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MODEL USE IN OCCUPATIONAL THERAPY PRACTICE WITH A FOCUS ON THE KAWA MODEL

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Dissertation submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Science in Occupational Therapy.

June 2014
Johannesburg

DECLARATION

I, Antonette Owen declare that this dissertation is my own work. It is being submitted for the degree of Master of Science in Occupational Therapy to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

Signed:

_____ Day of _____, 2014

DEDICATION

To my parents who make me believe that all things are possible.

PRESENTATIONS ARISING FROM THE STUDY

Owen, A. (2012) Exploration of the Kawa Model within a South African Context, COTEC Congress, Stockholm, Sweden.

Owen, A. (2012) Exploration of the Kawa Model within a South African Context, OTASA Congress, Umhlanga, South Africa.

Owen, A. (2013) Factors influencing the use of models in occupational therapy, WITS School research day, Johannesburg, South Africa.

ABSTRACT

Purpose: The aim of this study was to determine the perceptions of and the clinical application of models by a specific group of occupational therapists with a particular focus on the Kawa Model.

Method: A single descriptive case study design with embedded units, related to model application by occupational therapists who attended a Kawa Model workshop, was used. Quantitative data provided information about general model use within occupational therapy and first impressions of the Kawa Model. Qualitative data were obtained to explore the clinically application and suitability of the Kawa Model in the South African context.

Main findings: Several factors were identified as having an influence on the use of models by occupational therapists in general, with similar influencing factors related to the application of the Kawa Model being identified. Factors include habituation versus experience, experience and clinical reasoning, practice context and client characteristics.

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TABLE OF CONTENTS

DEDICATION ..... **iii**

PRESENTATIONS ARISING FROM THE STUDY ..... **iv**

ABSTRACT ..... **v**

ACKNOWLEDGEMENTS ..... **vi**

LIST OF TABLES ..... **xii**

LIST OF FIGURES ..... **xiii**

OPERATIONAL DEFINITION OF TERMS ..... **xiv**

ABBREVIATIONS ..... **xvi**

CHAPTER 1: **1**

INTRODUCTION **1**

1.1 DEVELOPMENT OF OCCUPATIONAL THERAPY MODELS **2**

1.2 A CULTURAL PERSPECTIVE OF OCCUPATION **3**

1.3 STATEMENT OF THE PROBLEM **5**

1.4 PURPOSE OF THE STUDY **5**

1.5 RESEARCH QUESTIONS **6**

1.6 AIMS OF STUDY **6**

1.6.1 Objectives of the Study *6*

1.7 TYPE OF STUDY AND METHOD **7**

1.8 JUSTIFICATION FOR RESEARCH/RATIONALE **7**

1.9 OUTLINE OF THE STUDY **8**

CHAPTER 2: **10**

LITERATURE REVIEW **10**

2.1 THE PHILOSOPHY OF OCCUPATIONAL THERAPY **10**

2.2 CULTURAL CONCEPTS IN OCCUPATIONAL THERAPY PRACTICE **11**

2.3 DEVELOPMENT OF OCCUPATIONAL THERAPY MODELS **13**

2.4 THE THEORY OF OCCUPATIONAL SCIENCE 13

2.5 MODELS OF HEALTH 15

2.6 CURRENT MODELS USED IN OCCUPATIONAL THERAPY 17

2.6.1 The Kawa Model 21

2.7 APPLICATION OF MODELS IN CLINICAL PRACTICE 23

2.8 CULTURAL CONSIDERATIONS IN CLINICAL PRACTICE 26

2.8.1 Cultural Competence 27

2.9 CLIENT CENTRED PRACTICE AND CLINICAL REASONING 28

2.10 SUMMARY 30

CHAPTER 3 31

RESEARCH DESIGN AND METHODS 31

3.1 RESEARCH DESIGN 31

3.1.1. Propositions for the study 33

3.1.2 Outline of the study 34

3.1.2.1 Preliminary phase 35

3.1.2.2 Quantitative Study: The use of models in occupational therapy 36

3.1.2.3 Qualitative Study: Perceptions of the Kawa Model after Clinical Application 36

3.2 SAMPLE SELECTION 37

3.2.1 Population 37

3.2.2 Sample selection 37

3.2.2.1: Phase 1: Quantitative study 37

3.2.2.2: Phase 2: Qualitative study 38

3.3 RESEARCH INSTRUMENTS 39

3.3.1 Phase 1: Quantitative Survey Questionnaire (Appendix A) 39

3.3.2 Phase 2: Qualitative 40

3.3.2.1. Interview Guide – First Interview (Appendix C) 40

3.3.3 Interview Guide – Second Interview (Appendix D) 40

3.4 RESEARCH PROCEDURE 41

3.4.1 Quantitative Data Collection *41*

3.4.2 Qualitative Data Collection *41*

3.5 DATA MANAGEMENT AND ANALYSIS **43**

3.5.1 Data Management *43*

3.5.2 Data Analysis *43*

3.5.2.1 Phase 1: Quantitative survey 43

3.5.2.2 Phase 2: Qualitative data 44

3.6 VALIDITY AND TRUSTWORTHINESS **45**

3.6.1 Phase 1: Quantitative Survey Questionnaire *45*

3.6.1.1 Pilot Study for content validity 45

3.6.2 Trustworthiness of Qualitative data *45*

3.6.2.1 Reflexivity 45

3.6.2.2 Credibility 47

3.6.2.3 Transferability 47

3.6.2.4 Consistency 48

3.6.2.5 Confirmability 48

3.6.2.6 Data Saturation 48

3.6.2.7 Member Checking 49

3.7 ETHICAL CONSIDERATIONS **49**

CHAPTER 4 ..... **51**

RESULTS **51**

4.1 INTRODUCTION **51**

4.2 RESULTS FROM Phase 1: THE SURVEY QUESTIONNAIRE **51**

4.2.1 Demographics of the sample *52*

4.2.2 Views on models and the reasons for application of models in clinical practice *53*

4.2.2.1 Application of occupational therapy models in clinical practice. 53

4.2.2.2 Model application related to employment sector, experience and type of qualification 57

4.2.3 Application of the Kawa Model in clinical practice *62*

4.2.3.1 Current level of knowledge regarding the Kawa model 62

4.2.4 Summary *67*

4.3 PHASE 2 RESULTS FOR QUALITATIVE DATA –PERCEPTIONS OF AND CLINICAL APPLICATION OF THE KAWA MODEL 68

4.3.1 Demographics of the sample 68

4.3.2 Application of the Kawa Model in clinical practice- First Interview after one month 69

4.3.2.1 Theme 1: Clinical use of the Kawa Model is not simple 72

4.3.2.2 Theme 2: Perceived potential of the Kawa Model in clinical practice. 79

4.3.2 Summary 81

4.3.3 Continued application of the Kawa Model in clinical practice- qualitative data Second interview after four months 82

4.3.3.1 Theme 1: It gets easier with time, but… 85

4.3.3.2 Theme 2: Context influence continued use 89

4.3.3.3 Theme 3: Education and Support 92

4.3.4 Summary 94

CHAPTER 5: 95

DISCUSSION 95

5.1 INFLUENCES ON MODEL USE 96

5.1.1 Habituation versus experience 97

5.1.2 Experience and clinical reasoning 101

5.1.3 Practice context 102

5.1.4 Client characteristics 104

5.2 INFLUENCE OF MODELS ON "DOING" 105

5.2.1 Experience and clinical reasoning 106

5.3 INFLUENCES ON THE USE OF THE KAWA MODEL 108

5.3.1 Habituation versus experience 109

5.3.2 Experience and clinical reasoning 111

5.3.3 Practice context 112

5.3.4 Client characteristics 112

5.3.5 Kawa Model characteristics 114

5.4 USE OF THE KAWA MODEL IN CLINICAL PRACTICE 114

5.5 CONTINUED USE OF THE KAWA MODEL 119

CHAPTER 6 122

CONCLUSION 122

6.1 RECOMMENDATIONS 125

6.2 LIMITATIONS OF THE STUDY 125

REFERENCES 127

APPENDIX A: SURVEY QUESTIONNAIRE 135

APPENDIX C: INTERVIEW GUIDE- SECTION A 139

APPENDIX D: INTERVIEW GUIDE – SECTION B 140

APPENDIX E: SUPPORT OFFERED WHILE APPLYING KAWA MODEL IN CLINICAL PRACTICE 141

APPENDIX G: ETHICAL CLEARANCE 146

APPENDIX H: SAMPLE OF A VERBATIM TRANSCRIBED INTERVIEW 147

APPENDIX I: SAMPLE OF A TRANSCRIPT SUMMARY 155

LIST OF TABLES

Table 4.1 Summary of the participants in the qualitative part of this study……..-69-

Table 4.2 Themes, Categories, Sub-Categories and Codes First Interview ……-71-

Table 4.3 Themes, Categories, Sub-Categories and Codes Second Interview …….....-84-

LIST OF FIGURES

Figure 3.1 Outline of entire methodology……-34-

Figure 4.1 Population group, gender and area of practice of participants (n=12)…….....-52-

Figure 4.2 Institution of qualification and range of years qualified for participants (n=12)…-53-

Figure 4.3 Models currently applied in clinical practice (n=12)…….....-56-

Figure 4.4 Differences in the use of models in the private sector versus those in the public sector (n=12)……..-58-

Figure 4.5 The number of models used in clinical practice according to the number of years qualified (n=12)……..-60-

Figure 4.6 Comparison between the application of models and the type of qualification (n=12)……-61-

Figure 4.7 Participants' perceived current level of knowledge regarding the Kawa Model (n=12)……-63-

Figure 4.8 Possible application of the Kawa Model in relation to demographic information (n=12).....-66-

OPERATIONAL DEFINITION OF TERMS

Conceptual Practice Models- Conceptual practice models can be described as bodies of knowledge developed within the profession of occupational therapy to inform practice. The aims for the development of such models are firstly to generate and test theory on concepts of concern in the profession and secondly, to test strategies and techniques used in therapy (1). For the purposes of this research project, Kielhofner's (2) classification of conceptual/practice models will be applied; therefore all of the models/techniques mentioned will be referred to as models.

Occupation, Western perspective- A Western experience of occupation demonstrates a tendency towards and an expectation of, individual autonomy, allowing the individual to exert control over their surroundings and circumstances (3). All humans are seen as occupational beings (4).

Occupation, Eastern perspective- An Eastern experience of occupation differs from a Western one in that the individual is seen as an inextricable part of the environment, with no particular need to occupy or control it. Instead of trying to exert control over circumstances, there is the notion of adapting and adjusting the self and of acting collectively in order to attain harmony (3).

Occupational Science- A basic science based on occupation developed in the 1980's to support occupational therapy practice (4).

Cultural competency- Cultural competence is defined as an awareness of, sensitivity to and knowledge of the actual meaning of culture (5). Culturally competent people can be seen as those who have moved from a state of cultural unawareness, to being culturally sensitive to their own cultural issues and how their values and biases affect racially different clients (6).

Client centred practice- Client centred practice is based on the belief that given the opportunity, the client best understands his own occupational performance needs and its importance for maintaining the therapeutic relationship essential to therapy (7).

Clinical reasoning- Clinical reasoning is used to determine whether evidence “fits” with each feature of a client’s specific context. Active involvement of the client, and where possible, the family or carer, is important when decisions are made to determine future plans (8).

Chronic condition- A chronic condition is a human health condition or disease that is persistent or otherwise long-lasting in its effects and requires treatment over an extensive period of time. The term *chronic* is usually applied when the course of the disease lasts for more than three months (9).

Rehabilitation Phase- This is an evaluation phase during the recovery of a person with impairments with the aim of intervention on participation (10).

Acute Phase- The objectives of acute-phase treatment are symptom remission and restoration of function (11).

Models of health- The models of health developed in succession over time. They are divided into the biomedical, bio-psychosocial and socio-ecological models (2).

ABBREVIATIONS

AOTA- American Occupational Therapy Association

CAOT- Canadian Association of Occupational Therapy

COPM- Canadian Occupational Performance Model

COPM-E- Canadian Model of Occupational Performance and Engagement

COTA- Certified Occupational Therapy Assistant

HPCSA- Health Professions Council of South Africa

MOHO- Model of Human Occupation

VdTMCA- Vona du Toit Model of Creative Ability

OPMA- Occupational Performance Model Australia

OTPF II- Occupational Therapy Practice Framework II

UK- United Kingdom

USA- United States of America

WITS- University of the Witwatersrand

CHAPTER 1: INTRODUCTION

Occupational therapy is still a relatively young and developing profession. In 1917 the American Society for the Promotion of occupational therapy stated that:

> *"The objective of the society shall be the advancement of occupation as a therapeutic measure; the study of the effects of occupation upon the human being; and the dissemination of scientific knowledge of this subject"*(9).

This objective continues to be a major influence in the profession's current development. Occupational therapists deal with the complexities of understanding occupation in different contexts in order to facilitate the development of the occupational performance and reduce occupational dysfunction in their clients or populations on a daily basis. These complexities relate to differences in their clients with regard to their interests, the nature of their activities or occupations, their abilities and the specific context in which they carry out these occupations. All of these factors influence what clients do and impact on the occupational therapy outcomes.

The most complex of these is the individual's specific environmental context, that includes people, places, materials and equipment(10). In 2011 Turpin and Iwama proposed that one of the central concerns of occupational therapy should be less individual centred and rather be *"context dependent participation through occupation"* (p.2)(10).

To assist with understanding context and other factors, in relation to occupation as a a basis for intervention, many practice models have been developed for use in occupational therapy. These models provide the rationale for occupation based assessment and intervention with emphasis on the clients' context, and are the basis for increasing the scientific relevance. These models, encourage evidence based

practice and maintaining the importance of occupation as a central concept in occupational therapy(11).

1.1 DEVELOPMENT OF OCCUPATIONAL THERAPY MODELS

Previously the models which underpinned occupational therapy practice were borrowed from other disciplines and emphasised a client's dysfunction with little concern for residual function or the environmental context they came from(10). In the short history of the occupational therapy profession four distinct historical periods have been identified by both Reed in 2005(12) and Kielhofner in 2009(2) as influencing the models used as a basis for intervention. The Pre-formative period (1800-1899) was influenced by the Moral treatment movement as well as the Arts and Crafts movement. The Formative period (1900-1929) was influenced by the philosophy of pragmatism which was characterized by the development of foundational terms and concepts. The Mechanistic period (1930-1965) was influenced by the philosophy of medicine and science using a quantitative approach. Models were only introduced in occupational therapy in this last period and reflected both a bio-psychosocial and biomechanical health focus.

During the Modern period (1966-current) there was a return to formative ideas and the acceptance of qualitative methods. The development of models for occupational therapy practice considered in this study, which reflect this deeper understanding of occupation in daily life as the focal point(10), occurred with the advent of the theories of occupational science first described in the 1980s(10)**.** In 2000 Whiteford, Townsend and Hocking emphasized the return to the focus on occupation within the occupational therapy profession. This reaffirmation of focus is referred to as the *"renaissance of occupation"* (p.61)(13).

This period was characterised by the development of occupation based models(10). The model most frequently referred to from this period is the Model of Human Occupation and Performance (MOHO) by Kielhofner which conceptualised humans as consisting of layers of mutually influencing systems(14). Their occupational performance was considered not only in relation to their impairments but also in

relation to their psychosocial system as well as their socio-cultural, external system or the context in which they lived.

However, the theory influencing the concepts, models, technique and approaches used in the advancement of occupational therapy as a profession at this time were developed in the Western world. Thus the models developed during the 1980's have retained both a bio-psychosocial model of health as a basis of understanding dysfunction in the individual and still place the focus on individual autonomy. These occupational therapy models are thus based on a Westernised perspective of an expectation of individual autonomy or independence which reflects the understanding that individual exert control over their surroundings and circumstances. Although the environment or context in which occupational performance occurs is clearly acknowledged, it is conceptualized as a distinct entity that is seen as separate from the individual. It is merely a stage on which human transformation occurs(9).

1.2 A CULTURAL PERSPECTIVE OF OCCUPATION

The current western explanation of autonomy or independence related to occupation has been strongly influenced by the social scientific views of the mid to late 20th century (15)(16)(17). Individual autonomy in all spheres of life is celebrated as individuals strive towards self-efficacy and competence in achieving control over their circumstances(14) and all humans are seen as occupational beings(4). Occupation is seen as a means to self-actualization, enabling a sense of *"being and becoming what I desire to be*" (p. 584)(14).

When viewed from African or Eastern perspectives, however, "occupation" and its context-enriched meanings differ and in comparison the Western based concept of occupation appears to be limited and over simplistic(10). The concepts, inter-relations and descriptions of meaning of human involvement are completely different from the Western beliefs of mastery and control. A fundamental belief in African or Eastern philosophies is that the individual is an inextricable part of the environment, with no particular need to occupy or control it. Instead of trying to exert control over circumstances, the notion of adapting and adjusting the self collectively with the

environment in order to attain harmony dominates(3). In Eastern cultures such as in Japan for example, the meaning of “occupation” has not yet been identified and social concepts like “occupation” do not transfer universally across cultural boundaries(18).

This view of the collective as understood by people in African and Eastern cultures is becoming more evident and overtly acknowledged in Western concepts of health. There is a growing view of health as a collective concern related to a population, rather than just an individual concern, has resulted in the development of a socio-ecological model of health care(10) which Turpin and Iwama in 2011 suggested occupational therapists consider incorporating in their practice. It is important to consider the influence of non-Western philosophies and other worldviews as these also need to become more apparent in occupational therapy conceptual/practice models if the models are to be applied appropriately to all cultures(10).

A relatively untested model developed by Iwama(19) in 2004 is based on collective-oriented view of human occupation seen in Eastern cultures. This model assumes that the environment is an integral part of the individual where occupations are performed, as opposed to other occupational therapy models that assume the environment is being acted upon and mastered. The individual is therefore “embedded” in, and considered as part of the micro environment which is represented by a riverbed. The model is thus called the Kawa (Japanese for river) Model and uses this familiar metaphor of nature as an effective medium to translate subjective views of self, life, well-being and the meanings of occupations(19).

The Kawa Model is based on the socio-ecological model of health, with the understanding that an individual’s health is determined by the circumstances within their environment, that are sometimes not within their direct control(10)(20). This new conceptual/practice model, however, needs further exploration to determine how occupation based on the collective experience can be applied in occupational therapy practice, particularly in countries outside of the Western world(3). In order to justify the use of models like the Kawa Model, research should be conducted in various settings and different countries to establish the clinical relevance of the model in different cultures.

1.3 STATEMENT OF THE PROBLEM

Occupational therapists are faced with a number of conceptual /practice models on which to base their practice. Reed and Sanderson state that

> *"Keeping up with the changing models of practice is a major factor in continuing education of most occupational therapists."(*p. 53)(11)

The level of knowledge regarding the models, as well as the ability of occupational therapists' to interpret and apply these models appropriately influences their clinical practice. In addition occupational therapists are challenged when having to make the decision about which model to base their practice on, so they can provide the most culturally appropriate intervention for a specific client and the specific setting in which they work(21).

Fawcett states that in order for a conceptual/practice model to be credible, it requires evidence with regard to its *"social utility, social congruence and social significance" (p.229)*(22). In South Africa, however, with a multicultural society, this evidence is not available for the models applied with the many clients attending occupational therapy. The occupational therapy models used in South Africa often do not align with the underlying cultural beliefs of the clients. The models used most frequently in practice have been constructed on the Western view of individual autonomy, and clients may not necessarily hold the worldview of occupation represented in most occupational therapy models. The exclusive use of these models may therefore result in ineffective therapy for occupational dysfunction, preventing the occupational therapist from providing equitable service to all clients.

1.4 PURPOSE OF THE STUDY

The purpose of this study was firstly to gain insight into how and why a sample of occupational therapists applies occupational therapy models in their clinical practice. The study then further explored the perceptions of these occupational therapists after they had used the Kawa Model in their practice with clients from different South African cultures presenting with chronic illness or disability.

1.5 RESEARCH QUESTIONS

What models do occupational therapists use of in their clinical practice and why?

What value do the therapists using the Kawa Model perceive that it adds to the intervention with clients who have a disease or disability in the South Africa?

1.6 AIMS OF STUDY

The aim of the study was to determine the use of conceptual/practice models by a group of occupational therapists practicing in Gauteng and the perceptions of some of them regarding the experience of the use of the Kawa Model in their practice, after they had had an opportunity to use the model in the intervention of clients with chronic illness or disability.

To investigate this aim it was important to determine which models were being used in clinical practice by the occupational therapists attending a workshop on the Kawa Model.

1.6.1 Objectives of the Study

1. To determine which occupational therapy models occupational therapists attending a workshop on the Kawa Model apply in their clinical practice and the reasons the specific models.
2. To establish demographic factors related to model use in their clinical practice.
3. To establish the view of the occupational therapists on the Kawa Model after a two-day workshop.
4. To explore the perceptions of the occupational therapy participants on the application of the Kawa Model with clients in the field of chronic disability or illness after they had had an opportunity to use it for approximately one month.
5. To explore the same occupational therapy participants' perceptions about the suitability and continued use of the Kawa Model for their practice context after they had had an opportunity to use it for approximately four months.

1.7 TYPE OF STUDY AND METHOD

This study follows a descriptive case study design within a single case with embedded units(23). A single case study design facilitates the exploration of a phenomenon and in this study the application of models in general and more specifically the Kawa Model by occupational therapy participants was considered.

The descriptive case study design offered an opportunity to explore model use by a group of occupational therapists, practicing in Gauteng, who attended a workshop on the Kawa Model, in the real life context with clients. Their perceptions about the application of practice models, with particular emphasis on the Kawa Model in their clinical practice context, were analysed using within and cross case qualitative data which was integrated with the quantitative survey data to obtain a holistic understanding of this phenomenon.

Data were therefore collected at three points in time in a sequential manner(24). The initial data collection was done after the Kawa Model workshop using a quantitative survey with closed ended and semi-structured questions to obtain data for the first three objectives.

The data were collected at two different points in time after the participants had had an opportunity to apply the Kawa Model in their practice after one month and then after four months. Semi-structured interviews were used to explore the perceptions of the participants about the application of the model in clinical practice and the use of the model in their practice context.

Embedded units in this single case study were determined by considering the influence of different practice settings on model use and the use of the Kawa Model with different patients, by occupational therapy participants(25).

1.8 JUSTIFICATION FOR RESEARCH/RATIONALE

Emphasis is placed on client centred therapy intervention by the Occupational Therapy Association of South Africa (OTASA) in their Code of Ethics and

Professional Conduct. Occupational therapy service may not allow any form of prejudice or discrimination towards a client on the basis of race, gender, age, culture, sexual orientation, language, disability or socio-economic status(26). Therefore occupational therapists trained in South Africa must be cognisant of all the models of occupational therapy and the world view they subscribe to(27).

For occupational therapy models to be effectively applied in clinical practice the model needs to reflect the most current understanding of relevant structures and interactions and capture the philosophy of the profession(27). Occupational therapists need to constantly and critically appraise and test theories and models of practice, which might become closed ideological systems if they are not researched, reviewed and altered for appropriate use in the context in which the therapists practice(27). Participants in this study will reflect on their use of models and the appropriateness of the models they are using in relation to the client they treat.

> *"Our maturity as a profession and ability to affect people's lives in powerfully positive ways hinges on a greater inclusion of diverse spheres of experience and meaning" (p.1)*(28).

1.9 OUTLINE OF THE STUDY

Chapter Two presents the Literature Review, and addresses the issues of:

Philosophical and cultural concepts in occupational therapy; the development of occupational therapy models; the development of occupational science; the influence of the models of health on the development of occupational therapy models; clinical use of models in occupational therapy with a specific focus on the Kawa Model; application of models in clinical practice; cultural considerations in clinical practice; client centred practice and clinical reasoning.

Chapter Three outlines the methodology that guides the study, and indicates the study population; sample size; methods used to collect manage and analyse the quantitative and qualitative data.

Chapter Four presents the results

Chapter Five presents the discussion including the integration of both quantitative and qualitative results found in chapter four.

Chapter Six presents the conclusion; significance of the study; limitations and recommendations.

CHAPTER 2:
LITERATURE REVIEW

This review of the literature will consider the philosophy of occupational therapy and its imbedded cultural aspects. The development of occupational therapy models will be explored alongside the factors influencing their development from the subjective views and models of health. The current use of models in clinical practice will be discussed with the factors to consider during the application of models. Databases used to search for relevant journal articles and books related to these topics included EBSCO Host, Science Direct, Sage online, SCOPUS, JSTOR and Pubmed. Some seminal work was consulted in order to ensure a true reflection of historic developments within the profession of occupational therapy.

2.1 THE PHILOSOPHY OF OCCUPATIONAL THERAPY

Craig in 1983 defined philosophy as:

> *"…the study which reveals to us the meaning of existence, the nature of reality and our place in it. A philosophy is a creed, a set of beliefs to live by; it provides a purpose encompassing and overriding the minor and trivial concerns of the everyday or if not, and it communicates a state of mind from within which the ultimate purposelessness of life becomes endurable."(p 189-201)*(22)*.*

Philosophy in a given profession refers to the basic beliefs that are shared by the members of the specific profession. A professional philosophy is the system underpinning a profession's unique beliefs and values, providing its members with a sense of identity and the ability to exert control over theory and practice(22). It further assists in locating the domain of concern for that profession, irrespective of the specific practice context. In occupational therapy, a major philosophical assumption includes the belief that occupation is a central aspect of the human experience

regardless of the practice setting(22). The human being is viewed as an occupational being and recovery of health is based on an individual's ability to participate actively in their valued areas of occupation.

However, in the late 1990's, Wilcock(29) argued that the profession of occupational therapy did not have a shared philosophy and explained that it was therefore not possible to identify the core skills required to practice as occupational therapists. The practice of occupational therapy tended to be concrete and focused at the impairment level only which ultimately effected the future development of the profession and its continued relevance. She suggested that the philosophy underpinning occupational therapy should be reaffirmed as occupation for health(29). This would incorporate the concepts with which the profession of occupational therapy concerns itself with, particularly the facilitation of activities of daily living in culturally specific contexts (30)(31).

2.2 CULTURAL CONCEPTS IN OCCUPATIONAL THERAPY PRACTICE

Historically, however, occupational therapy theory and practice has evolved from Western perspectives so occupation defined in the occupational therapy literature is seen as a "vehicle" through which humans influence their environments, resulting in a strong bias towards Western cultural identities(32). Therefore, shared spheres of understanding and construction of meaning when interpreting human occupation have been placed predominantly within Western experiences. This is not appropriate for all cultural worldviews as it is congruent with the Western belief that obtaining mastery over one's environment is central to obtaining a state of good health and well-being.

It has been proposed by several occupational therapy scholars that this mastery over the environment enhances survival(33)(34)(31), facilitates development, growth (35)(36) and self-actualization(37) and ultimately contributes to an overall improved quality of life(38). It is evident that initially the profession was shaped by the perceived importance of obtaining mastery over the environment(10) and three core concepts of related to occupation from a Western perspective have been identified as

underpinning the practice of occupational therapy. They are personal autonomy, performance achievement and goal-directed intervention.

In the first two concepts emphasis is placed on client-centred practice, so that the individual is empowered or enabled, ultimately leading to their personal autonomy (32). Having an internal locus of control is viewed as important in order to exert one's power over the environment and in order to take personal responsibility in actively pursuing wellness(6)(39)(40)(41). Productivity and mastery are viewed as end points of therapy and individuals are frequently defined by their work roles and the degree of success they have achieved in such roles(42)(43).

The last core concept of goal-directed intervention means that occupational therapy is goal orientated and assumes that people know what they want to achieve(44). Occupational therapists involve the individual in working toward achieving their identified goals and future plans(40)(41)(43)(45). Therefore the main focus of occupational therapy assessment and treatment is on occupational performance, functional ability and involvement in meaningful or purposeful activity(40)(41). All these concepts are highly sensitive to cultural interpretations, yet little is known about their application within a non-Western context(32). The application of these three concepts might create barriers or pose problems for the occupational therapy practitioner who was raised within a non-Western society as well as all those practicing in such contexts(40)(46).

The welfare of a society or family within a non-Western context is often viewed as more important than the needs of the individual, and roles are bound by hierarchies and often strict guidelines for behaviour, for example within gender roles. Within some cultural contexts the divide between body and mind and work and leisure does not exist and the concept of a balanced lifestyle may be related more to an inner harmony, rather than to the scheduling of activities of daily living. Societal beliefs around concepts like illness and recovery, efficacy of treatment and acceptability, that influence health-seeking behaviours may also vary greatly (41)(42)(43)(47)(48)(49)(50).

The factors that influenced the development of the understanding of occupation and the models used in occupational therapy practice therefore need to be evaluated to determine the assumptions that underpin them and how they accommodate different cultural views.

2.3 DEVELOPMENT OF OCCUPATIONAL THERAPY MODELS

The focus of occupational therapy on occupation as a therapeutic modality makes it unique and this has led to the recent development of the discipline of occupational science. This discipline now informs the profession and the practice models developed to guide the practice of the profession.

2.4 THE THEORY OF OCCUPATIONAL SCIENCE

Kielhofner argued that occupational therapy had been deficient in the application of the central construct of occupation through the development of the profession in the Pre-formative, the Formative and the Mechanistic periods(1). This was addressed by the development of occupational science in the 1980s which grew from the need to develop a basic science based on occupation, to support occupational therapy practice(4). Its emergence resulted from the theoretical crisis in the profession which during the previous developmental periods was fragmented due to models and practice being based on theory that originated from other professions(51).

Since the introduction of occupational science an array of theoretical material, including occupation-centred conceptual models and assessments, has been developed by occupational therapy scholars. There is now a commitment towards valuing, and placing occupation at the centre of our professional concern. Occupational therapists are striving to take their practice beyond the traditional medical institutions to the community, the main social context where everyday occupations of daily living unfold(3).

Models based on occupational science have allowed the profession of occupational therapy to place a reliance on a body of knowledge for the first time that was not merely generated from within the profession but reflected their holistic view of human beings as occupational beings.

However, doubts expressed by amongst others Fortune(51)(52) who questioned whether the occupational vision held by occupational science scholars like Yerxa really managed to filter successfully into occupational therapy practice. The queried whether occupational science models presented a philosophy of lifestyle that was compatible with actual occupational therapy practice worldwide(51). These doubts were countered by Yerxa's belief that the profession should focus on occupation and respect the client's choice in engagement in self-initiated, purposeful activity. She emphasised the need to base therapy on occupation viewed from the clients' perspective(53) which must also reflect the context in which this takes place. These fundamental beliefs were made explicit in conceptual systems which integrated the idea that intervention in occupational therapy, appropriate to particular individuals and populations(10), should take all cultural perspectives into account. The term "models" was not in use at this time, but emerged later in the 1980's, when focus was placed on the explicit organization of information into schemes.

The first occupational therapy models were influenced mainly by the biomedical understanding of health and were published by the American and Canadian Occupational Therapy Associations. Models developed in the 1980 have shifted the focus to occupation as seen in the Model of Human Occupation and Performance (MOHO)(14), and the Person-Environment-Performance Model (PEPM)(54). In these models for the first time individuals were considered to be occupational beings and the contexts in which these occupations occurred were described as multi-faceted and complex, giving rise to many components that need to be considered to understand what led the individual to engage in specific occupations(1).

In 1997, however, rather than looking at the interaction between a person and their environment to understand their occupations, the authors of the Canadian Model of Occupation Performance and Engagement (COPM-E), described a mutually influenced interaction between the person, their environment and their occupations (10). In most occupational therapy practice this concept is now almost an unspoken assumption but it still requires some clarification and discussion(10). Turpin and Iwama supported this assumption and suggested that occupation should not be

presented as a discrete entity within a model, but as an integral part of self through which the person and the environment are viewed together. They felt the focus should be on what is observed through involvement in occupation, rather than on how the occupation itself influences the way in which the person and their environments are perceived(10).

It would appear that co-existing concepts or models prevailing in the practice of health care have, however, influenced the development of all occupational therapy models throughout both the 20th and 21st centuries.

2.5 MODELS OF HEALTH

The concepts in the biomedical model which emphasise a decline in performance as a result of impairment in body structures and functions in(55) include mechanistic ideas from Western health care. These concepts are included in occupational therapy models as performance components. In occupational therapy, however, the primary focus has become a humanistic concern for the individual, where an open systems understanding often associated with the bio-psychosocial model of health(10), rather than the "body-as–machine" metaphor from a biomedical understanding, takes precedence.

Both the physical signs of health and illness and the individual's subjective experience of dysfunction are emphasised in the bio-psychosocial model, therefore providing a more holistic understanding of health, which aligns closely to the philosophy of occupational therapy(10). Individuals are therefore conceptualised as having layers of mutually influencing systems where psychological and social aspects are considered along with the individual's biomedical concerns(10).

The occupational therapy models developed in the 1990's incorporated these concepts from the bio-psychosocial and systems understandings of humans while still making the performance components explicit. They paid attention to the individual's subjective experience and psychological concerns such as identity. Emphasis was placed on goals derived from a set of beliefs or principles about the value of independence, the right to be enabled to achieve such independence and the manner

in which this affected the individual's ability to conduct occupations. This concept provided subjective underpinnings that informed clinical practice and highlighted aspects such as respect for human dignity, self-actualisation and autonomy, equality of rights to care and the importance of client-centred practice(27). As a result of this increased understanding about client empowerment and the role the client should play in determining their independence, the Canadian Association of Occupational Therapists developed the client-centred approach in 1997. This approach recognises and respects the client as being in control and as being an active participant in the intervention process(56).

However, these models like the bio-psychosocial model of health still focus on the individual although the collective nature of people as viewed by indigenous and Eastern cultures is becoming more evident and overtly acknowledged. The socio-ecological model of health is thus beginning to influence health practices worldwide (10). When describing the socio-ecological model of health in 2004, Reidpath explained that it takes into account factors that result in poor health in some individuals or more importantly in some populations when compared to others(20). Health is conceptualized as being determined by social, environmental, biological and genetic factors, including but not exclusively related to identified biological abnormalities and individual issues. This model views health as being affected by factors outside the direct control of the individual, which may include the quality of water supply, exposure to the sun as well as general living and working conditions as well as issues of health inequality(20).

The influence of the socio-ecological model of health is also seen in the latest occupational therapy models which consider occupation in relation to a population/group context as well as that of an autonomous individual(10). Both the Canadian Model of Occupation Performance and Engagement (COPM-E)(56) published in 1997 and the Occupational Therapy Practice Framework II (OTPF II)(57) published in 2008 include aspects of the socio-ecological model of health. The issue of occupational justice(52) or equality, in relation to health and participation is made explicit with an expressed concern for a just society and advocacy as a key skill for

enablement of the individual or a group of people(10). Evidently, the focus is moving away from the individual and more towards the socio-ecological model of health in which occupational therapists is concerned for the broader societal or population needs(10).

The concepts, expressed in these latest models, resulting from the coming together of ideas, have led to the growth of occupational therapy academically as well in its application in the clinical field, allowing the profession to be relevant in terms of current global thinking and concerns.

2.6 CURRENT MODELS USED IN OCCUPATIONAL THERAPY

The development of models for the practice of occupational therapy can be grouped into three categories namely; generic or outcome models, programme models and lastly, specific practice/conceptual models(11). These different types of models have developed over time. Initially models aimed to simplify phenomena and provide structure for the profession but currently practice/conceptual models aim to tie together a multitude of phenomena to make sense of the whole(21).

The first **generic/outcome models** focused on individual adaptation and explained why occupational therapy is valuable, but did not explain how this value could be achieved from clinical practice. These models consist of a theoretical framework to describe, explain, guide and predict therapy outcomes in practice, without which occupational therapy would amount to little more than a disorganized, irrational service lacking utility and relevance(11)(21). Generic/outcome models include the occupational behaviour model described by Reilly(58) which is based on the assumption that occupations are developmentally acquired, and the individual adaptation model described by King(54) that focuses on the relationship between the environmental demands and the individual's ability to meet those demands(54).

The second type of models, **programme models** focus on how occupational therapy concepts can be organized to address a set of problems in a particular diagnostic group. Programme models highlight what is needed to make occupational therapy effective, but do not consistently indicate how to apply these resources to a specific

clinical case(11). The programme models were identified by Weimer in 1972 as those related to promotion, protection, correction, accommodation and identification(59).

A program model for promotion aims to provide the health care consumer with an awareness of certain conditions affecting health, in order for them to change their behaviours in the future, such as educating parents on the importance of stimulation activities in order to promote normal development in their children(11)(59). Program models for protection also focus on providing health care consumers with education, but the focus would be on high risk factors that can cause a potential health risks, for example warning of the risk of falling where there are loose rugs within the home environment(11)(59).

Program models for correction focus on providing treatment for identified problems in order to improve an individual's functional capacity such as training to enable the performance of activities of daily living. Program models for accommodation focus on dealing with problems relating to the environment, for example removing architectural barriers to accommodate disability. The final program model is for identification of possible problems that may cause disability, for example early developmental screening of children in preschool(11)(59).

The third type of model is the specific conceptual models for practice that offer an explanation on how to apply occupational therapy in the clinical context. Conceptual practice models can be described as bodies of knowledge developed within the profession of occupational therapy to inform practice and exist as evidence that our knowledge base is not just common sense, as it may appear, seeing that occupational therapy is practiced within the context of ordinary life(10). The aims for the development of such models are firstly to generate and test theory about concepts of concern in the profession and secondly, to test strategies and techniques used in clinical practice(1).

Kielhofner stated that the term, model in occupational therapy, can be associated with a variety of frameworks or perspectives. He provided criteria for defining the characteristics of a conceptual/practice model in 1985. Firstly the model must have a

solid grounding in practice and secondly it must provide theory that addresses unique practice circumstances and supports the development of practice resources. He identified several previously known frames of reference such as sensory integration, motor control as being conceptual/practice models in 2009(2).

Kielhofner also stressed the importance of viewing these models as evolving bodies of knowledge that must be changed and improved over time based on evidence and research(1). He further emphasised the fact that each model has a specific focus and that therapists need to apply a combination of models in order to address the complex problems of their client(1) and identified three aspects that all conceptual/practice models in occupational therapy address. These include firstly the organization and function of the areas of occupation, explaining why people are motivated to engage in certain behaviours. Secondly they address what happens when a person becomes dysfunctional in terms of their motivation, performance patterns and the context in which they carry out their occupations and thirdly how enablement of engagement in occupation in therapy is explained by theory(1).

These models therefore organize occupational dysfunction and addressed performance dysfunction. According to Davis a conceptual/practice model in occupational therapy;

> *"…identifies what is believed about the nature of people and participation, the way in which elements enable function or lead to dysfunction and non-participation, and how one moves from a situation of dysfunction to one of fuller participation."* (27)(p.59)

Conceptual/practice models should guide and improve the development and application of practice skills. More importantly, they hold the potential to clarify professional roles and support the development of a professional identity. When defining conceptual models, Creek(60) states that they are:

> *"A simplified representation of the structure and content of a phenomenon or system that describes or explains certain data or relationships and integrates elements of theory and practice."*(60)(p. 55).

Since the profession of occupational therapy is seen primarily as a practical discipline with a client-centred, hands-on focus, there has been an increasing interest in the development of conceptual models for practice rather than on the specific development of theory. The development of such models, which aim to link theory to practice, was supported by Turpin and Iwama, due to the fact that the concepts underpinning practice in occupational therapy, need to be justified. Conceptual/practice models allow the thinking central to occupational therapists' clinical reasoning to be understood and turned into action quickly(10), Turpin and Iwama in 2011 further proposed the idea of using the practice setting as the starting point when developing models by asking how theory can serve practice(10), and challenge the notion of theory being regarded as superior to practical wisdom. Kielhofner on the other hand emphasised the importance of theory in conceptual/practice models as also they also guide research in the field of occupational therapy.

In 1999, Wilcock(29) however, criticized most occupational therapy conceptual models for practice stating that they fall short in their explanation of the exact nature of human occupational needs. She felt that there was no clear explanation of how occupational needs arise and their purpose and that the philosophical orientation on which these models are based was not apparent, leaving their guidelines open to different interpretations when applying them in occupational based practice. Another criticism of the models used in occupational therapy is that on the whole, they have been developed by occupational therapists with a Western worldview and are therefore not always applicable in the contexts of clients from Asian, African and Eastern bloc countries(10).

The extensive research which has been carried out on these models has also been restricted to the countries in which the models were developed. Hence, there is limited literature available on their clinical and cultural applicability in developing countries(3). Also from an Eastern or Asian viewpoint, the Western based conceptual occupational therapy models of practice appears to be limited, unilateral and over simplistic representations of phenomena related to occupation. Iwama reported in

2003 that the models can be compared to “how-to” recipes when imported for use in Japan. The concepts, inter-relations and depictions of meaning of human agency are completely out of touch with Japanese indigenous constructs(3).

According to Iwama occupational therapists in Japan find it difficult to relate meaningfully to the existing conceptual/practice models and to effectively apply these models in practice with Japanese clients, who hold very different, but no less valid constructions of truth and reality(3). This might therefore affect the interpretation and on-going application of these practice/conceptual models(19). The occupational therapy profession needs to continue evolving and transforming in order to maintain social relevance and it seems that the development of practice models are an important aspect in this development(10)(61). Duncan describes this necessary evolution as being is related to one’s ability to match society’s needs with an appropriate response(61).

Iwama(19) developed the Kawa Model in 2004 in response to these concerns outside of the traditional centres of occupational science in the United States of America (USA), Canada and Australia. The Kawa model can be classified as such a conceptual/practice model according to Fawcett’s and Kielhofner(62) criteria for models, in that it is made up of concepts that describe mental images and propositions or the statements that explain the relationships between the concepts (2)(62). The model also can be used in practice as it can explain occupational therapy’s overall purpose, the strategies for interpreting a client’s circumstances and the rational for intervention within the client’s social and cultural spheres(19).

2.6.1 The Kawa Model

The Kawa Model was presented as the first culturally relevant occupational therapy conceptual/practice model. The philosophy underlying the Kawa Model was based on the postmodern and post-structuralist scholars’ viewpoint that people socially construct their own life views and their own interpretation of reality. This model assists in promoting clients’ understanding of issues related to occupation and occupational performance. It provides an alternative way of conceptualizing these phenomena that

are historically and culturally situated. The concept of occupation, as with many other concepts, is accepted as having a different meaning to people situated within different spheres of experiences and circumstances, reflecting the models' cultural component(21).The Kawa Model allows occupation to be viewed from sociocultural as well as temporal dimensions(63), which has a direct bearing on the individual's interpretation of this construct in relation to their own lives.

In this model there is an absence of the central, physically bounded "self" and the "self" consists of a combination of several elements. The "self" is therefore viewed from the primitive cosmological worldview, in which it is just another element in nature. Interestingly, the Japanese term for "self" literally means "self-part" or "one's share" (p.140)(19). The model assumes that all the elements of nature, which include humans, are profoundly connected. Even a phenomenon like disability is treated as a collective experience rather than a medical issue and a tragedy. This differs from the traditional Western rationale in which these elements are viewed as distinctly different(19).

The Kawa Model uses the metaphor of a river, where the "self" is viewed as a river. All the elements in the river that include the self, society and life circumstances are viewed as elements of one inseparable whole. These elements are depicted in a visual drawing presented as rocks (life's circumstances), river banks and bed or bottom (environment), driftwood (personal attributes, personality, assets, liabilities) and water (life flow/energy). They are all connected and cannot be comprehended in isolation. The occupational therapist therefore is challenged to appreciate the experience of wellbeing in the broader context rather than something that is viewed in isolation, within the person. The aim of intervention when using this model is therefore not to increase the individual's self-efficacy, but to examine all the relevant parts of the river (context) to facilitate "life flow"(19).

There is limited research published on the use of the Kawa Model by occupational therapists working with clients presenting with chronic conditions. One study by Carmondy et al explored the use of the Kawa Model with clients presenting with multiple sclerosis. They found that the Kawa Model presented some opportunities as

well as challenges. Opportunities related to the enablement of the occupational therapy process and the facilitation of occupation-based intervention when applying the Kawa Model clinically. Challenges created through the use of the Kawa Model related to participant uncertainty and the influence of therapist preconceptions. They recommended further research on the application of the Kawa Model with a larger sample(64).

The development of the Kawa Model has responded a need for change and has shown that although occupational therapy is embedded mainly within a Western culture, it is moving towards more culturally sensitive practices. The other evidence of a shift is that independence is less frequently listed as an aim of treatment within the educational texts. The emphasis now seems to be more on a needs led programme that is informed by a cultural sensitive assessment, which takes the wider social environment into consideration(32).

Nelson and Jepson-Thomas encourage the development as well as the actual application of models of practice through the process of research, as they believe this is critical for the professions continuing development and survival(63). Hence, the importance of conducting research the use of current occupational therapy models in various settings and different countries cannot be emphasized enough. The clinical relevance of the models in different cultures needs to be established in order to ensure that the profession stays true to its philosophy by providing clients with a unique and relevant service(3).

2.7 APPLICATION OF MODELS IN CLINICAL PRACTICE

Models in occupational therapy can be seen to serve practice in the following ways: Models makes explicit the professions assumptions about humans and occupation and provide a “short-cut” for guiding professional and clinical reasoning. Models further help to define the profession’s scope of practice, by providing a focus for intervention and making explicit its domain of concern. Thirdly, models enhance professionalism and accountability by proving a certain status to the profession and assisting in ethical decision-making. Models further assist the therapist in collecting

information in a systematic and organized fashion. Finally, models guide intervention and provide the profession with solutions(10).

When it comes to using the conceptual models available in the practice of occupational therapy there are still some issues. It is clear from the 2003 writings of Creek and Feaver that each model does not fully represent the diversity and unique role of the occupational therapy profession(60). Kielhofner had already suggested that the multiple factors involved in the occupational functioning of an individual cannot actually be addressed by the application of a single model, due to specific focus of each model. He concluded that therapist would normally apply two or more models in combination in order to address their clients' complex needs(1). In conjunction with Forsyth in 2002, he indicated that the application of any of the conceptual model in practice is neither simple nor based on a straightforward formula. Each conceptual/practice model aims to understand the important multiple dimensions that make up each client's unique experience of their place in their occupational world, and requires a sophisticated understanding on the life issues each client faces(21). Their interpretation is reflective of a number of well-researched complex models, defined by them as conceptual/practice models for use in occupational therapy, which includes the Canadian Occupational Performance Model (COPM) and the Model of Human Occupation (MOHO). A problem exists however in that while the conceptual aspects of MOHO and a similar model developed in Australia, the Occupational Performance Model (Australia) (OPMA) are clear, work on the practice aspect of both models is ongoing. In a review of MOHO in 2006 Davis felt the complexity in the model is often missed by therapists who take the simplistic diagram as a one-dimensional presentation of the concepts, without comprehending the extensive documentation detailing the full meaning behind these concepts(27).

Two of the conceptual/practice models taught at South African occupational training centres are the Model of Human Occupation (MOHO) and the Vona du Toit Model of Creative Ability (VdTMCA) which has been successfully applied in many settings across South Africa(65).

The Model of Human Occupation was developed in the USA by Kielhofner and first published in 1985. Since then further editions of his book on this model has been published(1). This model (MOHO) is concerned with an individual's participation in and ability to adapt in their daily occupations. Volition is the driving force that motivates engagement in occupation and consists of thoughts and feelings. These thoughts and feelings are further referred to as one's personal causation, values and interests. When developing the model Kielhofner argued that one's volition has a direct impact on one's occupational life. Other factors considered in this dynamic model are that of habits, and roles. The MOHO therefore states that occupation results from a dynamic interaction of the individual's characteristics, namely volition, habituation and personal performance capacity, within their specific environment, from which they receive feedback which affects their occupational performance(2).

The Vona du Toit Model of Creative Ability (VdTMCA) developed by du Toit(66) in South Africa in 1972 is a conceptual/practice model that is effective in guiding practice. This model defines motivation and indicates the interrelatedness between motivation and subsequent action. Motivation as a driver for subsequent action to meet internal needs and environmental challenges has been identified by many scholars in occupational therapy including Kielhofner in 1997(67) and Schultz and Schkade in 1992(68). It informs the therapist of the factors that drive motivation and provides a measure for the strength of such motivation. The measurement of motivation is evaluated through the elicited action. The Vona du Toit Model of Creative Ability provides the therapists with treatment strategies to elicit such motivation. It consists of nine different, consecutive levels of motivation and action with detailed guidelines for intervention at each of these levels(69). The model has had little recognition internationally until 2008(70) but is currently obtaining wider recognition in Europe and even in Eastern countries like Japan (71) indicating that the model can accommodate cultural differences.

2.8 CULTURAL CONSIDERATIONS IN CLINICAL PRACTICE

Since client views on disability and health may differ considerably among different cultures(56) it is important that occupational therapists understand these cultural differences by becoming culturally competent.

An early definition of culture quoted by Mumford in 1994 is*:*

> *"that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society"* (p.145)(48)

A much simpler definition is one suggested by Gujral in 2000 that describes culture as comprising of traditional beliefs and social practices that inform the rules for social interaction within a particular social group(50). These definitions of culture generally focus on social aspects, thoughts and feelings whereas literature that focuses on people's habits and practices which are of particular value to occupational therapists is difficult to find(40). Thus while there is an implicit assumption that occupational therapists have a role to play within any given culture, there is little published literature to support this assumption.

In 1995, both Jang(49) and Kelly(72) made a case for the suitability of occupational therapy in indigenous cultures by highlighting the commonalities between therapeutic activities used in occupational therapy and healing approaches found in traditional medicine in these cultures. They were attempting to demonstrate the acceptability of occupational therapy within different cultures(49)(72). However, in 2003 Awaad pointed out that the random introduction of culturally untested practice models could be seen as inappropriate at best, and unethical at worst(32). It is recommended that there should be a clear rationale for occupational therapy intervention based on the clients' culture by making a careful choice regarding the treatment model to be applied and occupational therapists should at least demonstrate cultural competence in dealing with all clients(48).

2.8.1 Cultural Competence

Cultural competence is defined as an awareness of, sensitivity to and having knowledge of the actual meaning of culture(5). Culturally competent people can be seen as those who have moved from a state of cultural unawareness, to being culturally sensitive to their own cultural issues and how their values and biases affect clients from different cultural groups(6). Therapists need to understand the concept and nature of culture in order to skilfully use specific cultural information that is based on knowledge, to ensure successful interaction with clients. They further need to focus on the importance of the awareness of their own cultural background and values(32). Numerous authors have identified the important elements of cultural competence in occupational therapy based on a holistic approach, a core concept in the profession, of which cultural sensitivity is a feature(41)(72).

The focus on culture in occupational therapy has mainly been on the competency and sensitivity of practitioners towards their clients. However, the cultural constructs of occupational therapy itself and its implications when contemplating issues of meaning and inclusion in our clients' lives are rarely questioned. In 2004 Iwama asked the question:

> *"Do our current epistemologies, ideologies, theories and practices in occupational therapy truly abide within the lived realities of those we serve?"(p.1)*(28)

Cultural competence is one of the least developed aspects of occupational therapy, with little guidance on how it is viewed in the models of practice and how it can be achieved in clinical practice(42)(72).

The occupational therapists' selection of models should therefore allow for the interpretation of the personal meaning of occupation by the client, as selection of the correct models has the potential not only to guide our therapeutic intervention, but also allows for active client involvement in order to enhance client centred intervention, that is sensitive to the client's cultural context.

2.9 CLIENT CENTRED PRACTICE AND CLINICAL REASONING

The occupational therapy models selected for practice should also result in client-centred practice which indicates a partnership between the client and the therapist that empowers the client to engage in functional performance and fulfil their occupational roles in a variety of different ways in familiar environments. Client centred practice is based on the belief that given the opportunity, the client best understands his own occupational performance needs and its importance for maintaining the therapeutic relationship essential to therapy(7).

However, there is however concern that occupational therapists use models to provide "recipes" when treating clients and those models are not applied in clinical practice to make practice as client centred as it should be(7). This lack of culturally relevant, occupation focussed, client centred intervention was highlighted in a study in Pennsylvania where occupational therapy students reported the following after their level one physical fieldwork:

> *"Occupations that were meaningful to clients were rarely used; there where seldom collaboration between therapists and clients regarding treatment planning; identical treatment plans designed by therapists in the form of checklist of exercises and activities where used across the board"* (p5)(66).

Another study conducted in 2000 in a child and adolescent mental health care setting (51) in the United Kingdom (UK), supported these findings and also indicated a lack of the unique use of occupation in occupational therapy. This UK study described occupational therapists as chameleons, quietly blending into the background, with no unique role other than providing a consistent backdrop. Their contribution to the team was dependent on their colleagues, their clients and the practice context. This is a typical example of the dilemma highlighted in 1999 by Wilcock(29) in which occupational therapist fail to incorporate the theoretical base of models into practice and lack the shared philosophy of occupation for health. The question was further raised that the "chameleon's" presence, may not be missed when it is gone(51),

emphasizing the lack of evidence for the effectiveness of occupational therapy and the resulting uncertainty about the profession's future sustainability and development.

It is an occupational therapist's ability to reason clinically, based on knowledge and expertise in applying models that allows for the client's preferences and values to be considered, which in turn leads to the application of appropriate practice models. Clinical reasoning is used to determine whether evidence "fits" with each feature of a client's specific context. Active involvement of the client, and where possible the family or carer is important when decisions are made to determine future plans(8).

Dating back to the first studies on clinical reasoning it is described as the use of introspection, either from "thinking out loud" or from "stimulated recall". In a study by Norman, Young and Brooks in 2007 a twofold strategy that does not rely on memory alone is described. The novice therapist learns the theoretical rules and then practices them on some cases. The more expert clinician learns not only the rules, but also learns from cases that exemplify the rules(73). The key difference between expert and novice occupational therapists has been identified as their ability to think in action and reason(68). Expert occupational therapists are more able to include cultural concerns and adjust treatment to their clients and might approach a client's problems with a particular set of goals in mind. However, careful thinking and reasoning might alter their actions taken. After several therapeutic interactions, the goals might be altered as the therapists develops a greater understanding and see the situation more clearly(74).

In 1991 Thomas, Wearing and Bennett, found five main differences between novice and expert physicians and nurses with regard to the diagnostic problem solving and decision-making abilities(75). Firstly, expert clinicians can compare a current problem to their recollection of past cases due to their more comprehensive knowledge base of correct and varied treatment modalities. Secondly, they are more able to recall critical cues, such a provided by the cultural context, and therefore spending less time on irrelevant information, than the novice clinician. Thirdly, novice clinicians need to collect supporting information to confirm a hypothesis, whereas experts use an appropriate disconfirming hypothesis from past experience. They have a cultural

awareness and are open to new ideas. Fourthly, clinical problems are solved faster by expert clinicians due to the last difference which is that experts have generally better problem solving and clinical reasoning skills developed through multiple interactions with clients, than novices(68).

Schell and Schell explained the development of clinical reasoning skills in occupational therapy practice in 2008, in comparison to the number of clinical experience. They describe the competent therapist (three years' experience) as attending to more issues and having ability to source relevant data. The proficient therapist (five years' experience) is described as flexible with an ability to combine different approaches in creative ways. Therefore, a therapist's utilization of theory is directly related to their clinical reasoning abilities(74).

2.10 SUMMARY

The profession of occupational therapy has been developed predominantly within the Western world. Its constructs and philosophies are therefore situated within a Western worldview in which personal autonomy and mastery over the environment is essential for health and wellbeing. The development of occupational science in the 1980's further influenced the development of the profession, leading to the emergence of conceptual models for practice. This refocused occupational therapy on occupation as core of the profession. The socio-ecological model of health then influenced the development of occupational therapy models with the inclusion of occupation in relation to a population/group context as well as that of an autonomous individual. This also resulted in the development of models from another cultural perspective and the Kawa Model was introduced in 2004. The application of models in clinical practice was seen to be influenced by the therapist's cultural competence, their application of client centred practice and their ability to apply clinical reasoning.

CHAPTER 3
RESEARCH DESIGN AND METHODS

The steps of the study are outlined in this chapter. Sampling from the specific group of occupational therapist as well as the data collection method, data collection instrument and methods of data analysis are discussed in relation to the objectives of the study. The trustworthiness of the study and ethical considerations throughout are also addressed.

3.1 RESEARCH DESIGN

A single descriptive case study methodology was applied. This approach was appropriate to use in order to answer questions on how and why occupational therapists, who attended a workshop on the Kawa Model, use models in their clinical practice followed by specific questions on their perceptions of the application and suitability of the Kawa Model in occupational therapy.

The use of a case study approach in particular was valid as it provided an overall holistic approach that ensured that the researcher took all factors into consideration when exploring the applicability and therapeutic relevance of models in the contextual conditions that were relevant to the phenomenon studied(23)(74). The descriptive case study approach was therefore used in order to describe the phenomenon in the real-life context as it occurred(25). Research participants' behaviour and responses were not manipulated by the researcher during the use of this approach.

A single case study with embedded units was applicable as the researcher, guided by the study objectives, was interested in the influences of the various contexts on model use and how these contributed to decision-making in clinical practice by occupational therapists. Embedded subunits from this specific group of occupational therapists who reported on the single case, model use, considered different fields of

occupational therapy and clients from different cultures. Subunits within the larger case enhanced data analysis as the data were analysed within the subunits both separately (within case analysis) and also across all the subunits (cross-case analysis). This rich engagement with the data highlighted the case and ensured more comprehensive analysis(23).

In comparison to other qualitative research designs, case study design investigators can collect and integrate quantitative data. This facilitated the reaching of a holistic understanding of the phenomenon studied(23). Phenomena encountered in health and social sciences are very complex and by using both a quantitative and a qualitative approach to research could ensure that more insights are generated on the issue than using only one method. The use of models is complex, therefore justifying the use of this research method. Turpin and Iwama emphasized the importance of not only exploring models in order to gain a superficial understanding of the concepts of occupational therapy, but for enhanced understanding to occur that can facilitate application of the models in practice(10).

Qualitative survey data were gathered in the first data collection phase to obtained information about model use by the participants in different fields of practice as well as consensus about their views on the Kawa model immediately after the completion of a Kawa Model workshop organised by the researcher.

The participants' perceptions about applying the Kawa model could only be investigated once they had had to apply the model in their practice. Qualitative methods were then specifically used as there was little to no information available on the phenomenon under investigation(24), i.e. the use of models in a chronic field of practice in an occupational therapy setting in South Africa, and the relevance of the Kawa Model. Therefore a time series data collection in which data were collected at various intervals was used with qualitative data being collected at one month and four months after they had completed the workshop and applied the model in therapy, so that information from the first interview could be used to guide the questions in the second interview. The inclusion of the qualitative elements in the design allowed the

researcher to explore real life experiences of both the therapists in relation to the use of the Kawa Model, as well as the situations and the context in which it was used(76).

This study therefore used both quantitative and qualitative research methods at three separate data collection points(30).

3.1.1. Propositions for the study

The main proposition for this study was that conceptual/practice models used by occupational therapists facilitate “the selection of intervention strategies appropriate for the specific needs of the individual” p.17 and assist the therapist “in looking beyond the obvious functional deficits, thereby ensuring a more holistic approach” p.17 for all complexities presented by each client(14)(77).

The proposition or theoretical framework used to guide this study is based on literature that states that

- occupational therapy conceptual/practice models describe the body of knowledge developed within the profession of occupational therapy to inform practice
- occupational therapy conceptual/practice models provide theory that address unique practice circumstances(14).
- Occupational therapy conceptual/practice models guide assessment and intervention and support clinical reasoning in determining the most appropriate outcome for patients(78).
- occupational therapy conceptual/practice models should allow occupational therapists to achieve a comprehensive view of the client(10)(79).

3.1.2 Outline of the study

A description of a preliminary stage, a workshop on the Kawa Model arranged by the researcher prior to the commencement of the study is described below. The rest of the study was completed and was presented separately for each data collection point (Figure 3.1).

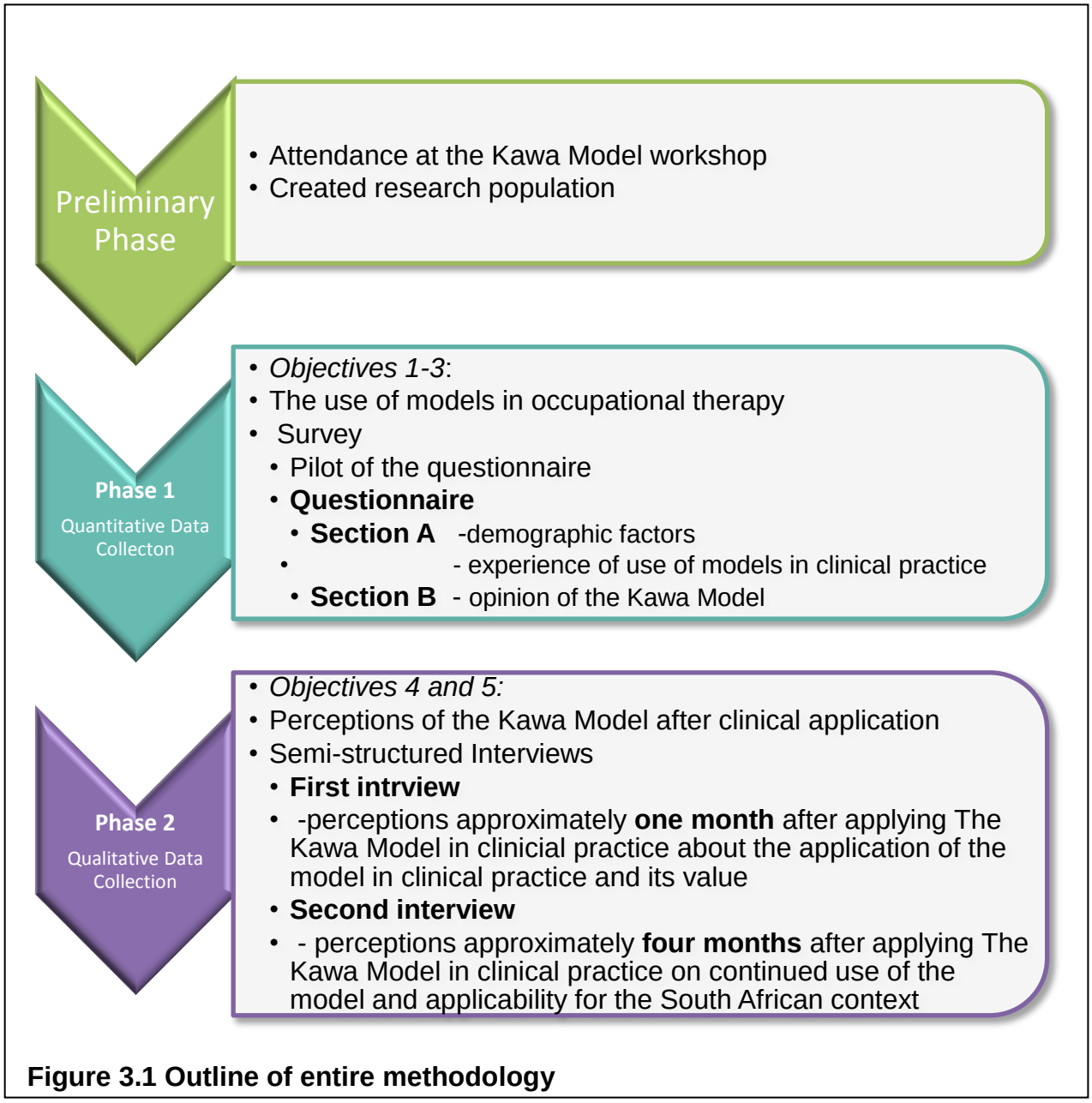


Figure 3.1 Outline of entire methodology

Within this section, the research design and the methods for the quantitative study which determined the use of models in clinical practice by a sample of therapists who attended the Kawa Model workshop is explained first. The participants also reported on their first impressions of the Kawa Model by answering open-ended questions on the survey questionnaire immediately after the completion of the workshop.

The research design and the methodology for the qualitative study which explored the perceptions of the same participants concerning the application of the Kawa Model in their clinical practice will then be described.

3.1.2.1 Preliminary phase

A **preliminary phase** that was the first step and an integral part of the research involved the researcher organising a two day workshop on the Kawa Model which was advertised on the occupational therapy association of South Africa's website. Clinicians interested in this novel model attended. This ensured everyone had the same information about the Kawa Model prior to the commencement of the study. Attendees at this workshop served as the population group for the study. All the occupational therapy clinicians who attended this workshop were invited to participate in the study.

The researcher was instrumental in initiating Dr Iwama's visit to South Africa and in the arrangements and running of a two day workshop on the Kawa Model and its application in clinical practice for occupational therapists.

Dr Iwama, the developer of the Kawa Model presented a two-day interactive workshop. Although the Kawa Model was developed in 2004 and published in its final form in 2006, it was relatively unknown to occupational therapists in South Africa. Due to logistical reasons occupational therapists working in Gauteng attended the workshop mainly, with a few therapists attending from outside of the Gauteng area. They entire group were informed about the research and so they could make an informed choice about possibly participating in this study. Attendance at the workshop for all possible participants of the study was essential to ensure that they obtained

sufficient knowledge regarding the model to enable them to use it in their clinical practice.

The following was covered over the two day period:

Day 1: Research, Culture and Theory in Occupational Therapy

- Culture and its consequences; a critical examination of contemporary theory and models in occupational therapy.
- Culture as Context for constructing meaning
- The research process leading to the development of a new model of occupational therapy
- Basic Structure and content of the Kawa Model

Day 2: Kawa Model; the Power of Culturally Responsive Occupational Therapy

- Application of the Kawa Model in diverse practice contexts
- The Kawa Model and published research surrounding the development of the Kawa Model

3.1.2.2 Quantitative Study: The use of models in occupational therapy

A descriptive survey method was used for gathering quantitative data(80). Quantitative information on the demographics of participants was obtained in order to get educational profiles and to establish the context in which they worked. Further quantitative data were obtained to gather information on their current use of model, opinions of occupational therapy models in general and more specifically on the Kawa Model(81).

3.1.2.3 Qualitative Study: Perceptions of the Kawa Model after Clinical Application

The qualitative study used a descriptive approach(82). The purpose was to gather comprehensive, systematic and in-depth information by interviewing several participants at two separate intervals over time.

During this phase, data were gathered twice, at approximately one month and approximately four months after the attendance at the Kawa Model workshop. Semi-structured interviews(82) were used to gather data. By Using these multiple data collecting points enabled the researcher to obtain and seek out rich, in-depth information(82) on the topic under investigation. The use of a semi structured interview approach was applicable as a number of different people were interviewed individually over some time, justifying the need for making the process more consistent, systematic and comprehensive to ensuring that the same basic line of conversation takes place with each subject. This style did allow the interviewer the freedom to explore and probe when required, but ensured a level of uniformity(82).

The interview's main focus was on the use and exploration of the Kawa model with clients. Therefore, the participants had to apply the Kawa model on at least one client. The occupational therapists selected the clients with whom they wished to use the Kawa Model and thus variation was brought in by the varied cultural backgrounds of the clients that occurred by chance(83).

3.2 SAMPLE SELECTION

3.2.1 Population

All occupational therapists who had attended a two-day workshop on the Kawa Model were approached to take part in the **quantitative part** of the study. The 35 participants who attended the Kawa Model workshop thus made up the population for this study. The population was limited to occupational therapists practicing in Gauteng treating clients with chronic conditions and therefore made up a very small number of possible research candidates of 27 possible participants.

3.2.2 Sample selection

3.2.2.1: Phase 1: Quantitative study

Purposive sampling was used to drawn participants from the 35 participants who attended the Kawa Model workshop. The following inclusion criteria were applied

- Must have attended the two-day workshop on the Kawa Model.

- Must be an occupational therapist registered with HPCSA and practising clinically.

- Must be involved in the treatment of clients with chronic conditions at the time of the study.

Of the 27 potential participants, only 12 of the occupational therapists who met the inclusion criteria agreed to take part in the **quantitative part (Phase 1)** of the study and complete the questionnaire, resulting in a 44.4% response rate. Three of the attendees at the workshop were not occupational therapists and were excluded on that ground. Five other participants who did not meet the inclusion criteria of working with clients presenting with chronic conditions, where selected to take part in the piloting of the questionnaire.

The total population of occupational therapists (n=12) who participated in the **quantitative part** of the study and were currently working in the field of chronic illness or disability were approached to participate in the **qualitative part** of the study. The sampling was also purposive as occupational therapists working within the clinical field, specifically with clients presenting with chronic illness or disability, were selected to participate in the **qualitative part** of this study. Therapists working with clients who presented with a chronic illness or disability were included due to their possible long-standing therapeutic relationship with, and access to their clients. This enabled the therapists to apply the Kawa Model over time so their experience of using the model in clinical practice could be explored(82).The sample selected worked in a variety of practices across the public and private sectors in Gauteng hospitals and other clinical settings.

3.2.2.2: Phase 2: Qualitative study

Seven of the 12 participants from Phase I who were invited to take part in Phase II, agreed to participate indicating a response rate of 58.33% from the sample who took part in the **quantitative part** of the study. These therapists were conveniently sampled as they indicated they had an opportunity to gain experience of the Kawa Model in their clinical practice and that they were motivated to use the model within

their current area of practice. This provided enough participants for data saturation and within and across case analysis for the **qualitative part** of the study.

3.3 RESEARCH INSTRUMENTS

3.3.1 Phase 1: Quantitative Survey Questionnaire (Appendix A)

The initial data collection point used a questionnaire which consisted of two sections that were developed by the researcher**.** The first section gathered information on the demographics of the participants. The rest of the questionnaire focussed on the opinions and use of occupational therapy models and the participants' initial perceptions of the Kawa Model. In order to ensure that the questionnaire had content validity and that the questions were not ambiguous and that they were relevant, the questionnaire was piloted(81).

Section A consisted of 10 demographic questions used to obtain factual data including the year qualified, details re: post-graduate qualification, current area of practice and sector, number of years practising as an occupational therapist, gender and race. (See Appendix A)

Section B consisted of knowledge, opinion and value questions regarding occupational therapy practice models using open-ended questions. These questions focussed on their current application of occupational therapy models, the importance of applying models. The questions in the questionnaire were guided by the literature of occupational therapy models and the research objectives.

Their impressions of the Kawa Model, level of knowledge of the Kawa Model having attended the preliminary phase workshop which covered the definition of an occupational therapy model and information about the Kawa Model. The last question was on their opinion on the possible application of the Kawa Model in clinical practice. The construction of these questions was led by the literature and the research objectives. (See Appendix A)

3.3.2 Phase 2: Qualitative

3.3.2.1. Interview Guide – First Interview (Appendix C)

Within this qualitative phase, semi-structured interviews were used to gather data. The guide used for this first round of interviews completed approximately one month after the participants had completed the Kawa Model workshop contained a combination of questions including knowledge questions and opinion and value questions to elicit the cognitive and interpretive processes. The researcher used prompting questioning to ensure clear understanding of what was said and to provide an opportunity for more information, opinions and feelings to be revealed. The specific focus of the questions were on the receptiveness of the clients towards the application of the Kawa Model, if application of the Kawa Model added to intervention and/or altered course of treatment, the Kawa Models strengths and weaknesses, at what stage of intervention it was applied and barriers to such application.

Information obtained from the **phase 1 (quantitative part)** of this study were analysed first and guided the formulation of questions for the **phase 2 (qualitative part)**. Formulation of questions was further guided by the research objectives. Therefore the focus was on the application of the Kawa Model in practice and participants' perception of the value of the model within a South African context.

3.3.3 Interview Guide – Second Interview (Appendix D)

Data from the first interview were analysed and guided the development of the questions for the second round of interviews which were done approximately four months after the participants had completed the Kawa Model workshop. These questionnaires contained questions on opinion and value questions to elicit the cognitive and interpretive processes. The specific focus of the questions in the **qualitative part,** was on the continued use of the Kawa Model, the reasons for continued use/ discontinued use, the future of the Kawa Model within the clinical context with South African clients and the specific contribution of this model, that is different from others.

3.4 RESEARCH PROCEDURE

3.4.1 Quantitative Data Collection

Once approval and ethical clearance had been obtained for the study, the information about the research was presented to all of the 27 occupational therapists who attended the Kawa Model workshop and who met the inclusion criteria for the study. This excluded the five occupational therapists who took part in the pilot study to determine the content validity of the survey questionnaire.

A questionnaire, information letter and informed consent form **(Appendix B)** were e-mailed to the 12 participants who agreed to participate in the research. Two weeks after the initial date, a reminder was sent out asking participants to respond. Questionnaires were returned via e-mail to the researcher's address or via fax to the Occupational Therapy Department of the University of the Witwatersrand, and were clearly marked for the attention of the researcher. On receipt of the questionnaires, codes were allocated and used from then onwards to ensure confidentiality.

3.4.2 Qualitative Data Collection

Research participants were contacted by the researcher over the period of the month that followed the Kawa Model workshop and they were provided with support during the research process. Detail on the type of support provided is presented in **Appendix E**.

Participants were requested to apply the Kawa Model with individual or groups of participants in succession over a one-month period. Participants had a month to engage with the Kawa model in the clinical field and would have formed some initial impressions about its use. Once the participants had used the Kawa Model clinically with on average between three to five clients, or groups of clients in their caseload, an interview time was arranged with them. This occurred after a period of approximately one month of applying the Kawa Model in practice, using the interview guide for the **first Interview.**

Participants were provided with an information sheet and signed informed consent and permission to be audio-taped during the interviews (**Appendix F**) at the start of

the interview. In an attempt to avoid leading questions during interviews, a semi-structured interview guide was employed during the collection of **qualitative data** in order to focus questions. This approach did however allow for the participants to introduce issues and new concepts not thought of by the researcher(84)(85).

These recorded interviews took approximately 40 minutes each in duration and focussed on the openness of the clients towards the application of the Kawa Model, and what it added to intervention, the strengths and weaknesses of the model, the timing of the application and barriers to such application

Since only one data collection method in this phase of the case study design, namely semi-structured interviews were used, data saturation was reached in each interview and by the end of the seven individual interviews, there was no new information coming through.

After three months participants were contacted again and requested to take part in a **second interview** using a semi-structured interview based on the interview guide developed for this interview**.** As before, an interview guide was used to ensure consistency **(Appendix D)**, but probing questions were used to enable the researcher to obtain all relevant information.

The focus of these interviews was to establish their perceptions and new insights on the value of the Kawa Model after a longer period of use. The researcher used prompting questioning to ensure clear understanding of what was said and to provide an opportunity for more information, opinions and feelings to be revealed. These interviews were approximately 50 minutes in duration. After all seven participants were interviewed no new data was coming through indicating that data saturation was achieved.

3.5 DATA MANAGEMENT AND ANALYSIS

3.5.1 Data Management

Phase 1:

Management of the **quantitative data** involved data preparation, data identification and data manipulation(84). The data preparation stage involved grouping and typing up various responses to the open-ended questions.

Phase 2:

The data preparation stage for the **qualitative data** involved verbatim transcription of individual interviews. The purpose was to create a clear record from which to work and to obtain a sense of the whole(83). Data identification, identifying similar segments of data, was done to divide the text data into analytically meaningful segments that were easy to locate. The researcher ensured that recorded information was transcribed correctly by personally transcribing each recorded interview. Data clean-up was done when the researcher listened to the recordings again while reading the transcription notes. This helped to eliminate mistakes made during initial transcribing and contributed to the credibility of the information gained.

3.5.2 Data Analysis

3.5.2.1 Phase 1: Quantitative survey

The quantitative data in **Section A** were grouped according to the numbering of questions and presented in graph formats using descriptive data. Closed-ended questions on the questionnaire were analysed using percentage or the number of participants and frequency distributions. Open-ended questions in **Section B** were analysed using percentages and frequency of the responses as well as descriptive content analysis with quotes to illustrate findings, in order to determine trends in the answers to the open-ended questions.

3.5.2.2 Phase 2: Qualitative data

Qualitative data from the semi-structured interviews were analysed using conventional content analysis. According to Hsieh and Shannon this type of analysis is used to describe a phenomenon and is appropriate when limited literature on the phenomenon exists. This allows categories to develop from the data(86).This method of analysis was used during this phase to study a specific case, namely the Kawa Model, and its use within a South African context(87). Data analysis occurred after each phase of the study. Emerging insights from **quantitative data** directed the collection of **qualitative data.**

The transcribed data from both series of interviews were read to identify key concepts. During coding, passages of text were labelled according to content and then retrieved by collecting similar labelled passages. This led to the start of emerging concepts or codes, highlighting emerging concepts and ideas(88).A continuous comparison of participants' remarks was made and units of data were sorted into groupings that had something in common. These categories reflected the purpose of the research and answered the research question. All important, relevant data were placed within a sub-category and then into main categories to ensure that categories are clearly refined, mutually exclusive and exhaustive(83).

There were two stages of analysing data; the within-case analysis (vertical analysis) and the cross-case analysis (horizontal analysis). Each within-case analysis of an individual interview was treated as a comprehensive case in itself. After the completion of each single case, cross-case analysis began(83). The most important consideration when analysing the data was to convey the view of participants on the clinical application of the Kawa Model and its meaningfulness to the occupational therapy process within the South African context(89). The researcher was therefore guided by the research objectives throughout the process.

3.6 VALIDITY AND TRUSTWORTHINESS

3.6.1 Phase 1: Quantitative Survey Questionnaire

3.6.1.1 Pilot Study for content validity

The survey questionnaire was piloted for content validity in two stages by using representatives of the relevant population to pilot the questionnaire(90). Content validity was checked in the developmental stages and again during the final field testing of the questionnaire before it was distributed to the study participants(90).

The pilot study was also used to ensure that the layout of the questionnaire was acceptable and not ambiguous. The first pilot study in the questionnaire development was conducted with a sample of five occupational therapists who attended the Kawa Model workshop and did not meet the inclusion criteria for the study. After completion of the questionnaire, individual verbal feedback sessions were conducted with each of the five therapists, in order to obtain the required feedback on the questionnaire. Therapists had difficulty with the layout of the questionnaire and questioned the relevance of some of the questions asked.

After the comments on the content, relevance and layout of the questionnaire were analysed changes that focused mainly on the structure of the questionnaire were made. Questions were separated into clear sections and rephrased to be more specific. In the original questionnaire prior to piloting there was no division of questions into clear sections, hindering the completion and interpretation of the questionnaire. A second process of piloting on the content validity of the questions was done with the same sample group to test the new layout and ensure that the content was now relevant and unambiguous. They thought it was appropriate, thus no further changes to the questionnaire occurred after the second pilot study.

3.6.2 Trustworthiness of Qualitative data

3.6.2.1 Reflexivity

Prior to commencement of the research the issue of bracketing had to be addressed. The researcher had prior knowledge of the phenomenon that was obtained while working as an occupational therapist in Ireland. Therefore, efforts were made by

researchers to put aside her repertoires of knowledge, beliefs, values and experiences in order to accurately describe participants' life experiences in the current study(85).

According to Heidegger meaning is co-developed through our shared humanness and life experiences. He was of the opinion that experiences cannot be bracketed. It is acknowledged that a pre-understanding of the phenomenon cannot be eliminated (Koch, 1995). Although it is not humanly possible for qualitative researchers to be totally objective, the researcher's ability to be aware of her own interests, values, thoughts and perceptions about the use of the model in occupational therapy is vital (91).

Reflection entails "thinking about the conditions for what one is doing [and] investigating the way in which the theoretical, cultural and political context of individual and intellectual involvement affects interaction with whatever is being researched"(92) p.245. The ability to be aware of the researcher's pre-conceptions were the key contributing factor, seeing that the findings were mediated through the researcher as the primary instrument in data collection and analysis. Therefore throughout the research process, the researcher implemented the concept of reflexivity(95)(93) to reflect on her experience and become aware of her assumptions (94). Areas of potential bias were identified to minimize their potential influence(95). A reflective diary was used to write down thoughts, feelings and perceptions and these were re-examined during research supervision sessions throughout the research process(96).

The researcher's experiences as a lecturer, engaging with theoretical concepts and models provided her with an ability to engage with this research topic from various angles. Her introduction to the Kawa Model on an international stage and meeting with the author of this model on several occasions provided her with an opportunity to develop a greater understanding of the importance to critically evaluate theoretical concepts and models in various contextual scenarios. This understanding was important in analysing the data, but the researcher was constantly aware of her own

opinions of the Kawa Model. The procedures described above were used to reduce the bias that these opinions may have had in analysing the data.

3.6.2.2 Credibility

Purposeful sampling was used to gain an in-depth understanding of a specified group who had all participated in the **preliminary phase** and the **quantitative data collection part** of the study and not to learn what is generally true of many. All the participants were of the same discipline and received the same information on the Kawa Model, therefore ensuring that the context in which the study was undertaken was the same for all participants. Qualitative data were analysed by both the researcher and supervisors separately after which they compared their findings and reached consensus about the sub-categories, categories and themes, in order to promote consistency of the findings(23). After this initial comparison, a process of double coding was used in which the same data was coded again after a period of time and the results were compared to the original results and adjustments were made(97). Qualitative data was therefore peer analysed(23). The use of the above strategies ensured that the results obtained from the data analysed were credible.

The researcher allowed for a four-month period before the second round of interviews were conducted, to give participants the time to really engage with the model. This prolonged exposure to the phenomenon under study further allowed for the researcher to build rapport with participants, reducing the potential for social desirable responses in interviews(97). In the **qualitative data collection part**, member checking was done by e-mailing a list of the derived codes, sub-categories and categories to them(23). Reflexivity of the researcher was ensured by keeping a personal reflective diary.

3.6.2.3 Transferability

A dense description of the context, methods and outline followed during the study was documented in the first sections of this chapter. In doing so, researchers would be able to assess how applicable their findings might be in their contexts. The research participants represented the typical settings in which occupational therapists in Gauteng work, namely the public and the private sectors. They further presented

from various South African Universities, age and cultural groups. However, this limited transferability of the findings to other South African contexts due to the limited area from which the sample used in the study was drawn(42).

3.6.2.4 Consistency

The research process provided multiple data gathering points for each participant, who participated in **the quantitative** and **the qualitative part** of this study. Member checking was done before the commencement of the second interview. Furthermore perspectives on and experiences of the Kawa Model provided by participants working in the private sector was distinctly different from that provided by the participants working within the public sector. This difference in perspective and experience remained the same throughout the research(98).

3.6.2.5 Confirmability

The researcher's assumptions, worldviews and theoretical orientation were clarified at the outset of the study during research supervision sessions to minimize the researcher's biases. The researcher's position was clearly explained in terms of self-awareness and cultural/political consciousness as an ownership of her personal perspective to ensure more dependable results(82).This was done through the use of a reflective journal and in regular discussions with her supervisors.

An informal audit trail was used to document the process of the completed analysis and give an account of the decisions and activities the researcher made throughout the study. The researcher kept notes of all research activities and data analysis procedures she followed during the analysis stage of the study. These notes were used and checked during discussion sessions with supervisors.

3.6.2.6 Data Saturation

Seven of the participants from the **quantitative part** of this study agreed to take part in the **qualitative part**. Within this case study data saturation during the **qualitative part** was achieved by the length of the interview, which continued until the researcher judged that no new information was forthcoming and saturation with that participant was achieved after probing each aspect for detailed information. Data saturation was

also achieved across cases as by the last interviews with the seventh participant no new information was forthcoming.

3.6.2.7 Member Checking

A final group session was conducted with four research participants who made themselves available to ensure that all relevant codes, categories and themes were accurate and conclusive. All participants were satisfied with the presented data.

3.7 ETHICAL CONSIDERATIONS

An ethical clearance certificate was obtained from the University of the Witwatersrand Human Research Ethics Committee **(Appendix G).** The research generated documentation was dealt with in strict confidence and the purpose for using this data was made clear to research participants at the onset of each phase to enable informed consent **(Appendix B and F)**(82). All research participants had clear knowledge and understanding of the purpose of the study to enable them to make an informed decision about their participation as information sheets were provided(82). They were clear regarding their specific roles and expectations as this information was outlined within the information sheet and signed informed consent which also included permission to be audio taped **(Appendix F)**.

The research/participant relationships posed no prominent risks for the participants; for the researcher and participants were engaging in a professional capacity(83). All research participants were informed they could withdraw from the research at any time without any negative consequences. The results of the research were made available to all participants who participated in both the **quantitative** and **qualitative part** of the study on completion of the project for review purposes before actual publication of the obtained data(82). All research generated documentation and interview, as well as interview recordings were stored within a locked up facility and only the researcher had access to this materials. Backup copies of all information were made to ensure no loss of data, hence preventing irretrievable data loss(82). The research materials were stored until the research was completed and will be destroyed after six years in a confidential manner according to HPCSA requirements. Confidentiality was maintained by allocated a code (A-L) to all research participants

as information was received. These codes were used from then onwards to ensure confidentiality of participants.

CHAPTER 4
RESULTS

4.1 INTRODUCTION

In this chapter the results for the quantitative data and qualitative data are presented according to the time series used for the data collection. Data was collected over a period on four months, at three different data collection intervals. The first section therefore reports on the quantitative data and content from the open-ended questions on the survey questionnaire the second section on the different data collection points for the qualitative data. This facilitates a clear understanding of the results for the reader.

Information obtained from survey questionnaire on the Kawa Model specifically lead to the development of questions in the **qualitative part** which focussed on the Kawa Model specifically. For example, participants who indicated in the survey questionnaire that the Kawa Model will be suitable for their practice were questioned about the suitability of this model after clinical application during the **qualitative** interviews.

Although these sections will be separated in the results chapter, the findings will be combined in the discussion chapter rather than reporting on each section individually. This convergence adds to the strength of the findings as the various strands of data were braided together to promote a greater understanding of the case(23).

4.2 RESULTS FROM Phase 1: THE SURVEY QUESTIONNAIRE

Analysis of the data from the questionnaire collected at data collection point one, focused firstly on how occupational therapists perceived the importance of models and their current use of practice models. Therapists' motivations for selecting and applying models as well as aspects that hinder application of models were investigated through information obtained from the descriptive analysis of the open

ended questions in the questionnaire. This information was obtained using closed-ended and open-ended questions.

Secondly, the participants' impressions of the Kawa Model after attending a two-day workshop and how they rated their knowledge level on the Kawa Model as well as their perceptions on its possible usefulness in therapy were determined.

4.2.1 Demographics of the sample

The data for **Section A** of the questionnaire included the demographics of the sample that was gathered from the 12 questionnaires that were returned out of a possible sample of 27, indicating a return rate of 44.4%. This initial sample was diverse in terms of age, where they worked and years of experience.

However, figure 4.1 shows that the sample was not diverse in terms of population group and gender with the majority of the sample being white (10/12) and female (11/12). Only a quarter of the sample (3/12) worked in the public sector **(Figure 4.1).**

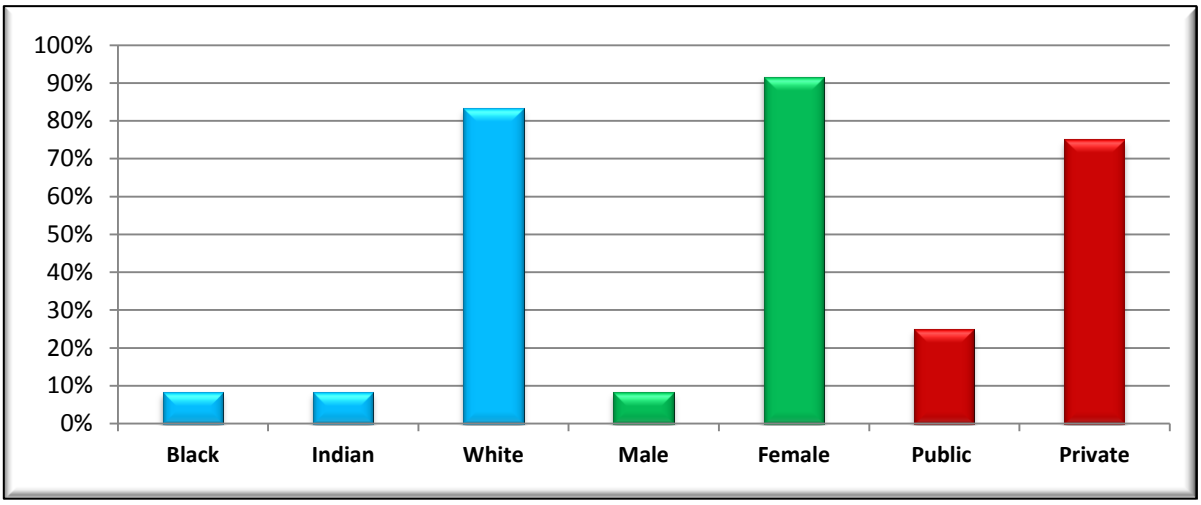


Figure 4.1 - Population group, gender and area of practice of participants (n=12)

Half (50%) of the participants (6/12) obtained their basis qualification from the University of the Witwatersrand (WITS), with 15% (2/12) obtaining their qualification

from the University of Cape Town (UCT) and 15% (2/12) from the University of Pretoria (UP).

One participant obtained her qualification abroad at Boston University in the USA and another at the University of the Free State (UFS). There was an equal distribution regarding the number of years participants were qualified for, within each bracket and 41.6% (5/12) of participants obtained a postgraduate degree or qualification **(Figure 4.2).**

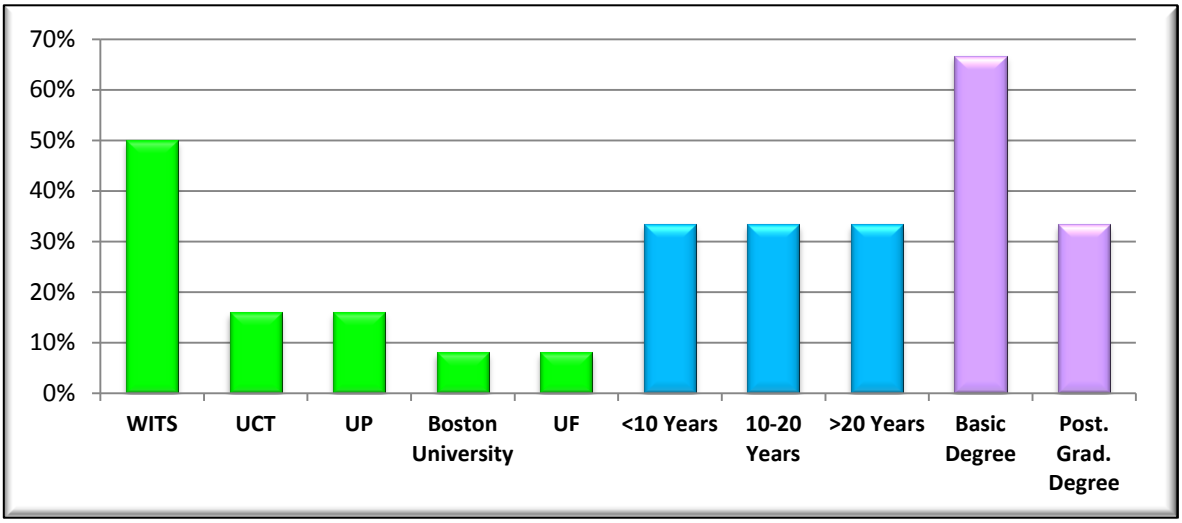


Figure 4.2 - Institution of qualification and range of years qualified for participants (n=12)

4.2.2 Views on models and the reasons for application of models in clinical practice

4.2.2.1 Application of occupational therapy models in clinical practice.

Participants were asked to indicate what the importance of using occupational therapy models was when applying the occupational therapy process in the clinical field.

Only 50% or half the participants (6/12) indicated that they felt it was very important. Nine percent fewer participants (5/12) felt that it was somewhat important and only one participant did not think it was important at all.

Data obtained from open-ended questions were analysed to determine the participants' perceptions of why they apply models clinically. Results indicated that there are several reasons why therapists use models in practice.

Four participants stated basing their actual practice when implementing assessment and treatment and deciding on outcomes on models of occupational therapy, meant that the therapy was consistent with the values and beliefs about occupation and client centred practice that the profession is based on. The following quote focuses on the philosophy of client centred practice within occupational therapy;

> *" It is a tool that can be used to gain a better understanding of the client and thus guide treatment at the appropriate level, taking the client's needs into account."* ***Participant B***

One participant clarified this concept when commenting on the application of MOHO in staying true to the professions' focus.

> *"(MOHO) helps to structure client's roles and responsibilities within their environment."* ***Participant H***

Participants also commented that models provide the theoretical concepts and structure on which they can reflect in order to enhance patient care. Fifty percent (6/12) of participants felt that these selected models guide the occupational therapy process**,** by providing them with a foundation to work from. A participant from a private setting commented as follow:

> *"I don't like to stick to boundaries, but it (models) gives you a basis to work from."* ***Participant E***

The use of models therefore assists in ensuring that treatment is not only appropriate in terms of scope and philosophy of occupational therapy but also supported the therapists to show evidence for the practice of the profession. Two participants were of the opinion that the application of models in practice supports their provision of occupation and evidence base therapy.

Seventy five percent (9/12) of the participants commented that the use of models when planning intervention facilitates their thinking process and helps them to select

appropriate intervention. Therefore using models in practice focuses their thinking and "doing".

Five of the participants felt that the use of models actually enhanced the client's participation and allowed their clients' needs to be met more effectively. By applying the models they had a better understanding of the client's functioning from the client's perspective, as seen from the quote below.

> *"This ensures therapists has understanding of client's values and priorities and can use these to guide treatment, thereby ensuring client's participation and compliance."* ***Participant H***

On the other hand, seven of participants highlighted the importance of applying clinical reasoning to each individual client in practice and not relying completely on the models chosen as a background guide to therapy as is indicated in this quote:

> *"(I) think it's important to use some guidelines but not to get completely bogged down in models and forget to use clinical reasoning."* ***Participant E***

The above point relates to the importance of having an "open mind" when applying the models in practice which was emphasised by three of participants. In order to meet their clients' complex needs they sometimes have to extend their intervention to use more than one model, referred to as an eclectic approach. The following quote speaks to this:

> *"It gives you a structure to work around…, but I like to keep my eyes open for other needs of the patient or parents and will then work outside the model... Be open minded."* ***Participant K***

The ability to use more than one model at a time was supported as participants indicated that they were familiar with and used a number of models simultaneously in the close-ended questions. The variety of occupational therapy practice models currently applied by the participants in their clinical practice is represented in **Figure 4.3.** The model that is most commonly used by 75% (9/12) of the participants is the Vona Du Toit Model of Creative Ability (VdTMCA), with the Model of Human Occupation (MOHO) being used by 65% (8/12) of participants.

The Kawa model was already being used by 50% (6/12) of the participants in clinical practice. However, the workshop on the Kawa Model that was presented by Dr Iwama, as part of this study was their first formal introduction to it. Before this workshop they have been using the Kawa Model from knowledge gained from textbooks. Various other models where mentioned but applied by less than 20% of participants**.**

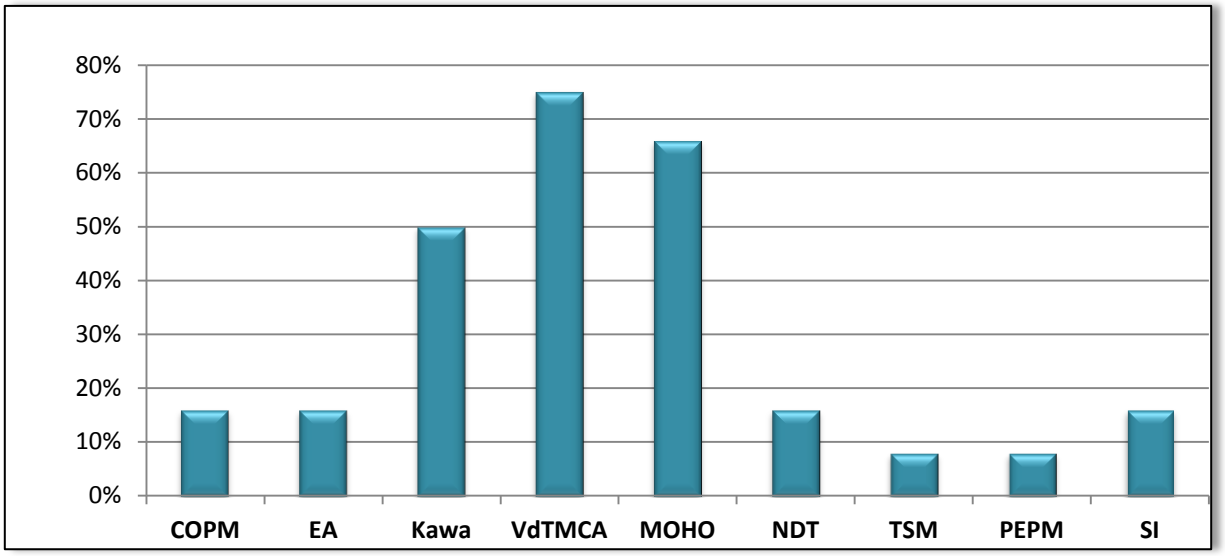


Figure 4.3 - Models currently applied in clinical practice (n=12)

Key

COPM- Canadian Occupational Performance Model
EA- Eclectic approach
VdTMCA- Vona du Toit Model of Creative Ability
MOHO- Model of Human Occupation
NDT- Neuro-developmental Techniques
TSM-Therapeutic Spiral Model
PEPM- Person-Environment-Performance Model
SI - Sensory integration

Overall participants indicate that models provide therapists with a collective voice, making clear what occupational therapists do, for they are based on scientific, theoretical concepts. An experienced participant form the private sector stated the following:

> *"OT's have difficulty to say what they do- models assist with this aspect"* ***Participant C***

"Models are scientifically researched and build credibility to your treatment." ***Participant C***

4.2.2.2 Model application related to employment sector, experience and type of qualification

Employment Sector

The use of occupational therapy models by participants in the public sector and those working in the private sector was considered. Participants working in the private sector apply a greater variety of models(9) than those in the public sector(2) who only uses the VdTMCA and the MOHO **(Figure 4.4).**

The greater variety of models used by participants working in the private sector can be linked to the following demographic information. Participants working within the public sector were usually less experienced and had been qualified for a period varying from three to six years. The participants working in the private sector had a greater variety of experience and had been qualified for a period varying from four to over 20 years. It is thus clear that participants from the private sector in this study had more experience that had an influence on the variety of models they used.

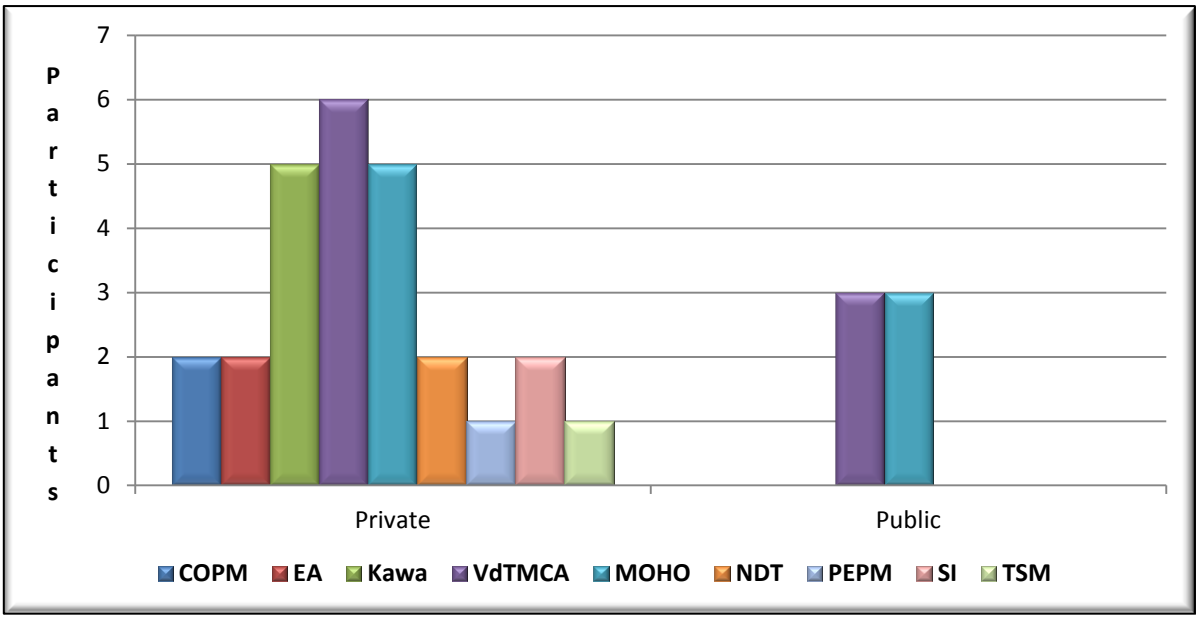


Figure 4.4 - Differences in the use of models in the private sector versus those in the public sector (n=12)

From the open-ended questions the setting participants work in has been frequently reported as having an influence on their use of models. They tend to apply models that they feel work in their setting. Both the type of client and the setting influence their choice of model. A participant working in a private setting motivated why she applies certain models in her paediatric practice.

> *"It works for my type of patients. I understand the logic in the models and it is also logic to the parents of the children I am working with."* ***Participant K***

In contrast, participants from the public sector felt that certain models were difficult to apply within their work setting where patients often had little education and spoke languages different to that the therapist understood.

> *"Difficult to apply to our patients and setting."* ***Participant G***

However, in some more reductionist settings, where the focus is on the presenting diagnosis mainly, participants indicated that the models might not be used to their full potential. A therapist working in a private hand therapy setting felt the models provide too much information, which might not be acted on as the clients are not viewed as comprehensively.

"(These approaches are) Most appropriate and quickest to apply to hand therapy clients in an environment where time with clients is limited." ***Participant B***

Availability of time particularly in the private sector, was another factor that influenced the application of practice models as identified by two participants who reported using models to guide specific aspects that are assessed. They felt that in settings where there is time for taking a holistic view, other models may work well.

Experience and type of qualification

The number of occupational therapy models therapists' use was also described according to the number of years they have been qualified. **(Figure 4.5)** Participants qualified for less than 10 years (4/12) reported using four models on average in clinical practice, predominantly the VdTMCA and the MOHO.

Those participants that had been qualified for between ten and 20 (4/12) years also still applied the MOHO most often; however the number of models they used increased from four to seven on average. Two of the therapist used the Kawa Model in their clinical practice. The number of models used increased from seven to eight on average for participants qualified for over 20 years (4/12). Therapists qualified for longer than 20 years mostly used the VdTMCA and three of these therapists were already been using the Kawa Model regularly in their practice. It is evident that the variety of occupational therapy models applied in clinical practice increase in relation to the number of years a therapist has been qualified.

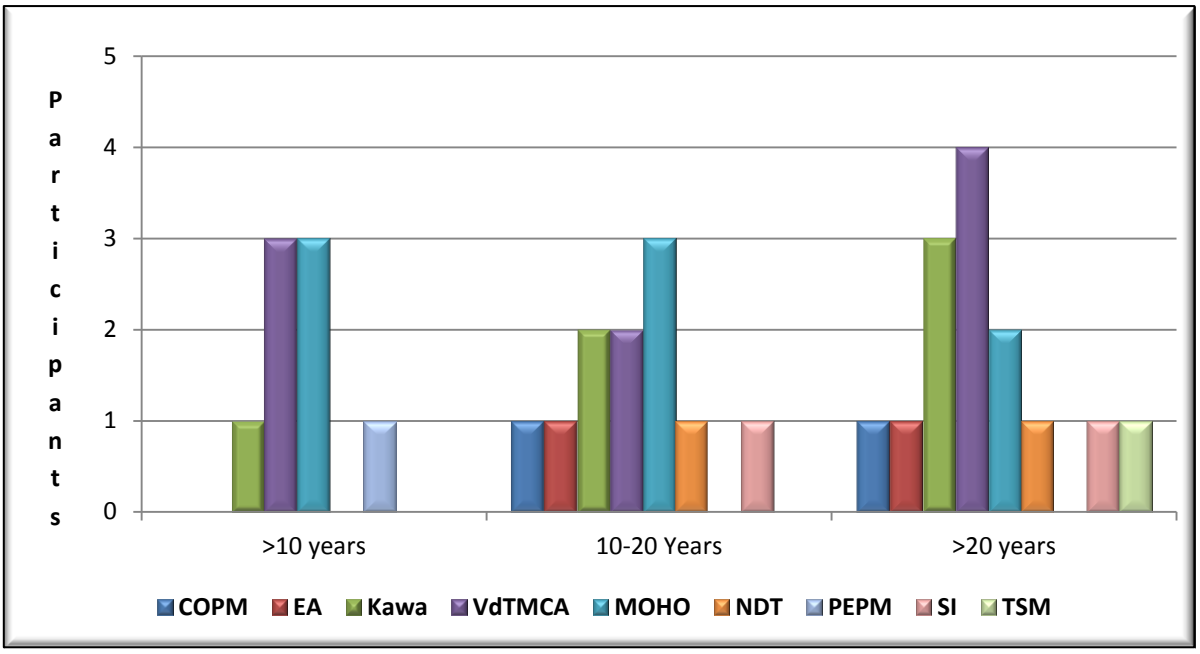


Figure 4.5 - The number of models used in clinical practice according to the number of years qualified (n=12)

This was confirmed by the analysis of the open-ended questions in terms of experience, where participants revealed that the experienced therapists often also used models in combination with each other. Three experience therapists reported that they prefer to **apply an eclectic, "open" approach** using different models together for their assessment and treatment, rather than focusing on one particular model /treatment technique.

The differences in relation to the type, variety and distribution of models applied by participant with undergraduate degrees and those with postgraduate qualifications were established.

Although both groups reported using six models on average in their clinical practice, the MOHO was more commonly applied by participants with an undergraduate degree (8/12). The VdTMCA was favoured by all participants, particularly by those with a postgraduate qualification (4/12) and this model was used along with the Kawa Model by all of the participants with a postgraduate qualification, even before the

workshop on the Kawa Model. Therefore it appeared that those postgraduate training is influential in therapists using the Kawa Model **(Figure 4.6).**

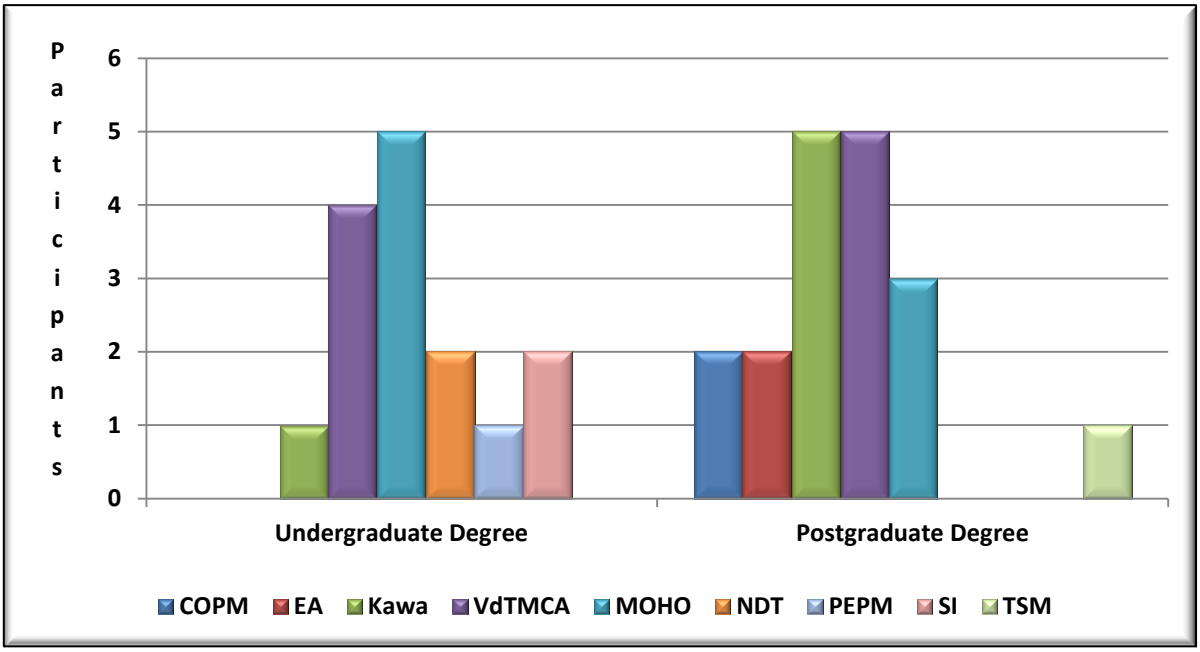


Figure 4.6 -Comparison between the application of models and type of qualification (n=12)

When the open-ended questions were analysed it was found that the use of models was dependent on the background of those who apply them and the experience they have. The specific personal aspects that influenced the reason that specific models were selected and used were the participants' educational backgrounds and their experience working as occupational therapists.

Half of the participants (6/12) trained at the University of the Witwatersrand. They reported that they had continued to use the two models taught during their undergraduate training – the VdTMCA and MOHO and five of them, irrespective of whether they had a postgraduate qualification or not, reported this was because they tended to stay within the zone with which they were comfortable**.** There were too few graduates from the other universities to comment on this aspect and they did not comment about it on the questionnaire.

The models that the participants reported using appear to be dependent on their exposure and knowledge of practice models and this therefore determined the application of models in their practice. In this study participants within the public sector had less experience and had had less postgraduate educational opportunities and exposure to new concepts.

> *"Don't know them well enough or haven't been exposed to them in practice, and as stated above, was never taught models as an undergraduate, so have been inclined to continue practicing the way I always have, without using models specifically."* ***Participant A***

Thus both the participants' educational background and experience level determined their **knowledge level** and confidence in the use of models as seen in this quote:

> *"I haven't had much experience or knowledge about the models to use them with confidence."* ***Participant B***

These aspects pertaining to the individual therapist need to be considered when applying models in practice.

4.2.3 Application of the Kawa Model in clinical practice

4.2.3.1 Current level of knowledge regarding the Kawa model

Participants rated their current knowledge of the Kawa model, after their attendance at a two- day workshop on a visual analogue scale from 1 to 10, with 1 being the least knowledgeable and a score of 10 indicating a high level of knowledge.

Even though some participants had been applying the Kawa model in practice, most indicated they still had to learn about this model. The highest number of participants (4/12) rating their knowledge level at six. Seven participants rated their knowledge from seven to ten with only one participant indicating they felt they had complete knowledge at level ten. One participant scored their knowledge at level three. **(Figure 4.7).**

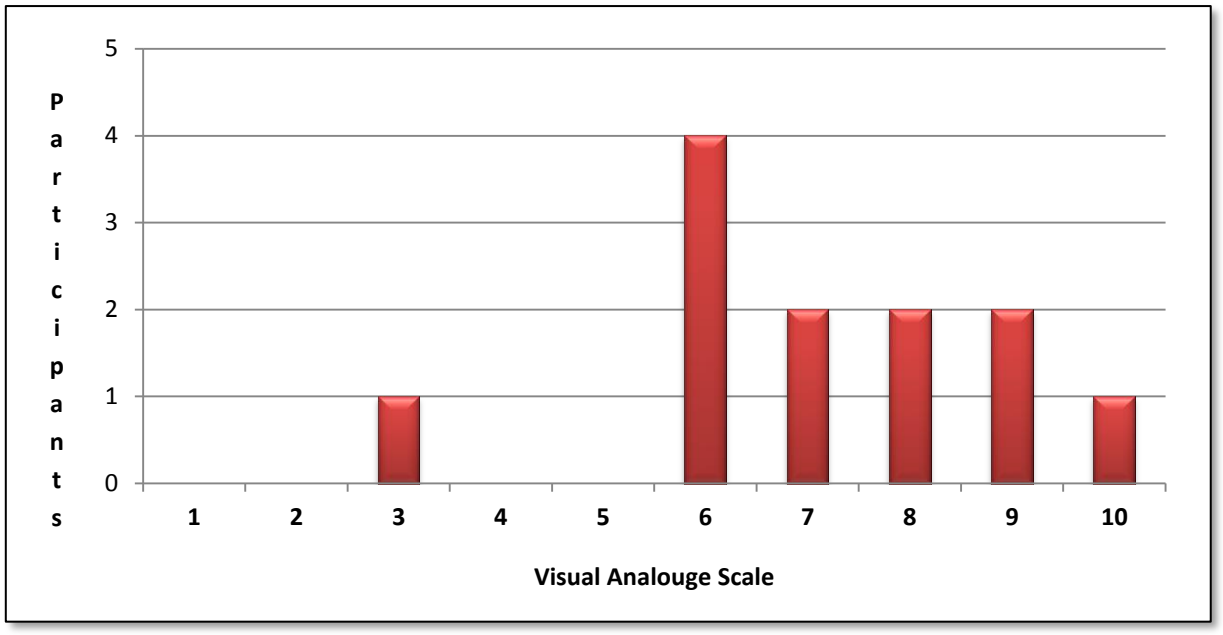


Figure 4.7 - Participants' perceived current level of knowledge regarding the Kawa Model (n=12)

In support of these findings 11 (91,6%) out of the 12 participants reported in the open ended question that after the two day workshop they felt they had increased their knowledge about the Kawa Model to more than 50% and that the Kawa Model was easily understandable. They felt that they did not only understand the constructs and concepts but could also explain them to others and that while the model was complex it was not difficult to apply clinically. Nine participants indicated that they will continue to or will start to apply the model clinically within their practice setting.

The participants felt they had no difficulty making sense of the concepts and the application of the Kawa Model and how the drawing of the river would reflect the occupational profile or narrative they would normally obtain from a client. They felt using a drawing instead of writing or talking would be valuable for clients.

> *''People would rather talk than write, patients feel free to explain picture. Like metaphor- helps those who lack in verbal expression."* ***Participant J***

.4.2.3.2 Perceived possibility of applying the Kawa Model in current field of practice

As part of the open-ended questions on the questionnaire the participants were asked to describe their initial impressions of the Kawa Model. Three quarters of the participants (9/12), including the six who were already familiar with the model felt it resonated with them. They stated that the Kawa Model makes sense, it is exciting and they link it to other known methods. These nine participants felt that the use of the Kawa Model has possible therapeutic potential because it is client centred, allows clients to reflect over time and it can elicit new findings. The other participants (25%) (3/12) indicated they felt the Kawa Model was foreign to occupational therapy practice and that it may be too abstract (5/12).

The same participants when asked to indicate whether they thought they could apply the Kawa Model in their current clinical practice were positive about this and supported this possibility. These participants had a positive response to the Kawa Model, describing the model as exciting. The novelty of a new way of approaching the client's perception of their quality of life resonated well with them as indicated by a participant working within a private setting.

> *"I loved it; Found it exciting; resonated well with me."* ***Participant L***

The Kawa Model's client centred nature was identified by five of the participants, as being able to enhance therapy. Participants felt it really gave the therapists a chance to understand the client from the clients' point of view.

> *"Useful tool to get an idea of where the patients think they are at."* ***Participant F***

> *"Extremely client centred."* ***Participant H***

The Kawa model was perceived as being a practical tool, and applicable to many situations with a diverse range of individuals as well as within a group context when applied to a variety of clients by four participants, as indicated by the following quotes

> *"I found it very natural and applicable to many situations."* ***Participant I***

> *"Works well in group settings as well as individual sessions."* ***Participant E***

In a particular instance a participant felt the application of the Kawa Model could yield "new" results as the application of the Kawa Model elicited information that this participant could not get from the present methods she was using.

> *"I think the model might yield some interesting information, sometimes information that didn't come up in an interview."* ***Participant B***

Participants also commented on the benefits of the Kawa Model in its effectiveness in addressing all aspects of intervention as an assessment and treatment tool. The following quote is from a participant from the private sector.

> *''The Kawa model puts it (assessment findings) into a framework, which is helpful for assessment and treatment." Participant D*

Participants working within the public sector all stated that they may be able to apply the Kawa Model within their current practice. The majority of therapists working in the private sector stated that they could apply the Kawa Model within their current practice. All the participants qualified for less than 10 years felt that they could apply the Kawa Model within their current practice and all the participants with a postgraduate qualification were already applying the model with clients. **(Figure 4.8)**

Two participants with undergraduate qualifications felt that they were not prepared to apply this model in their current practice. These therapists practiced in the field of paediatrics' and hand therapy. One participant was unsure if she could use the model in her practice. This participant worked within the field of paediatrics.

Of the participants qualified for more than 10 years' experience (2/12) felt they could continue to apply the Kawa Model within their current practice. While the three participants qualified for longer than 20 years indicated they would continue to use the model in their practice while the other participant in this group still felt unsure if she could apply the Kawa Model within her current filed of practice.

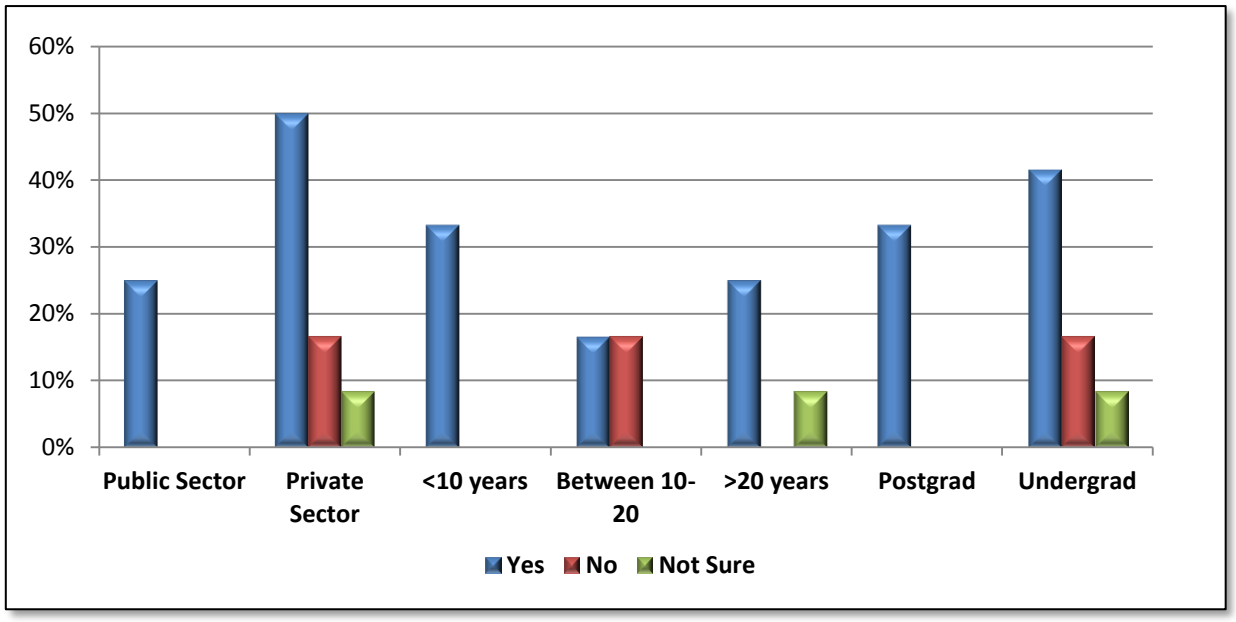


Figure 4.8 - Possible application of the Kawa Model in relation to demographic information (n-12)

Two of the participants from both the private and public sector, felt that they could **incorporate** the Kawa Model well with the existing models and methods they apply in practice currently. They compared it to other similar techniques they currently use and could see the possibility of using it in practice,

> *"Excellent! Have used it in different ways before the model existed-i.e. draw yourself as a river…"* ***Participant D***

> *"…It also reminds me of the participatory appraisal techniques (eg. Rocks and oxen) that we learnt at varsity."* ***Participant B***

Thus due to its abstract nature five other participants perceived the Kawa Model as distinctly different from other models they currently apply. They felt that the application **of the model requires a high level of abstract thought,** which would make it difficult for some of their clients to comprehend. This concern was raised predominantly by participants working within the public sector who were mostly more inexperienced in comparison to participants from the private sector.

The Kawa Model has perceived benefit to patients **within a chronic treatment phase** that needs treatment over time, as indicated by 25% (3/12) of participants and evident from the quote below by an experienced therapist working within the private sector.

> "I have used the Kawa to explain how dementia care mapping could benefit residents. Elderly people also enjoy looking at their lives in retrospect." **Participant C**

4.2.4 Summary

The results indicated some differences in model use in occupational therapy between therapists practicing in different employment sectors, who have different experience and for those with a postgraduate qualification.

The results of the participants opinions on the Kawa Model allowed for the researcher to develop questions for the data collection after one month, when participants were able to apply the model in practice and guided the next part of the study, which was to collect data on the perception of the clinical application of the Kawa model in this specific case study.

4.3 PHASE 2 RESULTS FOR QUALITATIVE DATA –PERCEPTIONS OF AND CLINICAL APPLICATION OF THE KAWA MODEL

In phase 2 of this study the participants were instructed to apply the Kawa Model clinically with clients they deemed suitable on their respective case loads. Individual interviews were conducted after one month and again after four months. The objectives for this part of the study were: To explore the perceptions of the occupational therapy participants on the application of the Kawa Model with clients from different South African cultures in the field of chronic disability or illness after they had had an opportunity to use it for approximately one month; To explore the same occupational therapy participants perceptions about the suitability and continued use of the Kawa Model for their practice context after they had had an opportunity to use it for approximately four months

Individual semi-structured interviews were conducted with seven participants, who had applied the Kawa Model in their clinical practice on the identified two separate occasions. The participants could described their perception of the use of the model in clinical practice initially and later when they had had more experience to provide their impressions of the suitability of the model for their practice context and with South African clients.

4.3.1 Demographics of the sample

The seven participants selected for this part of the study were purposively sampled and provided a diverse heterogeneous sample in terms of experience, employment sector, postgraduate and undergraduate qualifications and years of experience**. (Table 4.1)** The majority of the participants worked with clients in the mental health field of practice.

Table 4.1 Summary of the participants in the qualitative part of this study.

Subject code	Undergraduate Qualification	Training institute	Years of experience	Post Graduate Qualification	Service sector
B	BSc. OT	WITS	1-5	None	Public,
D	Diploma in OT	UP	>20	MSc.	Private & NGO
E	BSc. OT	UCT	1-5	None	Private
F	BSc. OT	WITS	5-10	None	Public
G	BSc. OT	WITS	1-5	None	Public
J	BSc. OT	UCT	10-15	MSc. Public Health	Private
L	BSc. OT	WITS	>20	Honours Psych.	Private

4.3.2 Application of the Kawa Model in clinical practice- First Interview after one month

Based on the results of the survey questionnaire about the Kawa Model the questions for the first qualitative semi structured interviews were developed. This included the participants' perception of how receptive the clients were of the model as some participants felt it was too abstract for some South African clients. They were also asked to describe what difference if any using the Kawa model made to their treatment and if it met the potential they thought it might have for both assessment and intervention. They were then asked to evaluate the Kawa model and its application to the philosophy of occupational therapy in terms of being client centred and occupation focussed. Participants were also asked if the perceived barriers they envisioned still existed or whether they had encountered other barriers to implementation of the model in their practice.

The data for this phase was collected from semi-structured interviews held with the participants at one month after they had started using the model was analysed using inductive coding. The following themes emerged.

Theme 1: Clinical use of the Kawa Model is not simple

The qualitative results highlighted the fact that the use of the Kawa Model in practice is not simple. The theme emerged from three categories namely: application depends on…, model characteristics and with whom.

Theme 2: Perceived potential of the Kawa Model in clinical practice.

This theme reports on the potential use of the Kawa model in clinical practice. These findings are resorted under the opposing categories of limited potential and potential. The barriers to implementation of the model in clinical practice were reported in this section. **(Table 4.2)**

Table 4.2 - Themes, Categories, Sub-Categories and Codes, First Interview

Themes	Category	Sub-Category	Codes
Clinical use of the Kawa Model is not simple	Application depends on…	**By whom and how**	- Therapists comfort zone. - Initial attitude towards Kawa Model. - Therapist interprets and adapt model when applying with clients. - Amount of direction during application of Kawa Model is therapist dependent. - Therapist cautious how Kawa Model is presented. - Experienced therapists able to adapt, be innovative and creative in application of Kawa Model.
		Applied when	- Existing therapeutic relationship aids in application of Kawa Model.
	Model characteristics	**Barriers**	- Kawa Model is unstructured. - Kawa Model requires abstract thought.
		Facilitators make it easier	-Kawa Model provides structure. - Kawa Model expressive tool/creative. - Kawa Model provides "new" findings. - Kawa Model flexible application.
	With **Whom**?	**Personal** Attributes	-Client's educational background influence ability to relate to Kawa Model. - Client's initial attitude towards Kawa Model influence application. - Client is free to create and add to drawing. - Kawa Model not within frame of reference.
		Diagnostic Influences	- Ability to comprehend abstract thought is compromised. - Kawa Model works better with clients in the sub-acute or chronic phase of treatment. -Client requires guidance when applying Kawa Model in accordance with level of creative ability to reduce anxiety.
Perceived potential of the Kawa Model in clinical practice	**Limited** potential	**No added value**	-Application of the Kawa Model did not change anything.
		Irregular use	- Kawa Model not integrated into practice.
	It has Potential	**Enhances** occupational therapy Philosophy	-Kawa Model is Client centred. - Kawa Model focuses on "doing".
		Adds Value	-Kawa Model yielded "new" results. -Kawa Model useful for assessment and formulation of treatment goals.

4.3.2.1 Theme 1: Clinical use of the Kawa Model is not simple

4.3.2.1.1 Application depends on…

Data obtained from research participants after applying the Kawa Model for approximately a one-month period, indicated that the use of the Kawa Model clinically is not simple, and that successful use depends on several factors.

By whom and how

As was found for the application of occupational therapy models in general in the survey questionnaire the application of the Kawa Model depended on the participants' background and experience as well as on how they chose to apply the Kawa Model which influenced its use clinically. It was evident that the way in which the Kawa Model was applied varied depending on the participant's level of comfort with the model, their level of experience and knowledge.

It was evident that some participants operated from out of their **comfort zone**. Although they were open to applying the Kawa Model, they reverted back to their known methods and models that were perceived as more beneficial. From the following quote, it is evident that this participant made the decision not to use this novel model again, for it did not add to her intervention.

> *"...but then I didn't get enough from it to actually change my course of treatment,…so it was just like an exercise."* ***Participant G***

The **initial attitude** of the therapist towards the Kawa Model influenced the amount of time and effort they spend with this novel model. For example, the same research participant explained that application of the Kawa Model did not give her anything more than what she had before using it. She would much rather use a known modality that will give her the assessment information that she needs, than to waste time on applying the Kawa model that might not yield any results/information.

> *"I found here with my patients, it hasn't changed anything, and it hasn't kind of added something that I didn't pick up with something else."* ***Participant G***

Results indicated that the participants' attitude influenced the way they approached and applied the model. Those therapists who were more open to the Kawa Model and

with whom it resonated continued to explore its possible use and potential. It was however evident from the data that the way in which the Kawa Model was applied and the **amount of direction provided** varied depending on who the therapist was and how they **interpreted the** Kawa Model**.** This led to the Kawa Model being applied in a variety of ways. Those who were less open to the model spend less time explaining it to their clients, leaving them feeling that they did not apply it as they should have with unsatisfactory results, as evident in the quotation below.

> *"This was due to the way the model was applied, very limited direction was given."* ***Participant F***

On the other hand, participants who were open to the Kawa Model spent adequate time exploring it with their clients and reported that it worked well, as seen from the following quotation from a therapist working in the private sector.

> *"It was presented as an Art therapy session, so the clients knew what to expect."* ***Participant L***

Thus the success of the application of the Kawa Model depends on how it is implemented according to one participant working in the private sector. She however felt that it should be **applied with caution** to ensure that the client really understands the concept of producing their own river drawing that is specific to their life as indicated by the quote below.

> *"The way in which the Kawa Model is presented by the therapist can pose problematic if the client tends to just copy your sample drawing."* ***Participant J***

Secondly, the more **experienced occupational therapists** who have been practising for longer **were able to adapt** the Kawa Model during application with ease.

> *"a couple of clients struggle with the concept of "moving things around" in their blocked up rivers and the therapist then used the model creatively and adapt it in her own way."* ***Participant E*** *(5 years' experience)*

These experienced participants working within the private sector were able to **apply the model in more creative ways** as seen from the quote below.

> *"...this one lady we had to go as far, she got stuck on that she had a difficult childhood,…so eventually I said to her to cut it out, get rid of it, so she cut out a section, and tore it up and threw it away, then it was fine, then it was much better.""…while it was on the page, while it was in the river it was too much, she couldn't go past it."* ***Participant E***

This indicates that perhaps experience therapists **can be innovative when applying** the Kawa Model. Another participant was also innovative in adjusting the application of the Kawa Model to fit the clients level, by using clinical reasoning, by cutting out the various pieces to fit into the river out of paper beforehand,.

> *"… For the one group of patients I actually gave them a cross section of the thing and showed them the pieces, but I think what might further help and… stop their thoughts of limitations of the model is to give them the pieces, so we are gonna(going to)make different size rocks and different size all those things. That might make it a little bit easier for them to do."* ***Participant F***

Applied when?

Analysis indicated that a further consideration of the timing of applying the Kawa Model is also perceived as important. It was evident that when there was an **existing therapeutic relationship** between the therapist and their client, **application of the Kawa Model was more beneficial**. The relationship was seen as allowing the client to be more open in sharing information with the therapist. Most of the participants in this study felt that they got better participation and clearer results from those clients that they have been working with for some time, especially those close to discharge and also their out-patients.

> *"I just think their understanding, they (are) not as psychotic, able to focus more, they already have been in OT for a while so they're more use to you… more willing to share that information."* ***Participant B***

4.3.2.1.2 Model characteristics

The Kawa Model itself has certain characteristics that influenced its use, either positively or negatively and this impacted on the participants' ability to implement it successfully. Research participants identified certain characteristics of the model as being facilitators and barriers to its application during the use of the Kawa Model

Facilitators make it easier

Participants felt that the Kawa Model **provided structure** to their treatment session. They could explain these various components of the model to provide more structure during discussions with their clients in assessment and treatment sessions. This was highlighted as one of the strengths of the Kawa model. For example, a participant from the public sector reported that she explained to the clients that it might give them more direction when they explore their problems and solutions to them.

> *"I don't know if it would change but maybe it will give you a bit of direction.....maybe narrow something that you were wondering about,…narrowed them down."* ***Participant F***

One of the characteristics of the Kawa model that participants reported as being helpful was the concrete drawing that they could reflect on with their clients. For example, a participant from the private sector found the following when applying the Kawa Model on a client presenting with early stage dementia.

> *"...it was easier to keep her focused because you had something tangible to come back to..."****Participant E***

Another participant also reported on this characteristic of the Kawa Model,.

> *"…, so in that way it also gives them an opportunity to reflect,… and it shows them that maybe there is a way out, what they can work on, it kind of makes it concrete and they can see the difficulty, and that's nice,…"* ***Participant B***

The Kawa Model was further found to be an **expressive tool, which elicits creativity** from the clients and provided them with a different way of expressing their thoughts and feelings. This uninhibited way of expressing the self **often revealed new/more information** that was not revealed through traditional ways. A participant working in the private sector with a client who was a former artist said:

> *"...because the client is gonna (going to) bring stuff in the model that I might not have thought to ask them, so then it will give me more to work with, with that client."* ***Participant L***

Another participant from the private sector explained:

> *"...it just makes it so much richer, because there is so many things you can obtain,…not necessarily using extra time,… it is very compact,..."* ***Participant J***

> *"...asking them to write about it… you're stuck about making it sound logical and finding the right expression, so there you don't need to worry about it (writing), you almost kind off absolved into the drawing itself..."* ***Participant J***

This participant continued to say that interpreting what they are saying, as well as what they are not saying provides you with another layer of information.

> *"...it is very creative and artistic in that way,(be)cause you can look at it again, and listen to it with a 3rd ear, yea about what they were telling you and what they were not telling you."* ***Participant J***

A further strength of the Kawa model was found in its **flexible application**. The Kawa Model was useful as an assessment tool as well as a facilitator during treatment. It could be applied at the beginning of an intervention, as a guide throughout the intervention process and as an evaluation tool at the end of the therapeutic process. The Kawa Model was found to be useful in-group as well as in individual sessions.

> *"I mean, you could use it as an assessment, you could use it as an intervention, you could use it in terms of psychiatry, you could use it in terms of physical. It is so adaptable…"* ***Participant D***

The open guidelines for application were however seen as both a help and a hindrance. Experienced participants especially found the **"open guidelines"** for application useful but some of the novice participants had difficulty with the lack of clear and specific guidelines for application. The following experienced participant from the private sector, who liked the Kawa Model's unstructured nature described it as follow:

> *"...if other models have a solid line going around it, the Kawa model's got a dotted line going around it,..."* ***Participant L***

Another private setting participant felt that the Kawa Model's open guidelines lend itself to having therapeutic potential.

> *"The activity itself is the activity of doing it with somebody; the explanation is another part of the activity; using it as a goal is another part of the activity… I mean, it has such potential."* ***Participant D***

Although participants identified many facilitators pertaining to the Kawa Model itself, the successful use of the model is dependent on many factors and is complex in nature

Barriers

Some of the characteristics of the Kawa Model were identified as being barriers by the research participants. These were focused around the level of **abstract thought and cognitive ability required** by the client to ensure successful application. Participants expressed the need for a more directive approach for their clients, with more structure, as indicated by these participants from the public work sector.

> *"Most of them just saw a river they don't understand to link it to their lives, so they, ja they haven't really understood how and why."* ***Participant G***

> *"It is not that they didn't want to do it, it is just that they look oddly at me to draw a river of their life."* ***Participant F***

4.3.2.1.3 With Whom?

Research results indicated that the use of the Kawa Model was influenced by the clients with whom it was used. This aspect contributed to the complexities when using the Kawa Model clinically. These can be divided into the client's personal attributes as well as to the client's diagnostic influences.

Personal attributes

Each client has a specific background, skill set and point of view. The characteristics of the clients contributed to the complexities when using the Kawa Model clinically. It was evident from the derived codes that the **client's educational background** seems to influence their ability to relate to and understand the Kawa Model as was described by a participant from a public work sector. Some participants felt that clients presenting with a low educational background might not have the abstract thinking to apply components of the model.

> *" Ja, they might have never been told, imagine your life as this, it is foreign... and I did it with patients …that where for all intentional purposes high functioning…and they just didn't cope…,"****Participant G***

A further influence was the client's **initial impression and attitude** when presented with the Kawa model, for an exercise of this nature might not be **within their frame of reference** and could therefore influence their attitude towards it as indicated by this participant.

> *"Some clients were open to the application of the Kawa model and others weren't. They did not want to draw certain "stuff"." –"...some stuff they couldn't draw or they didn't want to draw it, but others they were more open."* ***Participant B***

In some instances the client's **initial attitude** was influenced by their personal preference when it comes to creative, drawing exercises, further impacting on their willingness to participate in the use of the Kawa Model as evident from this quote.

> *"...what if mine doesn't look like it is supposed to be and I can't draw and I'm not creative."* ***Participant E***

Diagnostic influences

It was evident that the client's specific diagnosis influenced their ability to relate to and cognitively comprehend the Kawa Model, further adding to the importance of being aware with whom you are considering to apply the Kawa Model. From the derived codes it was suggested that successful application of the Kawa Model requires a level of abstract thinking. However, the ability to process **abstract thought is compromised** when presenting with certain medical or psychiatric conditions, involving cognition. Such clients would normally be in an acute phase of their illness and it was therefore suggested that the Kawa Model would work better with clients **in a sub-acute or chronic phase**. Although these clients presented with a chronic condition, they were admitted to hospital due to an exacerbation of symptoms relating to their chronic condition.

Due to the clients' **cognitive abilities**, they were not able to complete the entire exercise required during application of the Kawa model independently, needing a varying amount of **guidance from the therapist** as evident from the quotations below by participants working within the public sector.

> *"…they really have struggled with understanding what to do…"****Participant E***

"…if you don't give them the direction, can you expect them to get it,..." ***Participant F***

4.3.2.2 Theme 2: Perceived potential of the Kawa Model in clinical practice.

Data obtained after participants reflected on the complexities of applying the Kawa Model, separated them into two opposing "camps", with some participants feeling that it has limited potential and some feeling that it has potential for clinical application. These different views are presented below.

4.3.2.2.1 Limited Potential

After using the Kawa Model clinically for a month, some participants felt that it had limited potential within their setting and the clients they treat.

No added value

The majority of research participants from the public sector felt that the Kawa Model did not **add anything**, or significantly alter their intervention with their clients. Their traditional assessments and applied models were seen as more efficient within their setting. Application of the Kawa Model alone was seen as insufficient and they felt they could get the information they needed through the use of the models they were already using. The following quotes from public sector participants clearly indicate the Kawa Model's insufficiency.

> *"...but then I didn't get enough from it to actually change my coarse of treatment,…"* ***Participant G***

One participant in the public sector found that the use of the Kawa Model was sometimes useful, but also said it provided her with information she had already obtained through other models.

> *"In some ways the information you get from it is good, but in other time is just like a waste of time." Participant B*

Irregular use

Due to the fact that the Kawa Model did not add anything new to the intervention it was **not integrated into departments** within the public sector, as part of the protocol

or set of assessments tools. The Kawa model was only applied occasionally due to its perceived limited potential.

4.3.2.2.2 It has Potential

In contrast with the above category, some participants identified potential when using the Kawa Model clinically.

Enhances occupational therapy philosophy

Most participants working within the private sector found many ways in which the Kawa Model enhanced their intervention, indicating its potential. These enhancing aspects supported the philosophical principles of the profession. It is however important to mention that some of these enhancing factors were also mentioned or confirmed by experienced participants working within the public sector. They felt that the Kawa Model was **particularly client centred**, more so than any other model that they currently apply. A participant from the private sector gave this personal account:

> *"...when you work with the Kawa model you're getting a very personal set of information, a personal expression of the patient's stuff, and you working with that, you are not working with what I as the therapist think that person should do,..."* ***Participant L***

Other participants from the same service sector stated that the interpretation of the drawing must be done by the client themselves, making it client centred.

> *"You can't say well that a rock says something, they have to say what it is."* ***Participant D***

> *"...my patient was much more able to tell me what things happened for her, she was the one who done the drawing, she was the one explaining it."* ***Participant E***

A further enhancing factor of the Kawa model in support of the occupational therapy philosophy is that it enables active involvement from the **client in the "doing"** aspect, which is core to occupational therapy intervention as is seen from the quote below.

> *"...it is a lot more of a partnership in terms of the session as oppose to me deciding what we are going to do..."* ***Participant E***

One participant felt that the Kawa Model was also valuable as it enabled a more occupation focussed intervention.

> *"It can enable more occupation focussed intervention depending on how it is used."* ***Participant D***

Adds Value

Research participants identified cases in which the Kawa Model added value to their clinical practice, clearly indicating it's potential. The evidence indicated that with certain clients, especially those within the public sector, the application of the **Kawa Model yielded different information**, as discussed under the facilitators and this added value. The approach used with the Kawa Model is different from the standard procedures, so clients' could not give standard answers as described by the following quotes.

> *"I got a lot of psychotic symptoms coming out...I was able to feedback in the ward round and said look it, this lady is actually quite sick..."* ***Participant B***

> *"...I didn't expect her to have anything in her river, but…, there were lots of other things.""...so maybe if I haven't done it with those, … maybe it would have taken us a lot longer to start with all the, …things that you can move forward with."* ***Participant F***

The results further indicated that the **Kawa model was useful for assessing clients and enabled the clear formulation of goals for treatment**. Participants described it as practical to apply and for some of them working within the private sector; the Kawa model was integrated into their therapy and applied as part of their assessment battery.

> *"Well, so far for me just at the onset. That's the level of comfort I have derived"* ***Participant J***

4.3.2 Summary

It was clear that the participant characteristics, especially experience and the work sector played a role in the view of the Kawa Model as well as their perception of its value in their practice. The propositions underlying this case study were supported by the participants who found the Kawa model valuable in their practice particularly where the use of the model support the philosophy of the profession, guided

assessment and intervention and allowed for a comprehensive view of the client to be established. Although three of the participants who were positive about the Kawa Model had been exploring the Kawa Model before this study was started, they were made aware of the need to evaluate the use of this model and reflect on the difference it made to their practice. These participants remained positive about the use of the Kawa Model with their clients.

The model appears to be difficult for three less experienced participants to apply as it lacks structure in terms of its application and interpretation.

4.3.3 Continued application of the Kawa Model in clinical practice- qualitative data Second interview after four months

Based on the results of the survey questionnaire and the first interview about the Kawa Model the questions for the second qualitative semi structured interviews were developed. Are you currently applying the Kawa model as part of your occupational therapy intervention? The researcher was interested if the participants had continued or had reconsidered and began to use the Kawa Model in their practice and whether they would continue to do so. They were also asked to consider the application of the model more widely to South African clients and evaluate what the model offered their practice context overall.

A second interview was conducted after a further four to five month period Three themes were identified from data obtained after this longer period of clinical application**.** Some of the codes correlated with those identified after the one month period of application and further strengthened results obtained. The following themes emerged:

Theme 1: It gets easier with time, but…

This theme highlights the fact that application of the Kawa Model becomes easier with time. However, from the identified categories application was now dependent on the participants increased knowledge that led to increased use and the model characteristics continued to influence its use.

Theme 2: Context influence continued use

Under theme two the context was identified as having an influence on the continued use of the Kawa Model. It continued to be important to consider with whom and where to apply the Kawa Model considering the variety of clients seen in therapy in South Africa.

Theme 3: Education and support

Under theme three the question of education and support emerged as having an influence on the continued use of the Kawa Model with South African clients. The categories of when to introduce the Kawa Model as well as the importance of support groups emerged.

Table 4.3 - Themes, Categories, Sub-Categories and Codes Second Interview

	Categories	Sub-Categories	Codes
It gets easier with time, but…	**Application now depends on…**	More knowledge, more able to use	- Participants motivated to apply Kawa Model. -Participants interpret, present and direct the application of the Kawa Model. -Participants able to adapt the Kawa Model. - Kawa Model used in conjunction with known models.
		Knowledge with interpretation	- Sufficient knowledge re: Kawa Model. - Discussion groups most valuable to gain knowledge re: Kawa Model.
	Model characteristics continue to influence use	**Barriers**	- Kawa Model is abstract. - Kawa Model high cognitive demands.
		Facilitators	- Kawa Model Provide Holistic view. - Kawa Model enhances cultural aspects. - Kawa Model has a "universal" application - Receptive response from MDT. -Kawa Model elicits "new" information.
Context influenced continued use	With **Whom?**	**Personal** Attributes	-Client's ability to self-reflect influences their ability to relate to the Kawa Model. - Higher functioning clients relates better to the metaphor used in Kawa Model. - Not all clients suitable for application of the Kawa Model.
		Diagnostic Influences	- Acute psychiatric clients not suitable for Kawa Model.
	Where?	**Public** versus **Private** Sector	-Setting constraints, not holistic Treatment. - Time constraints in public sector. - Type of treatment offered, acute versus chronic. - Different presentation of patient's in the two settings.
Education and support	Kawa Model **Introduction**	**Undergraduate** introduction	- Important to obtain knowledge about the Kawa Model. - Useful for community analysis - Useful as a reflection tool. - Explain what occupational therapy is about.
		Post-Graduate introduction	-Kawa Model too complex for undergraduate students to comprehend and apply. -Lack of clear guidelines for application can pose a problem for the novice therapist.
	Group discussion is essential	Need to discuss its use	-Discussion groups most valuable to gain knowledge re: Kawa model. -Discussion re: model useful after clinical exploration.

4.3.3.1 Theme 1: It gets easier with time, but…

4.3.3.1.1 Application now depends on…

The use of the Kawa Model became easier over time but its successful application still depended on whom and how it is used.

More knowledge, more able to use

Some of the **participants who applied the Kawa Model where motivated** to continue exploring its potential in the future with either the same client group or within a different setting, although they had not found it to be greatly beneficial thus far. Their reasons provided for continuing to explore the Kawa Model related to its practical application, user-friendly nature and its potential benefit to the "right" type of clients. As participants became more knowledgeable, they developed a better understanding of how to use this model and this further motivated them to continue exploring it. The following quotes from participants from both the private and the public sectors indicate continued motivation to use the Kawa Model.

> *"I think it is a lot more user friendly. I suppose for me, what it provides for me is a way of thinking, as oppose to a whole load of principles that I'm trying to remember…."* ***Participant E***

> *"I think it would be those patients that has a better sense of themselves and can reflect on that and I properly would use it more with our out-patients, because they are the ones that are more ready to think about themselves..."* ***Participant F***

The individual factors pertaining to the participant when applying the Kawa Model were again highlighted by emerging codes during this phase. Regardless of the client personal and diagnostic factors, the successful **application** of the Kawa Model was determined by the specific **therapist's ability to interpret, present and direct** the application of the model. Over time, participants' **ability to adapt** the Kawa Model to suit their needs, improved. The following participant explained it as follow:

> *"The model is unstructured, but it assists the therapist in adapting it to get some information from her patient. The model can be presented more concretely by giving the patient the various items to place in the river, or the metaphor can be changed to for example a tree of life."* ***Participant J***

It was felt that some lower functioning patients can also benefit from this model if they are facilitated enough by the therapist. This was evident when the Kawa Model was applied with a patient presenting with psychosis and one presenting with dementia, with valuable assessment and therapeutic outcomes.

The **participants applied existing knowledge in order to adapt the model**; for example the model of creative ability is applied in order to determine how to adapt the Kawa Model.

Knowledge with interpretation

Concerns about the level of knowledge regarding the Kawa Model were re-evaluated to establish if this was a contributing factor in its use. Research participants felt that they gained **sufficient knowledge about the Kawa model** from the two day workshop, and that application of the model depended on the specific therapists' interpretation and experience with the model, as explained by the following quote.

> *"…as Dr. Iwama presented it, which was certainly sufficient. …, but a lot is left into your discretion as an experienced clinician."* ***Participant J***

As they progressed through the research process, exploring the model on a practical level, **discussion groups were perceived as most useful in gaining information** on its use. Hearing how others interpret and use the model opened more options for those that were not confident in the use of the model. This will be reported on more under the theme of education and support.

4.3.3.1.2 Model characteristics continue to influence use

The specific characteristics of the Kawa Model that influenced its use, identified in the first interviews continued to have an influence on the use of the Kawa Model at four months and remain the same as described above with the facilitating factors far outweighing the barriers.

Facilitators

Several facilitators for using the Kawa Model were identified after applying the model for a longer period, were congruent with those reported on earlier in the first interview.

However, several new points came up during the second interviews under this theme which supported the philosophy underlying occupational therapy practice. Participants had had time to reflect on the benefits of the model for a longer period and observe these in their practice.

The **Kawa model provided a holistic view of the clients** in certain practice contexts. During application of the Kawa Model participants highlighted the **cultural aspect that is clear within the model,** as indicated by the following quote.

> *"...you know in that drawing there's certain things that are unique to that individual and the culture in (from) which they come, which may not be picked up with your traditional models."* ***Participant J***

Participants further found that their clients could relate to the metaphor and therefore felt that the **Kawa Model has the potential for being a model that has a universal application**. They also explained that it can be used in a South African context as well as in other countries as evident by the following quotation by a participant working within the private sector:

> *"...the cross-cultural aspect that anyone can use it, so I could use it here in this context in Africa... oversees you could use it as well..."* ***Participant D***

This participant continued to explain the Kawa Model's universal application.

> *"Creativity, its simplicity, its cross-cultural contextual stuff, it's easy to use it with younger people, with older people…"****Participant D***

Participants described the universal application of the Kawa model not just in terms of the application with clients, but also in terms of the varying fields of occupational therapy practice, as follow:

> *"I think all OT's would use it for it does give quite good insights both ways, giving you insights into the clients preserved adherence into their pathology , and vice versa for the client to reflect and to see into life's expectations,…"****Participant J***

The Kawa model, when presented to the **multi-disciplinary team received a positive response** as reported by a research participant working in a private facility.

" I presented it at the journal club and there was a very positive response from our inside team, so all of the psychiatrist and everybody sort of getting on board…., so it is something that I think definitely will be useful to keep going with..." ***Participant E***

Some of the research participants chose to continue exploration of the Kawa Model, even with clients that do not "fit the bill" in terms of cognitive abilities, for example those presenting with psychosis and was able to **elicit "new/more" important information** this way. The following quote is based on an experience with a patient in the first interview, but it left such an impression on this research participant, that she mentioned it again at her second interview.

"I've used the Kawa with a psychotic patient and it was actually quite interesting (be)cause you saw some psychotic stuff coming out, how people were hiding behind the fish, people that were after her. It was quite paranoid and psychotic, so it was interesting…" ***Participant B***

She continued to explain that the use of a different medium than the usual interview was useful.

"I think in an interview, the patients know what kind of questions to expect. They know to answer certain questions. If they want to hide the psychosis they can. Maybe in the drawing it came out because she wasn't really focused on that."-"The doctors ask them the same sort of questions, so do the nurses. They know what you are trying to get from them. Maybe with this (drawing of river) it is more comfortable; it's just a different medium to extract things." ***Participant B***

Another participant from the same setting gave the following account:

"Then we introduced the Kawa model, she actually cried after we did it because she realized that all her rocks had to do with her relationships, and that she still hadn't worked through those relationships, so I referred her to a psychologist and now she is going for regular psychology. I would never have known that, if I did not do that because that is not something we talk about in OT….That was actually what was so huge for her." ***Participant F***

Barriers

The barrier identified regarding the **Kawa Model being abstract** as reported above was again confirmed from data in the second interviews. A further barrier identified at this time was the **high cognitive demands** some participants felt the **Kawa Model required** from the clients, as seen from the following quote.

‘‘These patients presented with cognitive disorders, HAD and dementia symptoms. One patient was unable to participate due to the cognitive demands of the activity.” ***Participant F***

4.3.3.2 Theme 2: Context influence continued use

The complexities pertaining to the context in which the Kawa Model was used continued to contribute to its appropriateness and successful use. The clients themselves as well as the treatment setting they were in provided the context in which the Kawa Model was used.

4.3.3.2.1 With Whom?

The client base of the participants remained the same throughout the research process, and continued to contribute to the complexities pertaining to the context.

Personal Attributes

The perceptions about the influence of the clients’ educational levels expressed in the first interviews were further explored in terms of the **patient’s personal ability to relate to the metaphor and reflect on their lives and themselves.** Data revealed that participants felt that clients may not have difficulty with reflecting per se, but maybe are not used to reflecting on their lives and themselves in the way they a required to when using the Kawa Model.. This insight came from a novice therapist working in the public sector.

“I’m just assuming that people with a lower level of education, maybe they can’t think that abstract, maybe they don’t think about themselves… and I wonder if the population that we see here actually think about themselves and how they fit into their communities. I see a lot of ladies and they think a lot about their families and their social circumstances, but I wonder if they think about themselves and who they are and how those circumstances actually impact on themselves.” ***Participant B***

The general perception was that **“higher functioning” clients** can relate better to the metaphor used during the application of the Kawa Model and as a result, it was not often applied with clients’ that participant perceived might not “fit the bill”.

“ I found with the ones who were employed, and not just domestic workers, maybe the ones who have a little bit of a higher education, maybe a matrix or maybe want to study, or have been working, maybe some admin kind of job, they seem to do a little bit better… even understanding, grasp the concept a bit better.” ***Participant B***

In the case of these participants it was clear that they had concluded that the **Kawa Model is not suitable** for all patients**.**

Diagnostic influences

Similar information was gathered from the first interviews about the clients' diagnostic factors influencing the successful application of the Kawa model. During the second interview it was made clear that participants felt that patients presenting with **active psychotic symptoms**, related to substance withdrawal, will **not benefit from the application of the Kawa Model,** as explained by this participant from the public sector.

> *'' …we have a lot of the substance abusers…I mean they are psychotic and high on substance or whatever… I know it is not really going to benefit them to do the model."* ***Participant G***

4.3.3.2.2 Where?

The two different service sectors in which the participants worked added to the variety of the context directly.

Public versus Private sector

Research results indicated constraints to the application of models and specifically constraints in terms of the application of the Kawa Model within the **in-patient public sector.** These **constraints relate to the lack of time to treat clients effectively** due to short admission periods and lack of resources so that often the client is only treated in terms of the specific presenting problem as indicated powerfully by the following two quotes by the same participant.

> *''I think also that we, like it would be nice to add this into our treatment, but we are trying to get a level of function and not really address the patients problems, like their social and all those kind of problems, so I think the reason that we do it (apply the Kawa Model) most with our out patients is because those are the ones that we do like give some kind of treatment for. The others ones it's really like, assess your level of function, do what you can, like teach them some stuff and all of that then discharge them to the clinic. So it's the setting that is very much so limiting."* ***Participant F***

> *‘‘…you don’t have time to worry about the other issues, you try to treat the problem that they are here for, and whether that is their biggest problem or not, you have to treat it, because it is a big problem.”* ***Participant F***

It is **not possible to apply a holistic approach,** so there is no need to extract all the specific information from the client, seeing that the occupational therapist would not be able to treat all the underlying difficulties:

> *” …so I mean we can say that we are holistic all we want. Here we don’t treat the biggest problem… we treat insight to make sure they take their medication, so that they won’t come back, so even though there can be ten million other things effecting their insight, like you only have two days so you have to treat the most pressing thing.”* ***Participant F***

This further highlighted the type of treatment approach followed within a public versus a private setting, which would be limited services for **a client with a chronic** condition in the public sector.

> *“I think it is different in private, but here we are very limited in what we can actually do for our patients.”* ***Participant F***

The difference between private versus the public sector clients were again highlighted. Participants perceived that they have **different abilities in terms of comprehending** the Kawa Model concepts as clients seen in the private sector are often have greater access to ongoing outpatient therapy and have a higher level of education

> *“I think it would be someone more in a private setting, or clinicians that see a lot of out- patients. I think that those patients are the ones that have more insight and have a better sense of themselves to be able to use a model in that way.”* ***Participant B***

> *“…every now and then, particularly when I get a group were they are good with abstract thoughts, they appreciate metaphor and all of the rest of it, then it is incredibly helpful. Then we’ll do it and they will run with it, they’ll use it throughout their time here and ja… I’m very much getting the sense that there are specific times where it is incredibly helpful, I suppose like any model, the idea is to use it when it’s gonna (going to)work.”* ***Participant E***

4.3.3.3 Theme 3: Education and Support

The issue of education and support arose during the second phase of interviews. The introduction of the Kawa Model and the way in which to support therapists in its continued use was explored.

4.3.3.3.1 Kawa Model Introduction

Participants gave their opinion about when the Kawa Model should be introduced to occupational therapy students. They indicated they were positive towards the introduction of the Kawa Model as part of student undergraduate studies. There was however one participant who was unsure if the Kawa Model should be introduced to students and another who felt that it is better placed to be introduced as part of a post graduate qualification. The motivation for and against the introduction at an undergraduate level will be discussed under the following sub-categories.

Introduction in undergraduate studies

Research participants in support of the introduction of the Kawa Model at an undergraduate level made the following arguments:

Firstly, it can work well when having to **analyse a community,** which is important in public health training at an undergraduate level as explained by the following participant.

> *" I think that it would be one of those models that would make a lot of sense to students in particular, because for me…, at UCT there wasn't a huge emphasis on models. So if it was an option, particularly for the community based stuff….We didn't have the maturity to realize the impact of us being there and so I think it gives quite a nice framework as a student to work from."* ***Participant E***

Secondly, participants felt in would assist students in their need to **reflect on their clients**.

> *"It is also the kind of framework you can take with you, the kind of thing that you can apply to yourself, that as a student you can do and experience and see what it feels like to be on the other side and all that kind of stuff."* ***Participant E***

Thirdly, this same participant felt that the Kawa Model can be introduced to first year occupational therapy students', seeing that it gives them an **idea of what occupational therapy is all about.**

> *"Yes, it just kind of explains what OT is about …Everybody's issues would be different, but the basic principle is that you look at the functioning the flow and all the rest of it." Participant E*

Therefore it would be valuable to **have knowledge of the Kawa Model** at an undergraduate level.

Introduction in postgraduate studies

Although the majority of the participants agreed that the Kawa Model must be introduced at an undergraduate level, there was a contradicting argument made for introducing it only at a postgraduate level. There was the fear that the Kawa Model was too **complex to** introduce at an **undergraduate level**. It was further felt that the "open application" of the Kawa model that lack **clear** guidelines for application can pose a problem for the novice therapist, as raised by this participant.

> *" I think it could be introduced at an undergrad level, but fully taught at a post grad. Level, because especially in psych., there is quite a lot of psychological hmm… interpretations you know and training that one needs to have especially for interpreting the processes for the client because sometimes it is not what is usually what's on the paper you know it can be a seriously projective type of exercise, so in order to work with those psychological projections you need an understanding of psychological processes and framework."* ***Participant J***

4.3.3.3.2 Group discussion is essential

As mentioned above, discussion groups were most useful in gaining further knowledge of the Kawa Model. It was however not just about gaining further knowledge, but also about developing more insight into its use and being encouraged to continue to explore this "novel" model.

Support groups further facilitate the use of the model

Participants expressed the benefit of discussing the Kawa Model's potential benefits and use with other therapists within a group context. The following participant reflects on her group contact.

> *"…I think having spoken to other people that have been using it was really the most beneficial thing. Learning about it or whatever, that was one thing and then you can implement it, but then talking to people who had actually done it really helped."* ***Participant F***

Research participants further felt that they **benefited from discussion sessions** after they had some time to clinically explore the model. The same participant continued her reflection.

> *"… in order to see what you struggling with and what you have questions about because if I haven't actually done it with a patient, I didn't really, like I mean you think it's just draw a river, like how hard can it be, but when you actually do it, then you realize like I wonder what other people do if this happens or you know."* ***Participant F***

4.3.4 Summary

The second set of interviews conducted, explored the continued use of the Kawa Model after a period of approximately four months since the initial introduction to this model. Participants felt that the application of the Kawa Model gets easier with time, but identified several factors that continued to influence the successful application of this model. The specific characteristics of the Kawa Model continued to influence its use with the facilitating attributes outweighing the barriers. This context continued to play a role in the successful application. The type of client, their personal attributes and diagnoses influenced the successful and continued use of the Kawa Model, as well as the setting, whether they are in a private or a public setting. The continued use of the Kawa Model was also dependent on whether it will be taught at university as part of an occupational therapy curriculum, and whether this must be done at an under graduate or a post graduate level. There were arguments for introducing the Kawa Model at both an under graduate and a post graduate level. The importance of group discussions and support groups were final factors that would influence the continued use of the Kawa Model.

CHAPTER 5: DISCUSSION

This chapter will discuss the results obtained from both the **Phase 1 – quantitative** and **Phase 2 -qualitative** data. The results will be discussed together rather than independently as is the recommended method for case study research(23). In case study research the purpose is to understand the overall phenomenon this case study focus on. Therefore the results of **Phase 1** and **Phase 2** will be converged in this chapter(26).

The descriptive case study research approach was used to determine and explore the participants' perceptions on the use of models in general and on the Kawa Model specifically in qualitative questions, justifying a small sample for **phase 2** of the study(27).

Results from **Phase 1 – quantitative** data explains the demographics, educational qualifications of the participants and their views on the importance of applying practice models as well as their current use of models. The second section of **quantitative data** incorporates the participants' perceptions of the possible application of the Kawa Model in clinical practice with patients with chronic conditions and the usefulness of the model within a South African context. All the information from phase one and phase two were combined to present a discussion on model use with a specific enthusiast on the Kawa Model. Information were combined under the headings of: Influences on model use; Influences of models on 'doing'; Influences on the use of the Kawa Model; Use of the Kawa Model in clinical practice; Continued use of the Kawa Model.

The sample for both phases was not heterogeneous as the majority of the participants were white females, with black and Indian participants in the minority. However, this reflects the South African occupational therapy population which is still predominantly white and female as identified by Crowe and Kenny(99). Therefore,

although it was a small sample, it was reflective of the occupational therapy population.

The majority of the participants completed their undergraduate training at the University of the Witwatersrand, which is the university in the area where the study was conducted. The two main service sectors in which South African occupational therapists work were represented, namely the public and the private service sectors. The most common fields of occupational therapy practice within a South African context were represented within the sample group for this phase, namely psychiatry, paediatrics and physical rehabilitation.

5.1 INFLUENCES ON MODEL USE

Results indicated that participants in this study understand the importance of practice models in guiding them through the occupational therapy process, in providing evidence for practice, and to support the relevance of their intervention. This is in line with Kielhofner who stated that conceptual practice models offers theory to “guide practice and research in the field” (p. 3)(1). The results of the survey questionnaire supported all the propositions (p 34) underlying this case study. The propositions were that: Occupational therapy conceptual/practice models describe the body of knowledge developed within the profession of occupational therapy to inform practice; Occupational therapy conceptual/practice models provide theory that address unique practice circumstances(14); Occupational therapy conceptual/practice models guide assessment and intervention and support clinical reasoning in determining the most appropriate outcome for patients(78); Occupational therapy conceptual/practice models should allow occupational therapists to achieve a comprehensive view of the client(10)(79).The participants confirmed that they value model use for the reasons outlined in these propositions.

A study by Elliot, Velde and Wittman raised concerns about practicing therapists’ inability to explain how they are applying theory in their clinical practice. Seeing that the application of practice models links theory to practice, and the use of such models

is important to guide effective treatment, the lack of therapists' ability to articulate the use of theory was found to be worrying in the study they conducted(1). Although participants in the current study value the use of models and evidence indicated that they do apply theoretical models, but they had difficulty in articulating how this is done. They did however identify many factors that influence how they select and use models.

Participants indicated that they were using models to guide their clinical practice. Turpin and Iwama stated that without the ability to make sense of the complex situations presented in therapy, professional practice can become haphazard, depending on the individual therapist's own values(10).However, from the current study it was evident that even the use of models was to some extent dependant on the specific participants' values and believes which affected their interpretation of such models and ability to implement their theoretical concepts. It was therefore important that the participants know about the various factors that influence the use of models.

Factors influencing model use were related to who the therapists were the context in which they worked and who the clients were. The factors influencing the participant's model use will be discussed in the next sections. The factors discussed are habituation versus experience, experience and clinical reasoning, practice context and client characteristics.

5.1.1 Habituation versus experience

Therapist characteristics included the inclination of participants to using a model which was mainly dependent on their attitude to it. From the results it was evident that the majority of participants were open to models and theory and their initial receptive attitude to new theory and the use of new models was positive Participants "open attitude" when applying models was supported by Kielhofner who stated that using models in practice should not constrain the clinician to a ridged treatment principles, but should allow to think about how they are conducting their practice, and should be

constantly critiqued. Therefore clinicians should access a number of different models depending on the clients and the context in which they work(67).

From the results it was clear that participants however do not constantly review their application of models in intervention, and explore alternative models to ensure that their interventions maintains its relevance to the client group they serve. Most participants relied predominantly on models that were taught to them during their undergraduate studies, and there appears to be a tendency to think that one model fits all. Therefore the component of habituation has an overriding influencing on which models are applied in practice. It seems participants were either habituated through their educational background to choose certain models or that their habituated ways of within their daily clinical practice impacted on their choices and use of models. It was evident in that they continued to use models they were taught at university as well as models that are used by their colleagues within the specific settings in which they practice.

The majority of participants in this study received their undergraduate education at the University of the Witwatersrand. As indicated this is due to the sample being drawn from therapist working mostly in Johannesburg, Gauteng where the University of the Witwatersrand is the main university. The models taught at this academic institution were reported as the most frequently used, highlighting the participants' use the models to which they became habituated as undergraduate students. The MOHO and VdTMCA were the most frequently applied models. Both these models have been taught predominantly in the occupational therapy training at the University of the Witwatersrand since the 1980s and while MOHO is widely applied internationally with countries like USA where at least 80% of therapists(100) report basing their therapy on it, the VdTMCA is gaining international recognition outside of South Africa(71). These models are also taught at the other universities based in Gauteng and therefore most participants probably studied and applied these models under guidance over the course of their undergraduate studies where they achieved a level of confidence and competence in the application of them.

These results are congruent with literature that indicates that therapists tend to continue the application of models they were taught during their undergraduate training and there is an association between knowledge of theory and application of theory. This results in therapists using theories or models in clinical practice based on their educational background due to familiarity and their sense of competence in using these models(88). Literature supported this tendency to revert back to habitual methods, stating that therapists tend to revert back to their known, trusted models and methods, which have become habit and for they have achieved a level of efficiency in their use(101). Habituation plays a role when looking at the time constraints reported earlier and participants within the public sector reported preferring to apply habituated, standard, time efficient methods, which are less time consuming to use, and are accustomed to doing so, due to large number of clients they serve(88)(101).

On the other hand experience and new learning can overcome habituation. From this study it appears that therapists with more experience had exposure to a greater variety of models. Having more experience they were able to identify the strengths and weaknesses of commonly used models, and were more receptive and open to acquiring new knowledge and to exploring its potential. This provided them with a wider knowledge base. The level of experience therefore not only has an influence on the number of models used, but also on the participants ability to be open minded, to critique a model and to use sections of various models that they find useful. This ability to apply and critique model use by experienced participants is in line with Bloom's taxonomy levels of analysis and synthesis where clinical reasoning is at a level above application of basic procedures(102). Therefore they no longer rely solely on the models they learnt as undergraduates and habitation in model use is not as evident in their practice. This increase in theoretical knowledge and model use was supported in a study by Elliott, Velde and Wittman in which participants stated that theory was learned at different stages in their professional development. It began at the academic institution, then continued into fieldwork and then into practice. The first level of exposure to theory is therefore at the academic institution and then theoretical knowledge continually increases through experience gained in the practice field(103).

The participants in this study who were more experienced were found to be more open minded in applying theory than those participants with less experience, as evident in the crater variety of models they apply. This was confirmed by participants with less experience who indicated they apply a limited number of models in their practice. The less experienced participants were more insecure when it came to exploring new models and therefore reverted back to their known habituated ways and relied more on models taught during their undergraduate studies and those that were role modelled by peers, as they tended to use only the two models described above. Less experienced participants tend to revert back to learnt models that they tried in the past for they understand its theory and are able to apply it, which is in line with Bloom's taxonomy level of knowledge and application(102). This is consistent with procedural reasoning which is in line with applying procedural knowledge in client treatment and not considering the client in their context(104).

Further reflection on the results indicate that participants with post graduate qualifications who were at a different level of clinical reasoning(104) than those with undergraduate qualifications and were more likely to expand their repertoire of models. It was found that the concepts of the Kawa Model and its under pinning philosophy were familiar to, and used by the participants with postgraduate qualifications only. It appears that conditional reasoning where the therapists are able to consider the client in their context is required to use this complex model(104).

The Kawa Model was only developed in 2006 and is not taught in undergraduate education. Therefore participants would have to have actively looked for more information on the Kawa Model at a graduate level. However, participants with a post-graduate qualification might have had some exposure to this new model during their further studies. It is important to note that postgraduate training appears to have made no difference to the use of models that were applied predominantly, with the MOHO and the VdTMCA still being used most frequently, irrespective of further training of the participants, but they do apply a greater variety of models over all. This is another indication of how even with further education, participants remains habituated by predominantly using the models taught during their under graduate

studies, but are open to explore and apply other models. This finding was supported by research on the MOHO in the USA where similar findings were reported. They found that the MOHO remained the most commonly used model irrespective of years of experience and postgraduate training(100).

5.1.2 Experience and clinical reasoning

In the cases where participants reported that they used models other than those learned as undergraduates, the most useful resource for learning about and continued use of new models was through discussion groups and reflections on the models' use with peers. They reported learning about new models from exposure to peers in the field and there was a tendency of therapists to use models/theory as seen being applied by respected peers and senior staff. This increased the repertoire of models used as therapists become more experienced. This role-modelling of peers for clinical information was supported in a study by Rappolt that looked at how therapists gather and apply new knowledge with their participants reporting a "heavy dependence" upon their colleagues in this regard (p.176)(105). This came about as consultation with peers was seen as the first educational recourse for assistance with the evaluation and subsequent implementation of new theoretical knowledge(105). It was clear that participants felt that through sharing experiences with peers and senior staff they gained knowledge and understanding about other models. This encouraged them to continue to explore and apply novel models and its theoretical concepts(102).

This allows the therapist to interact with theory which contributes to the development of interactive and conditional clinical reasoning skills and assists the therapist to understand her clients in terms of their uniqueness and their context(74). The development of 'clinical reasoning skills' is related to experience, According to Boyt Schell & Schell, therapists with five years' experience within their field of practice have reached a level of proficiency in the development of their clinical reasoning skills(74). Nine of the participants in Phase 1 quantitative study had five or more years of experience. It was therefore assumed that these participants have obtained a proficient level of clinical reasoning abilities. They had the ability to perceive situations holistically and reflect on experiences, leading to more focussed evaluation and

flexibility in intervention(74). They are further able to creatively combine interactive and conditional approaches leading to experienced participants' ability to critique a model and to identify strengths and weaknesses of models(106).

They were thus to be able select and apply the best parts of the various models to suit each client. Therefore, experienced participants apart from using more models reported using their clinical reasoning to substantiate applying a combination of models in practice, rather than using one exclusive model. They indicated they were more confident in trying various models, and felt they were more able to apply them appropriately. Their clinical reasoning and professional decision making abilities could then be enhanced by their effectiveness in applying new theory(107).

5.1.3 Practice context

An influencing factor on the use of models identified related to context was the service sector participants worked in. The majority of the participants worked within the private sector. The data obtained may therefore be influenced by the fact that less data were obtained from the public sector, due to the unequal distribution of participants. However, the sample was representative of the Gauteng occupational therapy population, with more therapists are working within the private sector(99).

Participants in the public sector felt that there were limited opportunities to learn about new models of practice and acquire new knowledge, due to lack of funding for courses and the fact that there are few experienced therapists working in this sector. This meant that they could not learn from respected peers and senior staff and even when they did have an opportunity to learn new models they felt there was a lack of adequate time to implement and evaluate the new knowledge. There is also limited time for exploring alternative theoretical concepts with their clients as the time they can spend with each client is often dictated by patient volumes, rather than the client's specific needs. Therapy is further influenced by rapid discharge of clients from hospital, meaning that there was little time to achieve treatment outcomes and use models to their full potential. Participants working in this sector appear to prefer application of standard, time efficient routines related to procedural reasoning, above

the implementation of new theoretical concepts and models(88)(101)(102)(104). The same time constraints relating to treatment identified by the public sector participants in this study were also a concern to the participant practicing in the private sector with a very specific focus of intervention in hand conditions.

The majority of participants working within the private sector however treated clients who were in the rehabilitative phase of treatment however, and these participants were therefore able to treat their clients over a longer period of time. Clients were treated within an in-patient facility or seen on an out-patient basis. This allowed participants from this service sector access to a client for long enough to afford them the opportunity to reach treatment outcomes and afforded them an opportunity to apply all levels of clinical reasoning which included exploring the use of new models and theoretical concepts. The extra time allowed them the opportunity to incorporate the clients' uniqueness and their unique context into treatment and therefore use the model most suited to that specific client.

Occupational therapy in the public sector is also practiced within a predominantly bio-medical context, which is not congruent with occupational therapy philosophy on which the models are based. When operating within a bio-medical context, the presenting medical condition and the treatment of such is the main focus. The underlying, contributing factor to the client's current conditions seldom gets explored, for there is only enough time to tend to the specific reason for referral with standard protocols for assessment and intervention being utilised. The treatment approach is not holistic, but rather reductionist in nature, which is in contrast to the philosophy of the occupational therapy profession. Mattingly found that therapists working within a medical model context experience significant dilemmas. They may often find themselves torn between their concern to treat the whole person, and a concern about their credibility within the medical world that pushes therapists to redefine problems together with treatment goals to fit in with biomedical terms(108).

The majority of participants working within the private sector did not express these concerns, as their practice is in a more bio-psychosocial health context. The only participant from the private sector who practiced in a bio-medical context using

standard protocols was a hand therapist, who considered her clients from this context as the practice of hand therapy is predominantly therapeutic and not rehabilitative. This was the only participant from the private sector who was not using a variety of models.

These findings reflect the concern expressed by Elliott et al who identified constraints in using models and theory in practice due to pragmatic issues similar to those evident in the current study. Some of the constraints identified by Elliot et al which correlate with the current findings for the public sector include utilisation of time, acute practice settings, length of hospital stay and the use of standard protocols. They found that the notion of using a standard departmental protocol with every patient may limit the application of different appropriate models of practice further limiting the therapists clinical reasoning processes(103).

5.1.4 Client characteristics

Another important aspect that was highlighted in the results pertaining to model use was the characteristics of the clients presenting within the public and the private sectors. Clients in the public sector where the participants in the study worked were mostly in an acute phase of their illness and were discharged to services focused on rehabilitation, or to their respective homes, upon becoming medically stable. Clients presenting in the private settings where participants worked, were mostly in the remedial or rehabilitative phase of treatment, which allowed for more comprehensive rehabilitation intervention. The phase of illness of the clients guided the use of models and models could not be effectively applied where clients were in an acute/active phase of their illness, due to symptomatology affecting their ability to reflect and set realistic goals for themselves. The focus of intervention differed once clients reached the restorative phase. Within the public sector it was therefore difficult to apply models effectively as clients were discharged before they could reach the restorative phase.

In summary, a variety of factors influenced what participants' exposure to models and theory, their choice of models for application in their clinical practice and their ability

to use these models. These included, but were not limited to their educational backgrounds, their level of exposure and experience in the clinical field and their ability to apply clinical reasoning. Apart from these influencing factors two over encompassing influences affected on the use of models, namely their receptive/open attitude towards models and their theoretical concepts, and their habituated ways when choosing which models to apply.

Limited time for intervention, opportunity to acquire new knowledge and explore it, sector context and presenting clients were also identified as influencing factors relating to the participants ability in applying models.

5.2 INFLUENCE OF MODELS ON "DOING"

The factors that influence the participants' choice and use of models discussed above had a further impact on how these models are applied in the practice of occupational therapy In this section the influence of model application of the occupational therapy process of evaluation, intervention and achieving outcomes, is discussed.

The purpose of utilising an occupational therapy model is to guide the occupational therapy process and to explain phenomena of concern in the field, thus supporting the proposition that occupational therapy conceptual/practice models guide assessment and intervention(109). This allows for the formulation of explanations and guides techniques for therapeutic intervention(103). Participants felt they needed to be able to evaluate and choose which models will assist them to provide the most effective occupational therapy. This was supported by McColl who suggested that: "knowledge and theory exist not only to explain the world around us, but also to guide professional intervention" (p.12)(110). As the use of models assisted participants in understand their clients, participants then used this understanding with their clinical reasoning in order to "do" their interventions(74). Thus further supporting the proposition in that clinical reasoning is used to determining the most appropriate outcome for patients(109).

Thus participants acknowledged that essential role of models in the practice of occupational therapy and they could identify why they used specific models as a

basis for their clinical practice. As indicated above the two most commonly used models are the MOHO and VdTMCA. Although participants could not articulate how they apply the models they felt that it did enabled them to provide a unique and specific intervention through their therapy.

In terms of the occupational therapy process participants in this study felt that specific models that they apply are occupation focussed models. These models have allowed for occupational concepts to be reclaimed as part of the professional terminology. The utilisation of occupationally grounded models and research focused on occupation facilitates scientific research for evidence based practice(13). Both inexperienced and experienced participants further felt that these models could be used as a basis for providing scientific proof for their intervention and assisted them in staying true to the occupational therapy philosophy.

How the models are applied in the occupational therapy process by the participants was again influenced by the participants experience and clinical reasoning.

5.2.1 Experience and clinical reasoning

The less experienced participants felt that models helped them to think more clearly and provided structure that they could follow in understanding the client and planning intervention to their treatment. This need to follow structure in therapy is an indication of the level of clinical reasoning of this group of participants. Boyt Schell & Schell point out that therapists with less than five years' experience need to follow theory and are not able to adapt(106). They therefore use a particular model to guide them step by step using procedural clinical reasoning(108).

This initial interaction with theory and models are vital in developing skills in occupational therapy specific intervention and should be encouraged, as it enables participants to become proficient in applying the occupational therapy process. It remains important for these participants to develop their clinical reasoning skills, they begin to use more models to provide a framework rather than a step by step guide for therapy, as their ability to reason and make decisions increases(27).

As skills and knowledge of model use, develop and become more integrated, experienced participants reported that they use an eclectic approach, relying more on clinical reasoning in applying a combination of models at once, Kielhofner supported using an eclectic approach as described by the more experienced participants. He states that each model has a specific focus and that therapists need to apply a combination of models in order to address the complex problems of their patients(1). This emphasises the importance of being proficient in clinical reasoning and having confidence in the use and application of models in order to critique them and having a broad knowledge base about various models.

While participants could explain their use of practice models, they had more difficulty in describing how they apply these models in practice, i.e. their way of doing. This is attributed to the premise that clinical reasoning is intuitive and therapists do not actively think about models and what clinical reasoning they are using while 'doing'. (74). Therefore participants reported they did not think about exactly how they are applying the models they used. Participants, who were of the opinion that they do not use models, realised they did when probing questions were asked by the researcher. However, they did not consciously think about model application as they had done during their undergraduate training as they philosophies and principles which guide model application had become habituated. According to Davies models are internalized and they guide what the evaluation and provision of the occupational therapy process. They are what "we carry with us and it manifests in a more subtle internalized fashion" (p. 56)(27).

In summary, the use of models influenced participants' way of carrying out the occupational therapy process by making overt the specific contribution of the profession. Model use provides structure to the intervention, which was especially important for the "novice" therapists, to ensure that they can structure their assessment and intervention. The use of models becomes less overt and more habituated over time as their application is internalised with experience in clinical practice. Experienced therapists indicated to have an open mind and a need to work "outside" of the model at times. The use of models provided participants with an

understanding of their client and their interaction with the model through clinical reasoning assisted them in providing effective therapy. Participants felt models could be used to provide scientific evidence for the occupational therapy process.

None of the participants reported factors relating to the context that they worked in, the uniqueness of their client, or habituated ways as influencing their use of models when applying the occupational therapy process or ‘doing’.

5.3 INFLUENCES ON THE USE OF THE KAWA MODEL

Models, other than the MOHO and VdTMCA that were used by the participants, were applied by less than 20% of the participants in their practice. The exception was, the Kawa Model, which was used by 24% of the participants from Phase 1: quantitative study, working in private practice, highlighting an existing interest in this “novel” model.

The participants had varied and contradictory initial reactions to the Kawa Model and the “novel” way in which it applied ‘client centred theory’. These reactions were firstly about the interactive nature of the model in which to client takes an active role. The client is part of the exercise of drawing their Kawa (river), making them an active participant in the treatment session and enabling them to have some control in the rehabilitation process. The client is central to the process during the application of this model, which is not merely applied to them by the therapist. They are engaging in “doing” a specific exercise that is integral to the application of the Kawa Model. Secondly, application of the Kawa Model involves the use of a metaphor in nature, namely a river to express ones current context and situation, taking it to a more abstract level and making it unusual, having been raised out of an Asian social context(27).

Factors that influenced to use of the Kawa Model were also related to the participants’ habituation and experience, the characteristics of the clients and the practice context in which the participants worked. A further influence relating to the characteristics of the Kawa Model specifically will be discussed. While these were similar to those

discussed above, only the specific influences participants reported on that pertained to the Kawa Model are discussed here.

5.3.1 Habituation versus experience

In terms of the participants, those who had previously used or had had exposure to projective techniques and were familiar with using metaphors and similar exercises in the past were more positive about applying the Kawa Model in clinical practice. Participants who were unfamiliar with such methods and who were used to the traditional way in which models are applied were not as positive about the application of the Kawa Model.

After being introduced to the Kawa Model, the majority of participants rated their knowledge as average to high, having completed a two day workshop. Lee, Taylor and Kielhofner (2009) conclude that "face-to-face exchange and sharing may play an important role in prompting theory utilization"(p.62)(110). The fact that the participants had the opportunity to meet the author of this international model and take part in some practical exercises within a group of professionals appears to have enhanced their learning experience and resulted in the participants, with the exception of two of them feeling positive about the use of the model clinically. Thus following their introduction to the Kawa Model, the majority of participants felt that they could apply the Kawa model clinically within their settings with the clients they serve.

Participants' receptiveness and attitude towards this distinctly different model influenced their motivation to explore its potential in clinical practice during Phase 2: qualitative study. Participants who agreed to apply the Kawa Model clinically were from both the public and private sectors. The distribution between the public and the private sector participants was similar, with four participants from the private sector and three from the public sector. The majority of the sample was white, with one black and one Indian participant. Most of these participants had qualified at the University of the Witwatersrand with a further two at University of Cape Town and one at the University of Pretoria. This sample group from Phase 2: quantitative part of the study

was therefore a heterogeneous sample in terms of the service sector they worked in (99).

All the participants Phase 2: qualitative part, were positive about the Kawa Model and chose to participate in this phase which required application of the Kawa Model over a defined time period. The loss of participants at this stage is supported by study in which Law and McColl that found fewer therapists actually apply theory than those that reported valuing theory(91). However valuing models is not enough and they have to be applied to have any clinical relevance. In this instance although there was an initial interest in the Kawa Model there was reluctance from some to attempt to apply it in clinical practice. The reasons for this were not established in this study.

It was clear when interviewing the participants who applied the Kawa Model in their clinical practices that there was no uniformity in the way in which it was applied to their respective clients even though they had all attended the workshop on the model. The instructions given to the clients varied between very specific step by step explanation to just saying: “Draw a river of your life.” This can be attributed to the nature of the model and the way in which the model was presented by Dr Iwama who suggested that the model could clinically be used to “illuminate a client’s narrative” (p. 162), but noted that there is no single correct way of applying it(19). He therefore left the application very open and subject to the clinician past experience with and exposure to this type of reflective technique that can influence the way in which they preferred to present the model.

For the four participants who were already familiar with the Kawa Model some habituation may have occurred as they all reported using it in their practice. There were very limited opportunities for other participants to gain exposure to the Kawa Model as it was not taught during their undergraduate courses and even after participants has applied the model in clinical practice in Phase 2: qualitative study, the time was too short for habituation to occur. Participants indicated that they needed more information and support to apply the model comfortably in practice. They described discussion groups on the Kawa Model as the most useful in gaining further knowledge and ideas for application, especially when working with the model

clinically. During these group discussions participants were inspired by the success stories of colleagues who were using the Kawa Model. This indicates that if support and regular discussion is provided, therapists might be motivated to continue to explore the Kawa model's potential and continue to use it until it becomes habituated.

5.3.2 Experience and clinical reasoning

The more experienced therapists were more comfortable with the fact that the model does not have prescribed guidelines for application, and described the Kawa Model as providing them with structure, more so than their usual projective exercises used in the past. These participants also preferred to incorporate other models during application of the Kawa Model. Davies supports the notion of models not being prescriptive as this leads to the consideration of how they can be used in conjunction with each other in different ways(27). In analysing the evaluation and adaptation of models during application in clinical practice it was evident in this study that the more experienced therapists reported applying the model in a more eclectic way.

The Kawa Model limited specific or "open" guidelines for application, required the participants to use clinical reasoning during the clinical application of the model. This presented a challenge for the less experienced novice participants' who still employ a more procedural level of clinical reasoning(108). They found it difficult to know exactly how they need to apply the Kawa Model, for they still need instructions to follow in order to provide them with more structure and guidelines. Thus the non-descriptive way in which the Kawa Model can be applied was a struggle for novices(10).

Davies pointed out that there is a danger in following models prescriptively, for models are only there to assist professional practice and needs to be appropriately adapted to the specific practice setting. It is however not the actual model use, but more the ability to understand and utilize the model to its full potential that becomes more refined as clinical reasoning skills improve(27). This is justified when looking at the use of the Kawa Model by novice therapists, for it is distinctly different from other models taught, and requires a different level of application and interpretation from participants(10).This does not imply that novice participants cannot use the Kawa

Model. What it tells us is that they need the necessary support if we want them to use the Kawa Model. This is an important point that needs to be considered when introducing new models to inexperienced therapists. Therefore inexperienced therapists may need to gain experience in using the Kawa Model with the support of a more experienced therapists as the more experienced participants appear to be able to use higher levels of interactive and conditional clinical reasoning(108) when applying the model. They do not need the structure less experienced therapists are dependent on making it easier for them to assimilate this type of narrative unstructured model into their practice.

5.3.3 Practice context

Other factors reported by the participants in affecting the application of the Kawa Model related to work context and the problematic use of the model within a bio-medical context where standard treatment protocols and lack emphasis on underlying, contributing factor to the client's current condition again played a role. There appeared to be no value in gaining insight into the client's personal life journey in this context.

5.3.4 Client characteristics

A further consideration in the application of the Kawa Model pertains to the clients characteristics. The model requires clients to think on an abstract level. The client's specific diagnosis was reported as influencing their ability to think abstractly, especially when cognition was affected. The ability to think abstractly is often impaired during the acute stage of illness, when clients' present with "active symptoms" This influenced the clients' ability to understand and relate to the model during the assessment and treatment process. Clients in the acute phase often had difficulty thinking and relating to themselves at an abstract level. Additionally the clients' educational background also played a role in their ability to relate to and comprehend the Kawa Model. Clients who access the public sector generally presents with a lower educational background than those who access private services according to the health care utilization patterns in South Africa(111). The results

indicated that participants working with clients with a higher educational level were able to apply the Kawa Model successfully, as opposed to those whose clients with limited education experienced difficulty relating to the model and thinking abstractly, in a metaphoric way.

The more experienced participants indicated that they were able to adapt the way in which they presented the Kawa Model to use it with some clients with deficits in abstract thinking and cognitive ability. They agreed with Davies who suggested that the Kawa Model should be put aside and a more fitting model selected in such cases, especially if “the river metaphor holds less explanatory power in the client’s context” (p. 161)(27). According to the participants, it was those clients who could relate to themselves in a metaphoric way, who could be reflective and had clear knowledge of the purpose of such an exercise that benefitted from the application of the Kawa Model.

In general these were mainly clients who were in a restorative or a rehabilitation phase of their presenting illness that are more able to think on an abstract level. Participants who were dealing with clients who presented with an acute episode of their illness reported less benefit for their clients and that some occupational therapy models, such as the Kawa Model might not be designed for use in an acute, bio-medical service context. The importance of establishing the client’s ability and “readiness”(p.171) to participate in the rehabilitation process was also highlighted by Davies(27).

Therefore the clients that benefited were either outpatients or those closes to discharge. This applied mostly to clients within the private sector who were medically more stable where participants were able to mainly use the Kawa Model in individual assessment and treatment sessions. This is because they had adequate time to spend with each of their clients. Participants working within the public sector reported mainly using the Kawa Model during group treatment sessions, as this is how they coped with large numbers of clients. These participants reported using the Kawa Model as an evaluation tool at the end of therapy sessions when clients were less acutely ill. This highlighted the fact that the Kawa Model can be applied at different

stages during the intervention process with clients, but this is influenced by the service sector context and will be most beneficial in a setting where there is sufficient time to take a holistic view of the client where there is a realistic therapist to client ratio, together with clients who are in a restorative rather than acute phase of their illness.

5.3.5 Kawa Model characteristics

A further factor that participants felt influenced on the use of the Kawa Model was the characteristics of the model itself. Participants identified certain characteristics that were facilitators as well as barriers to the successful to application of the model in clinical practice. A facilitator identified was the unique features of the Kawa Model, in its creativity and expressive nature, its flexibility in terms of application, and its inclusion of the holistic approach to the client. The barriers identified were those discussed above in terms of the lack of structure in the application of the model and the projective techniques involved in its application.

In summary it is clear when considering the influences on the use of the Kawa Model that it may not be easy for inexperienced therapists to apply and may not benefit all clients, particularly those in the acute phase of their illness. It is clear however for therapists that are able to appreciate the projective nature of the model and have the experience to adapt the application of the model to suit clients, even those with limited abstract thinking and cognitive ability the model has a lot to offer in terms of understanding the client holistically.

5.4 USE OF THE KAWA MODEL IN CLINICAL PRACTICE

Several factors influenced the use of the Kawa Model in clinical practice. These factors were close related to those described above and include who applied the model or characteristics of the therapists as well as the setting they worked in and the clients they worked with. The actual model characteristics and how it was interpreted by the participants further influenced the reported experiences of applying the Kawa Model in practice. The varying experiences of applying the Kawa Model described by the participants were for the most part dependent on whom the participants were.

Experienced research participants described many ways in which the Kawa Model facilitated their therapeutic intervention. The use of the Kawa Model was described as being flexible and adaptable. They could determine the stage of intervention at which they wanted to introduce the Kawa Model and whether they want to use it with an individual client or within a group context. Adaptations were made to the application of the Kawa Model by addressing the abstract nature of the model and making the exercise more concrete. Participants reported, using a real stream on occasion and having the various pieces drawn and cut out so the client could place them in the river he drew and did not have to visualise and draw the other components. These participants adapted the process of application to meet their client's abilities especially their cognitive abilities and used the insights gained through the VdTMCA, to guide her application of the Kawa Model. This example indicates the experienced participants' ability to use models in combination and adapt the application of the models to accommodate the client's cognitive and creative ability level in an effective way.

Caution must be taken when adapting the way in which the Kawa Model is presented to clients. For example, it is important that the therapist allow the client to do the drawing and not do it for them, while trying to reduce the steps during the process of application. This expressed concern was highlighted in the study by Wada, that the clinician might take over and do the drawing on behalf of the client, emphasising that this approach might fail to capture the clients perceived hindrances or facilitators of life flow, due to the "inner self that is not made overt"(p. 232)(99). The experience participants who adapted the application of the Kawa Model explained that they had not taken over doing the steps in the application and that they had realistic expectation of their clients. They could evaluate when the adaptations were inadequate to meet the clients' cognitive needs which resulted in increased anxiety in the client. This flexible and adaptable use allowed the participants to apply(9) their clinical reasoning and decision-making. Davies encourages clinicians to adapt and even alter the Kawa Model's conceptual and structural ways to match the specific contexts of their diverse client groups(27).

The participants mentioned and were positive about using the Kawa Model with a diverse group of clients' where each client brought their own unique circumstances out in their drawing. Davies points out the value of the Kawa Model is its natural design and contextual application of each client's river (kawa) which is unique(27). The fact that each client depicts their unique circumstances made the use of Kawa Model universal and not condition specific allowing for the use of the bio-psychosocial model of health and providing them the opportunity to gain a more holistic understanding of their clients(9). Case studies from Iwama's book on the Kawa Model presents similar findings(19).Thus the use of the Kawa Model provides a holistic, contextual view of the client, that is revealed through the use of the river (Kawa) metaphor.

Experienced participants' described the Kawa Model as providing them with structure. This is attributed to the fact that these participants were comparing the Kawa Model to other, previously used projective techniques, and found that the Kawa Model provided structure to an exercise of this nature. It is important to note that Iwama never intended for the Kawa Model to provide an organized structure in the same way as other existing models, whose constructs are not shared with clients. Iwama's intentions with the development of the Kawa Model were to provide a basis for discussion with clients other facilitating factors of the Kawa Model as described by experienced clinicians were based on the model's potential in terms of its use as an assessment tool. Participants' explained that they elicited "new" information during the use of the Kawa Model during assessment. Clients who were used to the routine questions and methods often develop standard responses, at times not reflecting on their true problems and not revealing their true realities of their situation. The drawing used in the Kawa Model is a creative and practical tool, which does not require standard responses, but rather allows the client to think about and reveal their actual view of their reality. With these new insights into the client's reality, the intervention became more focused.

The last facilitator fact in relation to the application of the Kawa Model in clinical practice was described by an experienced therapist working in the private sector. She

explained that the multi-disciplinary team she worked with responded well to the use of the Kawa Model in her practice. They found it interesting and wanted to explore some of the issues identified in the specific client's river from out of their own professional perspective. Thus the use of the model can be extended so the use of the river metaphor is used to explain how each member of the professional teams' intervention fits into and contribute to the client's life situation(27).

These factors while much appreciated by the experienced participants posed a problem for inexperienced novice participants, who reported that the Kawa Model was unstructured and difficult to use effectively in clinical practice. They felt that the Kawa model did not add anything, or significantly alter their intervention with their clients. For this reason the Kawa Model was not integrated into their departments as part of the protocol or set of assessments used. Their traditional assessments and applied models were seen as more efficient within their setting which can be attributed to their level of clinical reasoning as well as their tendency to operate in a habituated manner or that they working within a bio-medical context in the public sector.

These participants identified a limited number of clients that they could successfully use the Kawa Model with, due to factors discussed above pertaining to the clients' themselves and to the service sector context in which they worked. They reported that for their group of clients, the use of the Kawa Model alone was insufficient and only confirmed some information already identified through the use of their traditional model application and methods. Therefore, the Kawa model was only applied occasionally. One experienced participant working within the public sector found the Kawa Model enhanced her intervention indicating that the influencing factor for the successful application of the Kawa Model is probably not related as much to the context in which they work, but that the participant's level of experience and clinical reasoning abilities have a bigger influencing impact on the use of the Kawa Model.

The participants who felt that the Kawa Model has potential future use indicated that the model enhanced their ability to facilitate the philosophy of occupational therapy by delivering client centred intervention. This was facilitated by the due to its client centred nature, in which the client is fully involved and part of the process, by doing

the actual drawing and interpreting the information. The use of the Kawa Model was described as a personal and powerful experience which led to the emerging of ‘new’ and different information that was of a personal nature and not picked up before when using the traditional models and assessments. This gain from using the Kawa Model resulted in a decision by these experienced participants to integrate the Kawa Model into their respective practices or to continue to use it on a regular basis. This underlying client centred philosophy of the Kawa Model was supported by a recent study conducted in Japan(99), in which the use of the Kawa Model was seen to enable client centred intervention. The strength of the Kawa Model, in terms of it being client centred was also appreciated by the less experienced participants working but they did not feel this was appropriate for application to their clients. They felt their clients who were predominantly within an acute phase of their illness, were not able to take such an active role in their treatment and therefore were not able to fully benefit from this client centred approach. They reported that due to the effects of the client’s illness their clients were not able to be an active partner in the planning and execution of their therapy. This indicates that the Kawa Model may not be beneficial to clients who cannot actively participate in their intervention.

The application of the Kawa model in clinical practice was seen as positive and beneficial by the experienced participants who could because of the level of clinical reasoning apply the model effectively with her clients. These participants were able to adapt the Kawa Modell for use with different clients and could use it in combination with other models. They feel the model provides benefit to both their practice and that of the multidisciplinary team and allows them to practice in a client centred way that supports the philosophy of occupational therapy. They reported that they would continue to use the model as it enhanced their practice.

In contrast the inexperienced participants who treat more acutely ill patients in large numbers felt the model was not effective and added nothing to their practice. They felt their clients were not able to be active partners in their own therapy. They felt the model was not appropriate for their practice.

5.5 CONTINUED USE OF THE KAWA MODEL

Participants were approached after a prolonged use of the model in clinical practice to provide their opinions about the continued use of the model in the South African context. This discussion included the need for educating other therapists about the model. Iwama claimed that the model is a-cultural and applicable in any context for the context is integrated and an integral part of the “river”(19). This was supported in this study where participants indicated it was that it is not so much about cultural diversity but rather about the clients’ abilities to relate abstractly according to their cognitive ability and their presenting phase of illness, to the concepts in the model, which makes it problematic for to apply the model on a continual basis. Participants did not indicate that this model was superior in assessing and treating clients from non-Western backgrounds. The model provided them with a unique view of the client irrespective of their background and it was the clients’ cognitive ability and their ability to think abstractly that had the most influence on whether the model was beneficial to them.

Thus the continued use of the model is a possibility in the South African context if cognisance is taken of the factors discussed above that influence it use and application in clinical practice. Results indicate that the participants who were using the model became more knowledgeable about how to apply the model over the period of three months, and were more able to identify which clients would benefit from them using the model with them. They further reported that they were better at being able to interpret the model as they gained experience with client cases and from interaction with other therapists during discussion groups on the Kawa Model. This led to them becoming familiar and comfortable with applying the model in practice.

When it comes to continued application of the Kawa Model, the influencing factor of habituation, on participants must be considered. Although participants were receptive to the continued application of the Kawa Model, they still made use of their traditional, well known, habituated models and it appears that the inexperienced participants were probably not going to continue to use the Kawa Model and will continue to use

other more familiar models which the participants reported using constantly and comfortably with a variety of clients in the South African context. It was found that all participants relied heavily on these models, taught to them during their undergraduate training. It appears that these the models we taught to students at an undergraduate level are applicable and relevant to their practice settings in which they will be practicing once qualified. Since occupational therapists have to do a year in the public sector when they qualify and often work in the public sector until they gain some experience, it appears that the MOHO and the VdTMCA are adequate for their practice, as these models can be applied in these bio-medical acute settings.

While the participants in this study supported the introduction of the Kawa Model at an undergraduate level, one experienced clinician working within the private sector, expressed caution at introducing the Kawa Model to inexperienced therapists. This caution related to the unstructured nature and "open" application of the Kawa Model. Novice participants had expressed a need for a structure to guide them in intervention, and see models as providing such a structure. The unstructured nature of the Kawa Model was confirmed by both novice and experienced participants, and thus might not be suitable for novices and inexperienced therapists to attempt to apply this model in their clinical practice and use projective techniques in analysing their clients narratives. The main argument made towards including the Kawa Model in the undergraduate curriculum was that it will teach students how to reflect on++ their clients and how to be truly client centred. Again this may not be within what is expected of a newly qualified student who is only expected to use procedural clinical reasoning. It was felt that other models better give them assistance in analysing a community, and providing a basis for what occupational therapy is all about. These models provide an adequate base on which to their professional careers. The results of the study support the caution offered by the one experienced therapists.

The most useful way in which to obtain new knowledge has already been discussed under the section on the factors that influence model use and was identified as participation in discussion groups and reflections on its use with peers. It appears that the best place to learn a model would be during formalised postgraduate training, as

this context allows for discussion and reflection with peers and supervisors. This training could result in the Kawa Model being applied in combination with habituated models taught during undergraduate training. The introduction of another model at a post graduate qualification is strengthened by the argument that it is the experienced therapists that are best able to apply a reflective model like the Kawa Model and use it in combination with the models they already use.

From the discussion it is evident that, as is the case with most models, the Kawa Model has a potential use within a South African context if applied in the occupational therapy process with suitable clients, at the right time in their recovery, by experienced therapists.

The characteristics of the Kawa Model, that makes it different form other models that were developed in a Western context, make it more difficult to apply by therapists who train and work within a Western context. The participants in this study all identified more with the models that were developed within a Western culture. However, the more experienced therapists were able to relate to the Kawa Model. They were able to move away from some of the Western cultural concepts and apply their clinical reasoning during application of the Kawa Model. Therefore, it would be most appropriate to teach the Kawa Model to occupational therapy students during postgraduate training.

CHAPTER 6
CONCLUSION

The aim of this study was to determine the perceptions of clinicians about the occupational therapy models that they currently apply in their clinical practice and how they perceive the introduction of the Kawa model in the treatment of clients with chronic diseases/disability in the South African context.

A descriptive case study research approach was used. Information was gathered using a questionnaire with both close ended and semi-structured questions, obtaining quantitative data. Semi-structured interviews were used during Phase2: qualitative study to gather qualitative information. Quantitative data was analysed using descriptive stats and for qualitative data conventional content analysis was done.

Information was obtained regarding factors which influenced the choice of models currently used by occupational therapists practicing within the public and the private sectors in South African and the impact on practice when models are used.

The study sample for **Phase 1 –the quantitative part** consisted of 12 participants of a possible 27, indicating a 44.4% response rate. Quantitative data was obtained from this sample to obtain demographic information of the participants and to establish their view on and use of models in practice as well as their initial impressions on the Kawa Model.

During **Phase 2 - the qualitative part** of the study, data was obtained from seven of the participants who participated in the **quantitative part** of the study, indicating a 58, 3% response rate. The main focus was on the participants' perceptions on the application of the Kawa Model. Information was obtained a month after initial use of the Kawa Model and again after a period of approximately four months.

The factors that influence the selection and use of models were identified. Factors that influenced the choice of models used can be grouped under: habituation versus experience; experience and clinical reasoning; practice context and client characteristics. The value participants placed on theory, their educational backgrounds, exposure to information, experience in practice and ability to apply clinical reasoning all impacted on who they were and influenced which models they chose to use in their clinical practice. The influencing factor, pertaining to the practice context having and influence on model use were identified as having limited time for intervention, lack of opportunities and working within a specific sector context. Two overall influencing factor were identified as; the participants ability to be “open minded” about the application of current and new theory and the influence of practicing in a habituated manner, relying on theory taught rather than expanding on the use of models. These influencing factors pertained to the reasons for choice and use of models.

The impact of model use clinically was discussed. The use of models provides structure, and it assists occupational therapists’ to do proper, profession specific, scientifically based intervention.

The initial impressions of participants on the Kawa Model were that it is interesting and unusual. Participants reported contradictory views, but the majority felt positive regarding the Kawa Model’s possible application clinically, after rating their knowledge on the model as average. The factors that influenced the use of the Kawa Model were identified. These factors were grouped under: habituation versus experience; experience and clinical reasoning; practice context; client characteristics and Kawa Model characteristics. The experience and clinical reasoning ability of the participants had the greatest influence on the effective application of the Kawa Model. This was dependent on the specific way in which they chose to present the model and interpret the findings with the clients as well as their previous exposure to similar methods.

The practice context, specifically the public sector where the bio-medical approached are being used due to the acute nature of clients treated within this sector, were identified as being less suited to the application of the Kawa Model. The client's ability to understand, relate to and reflect on the Kawa Model, their educational background, presenting diagnosis, phase of illness and their cognitive ability all influenced their suitability in terms of the use of the Kawa Model in their therapy.

Aspects pertaining to the Kawa Model itself were grouped under facilitators and barriers to use. The facilitators were identified as the client centred nature of the Kawa Model, its ability to provide "new/different" information and its non-prescriptive application. Barriers identified were the abstract nature and cognitive demands of the Kawa Model as well as its non-prescriptive application that was seen as a facilitator by experienced participants and a barrier, by inexperienced participants.

Factors that influenced the continued use of the Kawa Model were related to participants experience and to them have having support and being able to discuss the application of the model with others. The influence of the habituated way of choosing and using models had an influence on the model's continued use with inexperienced participants but experienced participants were able to adapt the model and use it in combination with other models. Due to the Kawa Model being more successfully applied by experienced therapists its inclusion in postgraduate training curricula will result in a greater chance that it will be used beneficially by clinicians in the future.

No cultural aspects in relation to model use or the Kawa Model in particular where evident in this study with other factors having a greater influence on the choice and successful application of models in clinical practice being evident from the results.

6.1 RECOMMENDATIONS

- Knowledge of and application of models are important for the profession of occupational therapy and should therefore be taught at universities and applied by practicing therapists.
- Educators must ensure that they have adequate knowledge of current models and areas of occupational therapy practice to ensure that models taught are relevant and applicable, seeing that students rely mainly on these taught models once they are qualified therapists.
- The Kawa Model is relevant to apply in a South African context within a rehabilitative setting, with a client in the rehabilitative phase by experienced therapists.
- The Kawa Model must be introduced to students at a postgraduate level to ensure possible future use by clinicians in South Africa.

6.2 LIMITATIONS OF THE STUDY

Even though a case study design was used with a specific group of occupational therapists the study was limited by the small number of participants from this group who agreed to participate in Phase 1: quantitative phase. Although the therapists who attended the Kawa Model workshop appear to value model use in their practice they were unwilling to commit to being involved in research about this subject. The large dropout rate in terms of return of the questionnaires means that the results of this study are not generalizable to the occupational therapists who attended the Kawa Model workshop or other occupational therapists practicing in Gauteng.

The short time given to participants to implement the Kawa Model in practice was another limitation of the study determined by the time available to complete the research for this study. The sample size for Phase 2: qualitative study, while large enough to achieve trustworthiness in the study was dependent on the participants within the case study group who were willing to take part in the clinical application of the Kawa Model. This group may have had a positive bias towards the Kawa Model

initially as they were the therapists who agreed to use the model in their clinical practice.

The specific group of therapists used to determine model use and the application of the Kawa Model, was heterogeneous only in the service sectors in which they worked, but this small sample did reflect the gender and educational background of therapists working in Gauteng.

Culture and cultural competence in relation to model use in general and more specifically in relation to the Kawa Model did not come up during interviews, even though probing questions were asked. The reason for this can be attributed to the fact that the sample was heterogeneous and culture did not present as being problematic and all of the participants trained within a Western cultural context.

The researcher did have strong opinions about the Kawa Model prior to undertaking this study due to her prior knowledge of the Kawa Model and personal interactions with the author of this model. However, steps have been taken to minimize bias.

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APPENDIX A: SURVEY QUESTIONNAIRE

SECTION A

Demographic/background

1. Where did you complete your initial Occupational Therapy training?
   - University of Pretoria ☐
   - University of the Freestate ☐
   - University of Cape Town ☐
   - University of the Witwatesrand ☐
   - University of Durban ☐
   - University of Western Cape ☐
   - University of Stellenboch ☐
   - University of Limpopo ☐
   - Other ☐
2. What year did you complete your undergraduate degree/diploma in Occupational therapy?

   _____
3. Have you completed any postgraduate qualification? Yes ☐ No ☐
4. If yes please provide details.

   _____
5. How long have you been working within the field of chronic disability or illness?

   _____
6. Race: _____
7. Age: _____
8. Gender: _____

Section B

1. Which occupational therapy models do you apply in practice as a clinician
   - Creative Ability ☐
   - Model of Human Occupation ☐
   - Canadian Model of Performance ☐
   - Other ☐

If Other, Please specify

_____

_____

2. In your opinion, how important is it to apply models of practice to guide your intervention as an occupational therapist?
   Very Important ☐
   Somewhat important ☐
   Not important ☐
3. Why do you use this/these models?

_____

_____

_____

4. Do you know of other occupational therapy models that you do not apply in your practice?
   Yes ☐ No ☐
5. Why do you not apply these models in practice?

_____

_____

_____

6. On a scale of 1-10, rate your current level of knowledge of the Kawa-Model

   Not knowledgeable 1____2____3____4____5____6____7____8____9____10 Very Knowledgeable

7. Describe your initial impression of the Kawa Model.

_____

_____

_____

8. Do you think the Kawa Model can be applied in your practice?
   Yes ☐ No ☐

   Please justify your answer.

_____

APPENDIX B: PHASE I INFORMATION SHEET AND INFORMED CONSENT

Dear Workshop Participant,

I am Antonette Owen, an occupational therapist completing my MSc OT at the University of the Witwatersrand. I am completing a project on the Kawa Model, an occupation based model designed by Dr Michael Iwama.

You are invited to participate in **phase I** of a research study looking at the current use of models by occupational therapists. Your participation in the study is entirely voluntary and non-participation will have no consequences for you .You may discontinue your participation at any time without any consequences to yourself.

As occupational therapy clinicians I am asking that you complete the attached questionnaire to identify which models of practice you currently apply, your view on the use of practice models in occupational therapy and to obtain your current views on the Kawa model. It will take approximately fifteen minutes to complete this two page questionnaire. By completing the questionnaire, you are providing consent for the information to be used.

Your participation in this phase of my research project will be much appreciated. Participation in phase one does not imply your participation in phase two. You will be approached on a separate occasion to participate in phase two of my research project.

Please feel free to contact me if you have any questions. You may also contact the secretary of the Wits Ethics Committee, Anisa Keshav at 0117171234 if you have any concerns about the ethics of the study.

Kind regards,

Antonette Owen Phone (011) 643-5769

Cell 082 9688 984

INFORMED CONSENT

I _____ have read the above and hereby give written consent to take part in **phase I** of this study.

Participant: _____ Date: _____

Researcher: _____ Date: _____

Witness: _____ Date: _____

APPENDIX C: INTERVIEW GUIDE- SECTION A

Interview at one month after initial application of model

INTERVIEW GUIDE.
PHASE II (section A)

Interview at one month after initial application of model

1. How receptive was your client/s to the application of the Kawa model?
2. In your opinion, does the Kawa model add to meaningful occupational therapy intervention?
3. Give a reason for your answer to the above question.
4. Did you adjust your initial treatment plan that was based on traditional models after application of the Kawa model?
5. Describe the models strengths
6. Describe the model's weaknesses
7. Does application of the Kawa model enable occupation focused intervention more so than your traditional models used?
8. Does the application of the Kawa model enable client centred intervention more so than your traditional models used?
9. Did you use the Kawa model to guide your intervention throughout the treatment process, or only at the onset of treatment?
10. What barriers to implementation of the Kawa model did you experience?

Trigger Questions

1. Why do you think this was the case?
2. What do you perceive to be meaningful occupational therapy intervention?
3. Can you elaborate on that?
4. If yes, in what way did your treatment plan change?
5. Can you elaborate on that?
6. Can you elaborate on that?
7. Can you elaborate on your answer?
8. Can you elaborate on your answers?
9. Can you elaborate on your answer?
10. Cab you elaborate on your answer?

APPENDIX D: INTERVIEW GUIDE – SECTION B

Interview at four months after initial application of the model

INTERVIEW GUIDE.
PHASE II (section B)

Interview at four months after initial application of the model

1. Are you currently applying the Kawa model a part of your occupational therapy intervention?
2. Why did you continue/discontinue the use of the Kawa model after the one month research period?
3. What is your opinion of the Kawa Model in terms of the practice of occupational therapy in South Africa?
4. Are you planning to continue the application of the Kawa model within your current clinical setting?
5. What does this model offer you that is different from your traditional models used, if anything?

a. Trigger Questions

6. Why not? /How often do you apply the Kawa model? Types of clients that it works well for?
7. Can you elaborate on your answer?
8. Can you elaborate on your answer?
9. Why? / Why not?
10. Can you elaborate on your answer?

APPENDIX E: SUPPORT OFFERED WHILE APPLYING KAWA MODEL IN CLINICAL PRACTICE

During this research period the participants were given the option to access added support in the form of support groups led by an occupational therapy lecture, familiar with the Kawa Model. However, none of the participants made use of this form of support offered. Participants were further provided with details for an interactive website where they could communicate with Doctor Iwama directly and with other participants around the world who are currently applying the Kawa Model. This was for added support during the research process. Again it was found that participants made use of in-house support mainly, instead of accessing the interactive website. The website was used merely to affirm their knowledge of the Kawa Model.

APPENDIX F: PHASE II INFORMATION SHEET AND INFORMED CONSENT

Dear Colleague,

I am Antonette Owen, an occupational therapist completing my MSc OT at the University of the Witwatersrand. I am completing a project on the Kawa Model, an occupation based model designed by Dr Michael Iwama.

You are invited to participate in **phase II** of my research study looking at your experience in using the Kawa Model in your clinical practice, working within the field of chronic illness or disability. Your participation in the study is entirely voluntary and non-participation will have no consequences for you .You may discontinue your participation at any time without any consequences to yourself.

As an occupational therapy clinician I am asking that you commit yourself for five months to be involved in the study. In phase II of the study I am asking you to apply the Kawa Model in your clinical practice with five to ten clients from your case load who presents with a chronic illness or disability that you select, for a period of one month. These clients need to give consent for you to use the Kawa model as part of your participation in my research study. Identified clients will be provided with a separate written consent form to be completed prior to the clinical application of the model. Those involved in the research can ask relevant questions and seek clarity at any time during the research process from the researcher and regular contact will be made by the researcher to follow up on progress. The identity of participating clients will be protected at all times.

During this one month period of applying the model, you will have to take note of the following aspects:

Your traditional treatment plan versus any changes to the plan after implementation of the Kawa Model

Your continued reference to the Kawa Model throughout your intervention of the identified client

Factors influencing application of the Kawa Model, for example language barrier, diagnosis, etc.

Factors influencing the unsuccessful implementation of the model

During this time you will be invited to attend support groups at WITS that will be led by WITS lecturers who have knowledge regarding the Kawa model. You will also be provided with a website and login information where you can be in direct contact with Dr. Iwama and other OT's around the world who participate in research on the model and who apply it clinically. This is in order to provide you with extra support through this process if required. Your attendance at these support groups and access to the website will be monitored in order to establish the level of support you require and the usefulness of such support.

After this one month period of applying the Kawa model, you will need to participate in a recorded interview that will be conducted by the researcher at your place of work to identify if the application of the Kawa model has altered your traditional treatment intervention, the models strengths and weaknesses, etc. This interview will take approximately one hour.

Four months after the initial interview a second and final recorded interview that will be conducted by the researcher at your place of work to identify if you continued to apply the Kawa model after the one month period and to obtain your opinion on the models use within the South African context. This interview will take approximately forty five minutes.

Please note that all tape recordings will be deleted on completion of the study. Your participation in this research project will be much appreciated.

Please feel free to contact me if you have any questions. You may also contact the secretary of the Wits Ethics Committee, Anisa Keshav at 0117171234 if you have any concerns about the ethics of the study.

Kind regards,

Antonette Owen

Phone (011) 643-5769

Cell 082 9688 984

INFORMED CONSENT

I _____ have read the above and hereby give written consent to take part in **phase II** of this study.

Participant: _____ Date: _____

Researcher: _____ Date: _____

Witness: _____ Date: _____

INFORMED CONSENT TO BE AUDIOTAPED

I _____ have read the above and hereby give written consent to be audiotaped during the interviews in **phase II** of this study.

Participant: _____ Date: _____

Researcher: _____ Date: _____

Witness: _____ Date: _____

APPENDIX G: ETHICAL CLEARANCE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Mrs Antonette Owen

CLEARANCE CERTIFICATE	**M091024**
PROJECT	An Investigation into the Practical Application of the Kawa Model in South Africa
INVESTIGATORS	Mrs Antonette Owen.
DEPARTMENT	Occupational Therapy Department
DATE CONSIDERED	2009/10/30
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 2009/11/02 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Ms F Adams

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

.....

APPENDIX H: SAMPLE OF A VERBATIM TRANSCRIBED INTERVIEW

Verbatim transcription –Phase II (section B) Participant F

R: Are you currently applying the Kawa model as part of your intervention?

P: I can't lie and say that it is a regular thing, I have to think about it in order to do it, like I will consciously make a decision to try the Kawa model again on new people… so it is not like a it is integrated into practice now.

R: How often would you say you apply it more or less?

P: I properly have done it with one group of patients since we last spoke, so in that whole time.

R: Okay, what type of a group was it, what type of clients?

P: Out patients… it is my HIV group, so they all have been diagnosed with HIV recently and have had a psychiatric disorder, resulting from the HIV?

R: Would it be sort of a dementia type picture?

P: Some of them have got minor cognitive motor disorder, some of them have got the HAD, but one of them couldn't actually participate, she wasn't really with me, so I left it, I can say that all the dementia ones did it.

R: Would you consider using it again on that type of group in future?

P: Definitely, I have learned who it applies to better and who I wouldn't use it with, but there are some that I would definitely use it with.

R: What factors would impact on your decision to either continue using it or stop using it?

P: Their level of function.

R: So who does it work for do you think?

P: The higher level, patients who have got some sort of insight into their problems and their goals and like even, it does work if they don't have abstract thinking because like one of the patients, she is very concrete and she is a lower functioning patient and she actually, she didn't use a river, but she told me a whole story about rain came, and the river came and made the river flow to give life to this part and it was actually quit abstract, but I had to interpret the

abstract stuff. Hers was just like the rain came and then it made a river and then the river came and then there was this person here at the end of the river. I don't know if she thought of it in that abstract way or if I'm just interpreting it in that abstract way, but like I could follow her story abstractly, you know what I mean? So it is not that it doesn't work for those people but I think the , I got more out of it may be with her and then I don't know if it was right to get that out of it, but the ones that are higher functioning, they get more out of it than the lower functioning ones.

R: Okay. The Factors that impact on you, not having use it that much, what could that have been?

P: It doesn't tell me anything that I didn't know. I think also that we, like it would be nice to add this into our treatment, but we are trying to get a level of function and not really address the patients problems, like their social and all those kind of problems, so I think the reason that we do it most with our out patients is because those are the ones that we do like give some kind of treatment for. The others ones it's really like, assess your level of function, do what you can, like teach them some stuff and all of that then discharge them to the clinic. So it's the setting that is very much so limiting.

R: Ja. Do you feel knowledgeable enough and confident enough to continue to use this model in the future?

P: I think so, because I think it is so broad like I don't feel like there are any concepts in the model that I don't understand, but I think that… ja…

R: Do you think a two day workshop was enough to introduce a new model like this, or do you think that there should have been something more practical aspects to it, what do you think?

P: You know, like I don't know if this is gonna help, because it was the POTS meeting, but it really helped to talk to other people who have been using it. We actually realized that we were not giving enough instructions and so that's way sometimes we didn't get enough out of it, and after listening to other people and seeing what they were saying and how they would implement it, it changed for us. I think having spoken to other people that have been using it was really the most beneficial thing. Learning about it or whatever, that was one thing and then you can implement it, but then talking to people who had actually done it really helped.

R: So subsequent to the DVD's you had, the workshop and all that, did you have any other… you were saying you were at the POTS group and there you had another introduction to it. Did you have any other information on the model during this time or not?

P: I looked it up on the internet; I went to that internet site and looked at his example, which also helped. I don't know if it is part of this question, but what we are going to try to do it to make the pieces of the river. So we are going to make rocks and logs and all of those things because our patients also don't want to do it because they tell me they can't draw a river, they don't know how, so for the one group of patients I actually gave them a cross section of the thing and showed them the pieces, but I think what might further help and like, like stop their thoughts of limitations of the model is to give them the pieces, so we are gonna make different size rocks and different size all those things. That might make it a little bit easier for them to do.

R: Because it is almost as if they have performance anxiety about having to draw, they think well I'm not creative, I'm not artistic I can't do it.

P: Especially the one lady that I did this with, one of my HIV ladies, she was very depressed. She had like, no self-esteem it's not even low. It took so much encouragement for her to just draw the river, never mind what she actually found from the river. So we think that participation in it might help if we have like a little thing ready for them and then let them do that, the river.

R: What you almost doing is you bring creative ability into it.

P: I didn't think of that…

R: You are, by saying that they can't deal with initiating this task on their own and bringing in all this, I need to break the task down so ja… and I think and in that way the model can be adapted very nicely to your lower functioning clients who's not at the level of creative ability where they can go and draw this thing…

P: and to them it really matters what their river looks like.

R: Ja, because they have this thing that the end product needs to be quite good.

P: That's what I noticed with the higher functioning patients, they don't really care if they got colours and stuff like that. They just really want to show you that it is symbolic, this is a rock, it doesn't matter if it is a circle or an actual rock. The other patients spend a lot of time to figure out how you get that log to look like a log.

R: Because they are very much aware of norm compliance. It has to be okay in terms…

P: …and part of the activity and not the end way.

R: Very good, that is a very interesting way of looking at it. I was thinking of how the therapist really has to adapt the model and work with it, so it works for her particular client group. So, one other thing that you mentioned was that the support group type of thing really helped. Now when we embarked on this research long ago, I had the setup where people could come to support groups if they wish to do so. At that time I didn't really had people expressing the need. Why do you think the need arises now only and not in those initial phases?

P: What do you mean the need for…?

R: The need for support groups. When we had the first month of exploring the Kawa model, there was an invitation to people to say that if you want to come to a group on the kawa model, please come a long and chat to people, but there were very little interest at that point. People were saying, we're busy, we're trying it out. Do you think one has to engage with it on your own first and then maybe in a group?

P: … in order to see what you struggling with and what you have questions about because if I haven't actually done it with a patient, I didn't really, like I mean you think it's just draw a river, like how hard can it be, but when you actually do it, then you realize like I wonder what other people do if this happens or you know.

R: So you think a support group would have been much more beneficial at the later stages than initially?

P: Ja

R: Okay, it makes sense. In your opinion then, what needs to happen to this Kawa model in occupational therapy in South Africa?

P: Well I think, I definitely think that it should be like also from the POTS meeting, you were saying maybe it's going to be introduced at a post grad. Level, but I think that is should be introduced at least, to an, like when you are at an undergrad. Level, because I think that it has a role in the client centeredness and all that kind of stuff. Like, I would use it to enhance my assessment. I'm not sure if it would be for treatment or anything like that, but if you have a patient and you just want to check were I'm I going with this patient, am I on the same page as

the patient, like that I think it would enhance your assessment… so ja, I really think that it should be.

R: So you think it can be used, but who do you think then would use it mainly in the clinical field?

P: Psychiatric OT's…

R: Okay

P: I found that internet example that he gave, I think it was an arthritis one, I think the findings that he had were really interesting, but I don't think they (Physical OT's) would like to use it, I really don't.

R: Why do you think that is?

P: First of all I think it is very like, abstract and I think they are concrete and I think they don't really assess that…, especially in our setting, I can really speak for everyone else, but I know that like having worked in those things here, you don't have time to worry about the other issues, you try to treat the problem that they are here for, and whether that is their biggest problem or not, you have to treat it, because it is a big problem.

R: So now I'm just going to through a question at you Janine, what do you think then of OT's saying that we are client centred and holistic?

P: I have no idea… (Laughter) I mean look, if you look at the hand therapy unit…, If a patient comes in there and they had their finger bitten off because they were in a fight, like you are going to treat their finger and not the reasons for having been in a fight or their anger management, even though you should because those are problems, but the presenting problem for you is the finger, so I mean we can say that we are holistic all we want. Here we don't treat the biggest problem… we treat insight to make sure they take their medication, so that they won't come back, so even though there can be ten million other things effecting their insight, like you only have two days so you have to treat the most pressing thing.

R: Ja, and that is the reality of it …

P: Ja, it would be nice to do it in another way, it would be nice if that old patient s would come back for outpatient therapy or if there was somewhere we could refer them, so we can start to

address the things here and then continue and then get to the insight once all the other things were addressed.

R: So would you say then that our systems in South Africa impacts on our ability to treat and fully apply models?

P: Ja, definitely in the public sector. I think it is different in private, but here we are very limited in what we can actually do for our patients. Like always, even with students we would say it is nice to do that and you should do that, but right now we must do this.

R: So the time factor and the length of admission play a big role.

P: Ja.

R: Do you think the Kawa Model is a relevant model for the South African population?

P: I think so, I mean it is a basic concept to understand, like it is not like something that no one would have ever seen a river and know what is looks like and I think like when you explain to them like you have these rocks and it stops the water of flowing through, so what are the things that are stopping the water, they can kind of picture that in their mind, you know like what rocks should looks like in a river, so I think like being able to compare that like as an object or whatever is cultural because everybody can relate to a river, but… ja.

R: Do you think the Kawa model offers anything more or different than your traditional models that you use presently.

P: Hmm…, I think that it gives them (clients) more of an opportunity to be involved, like if you look at the creative ability and all of that, that's me evaluating them, and if you look at the kawa model, they have to tell you what the problems are, so like the finger, I can have a look at patient and say that your finger is a big problem, the range of motion or whatever, but he can them tell me something else and those models don't always allows for that like, unless you physically allows for that thing. I think that is the biggest thing for me.

R: have you seen examples of that where you have treated a patient and you had a very good idea of where you were going with them, using your models, the traditional ones, and then you applied the Kawa model and then all of a sudden you think, oh my, I didn't realized that.

P: That lady from the HIV group. She had like a terrible social thing, like she was raped and then she had the child and all of that kind of stuff. So we were treating more independence

because now she's got this child and she, at the time she was training to be a cook or something like that, so she has now joined the income generating support group. So we were like looking at independence and trying to like she was really doing so well with it, she was doing it on her own and teaching other patients and self-esteem and all of that kind of stuff. Then we introduced the Kawa model, she actually cried after we did it because she realized that all her rocks had to do with her relationships, and that she still hadn't worked through those relationships, so I referred her to a psychologist and now she is going for regular psychology. I would never have known that, if I did not do that because that is not something we talk about in OT. OT is like what do you do and how, you know, it is about function and stuff. That was actually what was so huge for her.

R: Yes, so you might pick up things that you need to refer. It is not necessarily that you will be able to treat everything in that river and that you have to maybe refer, but you know that. Why do you think, that she was able to, that that came out in a drawing and through all the time that you have been treating her it didn't came out anywhere else?

P: I think like it is not really, there is no opportunity for it to come out. We talk about, when she comes to OT, we talk about income generating things and how, those kinds of things we talk about, how the HIV has affected things and whatever. We don't really ever, I mean it is not like a supportive therapy kind of thing where we get to share feelings and stuff like that. So she obviously didn't feel like that was the place for her to be able to say, look I'm really struggling because I feel sad about my relationships. That is not what we have ever dealt with as a topic or anything like that in like what we have spoken about.

R: But when she had the opportunity that was what she wanted to tell, bring across…

P: Ja..

R: Okay..

P: Like for her those are obviously huge problems, I mean not to say that the other things aren't problems, so we are addressing all the little problems but the three biggest rocks, it was like, I wish I could have brought it to show you, but it was like three big rocks like that and then all the little rocks at the bottom where like to HIV diagnosis, no money, all the types of things we were treating. But it was like the father of my children raped me, that was the biggest thing. It has been a while; it is not as if it is a recent thing or whatever…

R: But it is still, she never came to terms with it…

P: She said that she never dealt with it. She went to psychology at the time and she terminated the therapy, but she obviously realized that it is still an issue for her.

R: And if you think of life flow and energy, the things that we should enable, without moving those three big obstacles, we are not really going to get there.

P: and I know that you said, when they do the model, they must interpret it, we can't look at it and say look you got that, that and that. She had no water in her river, so I asked her why do you have no water in your river and she was like, no there is but it was like she didn't draw it in and it was like an afterthought when I said, why is there no water in your river she was like no there is… So I don't know how much you can interpret from that…

R: Ja, but it is important to bring it to their attention and then to except their answer and not to say, oh but I think differently. We are very quick to interpret and it's to allow for the client's interpretation to happen as they give it to you and then not to take it a step further as we always want to do. So would you then continue to use it in the future, especially with your HIV group?

P: Ja, properly not so often as I would have if I was in a different setting, but it is not that I think it is useless and that there is no place for it. There is but maybe just not as often.

R: If there was in future, I'm not sure if it's gonna happen, but if there was a Kawa support group for Psyc. OT's to attend; do you think it is something you would attend?

P: Maybe, I think I would like to know how other people are using it, like talking about it in the POTS meeting, I thought I would actually try it with the rest of the HIV patients, or so you know. It might motivate you to use it in a different way, and maybe there is a way to use it there but we just don't know.

R: I think the way you talk about adapting the model; I think that is a very good starting point, doing it alongside creative ability. Thank you very much, that was all the questions I had for you.

APPENDIX I: SAMPLE OF A TRANSCRIPT SUMMARY

Phase II (section B) Participant F

Kawa model is not integrated into practice and therapists have to make a conscious effort to apply it on patients. The Kawa model was used once with an out-patient HIV group since therapist's last contact with researcher. These patients presented with cognitive motor disorders, HAD and dementia symptoms. One patient was unable to participate due to the cognitive demands of the activity. The therapist will apply the Kawa model again in the future with this type of patient group. It is generally the higher functioning patients that benefit the most from the Kawa model. Some lower functioning patients can also benefit, but it needs to be facilitated more by the therapist. The Kawa model was not applied in practice with in patients because the therapist doesn't have time to address all the patients' problems and have to focus purely on functional aspects. "I think also that we, like it would be nice to add this into our treatment, but we are trying to get a level of function and not really address the patients problems, like their social and all those kind of problems, so I think the reason that we do it most with our out patients is because those are the ones that we do like give some kind of treatment for. The others ones it's really like, assess your level of function, do what you can, like teach them some stuff and all of that then discharge them to the clinic. So it's the setting that is very much so limiting." (37-42) The therapist feels confident and knowledgeable enough to apply the Kawa model, but feels that discussing it with other occupational therapists in practice, and to share experiences is most beneficial when learning about a new model. "…, but it really helped to talk to other people who have been using it. We actually realized that we were not giving enough instructions and so that's way sometimes we didn't get enough out of it, and after listening to other people and seeing what they were saying and how they would implement it, it changed for us. I think having spoken to other people that have been using it was really the most beneficial thing. Learning about it or whatever, that was one thing and then you can implement it, but then talking to people who had actually done it really helped." (49-55) The therapists is thinking of creative ways on how to adapt the Kawa model to enable more patients to benefit from it."… , but what we are going to try to do it to make the pieces of the river. So we are going to make rocks and logs and all of those things because our patients also don't want to do it because they tell me they can't draw a river, they don't know how, so for the one group of patients I actually gave them a cross section of the thing and showed them the pieces, but I think what might further help and like, like stop their thoughts of limitations of the model is to give them the pieces, so we are gonna make different size rocks and different size all those

things. That might make it a little bit easier for them to do." (60-66) The therapist's apply existing knowledge in order to adapt the model, in this case the model of creative ability is applied in order to adapt the Kawa model. The therapist feels that she is more able to benefit from engaging in a support group on the Kawa model, now that she have some experience of applying it clinically. " … in order to see what you struggling with and what you have questions about because if I haven't actually done it with a patient, I didn't really, like I mean you think it's just draw a river, like how hard can it be, but when you actually do it, then you realize like I wonder what other people do if this happens or you know." (98-101) The therapist's feels that the Kawa model should be introduced at an undergrad level as a tool to enhance assessment and client centred focus." I think that is should be introduced at least, to an, like when you are at an undergrad. Level, because I think that it has a role in the client centeredness and all that kind of stuff. Like, I would use it to enhance my assessment." (107-109) The Kawa model will be applied mainly by psychiatric occupational therapists for the physical therapists don't have time to focus on all the problems highlighted, but rather has to address the presenting physical problem. "…you don't have time to worry about the other issues, you try to treat the problem that they are here for, and whether that is their biggest problem or not, you have to treat it, because it is a big problem." (121-123) Occupational therapists' ability to treat clients holistically is, limited by the setting they work in."…so I mean we can say that we are holistic all we want. Here we don't treat the biggest problem… we treat insight to make sure they take their medication, so that they won't come back, so even though there can be ten million other things effecting their insight, like you only have two days so you have to treat the most pressing thing." (129-133) Therapists' ability to apply models fully is limited, especially in the public sector due to time constraints. "Ja, definitely in the public sector. I think it is different in private, but here we are very limited in what we can actually do for our patients. Like always, even with students we would say it is nice to do that and you should do that, but right now we must do this."(140-142) The South African population can relate to the Kawa model for they can relate to the image of a river. The Kawa model provides the client with an opportunity to be more involved in their treatment. The Kawa model can highlight some hidden difficulties that need to be addressed. "Then we introduced the Kawa model, she actually cried after we did it because she realized that all her rocks had to do with her relationships, and that she still hadn't worked through those relationships, so I referred her to a psychologist and now she is going for regular psychology. I would never have known that, if I did not do that because that is not something we talk about in OT. OT is like what do you do and how, you know, it is about function and stuff. That was actually what was so huge for her. "(168-173)" Like for her those are obviously huge problems, I

mean not to say that the other things aren't problems, so we are addressing all the little problems but the three biggest rocks, it was like, I wish I could have brought it to show you, but it was like three big rocks like that and then all the little rocks at the bottom where like to HIV diagnosis, no money, all the types of things we were treating. But it was like the father of my children raped me, that was the biggest thing. It has been a while; it is not as if it is a recent thing or whatever… "(187-192).The therapist would consider using the Kawa model again in the future and feels that a support groups on the Kawa model can be beneficial.

1. The Kawa model is not integrated into daily practice.
2. The Kawa model was used within a group session with out-patients presenting with cognitive difficulties resulting from HIV.
3. The Kawa model works better for cognitively higher functioning patients; however it can be used with lower functioning patients, but requires more facilitation by the therapist.
4. Treatment of in-patients focus on functional problems mainly for there is no time to address all their potential problems highlighted by the Kawa model. "I think also that we, like it would be nice to add this into our treatment, but we are trying to get a level of function and not really address the patients problems, like their social and all those kind of problems, so I think the reason that we do it most with our out patients is because those are the ones that we do like give some kind of treatment for. The others ones it's really like, assess your level of function, do what you can, like teach them some stuff and all of that then discharge them to the clinic. So it's the setting that is very much so limiting." (37-42)
5. The therapist feels competent to apply the Kawa model.
6. Discussion with other therapists is most beneficial when learning about a new model. "…, but it really helped to talk to other people who have been using it. We actually realized that we were not giving enough instructions and so that's way sometimes we didn't get enough out of it, and after listening to other people and seeing what they were saying and how they would implement it, it changed for us. I think having spoken to other people that have been using it was really the most beneficial thing. Learning about it or whatever, that was one thing and then you can implement it, but then talking to people who had actually done it really helped." (49-55)
7. The therapist can adapt the model in creative ways, so more patients can benefit from it, using her existing knowledge on creative ability."…, but what we are going to try to do it to make the pieces of the river. So we are going to make rocks and logs and all of those things because our patients also don't want to do it because they tell me they can't draw a river, they don't know how, so for the one group of patients I actually gave them a cross section of the thing and showed them the pieces, but I think what might further help and like, like stop their thoughts of limitations of the model is to give them the pieces, so we are gonna make different size rocks and different size all those things. That might make it a little bit easier for them to do." (60-66)
8. A support/discussion group on the Kawa model would be more beneficial once the therapist had some time to apply it clinically. "… in order to see what you struggling with

and what you have questions about because if I haven't actually done it with a patient, I didn't really, like I mean you think it's just draw a river, like how hard can it be, but when you actually do it, then you realize like I wonder what other people do if this happens or you know." (98-101)

9. The Kawa model should be introduced at an undergrad level as a tool to enhance assessment and client centred focus." I think that is should be introduced at least, to an, like when you are at an undergrad. Level, because I think that it has a role in the client centeredness and all that kind of stuff. Like I would use it to enhance my assessment." (107-109)
10. Psychiatric occupational therapists are more likely than physical therapists to apply the Kawa model, for the physical therapists main focus is to address the presenting physical deficit. "…you don't have time to worry about the other issues, you try to treat the problem that they are here for, and whether that is their biggest problem or not, you have to treat it, because it is a big problem." (121-123)
11. Occupational therapists' ability to treat clients holistically are, limited by the setting they work in. " …so I mean we can say that we are holistic all we want. Here we don't treat the biggest problem… we treat insight to make sure they take their medication, so that they won't come back, so even though there can be ten million other things effecting their insight, like you only have two days so you have to treat the most pressing thing." (129-133)
12. Therapists' ability to apply models fully is limited, especially in the public sector due to time constraints. "Ja, definitely in the public sector. I think it is different in private, but here we are very limited in what we can actually do for our patients. Like always, even with students we would say it is nice to do that and you should do that, but right now we must do this."(140-142)
13. SA population can relate to the metaphor used in the Kawa model.
14. The Kawa model provides an opportunity for patients to be more involved in their treatment.
15. The Kawa model can highlight some hidden difficulties that need to be addressed. "Then we introduced the Kawa model, she actually cried after we did it because she realized that all her rocks had to do with her relationships, and that she still hadn't worked through those relationships, so I referred her to a psychologist and now she is going for regular psychology. I would never have known that, if I did not do that because that is not something we talk about in OT. OT is like what do you do and how, you know, it is about function and stuff. That was actually what was so huge for her. "(168-173)" Like for her those are obviously huge problems, I mean not to say that the other things aren't problems, so we are addressing all the little problems but the three biggest rocks, it was like, I wish I could have brought it to show you, but it was like three big rocks like that and then all the little rocks at the bottom where like to HIV diagnosis, no money, all the types of things we were treating. But it was like the father of my children raped me, that was the biggest thing. It has been a while; it is not as if it is a recent thing or whatever… "(187-192)
16. The therapist's would consider using the Kawa model again in the future.