. The average score was 17.2%. The highest score was 50% and the lowest score was 0.0%. The questions that participants found difficult were QC1, QC2, QC5, & QC7 (Table 4.1). None of the participants got these questions correct (Figure 5.7). For instance, all 100%(n=24) participants believed that a pregnant substance-user was supposed to accept that substance use was a problem before she could be helped (QC1). Furthermore, the participants believed
that pregnant substance-users were incapable of making sound decisions whilst they were still using substance the (QC5).

According to the framework of motivational interviewing, some substance users do not accept that substance use is a problem. However, motivational interviewing theory states that clients could still be helped before they accept their substance use problem (Miller & Rollnick, 2013). The attitude of not wanting to accept the problem might be related to ambivalence. Thus clients can be helped by exploring and resolving ambivalence. The skill of helping clients to explore and resolve ambivalence can only come with training in motivational interviewing. The reason why it appears pregnant women who use substance lack the ability to make sound decisions might be related to a compromise in self-Efficacy (Miller & Rollnick, 2013). According to Miller and Rollnick (2013), a substance user might have tried quitting in times past but realised that their effort did not yield any success, hence they gave up trying to change. Therefore, training of personnel in motivational interviewing could enhance their skills necessary to support clients’ self-efficacy. The question that participants found easiest to answer was QC8. Eighty percent of the participants got it correct.
5.2.2 Participants’ knowledge on client-therapist’s dynamic interaction

The knowledge of participants on client-therapist’s dynamic relationship was inadequate although their performance on this aspect was better compared to their knowledge on characteristics of substance users. The average score was 31.9%, while the highest score was 67% and the lowest mark was 0.0% (Figure 5.9). The question that participants found difficult to answer was QR3. Majority 93% (n=22) of the participants got this question wrong. The question that participants found easiest to answer was QR4. Sixty-four percent (n=15) of the participants got this question right.
5.2.3 Relationship between participants’ knowledge of substance users’ characteristics and knowledge on client-therapist’s relationship

The relationship between NGO personnel’s knowledge of substance users’ characteristics and client-therapist’s relationship was found essential to establish due to its influence on care provision. In this regard, following inferences were elicited:

5.2.3 a: Relationship between QC2 and QR3

Analysis showed that out of the 100% (n=23) participants who agreed to QC2 (substance users always deny the problem), 70% (n=16) also agreed to QR3 (direct confrontation and persuasion should be used to help the client change their behaviour). Seven, 30% (n=7) disagreed with QR3 (Table 5.2.3a).
Table 5.5.3 a: Relationship between QC2 and QR3

<table>
<thead>
<tr>
<th>QC2</th>
<th>QR3</th>
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<tbody>
<tr>
<td>A</td>
<td>A</td>
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<tr>
<td>A</td>
<td>U</td>
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<td>A</td>
<td>SA</td>
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<td>U</td>
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</table>

5.2.3 b: Relationship between QC7 and QR6
55% (n=12) of the 100% (n=22) participants who agreed to question QC7 (readiness to make change is the client’s responsibility – no one can help them until they decide they are ready) also agreed to QR6 (external pressure and consequences is the only way to make substance abusers change) (Figure 5.2 b). Ten n=10 (45%) did not agree.
### Table 5.6.3 b: Relationship between QC7 and QR6

<table>
<thead>
<tr>
<th>QC7</th>
<th>QR6</th>
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<tbody>
<tr>
<td>A</td>
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#### 5.2.3 c: Relationship between QC5 and QR4

Furthermore, 56% (n=10) out of 100% (n=18) participants who agreed to QC5 (counsellor should emphasize personal choice over client’s behaviour) also agreed to QR4 (substance users are not capable of exerting control over their substance use behaviour) while 44% (n=8) did not agree.
The results indicated that participants’ knowledge of substance users’ characteristics had influence on the relationship between the therapist and his or her client. In the case of this study, it was the relationship between NGO personnel and pregnant substance users. For instance, if personnel agree that substance users always deny the problem, there is likelihood that they would use direct confrontation and persuasion to help the client change their behaviour (Figure 5.2.3.a). However, according to motivational interviewing theory, denial is not a characteristics of substance user (Rollnick & Miller, 2013). Therefore confrontation and persuasion should not be used to address problem of substance use.
5.3.1 Personnel’s knowledge of the five fundamental principles of motivational interviewing

Participants’ knowledge of the basic principles of motivational interviewing was not adequate for practice. A quarter of the participants 25% (n=6) could not identify any of the five principles. A total of 33% (n=8) participants identified one principle, 8% (n=2) identified two principles, 21% (n=5) identified three principles, and 13% (n=3) identified four principles. No (n=0) respondent could identify all the five principles (Figure 5.8).

Figure 5.11: Percentage pass of participants on principles of motivational interviewing

Irrespective of the fact that 75% (n=18) of participants could identify at least one principle of motivational interviewing, this level of knowledge is not adequate to enable provision of efficient care to substance users, in this instance, pregnant substance users. The average score was 32.5%. While the maximum score was 80%, the minimum score was 0% (Figure 5.9).
The least principle of motivational interviewing identified was PR1 (Develop discrepancies). Only 17% (n=4) of the participants could identify this principle. The most recognised principle was PR5 (Avoid argumentation). This principle was identified by 46% (n=11) of participants (Figure 5.10).

Figure 5.12: Performance of participants on principles of motivational interviewing

5.3.2 Conclusion

This chapter presented the study findings as well as gave a discussion of the findings. Participants were from diverse professional backgrounds as stated in chapter IV. Their ages ranged between 18-58 years; work experience ranged between three months and 10 years and both males and females were included. Gender, age, and work experience had no influence on participants’ knowledge of motivational interviewing. Ironically, prior knowledge of motivational interviewing also did not have an influence on participants’ knowledge of the concept. Likewise, participants’ knowledge of characteristics of substance users as well as knowledge of client-therapist’s relationship was inadequate. Hence, participants’ inadequate
knowledge of motivational interviewing influenced their care provision in the sense that their practice was at times in contrast with the principles, spirit and micro skills of motivational interviewing. The next chapter gives the conclusion remarks and recommendations of the study.
Chapter VI: Conclusion, Limitations and Recommendations

6.1 Introduction
This chapter gives the conclusion remarks. These include the implications to practice, recommendations, and limitations of the study.

6.2 Conclusion
The objectives of this study were to assess and identify gaps in NGO personnel’s knowledge of motivational interviewing in addressing substance use during pregnancy in the Southern sub-urban district of Cape Town metropolis in Western Cape. Data obtained from participants were analysed using descriptive statistics. Results of this study are summarized below:

- Respondents whose comments were analysed in this study have different demographic information; gender cuts across male and female, years of experience working with pregnant women who use substance range between three months to ten years and above, while age of respondents ranges from young adults to middle aged personnel.

- The general performance of the respondents on the test is poor. The marks of most respondents (i.e. mode) fall within 31 – 40%. Hence, the distribution of the scores is skewed toward the failed side.

- The influence of gender on performance in the test is not substantial.

- Lack of formal training in motivational interviewing is responsible for lack of knowledge of the concept.

- There is no correlation between years of experience as well as age of respondents on performance in the test.

- The knowledge of respondents on characteristics of substance user and the dynamic client-therapist’s interaction is very shallow.
Respondents who agree to myths regarding substance users are most likely to exhibit actions that are not consistent with principles of motivational interviewing during their interactions with clients.

Respondents do not have adequate knowledge of the five basic principles of motivational interviewing.

6.3 Implication of the study to practice
This study has unveiled the knowledge of NGO personnel who work with substance-using pregnant women in the Southern sub-district of Cape Town Metropolis. It has revealed gaps in their knowledge of motivational interviewing. The implication to practice is in regard to the likelihood that level of knowledge of motivational interviewing by NGO personnel could be the key to addressing the problem of substance use by pregnant women in Western Cape.

6.4 Limitation of the study
The results of this study cannot be generalized over Cape Town metropolis due to the limited number of participants.

6.5. Recommendations
The results of this study revealed a lack of knowledge of motivational interviewing by NGO personnel working with pregnant substance users in Southern-sub urban district of Western Cape metropolis. Hence, this suggests a need for training of NGO personnel on the concept of motivational interviewing in order to aid in efficient provision of care as shown in other studies done elsewhere. Training of NGO personnel in motivational interviewing could be vital because the approach has been shown to help personnel tap into pregnant women’s intrinsic motivation to quit substance use. The training could also be extended to health sector and other community organizations that work directly with pregnant women who use substance.
**Policy makers:** Policy makers should come up with policies on motivational interviewing which should target NGOs as well as institutions that train health personnel. This is because in Western Cape, the NGO personnel and health care workers provide care to pregnant women who among them could be substance users.

**Non-Government Organisation coordinators:** NGO coordinators should ensure training programs on motivational interviewing are put in place for all their new personnel. Also, in-service training should be put in place for their already existing personnel. This is in order to ensure refreshed knowledge and give update on motivational interviewing.

**Health institutions:** Educators in health institutions to ensure incorporation of motivational interviewing in their training curriculum. Also, there should be in-service training in place to already qualified health professionals in particular those who provide care to pregnant women. This is because providing maternal care is their core business.

### 6.6 Dissemination of information

In order to avail this information to the public, the study would be published in peer-reviewed journal; a copy would be given to the University of the Western Cape Library as well as NGOs that provide care to pregnant substance users; and presentation of the study at both local and international workshops would be made.
References


Fokazi, S. (2012). Girls booze to get grants for babies, or to kill them. Cape Argus, 18 October 2012. 16.

Gong, G., He, Y., & Evans, A. C. (2011). Brain Connectivity: Gender Makes a Difference
*Neuroscientist*, (October 2011 17), 575-591


APPENDIX I: Ethics Clearance

OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT

UNIVERSITY of the
WESTERN CAPE

08 September 2015

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Mrs FR Abiodun (School of Nursing)

Research Project: Knowledge of NGO personnel on motivational interviewing: Substance use during pregnancy in Cape Town.

Registration no: 15/6/17

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape
APPENDIX II: Letter to NGO

12/03/2016
University of the Western Cape Mail - RE: Knowledge of motivational interviewing by NGO personnel....

FISAYO RUTH Abiodun <2941984@myuw.ac.za>

RE: Knowledge of motivational interviewing by NGO personnel.....
10 messages

FISAYO RUTH Abiodun <2941984@myuw.ac.za> Tue, Sep 22, 2015 at 11:32 AM
To: admin@sisters.org.za, info@stanneshomes.org.za

Good day,
My name is Ruth, a master's student from the University of the Western Cape. I am conducting a study on the above subject.
Your organization is chosen to participate in the study because you work with pregnant women. Research have shown that some pregnant women who are experiencing stress in their lives may turn to substance as a form of immediate comfort. This in turn would predispose infants to substance related abnormalities. Western Cape has the highest number of children affected.
Motivational interviewing is a tool that has proven helpful in ensuring women abstain from substance use especially during pregnancy.
The purpose of my study is therefore to find out if the NGO personnel like you have the knowledge of the tool. The study is anonymous and voluntary.
Please find the attached for more detailed information on the study.
Your participation would be much appreciated. I am also sending a copy of the questionnaire, ethical approval letter and consent form.
Thanks in anticipation of your reply.

Ruth Abiodun

4 attachments

INFORMATION SHEET TEMPLATE -ABIODUN, F Ruth September 2015.doc
Final proposal Data collection tool september 2015 (ABIODUN__ F.R.)_1.doc
Revised Consent Form Abiodun,FR, september 2015.doc
Ethics Abiodun_15_6_17.pdf

Bernadette Simpson <admin@sisters.org.za> Tue, Sep 22, 2015 at 2:02 PM
To: 2941984@myuw.ac.za

Dear Ruth

I have forwarded your mail to our manager and social worker. We will do our best to assist you.

We will contact soon.

Have an awesome day.

Warm Regards

https://mail.google.com/mail/u/0?ui=2&ik=18d7091d68&view=pt&search=equery&h=1df4698d29e2961&sm=915
APPENDIX III: Permission letter from NGO

From: FISAYO RUTH Abiodun [mailto:2941984@myuwc.ac.za]
Sent: 22 September 2015 11:32 AM
To: admin@sisters.org.za; info@stanneshomes.org.za
Subject: RE: Knowledge of motivational interviewing by NGO personnel.....

[Quoted text hidden]

4 attachments

- INFORMATION SHEET TEMPLATE - ABIODUN, F Ruth September 2015.doc
  114K
- Final proposal Data collection tool september 2015 (ABIODUN, F.R)_1.doc
  54K
- Revised Consent Form Abiodun.FR, september 2015.doc
  85K
- Ethics_Abiodun_15_6_17.pdf
  110K

FISAYO RUTH Abiodun <2941984@myuwc.ac.za>

To: Bernadette Simpson <admin@sisters.org.za>

Thank you very much.
Regards
Ruth.

[Quoted text hidden]

Bernadette Simpson <admin@sisters.org.za>

To: FISAYO RUTH Abiodun <2941984@myuwc.ac.za>

Dear Ruth

We would be happy to assist you. I would like to suggest that come and see us and explain your research
to all the staff.

Give me a call on the number below and we can set up a day and time.

Have a good day

Warm Regards
INFORMATION SHEET

Project Title: Knowledge of NGO personnel on Motivational Interviewing: substance use during pregnancy in Cape Town.

What is this study about?

This is a research project being conducted by Abiodun, Fisayo Ruth at the University of the Western Cape. We are inviting you to participate in this research project because you work with women who use substance during their pregnancy. The purpose of this research project is to investigate the knowledge of NGO personnel on motivational interviewing in addressing substance use among pregnant women in the Southern sub-urban district of Cape Town metropolis in Western Cape.

The study would help inform nursing system on NGO personnel’s knowledge of motivational interviewing. NGO personnel’s knowledge of motivational interviewing is the key to achieving positive client outcome. Findings would spur possible recommendations for NGO personnel skills training on motivational interviewing. A decrease in substance use during pregnancy, hence decrease in substance related abnormalities on offspring would be realised. This would be achieved through possible integration of NGO-led motivational interviewing approach to antenatal clinic settings.
What will I be asked to do if I agree to participate?
You will be asked to complete a 3 page questionnaire. The questionnaire consists of 15 questions. Question 1-14 consist of 5 options to each question. You are required to choose from either you ‘agree, disagree, unsure, strongly agree or strongly disagree’. Question 15 consists of a list of options which you are required to choose the appropriate ones. The research will be conducted at your shelter/centre. The questionnaire is expected to take maximum of 30 minutes to complete.

Would my participation in this study be kept confidential?
The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, name will not be included on the questionnaire. A code will be placed on the questionnaire. Through the use of an identification key, the researcher will be able to link your questionnaire to your identity. Only the researcher will have access to the identification key. To ensure your confidentiality, filling cabinets and storage areas will be locked using codes known only to the researcher. Computer files will be password-protected.

If we write a report or article about this research project, your identity will be protected.

What are the risks of this research?
There may be some risks from participating in this research study.

All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?
This research is not designed to help you personally, but the results may help the investigator learn more about NGO personnel’s knowledge of motivational interviewing. We hope that, in the future, other people might benefit from this study through improved understanding of gaps in knowledge of NGO personnel’s knowledge of motivational interviewing.

A decrease in substance use during pregnancy, hence decrease in substance related abnormalities on offspring would be realised.
Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Fisayo Ruth Abiodun at the University of the Western Cape. If you have any questions about the research study itself, please contact Fisayo Ruth Abiodun at: University of the Western Cape, Private Bag X 17, Bellville 7535. South Africa. (021-959 9473, email:2941984@myuwc.ac.za).

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Prof Kareen Jooste
Head of Department
University of the Western Cape
Private Bag X17
Bellville 7535
kjooste@uwc.ac.za

Prof José Frantz
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape’s Senate Research Committee. (REFERENCE NUMBER: 15/6/17)
APPENDIX V: Consent form

Title of Research Project: Knowledge of NGO personnel on Motivational Interviewing: substance use during pregnancy in Cape Town.

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant’s name………………………..
Participant’s signature……………………………….
Witness……………………………….
Date………………………

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Study Coordinator’s Name: Dr. Concepta Kwaleyela
University of the Western Cape
Private Bag X17, Belville 7535
Telephone: (021)959-3482
Cell: +27718311185
Fax: (021)959-2679
Email:nkwaleyela@uwc.ac.za
APPENDIX VI: Questionnaire

Demographic Data

A. Age __________
B. Gender: Male__________ Female__________
C. Years of experience working with pregnant women who use substance______
D. Years of working with this NGO ___________________
E. Qualifications (e.g.) Nurse, Educator, Doctor, Psychologist, Lay community member, other… ________________

Knowledge of Motivational interviewing

(1) Have you heard of motivational interviewing before? ____________Yes ____________ No
(2) If yes, explain what you have heard about it……………………………………………………………………………………..
(3) Have you ever received training in motivational interviewing before? Yes/NO
If yes, specify ____________

Please state whether you Strongly agree (SA), Agree (A), Unsure (U) Disagree (D) or Strongly disagree (SD) with the following statements (place a ‘√’ in the appropriate column)

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Substance users must accept their problem (for example: “I am an alcoholic/addict.”) before they can get help.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Denial is a characteristic of the disease of addiction</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3</td>
<td>Therapists’ expectancies for their client’s abilities to change have no effect upon whether change occurs.</td>
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<td>4</td>
<td>Research has failed to find support the existence of an “addictive personality.”</td>
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<tr>
<td><strong>5</strong></td>
<td>Substance users need to “hit bottom” before they can change.</td>
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<tr>
<td><strong>6</strong></td>
<td>If clients are resistant to talk about changing substance use, direct confrontation and persuasion are required to help the person change.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>7</strong></td>
<td>Resistance to talking about substance use is the direct result of denial, a symptom of the disease of addiction.</td>
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<tr>
<td><strong>8</strong></td>
<td>Counsellors should emphasize personal choice over clients’ behaviours, including substance use.</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>9</strong></td>
<td>Substance abusers are generally incapable of making sound decisions in their current state of addiction.</td>
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<td></td>
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</tr>
<tr>
<td><strong>10</strong></td>
<td>Resistance is best thought of as a product of the interpersonal context in which it is observed.</td>
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</tr>
<tr>
<td><strong>11</strong></td>
<td>Addicts and alcoholics are not capable of exerting control over their substance use behaviour.</td>
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<tr>
<td><strong>12</strong></td>
<td>Readiness to make change is the client’s responsibility – no one can help them until they decide they are ready.</td>
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<tr>
<td><strong>13</strong></td>
<td>The best way to motivate substance users is to help them resolve their ambivalence about change.</td>
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<tr>
<td><strong>14</strong></td>
<td>External pressure and consequences is the only way to make substance abusers change.</td>
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</tbody>
</table>

### 15. Principles of motivational interviewing

Some of the following are not principles of Motivational Interviewing approach to dealing with substance use; choose the correct principles

- [ ] Breakdown denial
- [ ] Educate about risks
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop discrepancies</td>
<td>Maximize external pressure</td>
</tr>
<tr>
<td>Confront resistance</td>
<td>Use subtle coercion</td>
</tr>
<tr>
<td>Express empathy</td>
<td>Support self-efficacy</td>
</tr>
<tr>
<td>Roll with resistance</td>
<td>Give direct advice</td>
</tr>
<tr>
<td>Give clear consequences</td>
<td>Encourage submission to disease</td>
</tr>
<tr>
<td>Acceptance of label (&quot;alcoholic/addict&quot;) is required</td>
<td></td>
</tr>
<tr>
<td>Require abstinence as only acceptable goal</td>
<td>Avoid argumentation</td>
</tr>
</tbody>
</table>
APPENDIX VII: Letter to publisher of a book

name: Fisayo Ruth Abiodun
inst: University of the Western Cape
addr: Robert Sobukwe Road, Bellville
addr2: Private Bag X 17
city: Cape Town
state: Western Cape province
zip: 7535
country: South Africa
phone: 021 959 2679
fax: +27(0)21 959 2679

GP_title: Motivational interviewing: Helping people change
edition: Third edition
isbn: 978-1-60918-227-4
author: William R. Miller & Stephen Rollnick
chapter: Part I, Part VII, and Glossary
pagenum: 1-25, 367-404, & 405-414
pubyear: 2013
course_title: Resource for a Mini-Thesis research proposal
semester: Not applicable
instructor: Supervisors: Ms. N. C Kwaileya & Dr. P. Martin
course_inst: University of the Western Cape
copies: Not applicable
print: 1

comments: I am conducting a mini-thesis research for my Master program in Advance midwifery and Neonatology. My topic is “Knowledge of NDO personnel on motivational interviewing in addressing the trend in substance use during pregnancy in the Western Cape”. I am requesting permission to use some of the contents of this book for my definition of motivational interviewing and also to look at the research evidence section of the book. I would be grateful if my request is favourably considered.

Regards,
Abiodun, Fisayo Ruth(Mrs) 2941984@mywvc.ac.za
APPENDIX VIII: Response from the publisher

Re: Coursepack Permissions Request - 2941984@myuwe.ac.za - University of the Wei... Page 1 of 1

Re: Coursepack Permissions Request

GP Permissions - Permissions@guilford.com - 10/19
Mar 10 (3 days ago)

Hi Fasya,

Permission is hereby granted for the use requested.

Any third party material is expressly excluded from this permission. If any of the material you wish to use appears within our work with credit to another source, authorization from that source must be obtained.

This permission does not include the right for the publisher of the new work to grant other uses of the material, except for non-profit organizations to use the blind or handicapped persons.

Credit line must include the following:
Title of the Work, Author(s) and/or Editor(s), Name(s). Copyright year. Copyright Guilford Press.
Reprinted with permission of The Guilford Press.

Please let me know if you have any questions.

Sincerely,

Mariano Guerra

https://mail.google.com/mail/u/0/ 2015-03-19
Table A8 : A summary of the data analysed for the study.
The data were extracted from the Questionnaire filled by 24 NGO personnel participants that participated in the study. The data collected from the participants include their Age, Gender, Year of experience with substance-use pregnant women (YEPM), Month or Year of working with NGO (MYNGO), Qualification (QUAL), Prior training on Motivational Interviewing (PTMI), and their responses to the 15 questions (Q1 - Q15) in the Questionnaire: SA(Strongly agree), A (Agree), U (Unsure ), D (Disagree), SD (Strongly disagree). NA means that the respondent did not provide the information.

| No | Age | Gender | YEPM | MYNGO | QUAL | PK | PTMI | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 |
|----|-----|--------|------|-------|------|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | NA  | NA     | NA   | NA    | NA   | NA | NA   | SA | SA | SA | SD | SA | SA | SD | SA | U  | A   | SA | SA | SD | 0   |
| 2  | 18  | M      | 0Y   | 3M    | 5    | No | No   | SA | U  | U  | U  | A   | U  | U  | A   | A   | U  | U  | 1   |
| 3  | 21  | M      | 0Y   | 3M    | NA   | No | No   | SA | A   | D  | U  | A   | SA | A   | SA | A   | U  | U  | SD | SA | SA | U  | 0   |
| 4  | 22  | M      | 0Y   | 2Y    | 2    | No | No   | U  | U  | U  | U  | U   | U  | U  | U   | U   | U  | U  | U  | 2   |
| 5  | 27  | F      | 0Y   | 3M    | 6    | No | No   | SA | SA | U  | D  | U  | A   | A   | A   | A   | A   | U  | D   | SA | SA | A   | 3   |
| 6  | 28  | M      | 0Y   | 1Y    | 6    | No | No   | A   | A   | U  | U  | A   | U  | U  | U   | U   | A   | U  | U  | 1   |
| 7  | 29  | M      | 3Y   | 3Y    | 2    | No | No   | SA | SA | SA  | SD | SA  | SD | A   | U   | SD | SA | U  | A   | SA | SA | SA  | SD | 0   |
| 8  | 32  | F      | 0Y   | 10M   | 6    | YES| No   | A   | A   | U   | A   | A   | A   | A   | A   | A   | A   | A   | A   | 3   |
| 9  | 33  | M      | 0Y   | 1M    | 2    | No | No   | SA | SA | SA  | SA  | SD | SD | SA  | D  | U   | SA | U   | D   | SA | A   | SD | 1   |
| 10 | 38  | F      | 0Y   | 5Y    | 6    | No | No   | A   | A   | D   | D   | D   | U   | U   | U   | U   | U   | D   | A   | U   | 1   |
| 11 | 39  | F      | 8.5Y | 8.5Y  | NA   | No | No   | A   | A   | D   | D   | D   | A   | A   | A   | A   | U   | A   | A   | A   | 3   |
| 12 | 39  | F      | 1.5Y | 1.5Y  | 6    | No | No   | SA | SA | SA  | D   | D   | D   | A   | A   | A   | A   | A   | A   | A   | A   | 0   |
| 13 | 40  | M      | NA   | 10Y   | 6    | No | No   | SA | SA | SA  | SA  | SA  | SA  | SA  | SA  | A   | A   | A   | A   | A   | A   | 3   |
| 14 | 41  | M      | 0Y   | 11Y   | 2    | YES| No   | SA | SA | A   | A   | SA  | SA  | SA  | SA  | SA  | A   | A   | SA  | A   | A   | 0   |
| 15 | 43  | F      | 14Y  | 12Y   | 6    | No | No   | SA | A   | A   | D   | U   | A   | A   | A   | A   | A   | U   | SA  | SA  | U   | 1   |
| 16 | 45  | F      | NA   | NA    | 6    | Yes| No   | SA | SA | U   | D   | U   | A   | U   | U   | A   | U   | A   | SA  | A   | A   | 4   |
| 17 | 48  | F      | 6Y   | 6Y    | 6    | No | No   | SA | SA | SA  | SA  | D   | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SD | 4   |
| 18 | 49  | F      | 10Y  | 25Y   | 6    | No | No   | SA | SA | A   | SD | A   | A   | A   | A   | A   | U   | A   | SA  | A   | D   | 1   |
| 19 | 49  | F      | NA   | 1M    | 6    | No | No   | SA | SA | A   | SA  | SA  | SA  | SA  | SA  | SA  | SA  | A   | U   | A   | A   | 2   |
| 20 | 50  | M      | 0Y   | NA    | 6    | Yes| No   | SA | SA | A   | U   | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | 4   |
| 21 | 52  | M      | 0Y   | 11M   | 6    | No | No   | SA | A   | U   | U   | U   | U   | U   | U   | A   | U   | U   | U   | 0   |
| 22 | 53  | F      | 0Y   | NA    | 6    | No | No   | A   | SA | SA  | D   | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | SA  | 1   |
| 23 | 54  | M      | 0Y   | 6Y    | 2    | No | No   | SA | SA | SA  | SA  | SA  | SA  | SA  | SA  | SA  | A   | A   | SA  | A   | SA  | 3   |
| 24 | 58  | F      | 3Y   | 4Y    | 6    | No | No   | SA | SA | U   | A   | D   | SA  | SA  | A   | A   | A   | A   | SA  | SA  | SA  | 1   |