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EXPLORING EVIDENCE-BASED PRACTICE IN NAMIBIA - A CO- OPERATIVE INQUIRY

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DECLARATION

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ABSTRACT

Since no scientifically obtained information existed on engagement in EBP by Namibian-based occupational therapists, the researcher set out to explore the usefulness and feasibility of evidence-based practice (EBP) for occupational therapists in Namibia. An action research, specifically co-operative inquiry was chosen as methodology. This enabled the researchers to simultaneously raise awareness of and disseminate information regarding EBP and collect experience based data from co-researchers. Purposive sampling, in particular maximum variation sampling, promised a wide yield of data; this was collected from participants' experiences as they engaged in and reflected on retrieving evidence and participation in focus group meetings. A qualitative content analysis and coding of verbatim transcriptions of focus group meetings together with written reflections of participating occupational therapists (co-researchers) revealed three themes. Co-researchers reported mixed feelings about the possibilities of evidence-based practice; they observed shifts in their understanding and skills base of EBP; and they provided suggestions on how EBP could be implemented in Namibia. An interpretation of the findings of the study suggest, however, that intent to change and gain knowledge and skills do not necessarily lead to changed behaviour; social structures, including hegemonies related to lack of access to evidence, are shown to impact negatively on implementing EBP in Namibia. It is suggested that a group approach with agreed upon targets, incorporating monitoring of attitudes and intention to perform, broadening and deepening knowledge and skills, while addressing structural constraints and bad habits, could deliver positive results.

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TABLES

TABLE 1: COMPARISON OF DIFFERENT DEFINITIONS OF EBP AND EBM	14
TABLE 2: UPTAKE OF EBP: A COMPARISON BETWEEN RSA AND NAMIBIA.....	19
TABLE 3: SUMMARY OF CO-RESEARCHERS PARTICULARS	37
TABLE 4: DATA COLLECTION	46
TABLE 5: DATA STORAGE	46
TABLE 6: THEMES, CATEGORIES and SUBCATEGORIES	55
TABLE 7: THEME 1/CATEGORY 1.....	56
TABLE 8: THEME 1/CATEGORY 2.....	59
TABLE 9: THEME 2/CATEGORY 1.....	67
TABLE 10: THEME 2/CATEGORY 2	73
TABLE 11: THEME 3/CATEGORY 1.....	77
TABLE 12: THEME 3/CATEGORY 2.....	80
TABLE 13: THEME 3/CATEGORY 3.....	83
TABLE 14: EXTENDED EBP PROCESS ADOPTED FROM DAWES (2005).....	99
TABLE 15: MIND FRAMES, EMPOWERMENT AND GROWTH	103
TABLE 16: RESTRICTED GROWTH DUE TO EXTERNAL FACTORS.....	106
TABLE 17: KNOWLEDGE CREATION AND TRANSFER – SUMMARY OF ADULT LEARNING STRATEGIES	125
TABLE 18: INFORMED CONSENT	128
TABLE 19: PLANNING OF FIRST FOCUS GROUP MEETING (FGM).....	130
TABLE 20: EXTRACT OF FIRST ATTEMPT AT DATA ANALYSIS, 05/12/2009	132
TABLE 21: EXTRACT OF MEMBER CHECKING 10/01/2010	134
TABLE 22: FIRST ATTEMPT TO CODE DATA 06/02/2010	135
TABLE 23: EXTRACT OF FIRST ATTEMPT TO CATEGORISE 23/03/2010.....	136
TABLE 24: EXTRACT OF SECOND ATTEMPTS TO CATEGORISE 31/01/2011	137

TABLE 25: AUDIT TRAIL	139
TABLE 26: SUMMARY OF THE INFERENCES OF THE DISCUSSION	144

FIGURES

FIGURE 1: JEAN'S MODEL OF IMPROVING COMPETENCY	69
FIGURE 2: MODEL OF PROFESSIONAL GROWTH AND EMPOWERMENT	109
FIGURE 3: DATA GENERATION	131
FIGURE 4: ITERATIVE PROCESS OF ANALYSIS	138
FIGURE 5: INTEGRATED BEHAVIOUR CHANGE MODEL: GLANZ, RIMER AND VISWANATH (2008:77)	143
FIGURE 6: LOGIC MODEL I PLAN FOR IMPLEMENTATION OF EBP IN NAMIBIA	145

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DEFINITION OF TERMS

Action competence: “Action competence is an educational ideal, referring to the German notion of *‘Bildung’* and that the very essence of action competence can be derived from the notion of ‘action’. ... we suggest that the interpretation of ‘competence’ differs substantially in this approach from those connected to individualistic-oriented Human Resource Management theory, while some similarities and differences can be found in relation to subject-oriented notions of competence and the Organization for Economic Cooperation and Development-promoted Definition and Selection of Competencies (DeSeCo) perspective. Finally, we argue that quality criteria that are in concert with the action competence approach should: focus on enhancement of teaching and learning; reflect the democratic values that education through sustainable development (ESD) seeks to promote; be co-elaborated by the relevant stakeholders; and foment institutional as well as individual learning and, thereby, instantiate the *Bildung* perspective embedded throughout this approach” (Mogensen & Schnack, 2010).

Best practice: is a technique or methodology that, through experience and research, has proven to reliably lead to a desired result. A commitment to using the best practices in any field is a commitment to using all the knowledge and technology at one's disposal to ensure success (University of Missouri, Sinclair School of Nursing, 2009).

Best practice in occupational therapy: best practice comprises decisions and actions that are based on the most current and innovative occupational therapy knowledge and evidence available. It focuses on the needs and wishes of the client (client-centeredness) while considering the clients’ natural environment (context)

and targeting occupations of daily life (occupation-based). Best practice in occupational therapy required the application of evidence-based practice while interrelating the practice process with continuous assessment (Christiansen et al, 2005).

Empowerment can broadly be described as partnerships in which the power relations of individuals or the collective have been transformed (Eyben & Napier-Moore, 2009).

Empowerment (collective): A process in which relatively powerless persons engage in dialogue with each other and thereby come to understand the social sources of their powerlessness and see the possibility of acting collectively to change their social environment. In the process each participant is personally empowered, undergoes some personal transformation, but in the context of a reciprocal aiding of others in doing so, in order that together they might be empowered to engage in effective collective action (Young, 1997:91).

Empowerment (individual): A social process whereby the acquisition of skills by the person to satisfy his or her needs, resolve his or her problems and mobilize the necessary resources to take control of his or her life is recognized, supported and valued (Tribble et al, 2008:180)

Empowerment (outcome based): A process whereby an individual's or group's capacity is enhanced to make choices and transform those choices into desired actions and outcomes (Alsop & Heinsohn, 2005:5).

Evidence-based medicine: the conscientious, explicit and judicious use of current best evidence in making decisions about care of individual patients (Sackett et al, 1996:71).

Evidence-based practice: Evidence-based practice requires that decisions about healthcare be based on the best available, current, valid and relevant evidence. These decisions should be made by those receiving care, informed by the tacit and explicit knowledge of those providing care, within the context of available resources" (Dawes et al, 2005).

Evidence-based occupational therapy: The client-centred enablement of occupation, based on client information and critical review of relevant research, expert consensus and past experiences (CAOT & ACOTRO, 1999).

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ABBREVIATIONS

AHPCNA	Allied Health Professions Council of Namibia
CEU	Continuing Education Units
CMOP-E	The Canadian Model of Occupational Performance and Engagement (Townsend & Polatajko. 2007)
CPD	Continuing Professional Development
CEU	Continuing Education Units
CPPF	Canadian Practice Process Framework
EBM	Evidence-Based Medicine
EBOT	Evidence-Based Occupational Therapy
EBP	Evidence-Based Practice
FGM	Focus Group Meetings
FPR	First-Person Research
HPCSA	Health Professions Council of South Africa
ICT	Information and Communication Technology
ILO	International Labour Organization
Mohss	Ministry Of Health and Social Services
NAOT	Namibian Association of Occupational Therapists
Ngos	Non-Governmental Organisations
OPPM	Occupation Performance Process Mode
OT	Occupational Therapists
OTASA	Occupational Therapy Association of South Africa

PEO	Person-Environment-Occupation Model (Law Et Al, 1996)
PICO	Strategy to Search: Patient/Population/Intervention/ Comparison/Outcome
RCT	Randomised Control Trial
SAAOT	South African Association of Occupational Therapists
SPR	Second-Person Research
RSA	Republic Of South Africa
TPR	Third-Person Research
TTM	Transtheoretical Model of Behavior Change
WFOT	World Federation of Occupational Therapists
WHO	World Health Organisation

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TABLE OF CONTENTS

EXPLORING EVIDENCE-BASED PRACTICE IN NAMIBIA - A CO-OPERATIVE INQUIRY	i
Declaration	i
Abstract	ii
Acknowledgments	iii
Tables	iv
Figures	vi
Definition of Terms	vii
Abbreviations	x
Table of Contents	xii
1 INTRODUCTION	1
1.1 <i>Contextualising EBP in Namibia</i>	2
1.1.1 Background information on Namibia.....	3
1.1.2 The healthcare system in Namibia.....	4
1.1.3 Occupational therapy services in Namibia	5
1.1.4 Evidence-based practice in Namibia.....	5
1.2 <i>Contextualising the conceptual frameworks</i>	6
<i>used in the study</i>	6
1.2.1 Studies that informed design of the RESEARCH.....	6
1.2.2 Research statement	7
1.3 <i>Conceptual framework for the study</i>	8
1.3.1 Relational ethics, the Feminist ethics of care	8
and their relation to EBP	8

1.3.2	The Logic Framework.....	9
1.3.3	Participation in occupation as a human need	9
1.3.4	Model of Creative Ability.....	10
1.3.5	Integrated Behavioural Change Model	11
1.3.6	Networking	11
	<i>CONCLUSION</i>	11
2	LITERATURE REVIEW	12
	<i>INTRODUCTION</i>	12
2.1	<i>Evidence-based medicine, evidence-based practice.....</i>	12
	<i>and evidence-based occupational therapy.....</i>	12
2.1.1	Origins: philosophy, definitions and	12
	the EBP process	12
2.1.2	Evidence-based practice in occupational therapy: early days	15
2.1.3	Structures driving evidence-based.....	16
	occupational therapy	16
2.1.4	Global uptake of evidence-based occupational therapy.....	17
2.1.5	Evidence-based occupational therapy in Sub-Saharan Africa.....	17
2.2	<i>Evidence-based practice critiqued</i>	20
2.2.1	Clinical practice guidelines and protocols	20
2.2.2	Client-CENTEREDNESS and context	21
2.2.3	Evidence and paradigm.....	22
2.3	<i>Efforts to implement an evidence based culture.....</i>	25
2.3.1	Educating practitioners.....	26
2.3.2	Development of propositions and models.....	26
2.3.3	Access to Literature.....	27
2.4	<i>Gaps in the repertoire of EBP research</i>	29
	<i>CONCLUSION</i>	30
3	METHODOLOGY.....	32
	<i>INTRODUCTION</i>	32
3.1	<i>Study Aim and objectives.....</i>	32
3.2	<i>Methodology – Action research.....</i>	33

3.2.1	Co-operative inquiry	33
3.2.1.1	Informative and transformative	34
	research culture	34
3.2.1.2	Four ways of knowing	34
3.2.1.3	Cycles and phases of the co-operative	35
	inquiry	35
3.3	<i>Sampling</i>	35
3.3.1	Population	35
3.3.2	Purposive sampling and selection criteria.....	36
3.4	<i>Ethical considerations</i>	37
3.4.1	Adhering to principles of the Belmont Report (1974) -Respect for persons38	
3.4.1.1	Autonomy	38
3.4.1.2	Confidentiality.....	39
3.4.1.3	Beneficence.....	39
3.4.1.4	Justice	39
3.4.2	Applying principles of the feminine ethics of care	40
3.4.2.1	Research setting and building of rapport	40
	with co-researchers	40
3.4.2.2	Co-researcher – co-researcher and	41
	researcher–co-researcher relationships.....	41
3.4.3	Adherence to the Declaration of Helsinki (2008).....	41
3.4.3.1	Informed Consent	41
3.4.3.2	Recording and transcribing equipment	42
3.4.3.3	Management of sensitive information	42
3.5	<i>Data construction</i>	43
3.5.1	CYCLE 1, PHASE 1-4	43
3.5.2	CYCLE 2, PHASE 1-4	44
3.6	<i>Data collection</i>	45
3.7	<i>Data management and analysis</i>	46
3.7.1	Stage 1: Data generation.....	47
3.7.2	Stage 2: Data management.....	47
3.7.3	Stage 3: Familiarisation with data	48

3.7.4	Stage 4: Coding of data.....	48
3.7.4.1	LEVEL 1: Phenomenological reduction and member checking (open coding)	49
3.7.4.2	LEVEL 2: Creating categories (focused coding)	49
3.7.4.3	LEVEL 3: Creating and refining of themes (axial coding)	50
3.8	<i>Rigour of the study</i>	50
3.8.1	Credibility	51
3.8.2	Dependability	52
3.8.3	Confirmability	52
4	FINDINGS	54
	<i>INTRODUCTION</i>	54
4.1	<i>Co-researchers mixed feelings about the possibilities of EBP</i>	56
4.1.1	Discovery of a new world.....	56
4.1.1.1	Amazed and overwhelmed by the quantity of available information.....	57
4.1.1.2	Information found electronically was meaningful.....	57
4.1.1.3	Grateful to be shown a new horizon	58
4.1.2	Barriers curbed success	59
4.1.2.1	Restricted resources undermined EBP	60
4.1.2.2	Demoralised by lack of knowledge, skills and vision	61
4.1.2.3	Inertia and comfortable habits stifle adopting new ways	64
4.1.2.4	Restricted time available for searches.....	64
4.2	<i>Shifts resulting from engagement in the inquiry</i>	66
4.2.1	Acquisition of knowledge and skills aided implementation of EBP	66
4.2.1.1	Co-researchers became users as well as creators of knowledge	67
4.2.1.2	Shifts in daily practice	70
4.2.2	Shifts occurred in perception of professional	72

identity and worth	72
4.2.2.1 Taking up EBP improved professional	73
confidence.....	73
4.3 Making evidence-based occupational therapy happen in Namibia	76
4.3.1 Transformation of practice demands action	77
4.3.1.1 Shifts in attitude – realisation of choice	77
4.3.1.2 Exercising choice – individuals.....	78
becoming mobilised.....	78
4.3.2 Structured approach needed to implement and sustain EBP.....	79
4.3.2.1 Collaborative action could result.....	80
in habituation.....	80
4.3.2.2 EBP needs to implemented on a.....	82
wider spectrum	82
4.3.3 Inadequate resources curbs execution of EBP	83
4.3.3.1 Proper equipment and INFRASTRUCTURE.....	84
vital for EBP	84
4.3.3.2 Lack of access to literature	84
paralyses EBP	84
4.3.3.3 Limited resources restrict application	85
of evidence.....	85
CONCLUSION	87
5 DISCUSSION.....	88
INTRODUCTION	88
5.1 Occupational therapists are socialised.....	89
into their professional roles.....	89
5.1.1 Effort, challenge and flow	90
5.1.2 Participation in occupation and identity.....	90
5.1.3 Observation and emulation.....	91
5.1.4 Social learning and external expectations.....	92
5.1.5 Previous knowledge and EBP	92
5.1.6 Changed frames of reference	93
5.2 Feasibility of implementing EBP in Namibia	94

5.2.1	Barriers	94
5.2.1.1	Lack of availability of scholarly work	94
5.2.1.2	Balancing Time	95
5.2.1.3	LACK OF RESOURCES AND FINANCIAL MEANS	97
5.2.2	EBP enhanced client-centred practice	98
5.2.3	Developing a vision for EBP in Namibia	98
5.3	<i>The Model of Professional Growth and Empowerment</i>	100
5.3.1	Vision and intent to change	101
5.3.2	Building action competence	103
5.3.3	Multiple interrelated factors: macro-, meso- and microsystems	104
5.3.4	Effort	107
5.4	<i>Professional growth and impact</i>	109
5.5	<i>Limitations and strengths</i>	110
5.6	<i>Unexpected benefits for the researcher</i>	111
	CONCLUSION	111
6	CONCLUSION AND RECOMMENDATIONS	113
	INTRODUCTION	113
6.1	Conclusion	113
6.2	Recommendations	116
6.2.1	RECOMMENDATIONS FOR EDUCATION	117
6.2.2	RECOMMENDATIONS FOR PRACTICE	117
6.2.3	RECOMMENDATIONS FOR RESEARCH	118
	References	119
	Appendices	125
	Appendix A: Learning Theories	125
	Appendix B: Informed consent	128
	Appendix C: Example of a Focus Group Meeting	130
	Appendix E: First ATTEMPT at data analysis	132

Appendix F: Extract of member checking	134
Appendix G: Extract of First attempt to code data	135
Appendix H: Extract of first attempt to categorise	136
Appendix I: Extract of second attempt to categorise.....	137
Appendix J: The iterative process of data analysis	138
Appendix K: Audit trail	139
Appendix L: Integrated Behaviour Change Model	143
Appendix M: Summary of the inferences of the discussion	144
Appendix N: Logic Model Plan for implementation of EBP in Namibia	145

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1 INTRODUCTION

“Those people who develop the ability to continuously acquire new and better forms of knowledge that they can apply to their work and to their lives will be the movers and shakers in our society for the indefinite future” (Tracey, 2008).

In their quest to provide the best possible and appropriate healthcare for clients, healthcare organisations consider best practice. This is done by seeking out a profession’s key business, searching for processes which lead to exceptional care delivery, and comparing evidence and clinical insight on a particular matter. The purpose of best practice is to provide services that are efficient, effective and appropriate (Driever, 2002). Evidence-based practice (EBP) is understood as one element of best practice (Driever, 2002) and has been adopted by many different healthcare professions around the globe (Dawes et al, 2005) since its inception in the early 1980s (Mountokalakis, 2009). For the purpose of this study the definition by Dawes et al (2005) is used; further EBP is understood as a philosophical stance, a method and a praxis¹.

As a philosophical stance, EBP has its roots in the understanding that decisions should be made by relying on actual evidence and not on inferential reasoning alone (Mountokalakis, 2009). As a method, practising in an evidence-based manner is a learned skill (Cook, Jaeschke & Guyatt, 1992; Dawes et al, 2005). As a praxis, working in an evidence-based way leads to action through the application of validated, appropriate and practicable evidence (Dawes et al, 2005).

¹ In Greek the word *praxis* referred to action. Aristotle held that there were three basic activities of man.: theoretical, to which the end goal was truth; poetical to which the end goal was production; and practical, to which the end goal was action. Knowledge and end goals were related to these (Eikeland, 2012)

Occupational therapy as a profession has embraced the philosophy of an evidence-based approach since the late 1990s. This was guided by the understanding that evidence-based interventions can assure, with reasonable certainty, that the client receives the best available services, and that an accountable and cost-effective practice could be established (Law & Baum, 1998). The term 'evidence-based occupational therapy' (EBOT) was subsequently adopted (Law & Baum, 1998). In 2002, the World Federation of Occupational Therapists (WFOT) included EBOT in their 'Revised Minimum Standards for the Education of Occupational Therapists' (Hocking & Ness, 2002). Practitioners from the United States of America (USA) and Canada realized that international collaboration was needed to make EBP in OT a reality globally (Coster, 2005), as none of the countries in which EBOT was then practiced had the capacity on its own to undertake the numerous activities needed to drive the process. At an international conference in Bethesda, Maryland in 2004, participants deliberated on the following topics: (1) critical review and synthesis, (2) knowledge transfer, and (3) practitioner education (Coster, 2005). The significance of the conference was the commitment to establish principles and methods of EBOT. The conference also laid the foundation for occupational therapists worldwide to utilize best available evidence in clinical decision making as a fundamental element of ethical practice (Coster, 2005).

1.1 CONTEXTUALISING EBP IN NAMIBIA

In 2009, ten years after EBP was pronounced an important element of best occupational therapy practice in a position paper ratified by several organisations (CAOT & ACOTRO, 1999), and five years after it was declared an essential element of ethical practice by WFOT (World Federation of Occupational Therapists, 2005), occupational therapists working in Namibia had not yet adopted EBP.

To contextualize the study, relevant background information on Namibia in general and the healthcare system in particular is provided.

1.1.1 BACKGROUND INFORMATION ON NAMIBIA

Namibia is about the size of Germany and France combined: 825418 km². It is Africa's most arid sub-Saharan country. This largely uninhabitable land is home to 1,8 million people, on average granting living space of one square kilometre for just more than two people. However, Namibia's population is very unevenly spread, with the population density higher than 100/km² per square kilometre (Mendelsohn et al, 2002).

Namibia, formerly South West Africa, was colonised from the late 19th century by Britain (Walvis Bay and the offshore islands) and Germany. In 1990, Namibia became the youngest democracy in Africa (Mendelsohn et al, 2002). From its colonial past, Namibia inherited a reasonably good infrastructure in the privileged communities, but withdrawal of human resources after independence curbed service delivery, especially in education and the health sector. As far as governance was concerned, new legislation had to be drafted to adhere to the democratic constitution.

Namibia invested in establishing good governance and obtained an overall ranking of sixth out of 53 in the Ibrahim Index² at Safety and Rule of Law and Participation and Human Rights. Performance on Sustainable Economic Opportunity and Human Development (Mo Ibrahim Foundation, 2011) was not as successful.

In the report of the World Bank, in which this resource constrained country³ was evaluated from a global perspective, Namibia was ranked 120 out of 187 countries

² The Ibrahim Index of African Governance is a comprehensive assessment of African countries according to the quality of their governance. Compiled annually, in partnership with experts from a number of African institutions, the Ibrahim Index aims to be Africa's leading assessment of governance that informs and empowers citizens, civil society, parliaments and governments to measure progress. It assesses Africa's 53 national states against a comprehensive index of governance indicators, based on five categories of essential political goods (Mo Ibrahim Foundation, 2011).

³ Namibia is classified as an upper middle income country by (World Bank, 2000) However in line with Buchanan (2011) the researcher prefers the term resource constrained country as resources are scarce. Namibia was placed at 168 out of 190 by the World Health Organisation's Ranking of the World's Health Systems (World Health Organization, 2000).

in the 2011 Human Development Report. It was also reported that Namibia's income distribution is among the most unequal in the world (World Bank, 2000).

In considering human development in Namibia, it should be noted that gender disparities occur across all cultural and socio-economic groups. Gender stereotyping and narrow gender roles are perpetuated by institutions such as family, church and schools. Conservative conceptions of the roles of women infused by traditional beliefs, practices and Christian conventions regarding the roles of women pervade at all levels of Namibian society (Muhato, 2003). This caring, subordinate, obedient gender role interpretation of women in Namibia could possibly have contributed to the lack of appreciation of professions primarily associated with women, of note since most occupational therapists in Namibia are female.

1.1.2 THE HEALTHCARE SYSTEM IN NAMIBIA

Health services in Namibia are provided by the Government, churches, civil society and the private sector. The vast majority of Namibians (85%) rely on the public sector for their health needs. Healthcare is administered in hospitals, healthcare centres, and clinic and outreach services. Healthcare services are managed by the Ministry of Health and Social Services (MoHSS) with the focus being on primary healthcare specifically regarding communicable diseases, women's and child health, and non-communicable diseases⁴. Serious health conditions are treated at tertiary level in regional intermediate hospitals and the national referral hospital in Windhoek. Specialised medical and allied health⁵ services are partly provided by private practitioners in these facilities. Church based organisations provide tertiary care including in-patient care and emergency services. The private sector includes private hospitals and private practices (UNAIDS, 2008).

⁴ Communicable diseases such as HIV/AIDS, tuberculosis (TB), women's and child health, and non-communicable diseases such as malaria, cancer and life style related diseases such as diabetes. Services to people with HIV/Aids and TB are supported by civil society organisations.

⁵ Neuro-, cardio-thoracic, orthopaedic, plastic, surgery and maxillo-facial, gynaecology etc.

1.1.3 OCCUPATIONAL THERAPY SERVICES IN NAMIBIA

Before Namibia became independent, occupational therapy was governed by the Health Professions Council of South Africa (HPCSA) and professional development was linked to the former South African Association of Occupational Therapists (SAAOT), nowadays called the Occupational Therapy Association of South Africa (OTASA⁶).

After independence, a primary healthcare approach was adopted within the public health system and the Division of Disability Prevention and Rehabilitation was established. Rehabilitation professionals were not considered in this new structure and the pre-independence posts at tertiary healthcare level prevailed. There are eleven clinical occupational therapy posts in the public sector for the whole country and four supervisory posts at regional level. All all posts were filled at the time of the dissertation (the ratio between female and male employees was nine female, two male). No occupational therapists are employed by civil society organisations.

Clinical occupational therapists in the private sector (16 occupational the therapists, all female) generally work part-time with the majority of therapists working primarily in the field of paediatrics, particularly with learning problems. Occupational therapy services are limited both in scope and coverage to six urban areas, with no occupational therapy service to the rest of the country, including all rural areas.

1.1.4 EVIDENCE-BASED PRACTICE IN NAMIBIA

In 2008, the researcher conducted a brief, informal survey on awareness of EBP amongst members of the executive of the Namibian Association of Occupation Therapists (NAOT). This revealed that none of these five members had encountered

⁶ OTASA is the new name of SAAOT since June 1996.

EBP in their undergraduate education and all confirmed being unaware of developments in EBP. This lack of knowledge of new developments in occupational therapy may have resulted from the termination of formal links with the South African professional association after national independence.

Failure to implement EBP effectively meant that an essential element of best practice was lacking in the profession and Namibian occupational therapists were at risk of contravening the World Federation of Occupational Therapists Code of Ethics. This document stipulates that 'occupational therapists participate in professional development through life-long learning and apply their acquired knowledge and skills in their professional work which is based on best available evidence' (World Federation of Occupational Therapists, 2005).

Assuming that EBP benefits occupational therapy clients, the researcher inferred that clients in Namibia were excluded from such benefits which the profession was able to offer in other countries. The probable provision of an inferior service was found undesirable and unjust by the researcher who is Namibian by birth and a practicing occupational therapist in Namibia. This motivated the researcher to promote EBP amongst Namibian occupational therapists and to conduct this study.

1.2 CONTEXTUALISING THE CONCEPTUAL FRAMEWORKS

USED IN THE STUDY

1.2.1 STUDIES THAT INFORMED DESIGN OF THE RESEARCH

Due to the paucity of knowledge Namibian occupation therapists had of EBP, the following research was drawn on to inform this study:

- Craik and Rappolt's (2003) and Craik et al (1998) Model of Research Utilization which proposes that structured reflection, case application and peer consultation facilitated integration of evidence into practice;
- McCluskey and Lovarini (2005) who found that a multifaceted learning experience did not change therapists' behaviour regarding EBP significantly although their knowledge and skills improved;
- Welch & Dawson (2006) who used collaborative learning groups in natural settings to study the impact of critical reflection and use of theory by occupational therapists wanting to become evidence-based practitioners. They concluded that practitioners might stand a 'risk of becoming disempowered within the culture of EBP' (Welch & Dawson, 2006:227) as structural factors at macro level restricted therapists in practicing in an evidence-based way.

1.2.2 RESEARCH STATEMENT

In line with the above-mentioned studies, the researcher was of the opinion that the implementation of EBP could be enhanced by applying adult learning strategies (andragogy) within a collaborative, experiential setting. Specifically the researcher aimed to evaluate whether a collective teaching/learning approach that included action, reflection, planning and learning could enable a group of Namibian therapists to envisage the change EBP could bring to their practice and to the profession as a whole.

A number of theories, models and conceptual frameworks were used to inform the study and are introduced briefly in the next section.

1.3 CONCEPTUAL FRAMEWORK FOR THE STUDY

The philosophies and theories that underpinned the researcher's approach are introduced in this section.

1.3.1 RELATIONAL ETHICS, THE FEMINIST ETHICS OF CARE

AND THEIR RELATION TO EBP

The feminine ethics of care appreciates interdependence rather than independence. Feminists oppose the belief that ethics is a universally relevant construct which is equally applicable to everyone. They value difference and celebrate differences, referring to this appreciation as asymmetrical reciprocity (Young, 2000a; Young, 2000b). This approach attaches worth to a human being's humanness and not to sameness. The researcher appreciates this principle in that it emphasises equity rather than equality, especially in terms of vulnerability. In practice, this means that heightened attention should be given to fairness and equity with a person that is more likely to be vulnerable. The key to the construct of ethics of care is thus 'situated thinking and situated ethic' (Parton, 2003:11). The ethics of care is understood as a social practice acted out demonstratively, while its meaning can best be learned by doing (Sevenhuijsen, 1997; Sevenhuijsen, 2003a; Sevenhuijsen, 2003b).

Due to divergent perspectives of professionalism in healthcare, approaches to care and clients differ. Healthcare professionals have often been taught to detach themselves from their clients and avoid getting embroiled in their hardships. Simultaneously, processes and the organisational efficiency were favoured over the client's needs (Parton, 2003) due to the wrongly interpreted "dominant model of practice which is embedded in the 'evidence-based' approach" (Parton, 2003:12). Perspectives that devalue the client are opposed by the Feminist view of care, which argues that daily care is most important and refers to accepting and being in touch with one's body, soul and relationships (Sevenhuijsen, 2003a).

The philosophy of the feminist ethics of care clarifies and enables the client-centred approach to EBP. It is evident that Dawes et al (Dawes et al, 2005), in their approach to EBP, are in favour of relational ethics and the Feminist Ethics of Care.

1.3.2 THE LOGIC FRAMEWORK

The concept of the logic framework, developed for Non-Governmental Organisations (NGOs) to evaluate and monitor their programmes, was used as the foundation for designing this action research study (WK Kellogg Foundation, 2004). For this study the Extension Logic Model (McCauley, No date) was used in designing EBP implementation programmes.

1.3.3 PARTICIPATION IN OCCUPATION AS A HUMAN NEED

A basic assumption of occupational therapy is the construct that humans need occupation and that participation in occupation is related to health (Wilcock, 1998; Watson, 2006; Wilcock, 2006). Occupational scientists and occupational therapists further believe that people create themselves by engagement in occupation, as a process of 'being, doing and becoming' (Wilcock, 1998; Watson, 2006).

The Human Scale Development matrix shows four existential categories, namely 'being, having, doing and interacting' (NEEF, 1991). This framework has heightened relevance for resource-constrained countries as 'having' or 'not having' impacts significantly on human development and the options person have. This taxonomy allows for the identification of 'needs' and 'wants', 'wealth's and 'poverties' enabling wealth to be employed to address poverties leading to growth (NEEF, 1991).

Although these theories inform professional development, theories about behavioural change were required to teach occupational therapists the theory and praxis of EBP. This is briefly introduced in the next section.

1.3.4 MODEL OF CREATIVE ABILITY

As the researcher studied learning and professional behaviour of occupational therapists, she examined occupational therapy behaviour change models. Du Toit's Model of Creative Ability integrates motivation theory with occupational therapy. Du Toit postulated that through decision and action, a human determines the quality of his/her being and becoming (Crouch & Alers, 2005; Casteleijn & de Vos, 2007).

Du Toit postulated that if a person makes relational contact with materials, objects, people and situations, the response to these leads to action and participation and ultimately to a product. A product is thus the result of mental and physical effort (Sherwood, 2005). The theory relates motivation and action where motivation governs action and action is the expression of motivation and strength of motivation is related to the strength of input (effort). Strong desires are thus likely to lead to increased action (Sherwood, 2005).

This model thus describes the relationship between a person's actions and their level of motivation. It also emphasises a person's capacity and ability to participate (Crouch & Alers, 2005). Motivation here refers to the self, including mind, body, spirit and drive, as well as the need to find meaning, thus relating to materials, objects, people and situations (Sherwood, 2005), while action is participation and doing. The importance of this theory is that skilful application of the theory leads to improved levels of participation and action, e.g. behavioural change.

1.3.5 INTEGRATED BEHAVIOURAL CHANGE MODEL

This model proposes an approach of integrating logic models with behaviour change models: the Theory of Reasoned Action and Theory of Planned Behaviour (Ajzen, 1991). These theories focus on intention to change, or intention to perform a specific behaviour (Ajzen, 1991). This approach is similar to the model of creative ability. In as much as it acknowledged the intent to change, it lacks an emphasis on the role of effort in achieving the change.

1.3.6 NETWORKING

Craik and Rappolt (2003) and Welch and Dawson (2006) emphasised a group approach to building capacity among occupational therapists to become evidence-based practitioners. Welch and Dawson (2006) also suggested that structures play an important role in implementing and sustaining EBP. This relationship between the individual and supportive networks (structures), to enhance and sustain behaviour of programmes, is well described in Heaney and Israel's Conceptual Model for Relationships of Social Networks (Heaney & Israel, 2002). Networking was encouraged among co-researchers throughout the enquiry as the importance of this became clear in literature read.

CONCLUSION

Believing that EBOT was the appropriate way forward to ensure best practice occupational therapy, and knowing that occupational therapists in Namibia knew little about EBOT, the researcher envisaged that this study could be a turning point in the way this group of occupational therapists practiced. Ultimately the researcher hoped that, as Rogers suggested, "an evidence-based approach to practice [would] become an activity of daily living for each and every practitioner" (Christiansen et al, 2005:595) in Namibia.

2 LITERATURE REVIEW

INTRODUCTION

Research demonstrating the emergence, application and implementation of EBP in occupational therapy published in English speaking countries is reviewed in this chapter. Literature proposing expansion of EBP to all countries in which occupational therapy is practiced is also discussed. Areas in which more research is needed were also reviewed.

2.1 EVIDENCE-BASED MEDICINE, EVIDENCE-BASED PRACTICE AND EVIDENCE-BASED OCCUPATIONAL THERAPY

Evidence-based medicine evolved from an educational perspective to curb the theory-practice gap. This approach appealed to many health professionals, including occupational therapists. To confirm its importance for occupational therapy, EBP was included in standard generating documents such as the WFOT Revised Minimum Standards for the Education of Occupational Therapists⁷ (Hocking & Ness, 2002). Consequently, the EBP movement became globally applicable for the profession. The next section will review literature covering the development of the evidence-based movement.

2.1.1 ORIGINS: PHILOSOPHY, DEFINITIONS AND THE EBP PROCESS

⁷ This document serves as the standard generating guideline for the evaluation of educational programmes

The process of problem-based clinical teaching was introduced at McMaster University's Medical School in Canada in the 1980s (Mountokalakis, 2009; Taylor, 2000), and was coined 'EBM' by Gordon Guyatt, a physician at McMaster University in Canada (Gupta, 2007). The term was consequently used and defined by Sackett et al (1996:71) as 'the conscientious, explicit and judicious use of current best evidence in making decisions about care of individual patients'. Sackett later amended the initial definition to 'evidence-based medicine is the integration of best research evidence with clinical expertise and patient values' (Sackett et al, 2000:1).

Fundamental to this concept is the ancient philosophy of Hippocrates that demands that practitioners rely on actual evidence in decision-making rather than making inferences based on reasoning alone (Rosenberg & Donald, 1995; Taylor, 1997; Sackett et al, 2000; Taylor, 2000; Mountokalakis, 2009). Although medicine seems to have been based on some form of evidence all along, the revival of this approach by McMaster University's Medical School is significant in that care is taken to train practitioners to obtain and evaluate evidence from a wide range of sources, not merely from the field of biological sciences (Mountokalakis, 2009). Critics of the evidence-based approach nullify its novice perspective and miss that point (Mountokalakis, 2009).

The outcome of EBM is seen to be improved healthcare as teaching and practice are underpinned by evidence broader than the pathophysiological rationale (Mountokalakis, 2009). This process of gathering evidence is vindicated by a systematic, evidence-based decision-making process which ensures ethical practice that is efficient and effective. The interest in evidence-based approaches from related professions did not come as a surprise. Promising high quality healthcare, this approach evolved into 'EBP' rather than specifically 'EBM' and was defined at the 2003 Conference of Evidence-based Healthcare Teachers and Developers in Sicily as follows:

“Evidence-based practice requires that decisions about healthcare are based on the best available, current, valid and relevant evidence. These decisions should be made by those receiving care, informed by the tacit and explicit knowledge of those providing care, within the context of available resources” (Dawes et al, 2005).

The researcher compared the definitions of EBP Sackett (1996) Dawes et al (2005) and Sackett (1997) to demonstrate the importance given to the different elements of EBP in each. Over time, the definitions have become more specific and explain the relational properties of the elements (See TABLE 1).

TABLE 1: COMPARISON OF DIFFERENT DEFINITIONS OF EBP AND EBM

	Sackett et al (1996)	Sackett (2000)	Dawes et al (2005)
Actor(s)	Clinician	Clinician who integrates information and evidence	Client and clinician through consultative process
Evidence	Current and Best	Best research	Best available Current Valid and Relevant
Receiver of care	Individual patients	Individual patients (whose values have been considered)	Individuals or groups (Not specified in definition)
Provider of care	Conscientious, explicit and judicious use of evidence	Clinical expertise	Tacit knowledge Explicit knowledge
Context and resources	Not mentioned	Not mentioned	Healthcare context Context of available resources

To assist practitioners in utilizing evidence, Cook et al (1992) suggested four steps on how to read an article. They included (1) the elements of the PICO (patient/population/intervention/comparison/outcome) question; (2) comparing the population of the study to the readers’ population; (3) assessing the relevance

of the described interventions; and (4) the outcomes (Cook, Jaeschke & Guyatt, 1992). Cook et al (1992) further stated that one should apply primary and secondary criteria when appraising an article and assessing the validity of the evidence.

Dawes et al (2005) added systematic retrieval of evidence to their five step process:

Step 1: translation of uncertainty to an answerable question,

Step 2: systematic retrieval of best evidence available,

Step 3: critical appraisal of evidence to ensure validity, clinical relevance and applicability,

Step 4: application of results in collaboration with the client, and

Step 5: evaluation of performance.

The above five step model was applied in this research as it provides a logical, easy to follow process to facilitate practitioners 'to do' EBP.

2.1.2 EVIDENCE-BASED PRACTICE IN OCCUPATIONAL THERAPY: EARLY DAYS

The first public call for occupational therapists to become evidence-based practitioners was given by Eakin in her Casson Memorial Lecture delivered at the 21st annual conference of the College of Occupational Therapists in June 1997 (Eakin, 2004). Valuing the approach of having the philosophy and practice of occupational therapy underpinned by evidence that was validated, obtained with scientific rigor, and proved to be truthful, Taylor (1997), the acting head of Rehabilitation and Disability Studies at Oxford Brookes University, United Kingdom (UK), further promoted the concept for occupational therapy. Promising high quality healthcare, the evidence-based movement gained momentum and Canada, Australia, Britain and the USA directed their efforts towards practitioner

development as reflected in the early articles on EBP from 1987 to 2003 and manifested in the appearance of special editions of the Australian Occupational Therapy Journal (AOTJ), the British Journal of Occupational Therapy (BJOT) and the Canadian Journal of Occupational Therapy (CJOT) that were devoted to EBP.

2.1.3 STRUCTURES DRIVING EVIDENCE-BASED

OCCUPATIONAL THERAPY

The interest in EBP by the Canadian Occupational Therapy Association was followed up by a commitment to that practice approach posed by the Joint Position Statement on Evidence-based Occupational Therapy (CAOT & ACOTRO, 1999), which defined the concept and described it as an element of best practice. A regular column on EBP was introduced Tickle-Degnan in 1998, to strengthen the EBOT movement.

The WFOT Revised Minimum Standards for the Education of Occupational Therapists⁸ (Hocking & Ness, 2002), which was approved at the Council Meeting in 2002, included best practice and EBP in the section 'Professional Reasoning and Behaviour'. As a result of this document, member countries wishing to stay accredited with the WFOT are compelled to include evidence-based practice in their educational programmes.

The inclusion of EBP in the Revised Minimum Standards for the Education of Occupational Therapists (Hocking & Ness, 2002) was followed by a landmark conference on EBOT in the USA in 2004 to expand implementation of EBP. The intention of the conference was to consolidate human and other resources to advance EBP globally. Thirty-three occupational therapists from 13 countries attended this event and devised action plans to support and develop EBOT.

⁸ This document serves as the standard generating guideline for the evaluation of educational programmes

These developments were significant for the profession, as they signalled the inclusion of EBP as a minimum standard for practice globally (Hocking & Ness, 2004). Organisations and bodies that generate standard guidelines for occupational therapy practice were required to ensure that qualified practitioners also acquired the competencies for EBP (Hocking & Ness, 2002).

2.1.4 GLOBAL UPTAKE OF EVIDENCE-BASED OCCUPATIONAL THERAPY

Action plans were developed at the International Conference on Evidence-Based Occupational Therapy to expand EBP to occupational therapy worldwide (Coster, 2005). One of the three main focus areas related to practitioner education was the establishment of shared funding for practitioner education and international agreements to allow systemic access to educational materials and exchange information on student education (Coster, 2005). Thus, occupational therapists were encouraged to collaborate with colleagues in countries where EBP had not yet been implemented to drive the uptake of EBP worldwide (Ilott, Taylor & Bolanos, 2006; Bennett et al, 2011).

2.1.5 EVIDENCE-BASED OCCUPATIONAL THERAPY IN SUB-SAHARAN AFRICA

Although two delegates from the Republic of South Africa (RSA) attended the 2004 International Conference on Evidence-Based Occupational Therapy, there have been few publications on EBP from sub-Saharan Africa since this time. (Other activities, such as EBP workshops and conference presentations may have transpired subsequent to this conference, but these are unknown to the researcher. Although publications reflect only one method of disseminating information, the paucity of publications about EBP may reflect the perception that EBP is “a Western innovation with limited relevance for developing countries”

(Joubert, 2005) which may have restricted enthusiasm regarding EBP in the subcontinent.

This stance was observed at the Strategic Planning Workshop held by the Health Professions Councils of Namibia in July 2009, which the author attended. During this workshop, EBP was democratically excluded from the Strategic Plan (2009/2010) as the participants⁹ either did not know about EBP or considered it unsuitable and of no importance. In line with Buchanan (2011), however, the researcher advocates that implementation of EBP in Namibia, a resource-constrained country¹⁰, is crucial to effective healthcare delivery (Buchanan, 2011).

No occupational therapy research from Namibia has been published on EBP and a paucity of articles on this topic between 1997 and 2010 has been observed in RSA (Buchanan, 2011). In fact, little EBP research has been published from Sub-Saharan Africa (Buchanan, 2011).

Facilitators and barriers that might be responsible for the slow uptake of EBP in RSA were discussed by Buchanan (2011). Comparison of the implementation of EBP in RSA and Namibia revealed that the barriers were the same in both countries; however, a number of factors that facilitated implementation of EBP in RSA were either not relevant or were not facilitators in Namibia. The researcher speculated that paucity of academic and professional integration may be responsible for this phenomenon. In TABLE 2, factors that facilitate EBP in RSA are compared to the situation in Namibia.

⁹ Participants included the presidents, vice presidents, other executive committee members of the five Health Professionals Councils, as well as council managers and other office holders of the five Councils.

¹⁰ Namibia is classified as an upper middle income country by (World Bank, 2000). However, in line with Buchanan (2012) the researcher prefers the term resource-constrained country as resources are scarce. Namibia was placed at 168 out of 190 by the World Health Organisation's Ranking of the World's Health Systems (World Health Organization, 2000).

TABLE 2: UPTAKE OF EBP: A COMPARISON BETWEEN RSA AND NAMIBIA

Systems for comparison Factors for comparison	RSA	Namibia
Professional	<ol style="list-style-type: none"> 1. EBP is a professional and ethical obligation 2. Compulsory CPD policy creates opportunities for implementing activities related to EBP 3. Increasing number of EBOT resources 4. Change in the conceptualisation of occupational therapy requires different evidence and may act as a driver for discovering suitable ways of applying EBP 	<ol style="list-style-type: none"> 1. Namibian Health Professions Council does not espouse EBP (HPCNA¹¹ 2009) 2. Compulsory CPD policy create opportunities for implementing activities related to EBP (Government Gazette 2004) 3. Only Open Access resources accessible to Namibian occupation therapists. OTseeker can be accessed but not the articles that are listed. 4. Professional bodies do not acknowledge Best Practice or EBP (HPCNA 2009)
Healthcare system	<ol style="list-style-type: none"> 1. Context provides opportunities for innovation due to the changes in the health system 2. A national list of research priorities has been developed 3. Planned roll-out of computers and internet facilities for public 4. Demands for changes in practice resulting from changes in the health system 5. Recognition of the role of EBP in improving healthcare may act as incentive for its implementation 	<ol style="list-style-type: none"> 1. Not currently applicable in Namibia 2. Not currently applicable in Namibia 3. Planned for Windhoek Central Hospital in 2012 4. Not currently applicable in Namibia 5. Not currently applicable in Namibia
Practice environment	<ol style="list-style-type: none"> 1. Larger facilities have access to the internet and academic libraries 	<ol style="list-style-type: none"> 1. Not applicable in Namibia
Educational environment	<ol style="list-style-type: none"> 1. EBP included in some undergraduate occupational therapy programmes 2. CPD policy provides opportunities to offer EBP training 	<ol style="list-style-type: none"> 1. No occupational therapy education currently available 2. CPD policy provides opportunities to offer EBP training (HPCNA 2009)
Practitioner	<ol style="list-style-type: none"> 1. Positive perception 2. Requirement to accumulate CPD points 	<ol style="list-style-type: none"> 1. EBP hardly known 2. Requirement to accumulate CPD points (HPCNA 2009)

¹¹ The Health Professions Councils of Namibia (Medical and Dental Council, Allied Health Professions Council, Nursing Council, Pharmacy Council and Social Work and Psychology Professions Council) resemble the Health Professions Council South Africa.

2.2 EVIDENCE-BASED PRACTICE CRITIQUED

Parallel to the process of promoting the implementation of EBP in occupational therapy, the evidence-based approach has been critiqued. The tension lays in the appreciation of the value of evidence-based approaches on the one hand, and on the other hand the detection of possible threats to the core values of occupational therapy as a result of the unchallenged implementation, and transfer, of EBM into occupational therapy. This critical debate still continues in occupational therapy circles. However, criticism of EBM or EBP is not confined to occupational therapy; similar concerns have been raised within the nursing and medical professions (Gupta, 2007). The next sections present criticisms of EBP from various professions adding to the arguments against EBP found in occupational therapy literature.

2.2.1 CLINICAL PRACTICE GUIDELINES AND PROTOCOLS

Evidence-based practice has been accused of returning to a 'neat pocket-sized book' (Taylor, 1997) or 'cookbook' practice (Sackett et al, 1996; Welsby, 1999) by listing and dictating interventions. Certainly, synthesis of research in the form of guidelines and protocols makes research evidence user-friendly and easier to utilise and disseminate on a more accessible level. Yet, having guidelines and protocols does not ensure improved healthcare service; these need to be validated for the context in which they are to be used (Feder et al, 1999). Furthermore, practitioners need to have a positive mindset towards implementation of clinical practice guidelines: they have to disregard their set ways and change their behaviour. Feder et al (1999) emphasise that merely disseminating guidelines will not lead to the required change in behaviour. A process, therefore, has to be designed that makes evidence accessible, but at the same time target practitioners' comfort zones and urge them to change their behaviour. An alertness to stay current is part of this process (Dunn et al, 2005).

Sackett et al (1996) further argued that an approach which puts the emphasis on cutting costs misuses and misinterprets EBP. Guidelines and protocols in service of technical, market-driven reductionist approaches to healthcare might jeopardise the desired improved outcome of healthcare provision. Healthcare structures that have evidence-based practitioners in their employment should know that these practitioners always use their clinical reasoning skills to appraise evidence and choose what is best for their clients within the context. These practitioners might indeed surprise healthcare structures by suggesting interventions that may raise the cost of healthcare (Sackett et al, 1996).

2.2.2 CLIENT-CENTEREDNESS AND CONTEXT

Some occupational therapists have expressed the concern that adopting EBP might endanger client-centeredness¹² and the occupation-focused approach. The Joint Position Statement on EBOT (CAOT & ACOTRO, 1999) states that the occupational therapy core values of client-centeredness and the occupation-based approach may be compromised by “strict adherence to the procedures of EBM” (CAOT & ACOTRO, 1999:1). Consequently, occupational therapists attempted to solve this tension by defining EBOT as “client-centred enablement of occupation based on client information and critical review of relevant research, expert consensus and past experience” (CAOT & ACOTRO, 1999:3). Congruent with EBP as defined by Dawes et al (2005), the Canadian position paper states clearly that EBOT acknowledges the perspectives and wishes of clients as well as the occupational therapists expertise when making decisions (CAOT & ACOTRO, 1999).

The researcher is of the opinion that central to the perspective of client-centeredness is the responsible balancing of power in the professional relationship. Service providers should be sensitive to an unequal power relationship, striving for

¹² Client-centred practice refers to collaborative approaches aimed at enabling occupation with clients who may be individuals, groups, agencies, governments, corporations, or others. Occupational therapists demonstrate respect for clients, involve clients in decision making, advocate with and for clients in meeting clients' needs, and otherwise recognize clients' experience and knowledge (CAOT 2002, p. 49-50).

a responsible equalisation of power (Townsend & Wilcock, 2004). It is important when engaging in EBP that the service user's opinion and preferences be heard and that they are taken into consideration when planning intervention. If EBP is interpreted in this way, the decision-making process could be seen as a partnership, leading to equalization of power relations. Facilitating client involvement in the decision making process ensures the practice of client-centeredness (Townsend & Wilcock, 2004; Paley, 2006). The evidence-based approach could thus be seen as enhancing client-centred practice, not restricting it. This is the sentiment expressed by Hoffmann et al (2010).

The definition of EBOT (CAOT & ACOTRO, 1999) ensures that client-centeredness is adhered to, but it does not include references to context, such as availability of technologies needed for intervention and/or cultural appropriateness of suggested interventions, geographical or political determinants. Possibly, this might have been taken for granted as being included in a client-centred approach. Inclusion of the client's family as a source of evidence was pertinently mentioned by Tickle-Degnan (2000) and Law et al (1996). Yet the above mentioned definition of EBOT (CAOT & ACOTRO, 1999) does not address context sufficiently for practitioners in resource constrained environments.

2.2.3 EVIDENCE AND PARADIGM

The ontological assumption of occupational therapy that engagement in occupation influences health, places the profession in an epistemic vault of opposing ways of generating knowledge (Blair & Robertson, 2005; Kinsella & Whiteford, 2009; Taylor, 2009). In occupational therapy practice, evidence is drawn from diverging thought patterns of the relevant sciences, for example biomedical sciences, social sciences, pedagogy, architecture and occupational science as affirmed by Christiansen (Finlay, 2001). They suggest that 'because of occupational therapy's focus on life performance, it is neither somatic nor psychological, but concerned with the unity

of body and mind in doing' (Baum & Christiansen, 1997:36). How evidence is validated, therefore, is closely linked to the criteria valid for that specific paradigm. Ranking evidence according to one hierarchy could possibly threaten the core values of occupational therapy (Gupta, 2007; Kinsella & Whiteford, 2009).

Dissonance is created by the evidence hierarchy which ranks research methods according to their level of truthfulness and rigor (Gupta, 2007). This hierarchy places guidelines, systematic reviews and meta-analysis of randomized controlled trials on the top of the list, followed by randomized control trials, with respected opinion and expert discussion lowest on the ladder (Sackett, 1997; Taylor, 1997; Taylor, 2000; Taylor, 2009). Gupta strongly contests this hierarchy, arguing that quantitative research methods are not always suitable in the psychiatric field and therefore should not be ranked superior. He contended that the essence of the narrative of a patient is resistant to measurement; however, measuring is a prerequisite for the above mentioned research method (Gupta, 2007). Also from the perspective of psychiatry, a field in which occupational therapists are working, Welsby (1999) argues that the complexity of patients with multiple diagnoses cannot be captured in reductionist research. The concerns raised in the field of psychiatry apply equally to occupational therapy. Quantitative research methods would not reflect the truth (Holmes, 2000). Thus, depending on the practice paradigm, evidence can be obtained by meeting scientific rigor, but might not necessarily be truthful (Holmes, 2000). Qualitative research evidence on the other hand is not necessarily used to determine a particular intervention but rather to sensitise the practitioner towards the lived experience of clients (Egan et al, 1998). Evidence therefore should be evaluated as to the practical requirements and resources and philosophical fit for the practice paradigms (Kinsella & Whiteford, 2009).

Within the social paradigm, evidence is categorized as organisational knowledge, practitioner knowledge, user knowledge, research knowledge and policy knowledge

(Taylor, 2009). Using such a framework of knowledge has led to the term “evidence-informed practice” rather than EBP (Taylor, 2009). Referring to the process of utilizing evidence, Kinsella and Whiteford propose “a conception of practice knowledge that is informed by evidence based on a conception of wise practice” (Kinsella & Whiteford, 2009:249).

The dilemma for occupational therapists is that their practice, with the unique contribution to occupational performance, lies in the social/medical arena (Blair & Robertson, 2005), and that their preference of ways of knowing is informed by both paradigms. This could lead to tension or dissonance. The question of tacit and explicit knowledge comes to the forefront, as does the concept of expertise. Higgs and Titchen (2001) suggest the need of professional artistry, paying attention to tacit dimensions of knowing, interfacing these with explicit dimensions. For example, they call for the knowledge of patient beliefs and preferences and beliefs as well as text evidence, to lead to professional expertise (Higgs & Titchen, 2001). In the acceptance of multiple ways of knowing, the client has to be acknowledged as an expert as well. A new understanding of professional expertise has to be found to survive the onslaught of EBP due to the error criterion of what best evidence entails and in the light of EBP not accepting multiple ways of knowing (Paley, 2006). It is the narrow way in which evidence and expertise are seen that causes the dilemma. A willingness to broaden one’s view of unquestioned concepts will ease the way for EBP in a sense that decisions in patient care are client-centred and evidence-based, rather than therapist-centred and evidence-based, directed by the holistic approach of the practitioner (Hammell, 2001; Paley, 2006) The practice-knowledge interface thus demonstrates the interdependence of different ways of knowing and knowledge creation (Higgs & Titchen, 2001). The dialogue of evidence and knowledge creation within the health field has entered a systems approach with environmental factors including organisational values and team structures as well as interpersonal relationships (Lencucha, Kothari & Rouse, 2007). This is referred to as knowledge translation: assisting to help bridge the knowledge/practice gap. It also legitimises the practice-based experience which can facilitate “our exploration

of the complex social factors contributing to knowledge exchange, synthesis and application” (Lencucha, Kothari & Rouse, 2007).

The definition of EBP developed by Dawes et al (2005) is broad enough, yet specific enough to allow for this dissonance regarding ways of knowing and reflective thought. It also considers the positions of power within the decision-making process and the unique context of the client (2005). In the current study, the Dawes et al’s (2005) definition of EBP was considered to be most suited to the researcher’s construct of EBOT. The process of obtaining a negotiated decision on service delivery was viewed as being fundamental to the philosophy of EBP.

Of equal importance was the appropriateness of the research evidence to answer the clinical question initiating the evidence-based process. For example, questions on diagnosis require evidence from a different type of study than those on prognosis or intervention (Sackett et al, 1996). Yet it appears that there is still a preference of ranking evidence according to the evidence hierarchy, which assigns a lower rating to qualitative research. Lack of clarification of what qualitative research is, and possibly, the poor quality of some qualitative research may be responsible for this supposition (Nelson, 2008). To solve the dissatisfactory one-hierarchy-only model of ranking, an attempt has been made to broaden the perspective and a research pyramid models was designed (Tomlin & Borgetto, 2011).

2.3 EFFORTS TO IMPLEMENT AN EVIDENCE BASED CULTURE

Driving the EBP movement, health professionals have researched various aspect of EBP. In the next section the researcher will review EBP research organised under three headings.

2.3.1 EDUCATING PRACTITIONERS

Most studies in the field of research utilisation have shown that building capacity in knowledge and skills is effective but that behavioural change over time is difficult to achieve (Grol & Grimshaw, 2003). Even multifaceted interventions have resulted in gains in knowledge, yet behaviour change was not significant (McCluskey & Lovarini, 2005). Efforts to change practitioners' behaviour by means of the information dissemination model seem to have collectively effected little movement. Group support and application of theoretical knowledge in natural settings has been more effective in individuals adopting some changes in the way they practice (Welch & Dawson, 2006).

Similar findings have been reported in research within the medical field. Studies involving medical practitioners showed that EBP is not easily adopted due to constraints at different levels of the healthcare system, ranging from the client to the individual practitioner, team, organisation and/or wider environment: "Even if doctors are aware of the evidence and are willing to change, to alter well established patterns of care is difficult, especially if the clinical environment is not conducive to change" (Grol & Grimshaw, 2003:1225). Evaluation of educational strategies employed to effect change in behaviour showed that the use of educational material focusing on knowledge alone had limited results, but if used in conjunction with an approach including different members of the multi-professional team, as well as profession-specific teaching approaches, EBP training could be more effective (Grol & Grimshaw, 2003).

2.3.2 DEVELOPMENT OF PROPOSITIONS AND MODELS

Much research has been carried out since the early days of EBOT to illustrate how best to translate research evidence into occupational therapy practice. Craik and Rappolt (2003) categorised research utilisation models according to purpose, concepts and propositions and found that, prior to their study, publications had not

explicitly outlined strategies to utilise research and previous studies collectively seemed to “fall short of reflecting the complexity of the research utilising process” (Craik & Rappolt, 2003:269). They proposed that research utilisation is enhanced by a combination of strategies including experiential learning, structured reflection, case application and peer consultation, and mentoring and skills development. They subsequently developed a Theory of Research Utilization Enhancement for Occupational Therapists (TRUE-OT) and the Model of Research Utilization in Occupational Therapy which proposes that an occupational therapists capacity to employ research findings into their own practice relies on “the therapist’s engagement in structural reflection, case application and peer consultation” (Craik & Rappolt, 2003:272).

In a study done by Welch and Dawson (2006), a group of senior occupational therapists collaboratively engaged in an EBP action research process, resulting in them being “empowered to incorporate propositional knowledge into clinical reasoning” (Welch & Dawson, 2006:227). This concurs with the findings of Grol and Grimshaw (2003) that small-group interactive education showed positive results as far as behaviour changes towards EBP are concerned.

2.3.3 ACCESS TO LITERATURE

It appears that practitioners who do not undertake formal studies and thus have limited access to published resources might be at “risk of becoming disempowered within a culture of EBP” (Welch & Dawson, 2006):227. This is due to the traditional publishing model which makes use of free peer-reviewed scholarly articles and asks authors to surrender copyright (Albert, 2006). This publishing model thus restricts dissemination, contrary to what authors aim at.

It is therefore not surprising that human rights activists, librarians, politicians and patients across the world started to advocate for “open access” of scholarly

publications (Friend, 2003; Friend, 2008; Ó hAnluain, 2004). This movement led to the Budapest Open Access Initiative which proposed strategies to bring about benefits to humankind by making available toll-free, high quality, peer reviewed research, by involving researchers and research organisations, funding agencies and publishers to change their publishing model (Friend, 2003; Lafferty, 2003). A leap to improve access to scholarly medical literature can only be realised by a collaborative approach and advocacy towards this vision (Friend, 2003a; Friend, 2003b). Friend (2003) described open-access publication as barrier- and cost-free access to information as needed. Cost-free is defined as cost-free to the reader, not to the producer, expressing that the legitimate costs of publishing should be met by other means, while barrier-free refers to access to information without financial, legal, or technical barriers other than those incurred to access the internet itself. This implies that open access is not compatible with embargo periods (Harnad, 2003).

Currently, most occupational therapy journal articles can be accessed only if purchased individually¹³ or by subscription to an academic library (which implies either being a staff member or being registered as a student at the institution). Some occupational therapy associations have negotiated an agreement whereby their members have free access to the journals of the other Association, for example members of the British Association of Occupational Therapy can also access the Canadian Journal of Occupational Therapy and the Australian Occupational Therapy Journal (Albert, 2006).

Thus, persons or organisations that plan the uptake of EBP need to determine the likelihood of success of this venture by assessing access to information and communication technologies as well as access to scholarly articles. Although the number of open access publications in most fields of study increased during the

¹³ Usually a professional association is not allowed to subscribe to a journal

period in which the researcher conducted the literature searches, this did not extend to the occupational therapy literature. The researcher is of the opinion that this might be due to the fact that some occupational therapy journals are published by associations who experience financial constraints. Support for this view is found in Albert's research, claiming that societies and non-profit publishers will not make it financially if their journals are forced to adopt this (Open Access) model" (Albert, 2006). Furthermore, many researchers still believe that the traditional model will provide a wider audience and higher prestige, thus perpetuating a hegemony that mainly profits the publisher (Albert, 2006). With this in mind, the importance of input into microsystems (Bronfenbrenner, 1997) becomes evident: employers who want best practice should consider support to researchers as well as publications.

2.4 GAPS IN THE REPERTOIRE OF EBP RESEARCH

The analysis of research on EBP clearly reveals a vacuum regarding research from developing or resource-constrained countries. Although the WFOT code of ethics (World Federation of Occupational Therapists, 2005) refers to the importance of acquiring and applying skills based on best available evidence, not much research on EBP has come from Africa. Published in the English language, only articles from authors based in the RSA were found. Evidence of the promising prospect of international collaboration regarding research on EBP as proposed and promoted by a number of authors (Coster, 2005; Ilott, Taylor & Bolanos, 2006; Bennett et al, 2011) was not detected.

In terms of advancements and lacunae within the existing body of occupational therapy knowledge, the following are of note:

- Numerous studies, especially in the early days of EBP, focused on methods of teaching EBP and their outcomes, and assert that knowledge

and skills are more easily gained than change in behaviour (Grol & Grimshaw, 2003; McCluskey & Lovarini, 2005).

- Studies addressing change in behaviour have emphasised experiential learning (Craig et al, 1998), group approaches (Welch & Dawson, 2006) and clinically based environments (Welch & Dawson, 2006) as important strategies to introduce and practice evidence-based interventions.
- A multifaceted study that focussed on actual behavioural change rather than an intention to change concluded that bottom-up empowerment strategies led to short-term changes but that long-term behaviour change needed top-down structural changes and support (Welch & Dawson, 2006). The researchers concluded that a multifaceted, collaborative, experiential approach to teaching EBP had positive outcomes, but that changes at meso- and macro systems is essential for implementing an evidence-based culture (Welch & Dawson, 2006) and (McCluskey & Lovarini, 2005).
- A co-operative inquiry conducted by Welch and Dawson (2006) aimed to counteract the disempowerment experienced by occupational therapists who were not engaged in formal studies. (Welch & Dawson, 2006). They found that occupational therapists, who were not formally studying, were at risk of becoming disempowered within the EBP paradigm. They also found that macro system support at employer level was needed to implement and sustain EBP.

The researcher drew on the above-mentioned study findings to inform her study, which aimed at raising awareness and developing knowledge, skills and competence in EBP in a group of occupational therapists in Namibia.

CONCLUSION

Evidence-based practice as an educational as well as a practice model has established itself worldwide among healthcare practitioners. Although this

approach to healthcare services was, and still is, critiqued for possibly not being client centred, or being reductionist, EBP has established itself as an important element of ethical practice. Most health care professions, including occupational therapy, have committed their practitioners to engage in this approach. Consequently, occupational therapy researchers and practitioners have developed strategies, models and programmes to facilitate the uptake of EBP among qualified occupational therapists as well as students. Little research on EBP in occupational therapy has emanated from Southern Africa. No information was found on the level of knowledge, attitude and skills on EBP of practitioners in resource-constrained countries. The need to investigate the level of readiness to take up EBP in resource-constrained countries became evident. This research was designed to explore EBP among occupational therapists in Namibia. The methodology for the study is described in the next chapter.

University of Cape Town

3 METHODOLOGY

INTRODUCTION

This chapter provides the methodological choices of the researcher to attain the study aim and objectives and to answer the study question. Concurrently the methodology – action research and in particular co-operative inquiry are introduced. The reader is informed which population was used and how sampling was done. Ethical considerations for this study not only aimed at protecting co-researchers from harm, but rather aimed at enhancing their well-being during the cause of the data construction and collection. Data was analysed following the process of phenomenological content analysis.

3.1 STUDY AIM AND OBJECTIVES

The aim of this study was to explore the interest in and feasibility of implementing EBOT in Namibia. The objectives were to:

1. provide co-researchers with opportunities for experience-based exploration and capacity building for conducting searches for evidence
2. engage co-researchers in a process of individual and joint reflection to explore the usefulness and feasibility of practicing EBP in Namibia
3. explore and refine the concepts, principles and techniques of EBP individually and collectively with the aim of empowering occupational therapists in Namibia.

The next sections will describe how the researcher planned to achieve the aim and the objectives of the study and simultaneously enhance co-researchers well-being and professional disposition. For this reason, action research was chosen.

3.2 METHODOLOGY – ACTION RESEARCH

Within the action research paradigm, different types of engagements exist, developed with specific aims in mind. The researcher chose two types of engagements, namely co-operative inquiry and first-, second-, and third person research. These are briefly introduced in the next section.

3.2.1 CO-OPERATIVE INQUIRY

Contrary to participants of action research, who often come from disempowered groups and are led by the researcher to be empowered, participants of a co-operative inquiry, by definition, are chosen because of their similar interests and comparable background to the researcher (Heron & Reason, 2006).

Heron & Reason describe co-operative inquiry as a form of action research which employs:

“... people who have similar concerns and interest to yourself in order to: 1) understand your world, make sense of your life and develop new creative ways of looking at things; and 2) learn how to act to change things you may want to change and find out how to do things better” (Heron & Reason, 2006:179).

As the researcher was interested in exploring the experiences of occupational therapists in learning about EBP, choosing colleagues as participants in the research was a logical step. Due to participants’ active involvement in and contribution to the research, co-operative inquiry participants are referred to as co-researchers. In a co-operative inquiry, co-researchers not only contribute to the process of knowledge generation, they also acquire new insights regarding their professional and personal lives (Heron & Reason, 2006).

3.2.1.1 INFORMATIVE AND TRANSFORMATIVE RESEARCH CULTURE

While applying principles of the informative culture, focus was on the provision of information and descriptions of EBP. Principles of the transformative approach facilitated the experiential and doing aspects of EBP. The blend of these interdependent, yet different inquiry cultures enriched the experience of co-researchers and allowed for multiple ways of knowing.

3.2.1.2 FOUR WAYS OF KNOWING

A co-operative enquiry is designed to expose co-researchers to four ways of knowing. These are:

- experiential knowing, which represents the direct encounter with a person, place, learning material, practical challenges and represents knowing that is difficult to put into words;
- presentational knowing, which develops out of experiential knowing and is expressive; words, graphical representations, or art can be used to communicate what has been learned, experienced and/or thought;
- propositional knowing, which represents informative statements, book-knowledge, theories and ideas; and
- practical knowing, which is about “how to” do something skilfully and competently (Reason, 1999):211.

The theoretical constructs of knowledge generation (informative and transformative research cultures and four ways of knowing), were applied in a practical way during the consecutive cycles of engagement in the co-operative inquiry. The intended outcome of this co-operative inquiry was not restricted to co-researchers obtaining skills and learning how to carry out EBP, but also included gaining new insight into their understanding of occupational therapy.

Co-operative inquiry comprises a number of consecutive cycles, each consisting of four phases. The cycles and phases of the co-operative inquiry are elaborated on in the next section.

3.2.1.3 CYCLES AND PHASES OF THE CO-OPERATIVE INQUIRY

Phases are described by the level of involvement of co-researchers with the actions of the research and with each other. While each consecutive cycle led the co-researchers to a new, broader level of understanding, the phases of each cycle were constant. The phases briefly entailed:

- Phase 1: A group of people coming together to explore a phenomenon, deciding on the aims, actions and outcomes.
- Phase 2: The group merged into co-researchers who shared their experiences of the actions as they were carried out.
- Phase 3: Co-researchers became fully immersed in the process and developed a degree of openness in sharing challenges and successes.
- Phase 4: Co-researchers identified growth and change and reflected how this change was related to practical knowing. (Reason & Torbert, 2001).

On completion of one cycle, co-researchers may engage in another cycle, which again consists of four phases. The next cycle once again starts by discussing aims, actions and outcomes to be carried out.

3.3 SAMPLING

3.3.1 POPULATION

The researcher drew the sample from registered¹⁴ occupational therapists:

- who lived in Windhoek (due to financial constraints and for ease of organisation therapists outside the capital were not considered)
- who had attended the evidence-based occupational therapy workshop held earlier in the same year (2009) in Windhoek (to ensure that all participants had some knowledge of EBP and thus could make an informed decision whether they wanted to partake in the study or not).

Sixteen occupational therapists met the above criteria.

3.3.2 PURPOSIVE SAMPLING AND SELECTION CRITERIA

Nine co-researchers were selected in order to have sufficient numbers should any participants need to withdraw from the study. Co-researchers were selected by maximum variation sampling (Patton, 2002), which targets extremes, capitalising on alternative ideas and experiences (Creswell, 2003; Onwuegbuzie & Leech, 2007). The criteria used to obtain the widest possible coverage were:

- educational facilities: at least one co-researcher from each facility represented in Windhoek;
- practice setting: much or little experience, private or public sectors, single therapist practice or group practice;
- influence: practice owner or employee, head of department/acting head of department or subordinate, part time or full time practitioner office bearer of the AHPCNA, executive committee member of the Namibian Association of Occupational Therapists (NAOT);
- demography: representation across all ages, races, nationalities and gender.

¹⁴In order to practice occupational therapy in Namibia, therapists are required by law to register with the Allied Health Professions Council of Namibia (AHCNA), Act No. 7 of 2004. Their qualifications have to meet the minimum requirements as gazetted in the Regulation relating to the minimum requirements of study for registration as an occupational therapist: Section 19(1) of the Allied Health Professions Act No. 7 of 2004. The requirements specify a four year degree and at least 1000 hours of clinical supervised education. If a therapist's qualification complies with the before-mentioned minimum standard, the therapist still has to pass the AHCNA Jurisprudence exam and an oral assessment before being registered as an occupational therapist (Regulation relating to additional examinations that may be conducted by the Allied Health Professions Council of Namibia, Allied Health Professions Act No. 7 of 2004. 30 CEU points per year required to maintain registration.

The co-researchers particulars are shown in TABLE 3.

TABLE 3: SUMMARY OF CO-RESEARCHERS PARTICULARS

Participants	1	2	3	4	5	6	7	8	9
<u>Educational facility</u>	Germany	University of Cape Town	University of Stellenbosch	University of Zimbabwe	University of Pretoria	University of Pretoria	University of Stellenbosch	University of Zimbabwe	University of Stellenbosch
<u>Practice setting</u>									
Experience (years)	15-20	10-15	10-15	1-5	1-5	15-20	20-25	5-10	15-20
Sector	Private	Private	Private	Public	Private	Private	Private	Public	Private
Size of practice (number of OTs)	3	5	1	2	2	5	2	2	1
<u>Influence</u>									
Designation	Practice owner	Employed	Practice owner	Subordinate in department	Practice owner	Practice owner	Practice owner	Head of department	Practice owner
Full time or part time practice	Full	Part	Part	Full	Part	Part	Part	Full	Part
NAOT EXCO	x	x			x		x		
Function at Council							x		
<u>Demography</u>									
Age	40-45	30-35	30-35	25-30	30-35	35-40	50+	25-30	40-45
Race	White	White	Coloured	Black	White	White	White	White	Black
Nationality	Other	Other	Nam	Other	Other	Nam	Nam	Other	Nam
Gender	F	F	F	F	F	F	F	M	F

Two researchers withdrew from the research after the first cycle: one due to personal circumstances and one left Windhoek.

3.4 ETHICAL CONSIDERATIONS

Due to the design and nature of this study, practice and research were interrelated, and thus the boundaries between biomedical and behavioural research¹⁵ and medical or behavioural practice¹⁶ were not clear-cut. In cases where research and practice are done simultaneously, ethical guidelines of research still have to be applied (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (US), 1979). Consequently, the researcher applied three sets of guidelines to ensure co-researchers' well-being. These were:

1. ensuring respect for person, beneficence and justice in accordance with guidelines contained in the Belmont Report (1979);
2. the feminist ethics of care of Selma Sevenhuijsen regulating interpersonal relationships (2003); and
3. the Declaration of Helsinki (2008) (World Medical Association, 1964) advising on informed consent, recording equipment and managing sensitive information.

3.4.1 ADHERING TO PRINCIPLES OF THE BELMONT REPORT (1974) - RESPECT FOR PERSONS

3.4.1.1 AUTONOMY

Autonomy was ensured as the co-researchers had control over:

- their degree of involvement,
- the time spent on the research, and
- the content they shared with other co-researchers and/or the researcher.

¹⁵activities of testing a hypothesis and/or activities permitting conclusions to be drawn (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (US), 1979).

¹⁶actions that are set out to enhance people's well-being (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (US), 1979).

This methodological framework ensured trust and respect, did not increase stress, guaranteed dignity and promoted autonomy.

3.4.1.2 CONFIDENTIALITY

Co-researchers shared information with one another in the focus groups, however, the researcher removed names of respondents' from documentation in order to maintain confidentiality outside the focus groups. This was done by using numbers, instead of names, when managing the data of co-researchers reflections. These numbers were also used in section 3.2.2 of this chapter in the TABLE listing co-researchers particulars. Furthermore, the researcher used pseudonyms in writing up the research and in all documentation (analysis, verbatim transcribed documents, findings and discussion).

3.4.1.3 BENEFICENCE

Co-researchers did not receive tangible benefits for participation: they were not refunded for their time or expenditure (such as petrol costs or internet connection). Co-researchers were aware of this at the outset of the study. Participation in the research community, however, held professional and personal benefits.

3.4.1.4 JUSTICE

Unfortunately the choice of method restricted the number of co-researchers, limiting the number of therapists that could benefit from the study. All therapists indicating an interest in participating in the study were accommodated. In focus group discussions, however, it became apparent that colleagues felt excluded after the research had commenced. The researcher hoped that co-researchers could disseminate some information and skills they had gained to their colleagues and that in this way the benefits could be carried over to their colleagues as well.

3.4.2 APPLYING PRINCIPLES OF THE FEMININE ETHICS OF CARE

Group dynamics in focus group meetings (FGMs) were managed by applying the feminist notion that difference should be celebrated (Young, 2000b), and that a persons' worth is attached to her/his humanness and not to sameness. This principle of asymmetrical reciprocity (Young, 2000a; Young, 2000b) was demonstrated by choosing maximum variation sampling.

Furthermore, the researcher built interpersonal relationships on the philosophy and practice of the feminist ethics of care, espoused by Sevenhuijsen (1998), which postulates that care relationships are based on asymmetrical reciprocity, comprising interdependence and a dual commitment. The practical implication for the research was that the researcher and co-researchers had to acknowledge their interdependence (Sevenhuijsen, 2003a). The nature of relationships was explicitly communicated to the co-researchers: the researcher needed them for her research and in return offered them professional education. Some co-researchers indicated that they were pleased to be invited to participate as previous courses presented by the researcher were beneficial and they trusted this be true for participation in this study.

3.4.2.1 RESEARCH SETTING AND BUILDING OF RAPPORT WITH CO-RESEARCHERS

Being a member of the small community of occupational therapists in Namibia herself, the researcher needed no introduction.

It was agreed that the FGMs would be held at the Civil Psychiatry Occupational Therapy Department at Windhoek Central Hospital, as this enabled co-researchers from the public sector to participate. Consent to hold meetings at the hospital was obtained from the Permanent Secretary of the Ministry of Health and Social Services, the Senior Medical Superintendent, Head of the Mental Health Unit and the Head of the Occupational Therapy Department at the Windhoek Central Hospital.

3.4.2.2 CO-RESEARCHER – CO-RESEARCHER AND RESEARCHER–CO-RESEARCHER RELATIONSHIPS

Although most therapists knew each other vaguely, some knew each other well, either as friends, colleagues or competitors. The researcher was aware of some existing tensions, however did not exclude therapists because of strained interpersonal relationships, but rather chose to manage these by applying professional group handling skills (Finlay, 2004), asymmetrical reciprocity and principles of the feminist ethics of care. The assumption that “people create themselves and make their own choices as they search for meaning” (Finlay, 2004:117) was incorporated in facilitating interpersonal relationships in the research group.

3.4.3 ADHERENCE TO THE DECLARATION OF HELSINKI (2008)

While the first two sets of principles guided the researcher in terms of behaviour, the ethical principles described in the Declaration of Helsinki (2008) were particularly relevant to the technical aspects of the research.

3.4.3.1 INFORMED CONSENT

Invitations to participate in the research were extended personally by the researcher to persons that matched the selection criteria. She approached the selected occupational therapists individually and briefed them verbally and in writing about the purpose of the study and about their responsibility as co-researchers, namely that they were expected to attend FGMs, write reflections and do internet searches. This information was provided to all potential participants in an information sheet.

It was made clear that the content of participants' written reflections would be kept confidential. Whilst thoughts and experiences shared during FGMs were open to the group, it was agreed to keep shared information confidential beyond the group.

Prospective participants were assured that participation was voluntary and that they could withdraw at any time during the study without having to explain their decision, and that this would not be held against them at any stage in their professional careers. Prior to signing informed consent, participants were given the opportunity to raise concerns and ask questions which were discussed and answered.

Participants received the contact details of the researcher and the researcher's supervisor. The information sheet and consent form can be found in Appendix B, TABLE 18.

3.4.3.2 RECORDING AND TRANSCRIBING EQUIPMENT

Co-researchers were briefed on the importance of recording FGMs and agreed to have FGMs recorded. An Olympus Digital Voice Recorder DS-3300, a high quality device, was used to record FGMs. Recordings were downloaded onto a laptop, organised by date and stored in a compressed form.

3.4.3.3 MANAGEMENT OF SENSITIVE INFORMATION

The nature of the research was such that the probability of sensitive information arising, with subsequent need for support, was low. In the case of sensitive information being provided by co-researchers, the researcher had negotiated for additional support from the research supervisor; however, this support was not required.

The application of the principles underpinning co-operative inquiry, the Belmont Report (1979) guidelines, the practice of the feminine ethics of care, and the principles of the Declaration of Helsinki (2008) ensured commitment to enhance the well-being and interpersonal relationships of the co-researchers. The researcher is of the opinion that these approaches augmented each other and were thus in line with Lincoln's statement that "... the standards for quality in interpretive social science are also standards for ethics" (Lincoln, 1995:287). The next section elucidates how the study was structured adhering to chosen methodology and these ethical principles.

3.5 DATA CONSTRUCTION

For knowledge transfer and generation, as well as for data collection, two cycles were completed. The phases in the inquiry were consequential, but not exclusive of each other. There were also individual differences between co-researcher's levels of involvement.

3.5.1 CYCLE 1, PHASE 1-4

- Phase 1: Co-researchers came together to explore EBP, identifying problems and defining the focus of what they needed to do (FGM 1).
- Phase 2: The group evolved into a group of co-researchers as they shared their experiences. They engaged in the actions decided upon, recorded and observed the process and became more confident in experimenting with new ways to practice. They compared their new experiences and determined whether they would like to conform or not (searching for evidence between FGMs 2 and 3, and FGMs 3 and 4).
- Phase 3: Co-researchers became fully immersed in the process and developed a degree of openness. This formed the essence of the research as

new ideas were forged by the interaction of experiential, presentational, propositional and practical knowing (FGMs 3, 4 and 5).

- Phase 4: Co-researchers reflected and shared their experiences identifying growth and change and how this could develop into sustainable practical knowing (FGMs 5 and 6).

3.5.2 CYCLE 2, PHASE 1-4

- Phase 1: A new cycle started. The co-researchers had identified the need to explore how PICO questions could be developed and used (FGM 7).
- Phase 2: The group engaged in searching for evidence using PICO questions (between FGMs 7 and 8).
- Phase 3: Co-researchers worked together to prepare presentations. This became a new touchstone as new ideas were forged by the interaction of experiential, presentational, propositional and practical knowing (worked together between FGMs 7 and 8).
- Phase 4: Co-researchers reassembled to share experiences: identifying growth and change and how this could develop into sustainable practical knowing (FGM 8).

Eight FGMs were conducted which provided opportunities for instruction, debate, deliberation and presentations – mostly making use of the informative research culture. FGMs advanced propositional, presentational and to some degree experiential knowing.

Between FGMs, co-researchers engaged in EBP-related action: they retrieved evidence, wrote reflections and applied the gained knowledge in practice. These actions represented transformative research culture, inducing experiential, presentational, practical and, to some degree, propositional knowing.

The following is a summary of how the four ways of knowing were applied:

- experiential knowing supported internet searches, engaging in FGM discussions and the application of gained knowledge in co-researchers' practices;
- presentational knowing emerged from the experiential component and included co-researchers' written reflections, presentations of group work in focus groups, and the case presentations in the last focus group;
- propositional knowing was gained by learning occupational therapy theory, for example the Occupation Performance Process Model (OPPM) (Townsend & Polatajko, 2007), the Person-Environment-Occupation Model (PEO Model) (Law et al, 1996) and the Canadian Model of Occupational Performance and Engagement (CMOP-E (Townsend & Polatajko, 2007), as well as the definition and concepts of EBP (including the five step process);
- practical knowing was expressed in the skills learned, such as following the EBP five step process and utilizing research evidence in the practical therapy situation.

Detailed outline of one FGM as planned and executed is presented in Appendix C.

3.6 DATA COLLECTION

Data collection comprised eight FGMs and four written reflections. Data thus consisted of the co-researchers' reflections (FPR), the researcher's reflections (RFPR), as well as recordings of FGMs (SPR), collected over a six months period, from 30/08/2009 to 26/03/2010 (see TABLE 4, page 46).

The researcher decided that documentation of the experiences of the co-researchers should enhance the reflective nature of the co-operative inquiry. She chose first-, and second person research (FPR and SPR respectively) (Reason &

Torbert, 2001). A schematic representation of the process of data collection and data generation is captured in Appendix C.

TABLE 4: DATA COLLECTION

Collection techniques	Collection tools
Recordings of FGMs (SPR) – FGMs 2-6 and 8	Olympus Digital Voice Recorder DS-3300
First-person research data (FPR) – written after the first four FGMs	Pre-designed forms with space for coding texts, including an administrative section for participant code, meeting number, and date
Reflective notes of the researcher (RFPR)	Diary-format; word document on computer
Verbatim transcriptions of FGM recordings	Olympus Digital Voice Recorder DS-3300
RFPR served to prepare the next focus	Incorporated in the Power Point presentation for the next focus group.

3.7 DATA MANAGEMENT AND ANALYSIS

Data was stored and preserved. See TABLE 5 for details of this process.

TABLE 5: DATA STORAGE

Data storage
Stored as voice recordings on voice recorder and downloaded onto laptop computer
Stored electronically on laptop; two hard copies were made: one stored in safe place and one used for analysis; electronic back-ups were made on flash stick and kept in the researcher's safe
Stored on laptop; electronic back-ups were made on flash stick and kept in the researcher's safe
Stored electronically on laptop; two hard copies were made: one kept in safe and one used for analysis; electronic back-ups were made on flash stick and kept in the researcher's safe
Stored electronically on laptop; electronic back-ups were made on flash stick and kept in the researcher's safe

In line with Patton's definition of phenomenology the researcher believes that:

“[...] one can employ a general phenomenological perspective to elucidate the importance of using methods that capture people’s experience of the world without conducting a phenomenological study”(Patton, 2002).

This co-operative inquiry focused on the lived experience of the co-researchers and the researcher within their political, social, cultural and professional contexts; thus interpretive phenomenological data analysis (Swanson & Wojnar, 2007) was appropriate.

Furthermore, data was analysed following inductive content analysis and the application of open coding, focused coding and axial coding techniques, creating categories and overarching themes (Creswell, 2003; Graneheim & Lundman, 2004). The following stages were employed in the process:

- Stage 1: data generation;
- Stage 2: data management;
- Stage 3: familiarisation with data; and
- Stage 4: coding data.

3.7.1 STAGE 1: DATA GENERATION

This stage of analysis took place during the data collection phase of the research. The researcher read FPR and transcribed SPR, familiarising herself with co-researchers’ thoughts on EBP. She reflected on co-researchers’ comments, ideas and needs and took these to the next FGMs. In this way the co-researchers directed the research.

3.7.2 STAGE 2: DATA MANAGEMENT

All FGM recordings were transcribed verbatim by the researcher in the week after the FGM took place. Three data sets were obtained: co-researchers' reflections, transcribed FGMs, and the researcher's audit trail.

To manage data, the researcher designed a clear naming system to allow for easy tracking of documents. Each document had its unique identification code. Documents were stored according to co-researchers' names as well as per reflection for FPR and per FGM for SPR. The researcher's FPR was captured in a continuous document in diary style.

All reflective pieces obtained were 'cleaned', correcting spelling and grammar.

3.7.3 STAGE 3: FAMILIARISATION WITH DATA

Once all data were cleaned and compiled, the researcher familiarised herself with the unit of analysis as a whole (Creswell, 2003) . She started to review data by reading and re-reading all submissions, contemplating what ideas were expressed and the tone of the narratives. At this stage the researcher began to separate the text into content units, depicted as Appendix E.

3.7.4 STAGE 4: CODING OF DATA

Graneheim and Lundman's (Graneheim & Lundman, 2004) approach was used. Data were coded using open coding, commonalities of the shared experiences were extracted and understood within the context of the co-researchers' perspectives (Patton, 2002). The focus of the analysis was on the experiences, opinions and feelings of co-researchers and the researcher, as documented against their professional and socio-cultural background. The coding process constituted the following levels, which are described below:

- Level 1: phenomenological reduction and member checking (TABLE 21 in Appendix F)

- Level 2: creating categories (Appendix G)
- Level 3: creating and refining themes (H + I)

3.7.4.1 LEVEL 1: PHENOMENOLOGICAL REDUCTION AND MEMBER CHECKING (OPEN CODING)

The researcher read transcripts with an open mind (Rallis & Rossman, 2011) and guarded against judging them in the analysis against a preconceived reality. The meaning co-researchers intended to communicate was interpreted in this process. The following steps were taken for reduction:

- breaking down units of analysis into content;
- condensing meaning units, thus starting the coding process;
- returning condensed meaning units to co-researchers for approval and/or for obtaining clarification where needed;
- amending condensed meaning units and proceeding with the coding process.

All transcripts were then coded. After identifying codes or meaning units (Graneheim & Lundman, 2004), the researcher condensed the codes, and referred to them as condensed meaning units (Graneheim & Lundman, 2004). These were entered on the spread sheet next to the meaning units. Another column was created for the co-researchers' comments. The researcher compiled an individualised document for each co-researcher, comprising the co-researcher's original coded text and the condensed meaning code. This was sent to each co-researcher for verification. Refer to Appendix F).

3.7.4.2 LEVEL 2: CREATING CATEGORIES (FOCUSED CODING)

Amended condensed meaning codes were categorised. All codes were used, and assigned to one category only. To this end, the researcher once again combined all

individualised documents to form one spread sheet. She then replaced the last column entitled 'comment' with the category name and created two more columns – referred to as 'subcategory numeric' and 'category numeric' respectively. All transcripts were thus categorised – named and numbered. The next step entailed clustering of categories and subcategories and looking for further commonalities, which lead to the emergence of themes (TABLE 22).

3.7.4.3 LEVEL 3: CREATING AND REFINING OF THEMES (AXIAL CODING)

The co-researchers identified patterns, clustered into categories and subcategories. Abstraction of these patterns emerged as themes through an iterative progressive process of reflection.

The researcher reflected on comments from her supervisors in relation to themes, categories and subcategories, creating new categories and collapsing existing categories. (Appendix H, TABLE 23 and Appendix I, TABLE 23)

To finalise categories, the researcher engaged with the data and reflected on the process, the data and her response to the data; this process was not linear but iterative. For a graphical representing of the iterative process please refer to Appendix J, FIGURE 4).

3.8 RIGOUR OF THE STUDY

In this inquiry trustworthiness was enhanced by ensuring that:

1. the findings were congruent with the reality of the co-researchers in their contexts;

2. readers can determine the applicability of the findings to their own setting, because all details are described ;
3. a similar study could be carried out , knowing in advance that the results obtained would differ;
4. the experiences of the co-researchers were honestly reflected in the findings.

An account of how these were applied in this study is provided below, organised according to the trustworthiness criteria of credibility, transferability, dependability and confirmability.

3.8.1 CREDIBILITY

Credibility was ensured by choosing co-operative enquiry, which followed a cyclic process of real life experiences of co-researchers and delivered an accurate record of their lived experience. Building a research group on the principles of the ethics of care further enhanced co-researchers' trust in the researcher and facilitated openness and honesty in sharing their experiences.

Maximum variation sampling enabled the researcher to find a broad account of experiences related to the research topic; the probability of covering most ideas and a wide range of experiences was thus ensured.

The researcher collected data from individuals (FPR), from interactive group discussions, group presentations (SPR) and from her own reflections (RFPR), including observations and thoughts. Using three different ways of collecting data ensured that possible shortcomings of one method were compensated for by the others. Supporting data assisted the researcher to understand her co-researchers better and to triangulate their experiences.

The researcher engaged with the co-researchers over a time span of seven months, which ensured that she could clarify uncertainties by iterative questioning (Shenton, 2004). The researcher also used the technique of member-checking (Lincoln & Guba, 1985) to make sure she understood co-researchers' texts correctly.

Transcribing FGMs and studying the FPR before the next session assisted the researcher to reflect on the effectiveness of the reciprocal approach as well as the general direction the research took. RFPR documented change of direction or approach.

The researcher's credibility in terms of her competence regarding the research method, group handling skills and her knowledge base certainly impacted on the quality of the study. The researcher chose methods with which she was comfortable and had previous experience.

3.8.2 DEPENDABILITY

Qualitative research cannot be repeated due to variation and composition of the sample. Group handling and interpretation of data in the data generation process also influences the direction of the study. The research design and the theories underpinning the decisions taken, could, however be used to direct a similar study.

3.8.3 CONFIRMABILITY

As may be inferred from the above, the study had a strong here-and-now presence, typical of action research in general and co-operative inquiry in particular (McKay & Marshall, 2000; Raelin & Coghlan, 2006). However, the researcher kept a data-orientated RFPR or audit trail throughout the process. She also kept a record of the theoretical basis underpinning her decisions. This indicates the reflective nature of

the inquiry and thus assists confirmability (Shenton, 2004). The audit trail is summarised and attached as Appendix K.

CONCLUSION

The paradigm of choice was action research, in particular co-operative inquiry. The researcher considered action research as the methodology for her research as she was convinced that the cyclic process of doing, reflecting, learning, and planning, underpinned by the learner-centred, participatory, democratic, philosophy of action research would facilitate achieving her aim and objectives.

Optimising on diversity of co-researchers, obtained by purposive sampling, specifically maximum variation sampling, and the researcher managed group relationships by applying asymmetrical reciprocity (introduced in the Chapter). Data were analysed following the Heidegger's phenomenological data analysis process (Wojnar & Swanson, 2007), employing content analysis and coding techniques. This iterative process of reflecting and re-reflecting enabled the researcher to obtain insight into the lived experience of occupational therapists practicing in Namibia as they explored EBP in their settings. Principles of trustworthiness were applied to ensure research of good quality.

This co-operative inquiry facilitated experience-based learning opportunities for co-researchers to explore EBP in their own settings. Opportunities to acquire knowledge and skills regarding theory and practice of EBP were provided. Co-researchers' written reflections and focus groups' transcribed discussions yielded data, which suggested that EBP might be feasible in Namibia. The findings will be described in the next chapter.

4 FINDINGS

INTRODUCTION

This chapter describes the findings as they emerged from the data analysis. Three themes emerged, namely:

1. Theme 1: Co-researchers' mixed feelings about the possibilities of EBP;
2. Theme 2: Shifts resulting from engagement in the inquiry;
3. Theme 3: How to make EBP happen in Namibia.

These themes are presented with the related categories and subcategories in TABLE 6: THEMES, CATEGORIES and SUBCATEGORIES. In these descriptions the headings of the subcategories are set in italics. The themes, categories and subcategories are repeated in TABLE format in the text following the respective heading for ease of reference.

All three themes were evident throughout the research process. They did not, however, emerge sequentially. There was a tendency in the initial stages for Theme 1 to be stronger and in later stages for Theme 3 to be dominant.

In order to substantiate the findings, direct quotes by the co-researchers, edited for language, have been included in the following descriptions, as well as excerpts from the researcher's reflective notes to contextualise the findings. Pseudonyms have been used for all co-researchers as well as for colleagues not included in the study but to whom reference was made in FGM discussions.

TABLE 6: THEMES, CATEGORIES AND SUBCATEGORIES

THEMES	CATEGORIES	SUBCATEGORIES
1. Co-researchers mixed feelings about the possibilities of EBP	1.1. Discovery of a new world	1.1.1. Amazed and overwhelmed by the quantity of available information 1.1.2. Information found electronically was meaningful 1.1.3. Grateful to be shown a new horizon
	1.2. Barriers curbed success	1.2.1. Restricted resources undermined EBP
		1.2.2. Demoralised by lack of knowledge, skills and vision
		1.2.3. Inertia and comfortable habits stifle adopting new ways
		1.2.4. Restricted time available for searches
2. Shifts resulting from engagement in the inquiry	2.1. Acquisition of knowledge and skills aided implementation of EBP	2.1.1. Co-researchers became users as well as creators of knowledge 2.1.2. Shifts in daily practice
	2.2. Shifts occurred in perception of professional identity and worth	2.2.1. Taking up EBP improved professional confidence
	3. Making EBP happen in Namibia	3.1. Transformation of practice demands action
3.1.2. Exercising choice - individuals becoming mobilised		
3.2. Structured approach needed to implement and sustain EBP		3.2.1. Collaborative action could result in habituation
		3.2.2. EBP needs to be implemented on a wider spectrum
3.3. Inadequate resources curb execution of EBP		3.3.1. Proper equipment and infrastructure vital for EBP
		3.3.2. Lack of access to literature paralyses EBP
	3.3.3. Limited resources restrict application of evidence	

For ease of writing and reading, as well as to further ensure anonymity, all occupational therapists will be referred to as ‘she’ and clients as ‘he’. Changes to the quotes presented in the research report have been aligned with this.

4.1 CO-RESEARCHERS MIXED FEELINGS ABOUT

THE POSSIBILITIES OF EBP

The contrasting emotions of the co-researchers emerged as the first theme. Co-researchers experienced both positive and negative emotions as they engaged with the EBP process. Positive experiences were related to the quantity of relevant information found on the internet as captured in the phrase ‘*Discovering a new world*’. ‘*Barriers curbed success*’ on the other hand described the numerous hindrances that co-researchers experienced.

4.1.1 DISCOVERY OF A NEW WORLD

In the first category, experiences were captured which related to the wealth of information obtainable from electronic media, a resource until then mostly undiscovered by the co-researchers. Finding this resource had an invigorating effect on co-researchers’ attitudes towards EBP. It instilled the hope of potentially reviving their professional thinking and practice.

TABLE 7 shows the categories and subcategories depicting co-researchers experiences.

TABLE 7: THEME 1/CATEGORY 1

THEMES	CATEGORIES	SUBCATEGORIES
1. Co-researchers mixed feelings about the	1.1. Discovery of a new world	1.1.1. Amazed and overwhelmed by the quantity of available information
		1.1.2. Information found electronically was

possibilities of EBP		meaningful
		1.1.3. Grateful to be shown a new horizon

4.1.1.1 AMAZED AND OVERWHELMED BY THE QUANTITY OF AVAILABLE INFORMATION

As indicated in Chapter 1 of this study, the digital divide had led to limited utilisation of ICT for many people living in Namibia. The utilisation of electronic media as a source of retrieving information is not widely established among occupational therapists in this country. It is against this backdrop that the initial almost euphoric responses to the discovery of an unused resource, an unexpected sphere, a ‘new world’, can be understood. A number of co-researchers expressed sentiments similar to this:

Marie: “Wow! A new world has opened up for me through surfing the internet, searching for key words/phrases. One that stores tons of information that I wasn’t aware of, or if I was, I did not have the time to explore [this] previously. [The amount of] information was totally overwhelming. So many articles on everything!”

4.1.1.2 INFORMATION FOUND ELECTRONICALLY WAS MEANINGFUL

Although the quantity of information was overwhelming, co-researchers found searching for evidence, especially in the initial stages of the inquiry, meaningful. They mainly searched for clarification of concepts rather than intervention protocols and articulated that:

- articles were informative on a professional level;
- articles affirmed beliefs they held regarding occupation therapy and;
- articles had a mobilising effect on co-researchers.

Co-researchers were excited to find information relevant to them as professionals. This facilitated a positive attitude towards searching for information via the internet and thus constituted an important building block for EBP. Co-researchers not only found information that enhanced their knowledge, they also retrieved articles that supported their philosophical beliefs regarding occupational therapy practice and theory.

Nina: "By now I am getting to information and ideas that I share on a very deep level and I am curious to read more ... I almost feel as if a missing link inside of me is being addressed through what I read now. .. I want to spend more time with this stuff – it seems so right up my alley! I mean, "life of life", "we are what we do", "purpose", "spirituality"!"

Reading articles that affirmed beliefs carried an element of activism, which exposed ways to be or to do differently. Britta expressed that for her a real shift in focus had occurred during the awareness raising stages of the study; she developed the urge to utilise evidence.

Britta: "I become acutely conscious of existing studies and concrete case studies. Actually, I am not the "scientific type", I tend to work more according to my feeling and experience than according to a structured and scientifically orientated plan. Now, due to an increased awareness, I perceive a shift in interest and I become curious about, and also feel a strong need for implementing evidence/proofs into my therapy and parent feedback."

4.1.1.3 GRATEFUL TO BE SHOWN A NEW HORIZON

Most co-researchers found engagement in the study beneficial to their personal and professional growth. They related quite personal information such as "this has actually improved the relationship with my husband" (Nina). Co-researchers expressed their gratitude towards the researcher or the process they were involved in rather than EBP per se.

Mari: “Jy is nou die enigste siener in 'n land van baie blindes... ;) Please lead us gently... [You are the only person with (in)sight in a land of many blind people]...; please lead us gently.”

Nina: “I want to express gratitude towards Helga for the opportunity to learn something of which I already am interested in.”

The positive experiences seemed to be a driving force to carry on with the inquiry, even though many barriers were experienced.

4.1.2 BARRIERS CURBED SUCCESS

Despite co-researchers’ excitement about having discovered a prolific source of information, they also expressed their frustration about the numerous barriers they encountered. Although a substantial number of these hindrances were related to lack of financial resources and/or lack of knowledge and skills, some were related to inertia and comfortable habits. These barriers, listed in TABLE 8: THEME 1/CATEGORY 2 had a cumulative time-consuming effect on the already full daily routines of the co-researchers. See TABLE 8 for details.

TABLE 8: THEME 1/CATEGORY 2

THEMES	CATEGORIES	SUBCATEGORIES
1. Co-researchers mixed feelings about the possibilities of EBP	1.2. Barriers curbed success	1.2.1. Restricted resources undermined EBP
		1.2.2. Demoralised by lack of knowledge, skills and vision
		1.2.3. Inertia and comfortable habits stifle adopting new ways
		1.2.4. Restricted time available for searches

4.1.2.1 RESTRICTED RESOURCES UNDERMINED EBP

Co-researchers identified three aspects related to resources that curtailed their engagement and performance while searching for evidence. These were:

- inadequate computer hardware and incompatible software;
- not having access to fast internet access (broadband); and
- costs involved in obtaining access to scholarly work.

Not possessing a computer, sharing a computer with the rest of the family and / or having outdated computers and software made searching for evidence challenging for co-researchers.

Sidney: "Basically, I had problems in acquiring the information because of lack of resources such as personal computer with internet connection; so I had to rely on a laptop from a friend. I also managed to use the internet from my cell phone but it has got limited memory so I could not get much information."

In addition, co-researchers who had computers mostly had dial-up connections to the internet. They attributed this to the high costs involved in connecting to broadband. Dial-up connections substantially slowed down the retrieval of information, especially during peak hours.

Marie: "Frustrations were also common. Due to poor or slow internet connections, it was sometimes difficult [to] open articles, links and websites. It simply just took too long! By shutting it down, have I maybe missed something important?"

Once information was found, it was often not accessible to co-researchers because the software of their computers was not compatible. More often than not they could not access articles as these had to be purchased. Living in Namibia, and thus

having to pay in foreign currency, without having a guarantee that the article would answer their clinical question, was a route co-researchers did not follow during the course of this research.

Especially in the later stages of the inquiry the inability to access information incurred frustration. Reading abstracts only seemed to satisfy co-researchers who looked for general information. Co-researchers searching for articles to answer their intervention-related PICO questions found reading abstracts inadequate. Co-researchers expressed their frustration of being excluded from the EBP movement due to lack of access to scholarly work. Comments such as “Wow! Finally something I can use”, to “Aaghh, I can’t read the article... (Marie)” or “... you had to be a member to access the full article (Leigh)” were expressed by all co-researchers.

Co-researchers reported that the evidence that somehow answered their questions was mainly from open-access articles related to other fields of medicine. Occupational therapy articles largely remained inaccessible.

4.1.2.2 DEMORALISED BY LACK OF KNOWLEDGE, SKILLS AND VISION

Unrelated to co-researchers restricted financial resources, but equally disappointing was the realisation that they lacked knowledge and skills related to ICT. Co-researchers also expressed that their limited exposure to the outcomes EBP promised restricted their aspiration to engage in EBP. They thus expressed being demoralised due to:

- lack of basic computer skills;
- lack of skills in retrieving, understanding and assessing information;
- lack of vision about possibilities of EBP.

Lack of basic ICT skills such as searching, storing and organising information added to co-researchers' rising levels of frustration. A number of co-researchers reported that they were concerned that they may not be able to re-find certain information and this distracted them from efficient searches (time and cost wise). Generally, co-researchers did not seem to download information, and when they did, the storage of downloaded documents was unstructured resulting in ineffective time management.

Nina: "I clicked on that and voila! Everything freezes!! I did [press] control-alt-delete and END TASK. So now I have to start search[ing] all over... Frustrating and a waste of my time... Finally I got to the previous article... When I saved it, I had to create a new folder ...and then saved the article in that. Then, when I opened 'My Docs', I found the participant-observer article which you had sent by mail a while ago, as well as my 1st FPR. So now I have to spend time (not searching the net) but organizing my docs."

Most co-researchers admitted to not remembering how to search for evidence. They had "forgotten most of what I had learned at the EBP workshop" (Leigh) earlier in the year. Once they had to search clinically relevant evidence they were at a loss, not remembering the five-step process.

It became evident that the co-researchers did not formulate PICO questions to structure their search. They therefore ended up with quantities of interesting articles that were not necessarily relevant to their (unstated) clinical problem. Co-researchers also struggled with reading relevant articles as "the jargon throws me and at times I will not finish reading an article or abstract as I feel that I have lost the plot before even getting half way through" (Leigh).

As most co-researchers only accessed evidence using the Google search engine, they identified problems regarding the validity of articles accessed this way. They expressed their inability to determine whether evidence was sound.

Explicit factors such as not having ICT skills, not formulating PICO questions, not identifying correct key words, and not knowing how critically to appraise articles made the process frustrating and challenging. Co-researchers identified tacit causes to their frustrations as well. They figured out that their inability to find evidence was linked to a lack of vision of what could possibly be found.

Leigh: "Essie came back and is now working with us. And just having her around after her working in Australia, and all the resources that they had there. And just today she was showing me how to do a full wheel chair assessment. So she went on the internet, showed me that, it was on their webpage, how to access that and ... I thought that is pretty cool. And it's again having access and knowing. We would have never ever come upon her website."

Similarly, not having experienced the benefits of adequate equipment and internet connections restricted co-researchers' readiness to invest in the benefit of having this technology. Towards the end of the inquiry, Marie obtained a 24-hour broadband internet connection (at a fixed price), because her dial-up connection was malfunctioning. This experience of rapid and unlimited access to the internet with no financial premium changed Marie's world, allowing her to experiment and explore on the internet at leisure.

Marie: "What I found is that I did not know how to use the internet before we had 24 hour access. ... So I do not know what people do without [broadband] internet nowadays. I didn't have a clue before where to start, so it's really fantastic to have access."

Co-researchers were also aware that not all barriers lay outside of themselves. Some barriers were entrenched within them or at least influenced their outlook.

4.1.2.3 INERTIA AND COMFORTABLE HABITS STIFLE ADOPTING NEW WAYS

Co-researchers seemingly shunned away from experimenting with the unfamiliar. In the later stages of the inquiry, co-researchers chose to restrict themselves to Google searches, although they were given the option to access databases. They defended their choice on the grounds that this was the authentic resource.

A common self-inflicted hurdle was procrastination. A number of co-researchers stated that they waited for the last minute to start searching. This induced another problem for them in this inquiry as it resulted in not having enough time to do the search properly and finishing their reflections in time.

Co-researchers also stated that searching for evidence was not a priority for them. This may have been due to the barriers of access already mentioned, but also reflected that EBP was not considered a professional priority and therefore time was not allocated to this task during a busy work schedule.

4.1.2.4 RESTRICTED TIME AVAILABLE FOR SEARCHES

All co-researchers complained that their time was restricted and that they had difficulties searching and finishing their reflections in time. The reasons given included:

- family and community commitments;
- time was not allocated for searching for evidence;
- squandered time due to barriers reported in the previous sections.

Most co-researchers commented that they only had a little time for evidence retrieval, as work commitments, household chores and caring for/spending time with their spouses and children used up most of their time. Co-researchers were of the opinion that women have much more to do in a day as most household and child-raising tasks rest on their shoulders. Although they enjoyed the meetings and reading articles, they felt stressed by another demand on their time. Co-researchers had to apply effort and organise their time in order to attend to the additional commitments in already full schedules. Most co-researchers admitted that searching for evidence was not a priority or an integral part of their days' work. Lack of forward planning resulted in EBP often becoming the last task on their to-do list which resulted in it being neglected.

Some co-researchers tried to make time for searching which resulted in feelings of guilt, as it robbed them of spending time with their families.

Jean: "Now I have to stop searching as my next client has arrived- I hope I will not be too tired or guilty after work at six, to resume- I hope I can find an in between time to continue – oh not another opportunity lost in spending time with my family. I can already hear a special voice saying 'Not everything can be about Occupational Therapy'. I felt stressed because I knew I had to get the typed FPR out to the researcher by today – and I am not making it (late again). Despite the fact that I love to do this, I remain with the question- 'Where and when will I find the balance in my own life?'"

Thus, the culminating effect of

- not having appropriate equipment;
- not knowing what to do;
- not having the skills to efficiently find and capture evidence;

- co-researchers mostly being working women with other commitments and responsibilities

contributed to EBP being a burden on the already stretched time schedules of the co-researchers.

4.2 SHIFTS RESULTING FROM ENGAGEMENT IN THE INQUIRY

A study of the co-researchers' reflections revealed their fragmented ideas of what EBP entailed. In their understanding, EBP had something to do with doing research, utilising research and keeping concise records. Consequently, co-researchers did not know how to work using an EBP approach. To strengthen their understanding of EBP, short 'lectures' were given by the researcher, followed by group discussions. Impressions, experiences and insights resulting from these interactive meetings and concurrent searches are captured in the first category '*Acquisition of knowledge and skills aided implementation of EBP*'. In addition to gaining knowledge and skills, co-researchers found a new appreciation of being occupational therapists, captured in '*Shifts occurred in perception of professional identity and worth*'.

4.2.1 ACQUISITION OF KNOWLEDGE AND SKILLS AIDED IMPLEMENTATION OF EBP

Understanding core concepts of EBP and their relation to the occupational therapy process were explored. Co-researchers learned about the five steps of the EBP process. They gained new insights and identified shifts in their thinking by participating in the FGMs. The first category considered how the acquisition of knowledge and skills aided co-researchers in implementing EBP. TABLE 9 shows the details.

TABLE 9: THEME 2/CATEGORY 1

THEMES	CATEGORIES	SUBCATEGORIES
2. Shifts resulting from engagement in the inquiry	2.1. Acquisition of knowledge and skills aided implementation of EBP	2.1.1. Co-researchers became users as well as creators of knowledge
		2.1.2. Shifts in daily practice

4.2.1.1 CO-RESEARCHERS BECAME USERS AS WELL AS CREATORS OF KNOWLEDGE

By studying the definition of EBP by Dawes et al (2005), the co-researchers realised that EBP was not congruent with any of their initial understandings but rather was merely related to all of them. More importantly, they realised that EBP is intended to assist therapists to practice more efficiently and effectively. Through short lessons, reflection and dialogue they gained knowledge and skills on the client as expert and the occupational therapist as expert.

Although all co-researchers affirmed their belief in client-centred practice, it was evident that they did not include their clients in the decision-making process. In their current practice they had largely ignored this important principle of client-centred practice. However, they developed an understanding that evidence had to be related to their clients' beliefs, context and circumstances.

Marie: "One fact hit me quite hard (again) and that is that the client is the expert in living his life. Don't ever move him aside and think you know better."

Consequently, co-researchers affirmed appreciation of the client's expertise of his or her own life (especially in relation to their environment and their lived experience in this environment) and that this had significant influence on the approach and process of therapy. Considering the client's culture not only

determined the intervention but also significantly framed the entire therapeutic approach to treatment goals and the intervention plan.

Most co-researchers acknowledged the client as a knowledgeable stakeholder in the decision-making process. They also acknowledged the client's right to be involved in this process. This, however, raised the question on the extent to which a client should be involved in the decision-making process in scenarios where clients had limited insight into their condition. Reservations were expressed on the validity of always honouring a client's right to be included in the process. Sidney was adamant that a psychotic patient should not be involved in the decision-making process and therefore queried the relevance of EBP in her practice context

Sidney: "Nevertheless, I still have questions on how to be client-centred with psychotic patients in an acute psychiatric setting as well as with patients with poor insight into their condition in any setting."

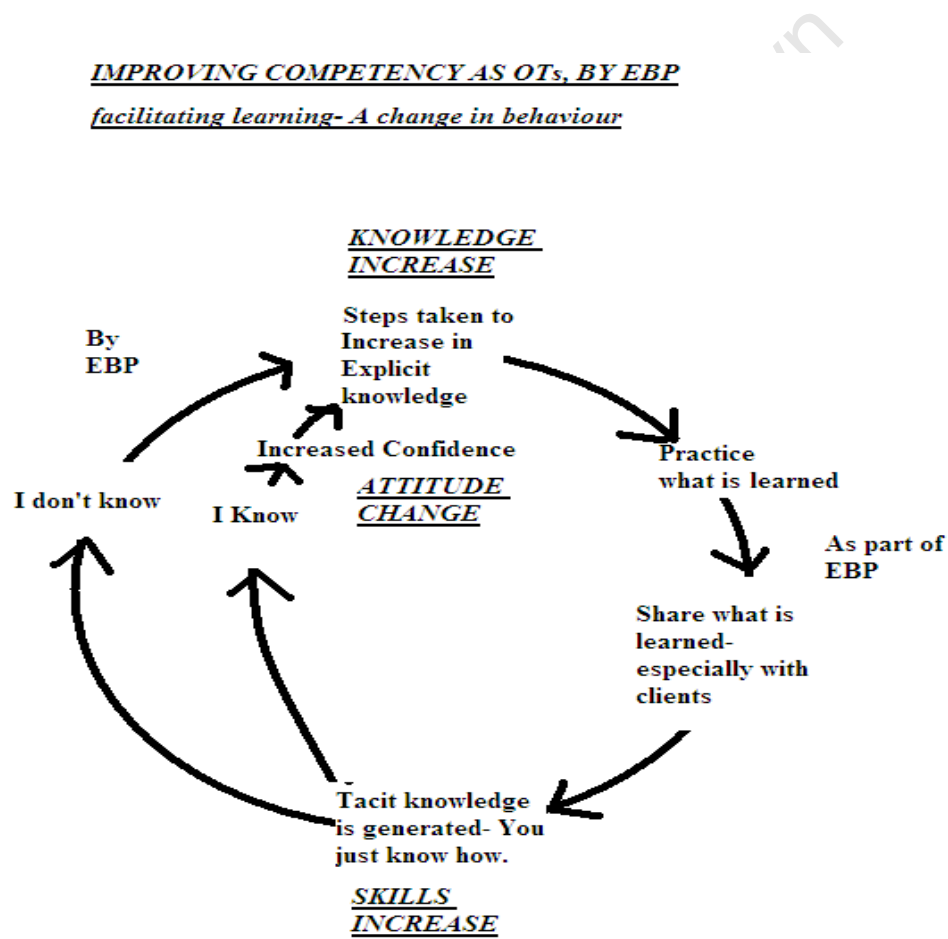
Although co-researchers discussed this matter, time constraints and lack of research evidence hampered an in-depth discussion on this matter.

Transcription of the audio track of the second FGM in which the definition of EBP and client-centred practice were discussed, enabled the researcher to identify the co-researchers' lack of appreciation of their own expertise.

Through the introduction of the PEO and CMOP-E alongside the concepts of tacit and explicit knowledge, co-researchers found an appreciation of their unique body of knowledge. They expressed appreciation of having models (explicit knowledge) illustrating their unique role. They were also relieved that tacit knowledge was described as a known phenomenon, as this concept partly explained their difficulty in explaining, for example, occupational therapy. The emerging understanding of having tacit and explicit knowledge and that both bodies of knowledge could grow

indefinitely seemed to be of importance to co-researchers. It was exciting to observe their growing awareness of the interrelatedness of tacit and explicit knowledge: that tacit knowledge could become explicit, and that newly learned explicit book knowledge could become internalised and thus add to one's body of tacit knowledge. Knowledge creation was explicitly demonstrated by Jean's (one of the co-researchers) model of improving competency, which she presented in one of her FPRs, see FIGURE 1, page 69.

FIGURE 1: JEAN'S MODEL OF IMPROVING COMPETENCY



This presentation of a co-researcher's model reflected the group's shift from users to creators of knowledge, as tacit knowledge became explicit

4.2.1.2 SHIFTS IN DAILY PRACTICE

With the role of the client as well as the occupational therapist in the decision-making process established, it remained for the co-researchers to find evidence to implement EBP. Consequently, co-researchers developed a need to search for evidence that was more specific. Through short teaching sessions, reflection and dialogue they gained knowledge and skills on the following aspects of the EBP process according to (Dawes et al, 2005)

- Step 1: translation of uncertainty to an answerable question;
- Step 2: systematic retrieval of best evidence available;
- Step 3: critical appraisal of evidence; and
- Step 4: application of results in collaboration with the client;
- Step 5: assessment of new approach was omitted¹⁷.

The co-researchers realised that the basic knowledge and skills they had acquired would not turn them into evidence-based practitioners. Although this inquiry was too short to monitor the sustained implementation of EBP in practice, and it was not intended to do so, co-researchers described changes in their approach to practice. These shifts were mostly related to the way they interacted with clients, family or colleagues.

Mari: “The last weeks was especially positive in the sense that I’ve already tried to implement some of the strategies, or otherwise started to think differently about therapy, counselling with my clients and planning of sessions. It also open paths for discussions with other OT’s not currently included in the research group, on the necessity of changing set patterns and breaking of ‘same-old’ behaviour/ways. Is the thing that we’ve always thought of as correct, really the right or best way?”

¹⁷ Appraisal of evidence is daunting especially to novice evidence-based practitioners. For completeness it is mentioned, but experts concur that critical appraisal should be avoided in introductory evidence-based courses (Yousefi-Nooraie et al, 2007). An assessment of applied evidence was not possible within the time frame of this study.

To assist them to make sense of and to explore the EBP process in depth, co-researchers were encouraged to formulate PICO questions not only relating to interventions, but to all steps of the occupational performance process model (OPPM) or the Canadian practice process framework (CPPF).

Kim: "Before taking part in this research, I thought EBP was only about reading about the condition and how to treat a patient, but now I know there is more to EBP than that.... now I know that you need to include EBP in each stage of your Occupational Therapy process from the screening to the termination of treatment."

The unstructured and unsatisfying searching methods that prevailed in the initial stages were replaced by focused searches. Co-researchers impressed the researcher by their final searches. Most co-researchers asked intervention related PICO questions. Only one co-researcher found an open access article by occupational therapists. One co-researcher found occupational therapy abstracts, one had evidence from a physiotherapy article yet most articles came from open access medical journals.

Britta had decided to use evidence in parent feedback sessions, but realised this would not be good enough and that she had to use evidence in other areas of her practice as well. She searched and read articles with a clearer focus.

Britta: "I already used the internet very regularly, but up to now more in respect of general information e.g. regarding evaluation methods, different symptoms or possible therapeutic intervention. My search changes in so far, as I increasingly go to the specialist pages directly. This enables me to review whether I am up-to-date, whether there are changes in therapeutic approaches etc. I observe myself reading articles in my professional magazine in a different manner now, I directly notice EBP-related key words,

I start to handle the contents/information differently with a changed importance and value.”

Although co-researchers initially believed that evidence should be related to interventions alone, they realised that evidence can enhance each step of the CPPF process. Consequently, co-researchers widened their searches. Although this was not discussed at length, they realised that outcomes-based assessments are an important asset. Britta had searched for an appropriate test after she had stumbled upon a need in her practice for a specific test. She wrote

Britta: “Additionally, I love to evaluate and to get clear and measurable results, which can be compared after a while, instead of using only subjective observations. Regarding the topic I brought up at our last meeting, I even found an assessment to evaluate tactile-kinaesthetic perception costs would be above 500.- Euro/ N\$ 6000.- - that's a real dampener.”

Most co-researchers had observed shifts in their practice. These seemed to focus mainly on the first couple of steps of the OPPM or CPPF. Few co-researchers had actually changed intervention programmes although they also made references to applying evidence-based approaches in the later steps of the framework.

4.2.2 SHIFTS OCCURRED IN PERCEPTION OF PROFESSIONAL

IDENTITY AND WORTH

Most co-researchers voiced frustrations due to low levels of professional self-esteem. Much of FGM time was spent talking about professional identity. Co-researchers felt that this was undermined by the poor knowledge other professionals and the public at large had about occupational therapy. They were also frustrated by their lack of competence in communicating what occupational therapists do and what the profession is about. Co-researchers realised that EBP

could enable them to engage in sound, professional debate with confidence. Their experiences related to increased confidence was portrayed in the section *'Taking up EBP improved professional confidence'*. See TABLE 10.

TABLE 10 THEME 2/CATEGORY 2

THEMES	CATEGORIES	SUBCATEGORIES
2. Shifts resulting from engagement in the inquiry	2.2. Shifts occurred in perception of professional identity and worth	2.2.1. Taking up EBP improved professional confidence

4.2.2.1 TAKING UP EBP IMPROVED PROFESSIONAL CONFIDENCE

Due to the reflective nature of the inquiry, questions regarding co-researchers' professional identity and self-worth recurred. Lack of self-esteem appeared to be exacerbated by the lack of appreciation of their profession by members of the multidisciplinary team. It became clear that the involvement in the inquiry had positive effects on their professional self-image in the following ways:

- their ability to communicate the essence of occupational therapy effectively was heightened;
- the lack of advocacy for the profession by occupational therapists in decision-making positions was questioned;
- the lack of appreciation of occupational therapy by members of the multidisciplinary team and by clients was challenged;
- the acquisition of additional explicit knowledge and skills raised confidence.

Co-researchers reflected that they could all remember the very long definition of occupational therapy they had learned as students, but they found it difficult to relate this knowledge to clients or members of the professional team in concise, comprehensible ways.

Jean: "The OT contribution to healthcare is probably where we start to lose our confidence as OTs, about how we can contribute to healthcare, because we don't explicitly know in a nutshell what we can contribute, and more importantly what the uniqueness of our contribution is. This is where we start to fail our clients ...This all leaves me with the question of whether our train of thought may have been different, had our education focused more on the essence of occupation as an evidence-based occupational science."

Although co-researchers agreed that it was their role and responsibility to educate team members and the public about their professional role, lack of knowledge and appreciation of their profession was demoralising and exhausting nonetheless. Repeated explanations to colleagues about what outcomes occupational therapists envisaged by their interventions seemed to be lost after each encounter.

Sidney: "Going around the regions as the mental health team, OTs, social workers, ummmm psychologists, and everyone sort of raises awareness of mental health in general. And I was really surprised, most mental health staff I have met up to now from the regions don't even know what OT is, even the CMO (chief medical officer). I was surprised, the chief medical officer, or the director of that region doesn't know what OT is. Or maybe what they are thinking is actually not correct. So, actually I think maybe we should start with those professionals [here] as well [as] in the regions, [as] they don't know. So what's more of the client? [So how should the client know?][Since professionals in the regions do not have a clue what occupational therapy is about, how could we expect that clients have an idea of what occupational therapists do?] "

The realisation that occupational therapists themselves have to advocate for their profession was expressed clearly. Comments such as "then why don't they know about OT? Because we don't tell them" (Kari) demonstrated acknowledgment of ineffective communication or lack of advocacy. The fact that occupational

therapists occupy decision-making positions without seemingly advancing the image of occupational therapy angered co-researchers, commenting “we’ve got an OT there [Motor Vehicle Accident Fund], so obviously they should know” (Dalene). This was interpreted as undermining professional worth. Co-researchers blamed themselves for this, yet taking ownership did not equip them to deal with the dilemma.

Co-researchers realised that EBP might come to the rescue in alleviating this situation. Their broader knowledge base and acquired skills to work in an evidence-based way enhanced their professional self-image and confidence.

Leigh: “When people come to us and they don’t have a clue why they are referred to OT [we start by asking] okay, do you know what we are?, okay and then you launch into the whole ‘spiel’ [you explain the whole rhetoric of what OT is all about]. ...having the confidence now from EBP makes it easier to say, these studies have shown us [that] this is what we do in our treatment, we have increased our awareness, ummm ... not awareness, knowledge.”

As co-researchers started to apply their new skills and knowledge and experienced successes, shifts in their attitude towards their professional self-image were reported. Introduction and application of evidence-based approaches was met with praise from team members: “... and actually I received feedback, like: ‘Ha, presentation was good’” (Sidney). Some co-researchers found a need to implement evidence in their interventions as well.

Although most co-researchers suggested that attempts to apply EBP had a positive effect on their professional self-esteem, Sidney captured this sentiment:

Sidney: “Last but not least, my general thinking is that an evidence based occupational therapist is more likely than not, to be satisfied with her clinical

performance because EBP brings in more confidence in the different ways that we tackle {different} assessments and intervention questions.”

Although co-researchers appreciated the positive effect increased knowledge and skills had on their work satisfaction and professional self-image, they also reflected on the positive outcome improved occupational therapy services could have on the image of the profession as a whole. In a FGM about the improved image occupation therapist could achieve, Marie added:

Marie: “... so that the public will again cherish our input, desiring our services in changing people’s lives, and create a professional image and worthiness amongst other professionals.”

4.3 MAKING EVIDENCE-BASED OCCUPATIONAL THERAPY HAPPEN IN NAMIBIA

During the course of the study, co-researchers developed a vision of a community of evidence-based practitioners in Namibia who would provide a more effective, efficient and ethical service to their clients. They realised that this could only happen if they took continuous action to become evidence-based practitioners. This factor is expanded on in the category ‘*Transformation of practice demands action*’. However, co-researchers realised that they could not achieve this on their own. Their thoughts about the need for group support are portrayed in the category ‘*Structured approach to implement and sustain EBP needed*’. Co-researchers realised that because resources are restricted they needed to be resourceful. This dilemma is capture in the category ‘*Inadequate resources curb execution of EBP*’.

4.3.1 TRANSFORMATION OF PRACTICE DEMANDS ACTION

Co-researchers' attitudes towards EBP changed as the inquiry progressed; however, this change was not linear. At times co-researchers were very excited about EBP, while at others they became quite disheartened. They all agreed, however, that they were more positive about implementing EBP and having success in implementing EBP subsequent to the inquiry. They felt committed to EBP as they realise that this is a crucial part of ethical practice. See TABLE 11.

TABLE 11: THEME 3/CATEGORY 1

THEMES	CATEGORIES	SUBCATEGORIES
3. Making EBP happen in Namibia	3.1. Transformation of practice demands action	3.1.1. Shifts in attitude - realisation of choice
		3.1.2. Exercising choice - individuals becoming mobilised

4.3.1.1 SHIFTS IN ATTITUDE – REALISATION OF CHOICE

All co-researchers shared one realisation individually and collectively: EBP was essential to ethical practice. Although they did not come to this conclusion collectively or at the same time during the inquiry, eventually they all expressed the understanding that “this was the only way” (Dalene).

One of the first co-researchers who questioned her practice was Marie. She wrote in her first reflection, after the introduction to the research and while undertaking the first round of internet searches:

Marie: “There is a world waiting to be discovered, and maybe, just maybe, it will help answer my questions. I figured I still have lots to learn, by no way do I (suddenly) feel equipped enough to deal with children and parents in my practice. What if I was wrong all this time? Have I lied to someone?”

It was not only the concern of possibly giving incorrect information that urged co-researchers to revisit the way they practiced. Most co-researchers were explicit in their view that evidence-based approaches were needed as a platform for ethical practice amongst Namibian therapists. The need to offer their clients the best possible service was expressed by all co-researchers. Co-researchers were also adamant that implementing and maintaining effective and efficient standards of service through EBP was an ethical issue and not to be confused merely with the collection of sufficient continuing professional development points. This realisation would not, however, turn them into evidence-based practitioners.

4.3.1.2 EXERCISING CHOICE – INDIVIDUALS BECOMING MOBILISED

The co-researchers realised they would not become evidence-based practitioners by chance or through an isolated intervention; they would have to take action on an ongoing basis to transform their practice. Consequently, they discussed ways in which this could materialize. Some co-researchers started to implement action plans during the course of the inquiry which included the following steps:

- building on existing initiatives;
- guarding against falling back into old habits;
- managing time.

Jean reflected throughout the inquiry that “nothing changes if nothing changes”, conveying the importance of implementing change by taking action. She spoke about having a choice and that this choice demanded action: “transformation can only start with recognizing that transformation is needed. This will start my journey towards achievement of choice” (Jean). All co-researchers affirmed that this was true, but commented that they had actually applied evidence-based approaches in their practice before engaging in this research.

Leigh: "After the second meeting that we had, I left feeling very positive about EBP as I realized that my colleagues and myself use it to varying degrees in our practices."

Co-researchers reflections confirmed that they had been using EBP all along to some degree, which they found reassuring. Feeling good about their practice, however, also held a possible threat as co-researchers stood the chance of being content and not moving on. However, most of them guarded against this temptation.

Jean: "As a matter of fact, I think I had been doing this all along, not even knowing I was actually practicing EBP... Of course, the fact remains that there is always room for more, and this is where the change or additional doings have to find a place, in a busy schedule."

Co-researchers came to the conclusion that EBP was essential to ethical practice and concurrently identified the need to prioritise EBP in their daily routines. They gathered that they had to upgrade their ICT skills to become effective evidenced-based practitioners. Co-researchers generally expressed the desire to have better skills in retrieving relevant evidence. A suggestion by Leigh was to access sites that presented evidence-based findings, such as practice guideline sites. Although time needed to be allocated to engage in, and exercise, the skills needed for EBP, the co-researchers hoped that time spent would be worthwhile as it enabled more efficient and effective work.

4.3.2 STRUCTURED APPROACH NEEDED TO IMPLEMENT AND SUSTAIN EBP

Repeatedly, co-researchers spoke about the benefit of having regular group meetings. Group cohesion was not only helpful to discuss new concepts and share findings with the other co-researchers; it also motivated most of them to remain

committed to the group and the demands of EBP. Co-researchers' belief that such a group had the potential to sustain EBP is presented in the subcategory '*Collaborative action could result in habituation*'. Additionally, co-researchers expressed the importance for the EBP movement to be expanded to other healthcare professionals in Namibia and the health industry at large in Namibia as captured in '*EBP needs to be implemented on a wider spectrum*'. See TABLE 12.

TABLE 12: THEME 3/CATEGORY 2

THEMES	CATEGORIES	SUBCATEGORIES
3. Making EBP happen in Namibia	3.2. Structured approach needed to implement and sustain EBP	3.2.1. Collaborative action could result in habituation
		3.2.2. EBP needs to be implemented on a wider spectrum

4.3.2.1 COLLABORATIVE ACTION COULD RESULT IN HABITUATION

The findings suggested that co-researchers found it beneficial to have group meetings at two to four weekly intervals as this kept them committed to EBP, rather than having only workshops in which information is disseminated. All co-researchers shared the view that regular group meetings had facilitated learning and helped to integrate EBP principles in their practices. They expressed the view that:

- the interactive learning process was satisfying and academically stimulating;
- the research had expanded to therapists not included in the group;
- group cohesion had helped their commitment to EBP;
- structures were needed to support EBP.

It was evident that most co-researchers experienced the research as socially and emotionally rewarding. Being included in the research group in itself had a positive effect.

Nina: "Being able to participate in the EBP groups and the writing of the weekly FPR (and PO) forms was found very satisfactory to me as a person and actually built my self-esteem. If I may be so honest!"

The co-researchers expressed that sharing their thoughts, questions, uncertainties, and reservations contributed to their appreciation of EBP and their emerging understanding of how EBP could be implemented in their practice contexts. An added benefit of a research community was the continuous academic stimulation through the exchange of ideas. This group initiated a process of improving occupational therapy practice in general and may lead to research projects being initiated in Namibia, for example creating evidence by thoroughly recording deviations from the standardized procedure when doing standardized assessments.

A common sentiment was that therapists working in Namibia should start by recording matters of academic concern for submission to members of the NAOT. Kim and Leigh suggested that information from workshops or articles read might be disseminated to therapists in Namibia. The need for research evidence from an African perspective was also expressed.

Marie: "We definitely need information on how to treat or affect clients in Africa. There is lots of information about [a] Europe[an] and Western [context]... but not on our continent. And that is what we need."

Most co-researchers shared that they found it hard to incorporate EBP principles in their everyday practice. Loyalty towards the group and the researcher motivated co-researchers to stick to the task and the deadlines. The possibility of compliance being motivated by group dynamics rather than the commitment to provide the

most effective treatment was expressed by Jean. A general perception was that staying committed to the process might have been due to external rather than internal motivation. Although Britta confirmed searching the internet almost on a daily basis, she dreaded that everything may disintegrate once the study was completed.

Britta: "... again, my never ending question to myself: how do I practically start and implement this, before everything falls asleep in daily routine? Because of this, I would suggest and support setting up a continuing study group - with all paediatric colleagues for example, we would definitely find enough topics to work on which are related to all of us in daily practice."

Working in groups on EBP was seen as one of the most promising structures to actually move EBP into the future. The strongest argument in support of groups was that these would necessitate a commitment from individual group members. Co-researchers looked for a structure that required commitment and also provided some external motivator.

4.3.2.2 EBP NEEDS TO IMPLEMENTED ON A WIDER SPECTRUM

Co-researchers did not want these groups to continue only for them. They had started to take their knowledge and skills to their various practices and were thus contributing to the professional development of their occupational therapy communities. They also felt strongly about exposing all occupational therapists in Namibia to the same opportunity they had had and thus create a snowball effect to assist all therapists to approach practice from a sound base of evidence.

Marie: "One major need of myself is that I think it is necessary to, especially initially, plan for study groups as part of the NAOT's CPD activities, to discuss EBP and how to implement it on a practical level in our practices. Ongoing discussions on the 'implementing-progress' is thus important and could form part of the NAOT's monthly CPD activities. This is especially valuable, for

discussions in a small group allows for sharing on challenges and opens opportunities to learn from each other.”

It was a general concern, however, that EBP has not been established in Namibia by any of the other health professions. Co-researchers felt strongly that spreading the word amongst other health professionals would be needed, as EBP could hardly survive without ‘cross pollination’.

Marie: “I think it is necessary that more OT’s and more professionals in general should be informed and engage in EBP, especially if we want to work in the direction of making available our services for the whole public, being more accessible and affordable. In this case I personally want to get involved in empowering the community more, especially teachers, reaching more people at the same time, cutting back on costs for therapy later on and reducing academic/emotional related problems as much as possible.”

4.3.3 INADEQUATE RESOURCES CURBS EXECUTION OF EBP

Co-researchers were determined in their quest to find strategies that could sustain EBP, but they were also concerned about the barriers. Some of these were structural and linked to restricted infrastructure and/or resources beyond their control, though some were rooted in restrictions from within individuals or the occupational therapy profession as a collective. The sub-categories ‘*Proper equipment and internet connection vital for EBP*’, ‘*Lack of access to literature paralyzes EBP*’, and ‘*Limited resources restrict application of evidence*’ portray these barriers. See TABLE 13.

TABLE 13: THEME 3/CATEGORY 3

THEMES	CATEGORIES	SUBCATEGORIES
3. Making EBP	3.3. Inadequate resources	3.3.1. Proper equipment and infrastructure

happen in Namibia	curbs execution of EBP	vital for EBP
		3.3.2. Lack of access to literature paralyses EBP
		3.3.3. Limited resources restrict application of evidence

4.3.3.1 PROPER EQUIPMENT AND INFRASTRUCTURE

VITAL FOR EBP

One of the biggest hurdles for co-researchers was inadequate access to technology. Co-researchers attached to the public service expressed their inability to integrate EBP into their work as they did not have ICT facilities at their disposal. Private practitioners had to upgrade their equipment. Britta frequently invited co-researchers to make use of her broadband facility; Marie, who had obtained her broadband connection halfway through the research, had at times worked closely with Britta. Marie's decision, therefore to get her own broadband may have been motivated by her experience of Britta's broadband, but this was not further explored. The researcher observed the effect that structural changes in the form of updating equipment and accessing fast internet connections seemed to have on developing ICT skills in the co-researchers.

4.3.3.2 LACK OF ACCESS TO LITERATURE

PARALYSES EBP

Co-researchers realised that restricted access to academic literature excluded them to a large extent from becoming evidence-based practitioners. They were required to purchase articles or subscribe to academic journals. As Namibia does not have a training facility for occupational therapists, co-researchers cannot subscribe to an academic library to access evidence and have to rely on their own financial resources for all academic advances. Due to high costs, co-researchers suggested that the national association should be approached to advocate for access to these resources.

Sidney: "Furthermore, the NAOT should also take a leading role by subscribing to electronic and print journals at the cost of its members and perhaps have a small library for its members as well. Seminars and workshop where we do some reviews of relevant research in our area of concern (treatment area e.g. psychiatry) can also be beneficial to EBP in Namibia."

Co-researchers realised that even if the NAOT assisted with this matter, Namibian therapists would still have less academic resources available to them, and access would be restricted and belated in comparison with therapists in countries with easy access to ICT and EBP publications.

4.3.3.3 LIMITED RESOURCES RESTRICT APPLICATION OF EVIDENCE

A disheartening reality is the paucity of resources available to rehabilitation professionals in Namibia. Although this is a valid problem, co-researchers identified that a restricted mind might also be a barrier. The reflections in this section refer to the process of searching for evidence, finding evidence and attempting to utilise the evidence.

After the second group meeting, Marie was convinced that EBP was a possibility, but in one of the last meetings she had changed her mind, as she realized that access to literature was severely restricted. She wrote:

Marie: ja, ... it would probably not work here, the access and the costs, and whatever.

Some co-researchers were less negative, although they were also aware of the predicament. Dalene reflected that Namibian therapists are so used to seeing themselves as poorly resourced that they tend to get stuck in that mindset instead of being resourceful.

However, when trying to apply evidence in practice, the harsh reality of working in Namibia confronted Leigh.

Leigh: "I am struggling at the moment, though, because while we are [studying] what's best for our client as OT's we can say this is the best evidence, this is what we'd like to do, I'm really hitting my head when it comes to the social structures and the environment. I just did a home visit now, where I know that a client hasn't got access to washing facilities or toileting facilities, because of the structure of his home environment and he is in a wheelchair. And I know that I'm going to make the necessary recommendations, and say, please could we put in an adequate ramp, could we maybe alter the house, ummm knock through that at least the bathroom and the bedroom are accessible and then he has only to go up the stairs once a day to get there, and we can make all these recommendations and it is just..., where do you go from there, yes you have done everything from your side, how much further can you push it for the right of the client? So I am very much at a down, because ..., I was at quite a high last week, this is great, but now where do we go as individuals? You have done as much as you can, and you can't go any further. So definitely it's [EBP] empowering, But structures, because it's about the environment and the social sources of their powerlessness ... Along with the collective, how do we do it?"

Co-researchers were positive overall about the experience of evidence-based approaches to practice but were apprehensive about how this foundation could be extended and sustained once the research was completed. They expressed the desire and need for continuing the group work in order to stay committed to doing EBP. They not only considered their own advantage but also expressed the vision to serve their communities through EBP.

CONCLUSION

Co-researchers showed an interest in practicing in an evidence-based way and felt ethically obliged to do so, because EBP promised to provide clients with the best service. The findings also suggested that co-researchers gained professionally and personally from engagement in this study. Acquisition of knowledge and skills regarding theory of EBP and implementing some of the steps of the evidence-based process reaffirmed their professional worth.

It was further apparent that co-researchers found writing reflections and having group discussions valuable. They expressed that being a member of a regular study group was helpful to stay committed to the process of implementing EBP.

Of the many factors that hindered implementation of EBP, lack of access to resources along with a limited vision of what EBP could be like, and the isolation from broader (international) collaborative actions, were the most restricting factors.

Yet the findings suggest that the co-researchers' vision had broadened and they were able to make useful suggestions on how EBP could be implemented in Namibia. Most importantly, most co-researchers showed enthusiasm to continue with this approach, especially if it could be done in a group context.

5 DISCUSSION

INTRODUCTION

The researcher embarked on this study with an openness to explore, analyse and understand the co-researchers' experiences, attempting to capture the meaning thereof as truthfully as possible.

As outlined in Chapter 3.2, the aim of this study was to explore the interest in, and feasibility of, implementing EBP in Namibia. Furthermore, the researcher commenced this study believing that by introducing EBP through a transformative and informative research culture, the four ways of knowing and the cycles and phases of co-operative inquiry the study objectives below would be addressed:

1. provide co-researchers with opportunities for experience-based exploration and capacity building for conducting searches for evidence
2. engage co-researchers in a process of individual and joint reflection to explore the usefulness and feasibility of practicing EBP in Namibia
3. explore and refine the concepts, principles and techniques of EBP individually and collectively with the aim of empowering occupational therapists in Namibia.

Analysis and interpretation of the findings showed that co-researchers were interested in implementing EBP and that the collective learning environment was experienced as supportive. As expected, co-researchers reported gain in knowledge and skills. Unexpected, however, was the effect participation in the study had on co-researchers' perspectives regarding their professional and personal roles. Implementation of EBP seemed to be problematic due to a number of interrelated

barriers on micro-, meso- and macro-system levels (Bronfenbrenner, 1997), yet, co-researchers made suggestions on how EBP could be implemented in Namibia.

Comparison of the experiences of the co-researchers with relevant literature revealed that some findings were congruent with those of therapists elsewhere; some differed, while others were unique.

In the discussion that follows, the objectives of the study are aligned with the findings and relevant research studies. Objectives one and two are discussed in *'Occupational therapists are socialised into their roles'*, while objective three is discussed, in *'Feasibility of implementing EBP in Namibia'*. The latter section elaborates on how EBP could become a reality in Namibia. The *"Model of Professional Growth"* emerged from evidence for the relationship between variables, and was integrated with existing models and/or theories. Lastly, limitations and an unexpected benefit of the inquiry are discussed.

5.1 OCCUPATIONAL THERAPISTS ARE SOCIALISED INTO THEIR PROFESSIONAL ROLES

As co-researchers did not know much about EBP, they were exposed to short teaching sessions and experiential learning opportunities about EBP and ultimately improve their OT practice. In their reflective writing co-researchers wrote about their ignorance on a number of significant professional developments, such as EBP, best practice, occupation-based therapy and outcome-based therapy. Co-researchers communicated that engagement in the research had made them realise that they were not keeping up with global trends in knowledge and skills development. A discussion on the cause-effect relationship between engagement in the inquiry and shifts in knowledge, skills and attitudes follows.

5.1.1 EFFORT, CHALLENGE AND FLOW

Du Toit's Theory of Creative Ability¹⁸ postulates that participation in occupation leads to change if the challenge, competence and maximum effort are skilfully matched and the process is managed (Crouch & Alers, 2005; Sherwood, 2005; Casteleijn & de Vos, 2007;). Csikszentmihalyi's (2003) (Csikszentmihalyi & Hunter, 2003) work is similarly based on the premise that a good fit between the challenges of the task and the capacity of the participant will result in satisfaction, which he called flow. The findings of the current study seem to indicate that as co-researchers exerted effort, they experienced flow when searching broad terms like 'occupation-based practice'. As they had observed shifts in their thinking and attitude towards EBP, the fit between the challenge and their knowledge and skills seemed to have been matched. Shifts in co-researchers' thinking could also have occurred due to their engagement with the four ways of knowing (Heron & Reason, 2006).

Theory of the co-operative inquiry stipulates that four ways of knowing will enable persons to integrate their acquired knowledge, skills and attitudes into daily life, and that this will ensure that participants thrive. Co-researchers showed a hunger for information and engaged with new ideas enthusiastically. They also integrated new information with their existing knowledge base. The process of integrating and testing new experiences and information led to knowledge creation and shifts in the knowledge and skills base. Their positive experiences and the experience of flourishing helped them through the difficult periods of the inquiry.

5.1.2 PARTICIPATION IN OCCUPATION AND IDENTITY

¹⁸Du Toit's Theory of Activity Participation (1962) proposes that matching a person's creative response (potential and level of participation) to an intervention (that has the correct level of challenge regarding a person's ability to interact with concepts, material, objects, persons and situations), lead to a product or a higher level of a creative response.

Co-researchers had ambiguous feelings about their professional identity. Lack of acknowledgment of their contribution to healthcare and lack of self-confidence perpetuated negativity despite knowing they were practicing in a “wow” profession. Engagement in the inquiry resulted in greater pride in being occupational therapists as they gained self-confidence and a changed professional image.

5.1.3 OBSERVATION AND EMULATION

Co-researchers acknowledged the importance of learning from each other. The co-operative inquiry provided a learning environment in which knowledge was shared and refined. Although most co-researchers found writing the reflections and doing searches laborious they reported that in FGM they felt supported and enjoyed the learning process. Bandura (1977) in his learning theory postulated that

“Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modelling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action” (Bandura et al, 1997:22).

The findings revealed the complexities that have to be negotiated in order to apply evidence-based practice. Bandura’s theory, that much can be learned through observation and emulation seemed to be true. Welch and Dawson (2006) and Craik and Rappolt (2003) proposed that EBP should be taught in natural settings and with peer consultation. The findings of this research suggest that teaching and learning EBP in a group setting promises to be less laborious, more enjoyable and thus ideal for the novice evidence-based practitioner. Newcomers to EBP could learn from role models in their everyday work environments by observing and emulating their

mentors, if mentors exist. Co-researchers shared such an experience described in 4.1.1.2, which showed the ease of social learning.

Co-researchers also discovered that they had gained tacit knowledge in natural settings by doing, hearing and observing therapists, not realising that learning had transpired. They realised that much of what they knew and had assumed to be general knowledge was expert knowledge, gained through social learning. Co-researchers found it significant that, in terms of the EBP decision making process, their tacit knowledge was an important component (refer to 4.3.1.2).

5.1.4 SOCIAL LEARNING AND EXTERNAL EXPECTATIONS

Social learning theory (Bandura et al, 1997) postulates that external pressure or expectancy to measure up to norms has an effect on learning and performance. The research findings showed that co-researchers repeatedly linked their commitment to the research process to external pressure and their loyalty to the group. They also expressed the need for EBP to be adopted as a requirement for practice not only for occupational therapists but also for other health professionals in Namibia, as is the case in the United Kingdom (Ilott, Taylor & Bolanos, 2006). This statutory requirement of registration as applied in the United Kingdom would need to be accompanied by the introduction of improved infrastructure. For example Upton and Lewis (1998), emphasised the effect policy-based initiatives on EBP had on the ICT infrastructure in Scotland and Wales and how it was seen as supporting uptake of EBP in Wales and Scotland (Upton & Lewis, 1998).

5.1.5 PREVIOUS KNOWLEDGE AND EBP

Co-researchers' experiences seemed to suggest that a person, who was aware of and had some idea of EBP, was able to integrate EBP more readily than someone for whom it was unfamiliar. Misperceptions co-researchers had of EBP led to frustration and a negative attitude towards searching for evidence (See 4.1.1.2 and

4.1.2.2). Knowles (1990) (Knowles, Holton III & Swanson, 2011) postulated that adults' previous experiences are a valuable resource, but these can also imbue bias and thus negatively influence the learning process. Connecting with a learner's previous experience and knowledge is thus important to optimise learning. Co-researchers valued the short lecture (about 15 minutes) in the beginning of the FGM. They expressed preference to having a number of short informative sessions over a longer period of time, than covering all theory in one long session. They also valued the practical application of what they had learnt in-between the sessions, and sharing their experiences with each other. Lively debate of their uncertainties or excitement for newly conceptualised ideas was found valuable. By doing this, co-researchers had the opportunity to become knowledge makers – connecting previous knowledge with new knowledge and making it their own (see 4.2.1.1).

5.1.6 CHANGED FRAMES OF REFERENCE

Most co-researchers had significant moments of insight, and reported shifts in their thinking and their frame of reference; their insight that EBP is needed for ethical practice and is the way they should practice was of particular relevance. Bandura's (1979) social learning theory states that learning may not necessarily show in a person's performance. This was echoed by the findings of McCluskey and Lovarini's (2005) quantitative study. McCluskey and Lovarini found that whilst learning amongst their study participants was effective (evidenced by its statistical significance) the learning did not impact on practice. Behavioural change, which lies at the root of a successful transformation to becoming an evidence-based practitioner, had thus not occurred satisfactorily (McCluskey & Lovarini, 2005).

Behaviourists claim that only learning which has led to behavioural change, is true learning (Ormrod, 1999). Social learning theorists hold that learning can happen without behavioural change. In contrast to both theories, Mezirow (1990) states that all learning implies change, but not all change is transformational. He defined

transformation as “effecting change in a frame of reference” (Mezirow, 1997):5. In this study a definite change in frame of reference of all co-researchers was observed, as they individually and collectively (at different cycles and phases of the inquiry) stated that EBP was an important element of ethical practice. For the duration of the study, co-researchers reported change in actions (behaviour) (see 4.2.2 and 4.3.1.2) as well as in attitude towards EBP (see 4.3.1.1).

5.2 FEASIBILITY OF IMPLEMENTING EBP IN NAMIBIA

This research set out to provide opportunities for experience-based exploration of EBP and capacity building, especially with regards to searching for evidence. Although co-researchers reported positive experiences, they also described a number of interrelated and interconnected barriers. While the emphasis in the previous section (see 5.1) was on learning about EBP and shifts that occurred in co-researchers daily practice, this section describes co-researchers experiences of conducting the five step process. Barriers and supporters of macro-, meso- and microsystems and their impact (positive or negative) on the implementation of EBP in Namibia are discussed.

5.2.1 BARRIERS

The findings of this research show that co-researchers’ experiences of hindrances to EBP were mostly congruent with those described by Taylor (2005).

5.2.1.1 LACK OF AVAILABILITY OF SCHOLARLY WORK

The most profound barrier for co-researchers was the lack of access to and availability of information (Taylor, 2000):131. The researcher speculates that this barrier might be related to existing hegemonies in the academic publishing industry. The notion of accessing scholarly work without paying for it is a relatively

new concept. The open access movement confronts the traditional perspective that publishers hold copyrights and control access to scholarly work (Albert, 2006).

Currently, occupational therapists that are not linked to an academic facility are likely to be marginalised in an EBP culture (Welch & Dawson, 2006), as they find themselves excluded from access to academic literature. The findings of this co-operative inquiry verify this statement (see 4.1.2.1 and 4.3.3.2).

5.2.1.2 BALANCING TIME

Similar to Taylor's ranking (2005) of time as the second most important barrier to EBP, the findings of this research also ranked time as an important barrier. Poor time planning, inadequate ICT infra-structure, inadequate EBP skills, high patient load and personal life demands were factors that put pressure on limited time. Co-researchers that were computer-literate and had appropriate equipment experienced less time pressure. Furthermore, co-researchers stated that prioritising EBP in their schedules tended to alleviate some of the stress.

Of importance was the finding that some co-researchers were ambivalent about their perceived imbalance of time spent on work and time spent with family. In their reflections, feelings of guilt were expressed as participation in the inquiry demanded that they spend extra time on work-related activities. Even though these co-researchers enjoyed searching for evidence, they still experienced guilt. Beauregard (Beauregard, Ozbilgin & Bell, 2009) stated that 49% of UK workers struggled with balancing their work and family responsibilities, while the study by Otis (Otis, 2009) on mother migration from home to office, found that work/life balance, family guilt and career regret were most profound amongst women who worked part-time only. Women, who either chose work or home, experienced less guilt and less regret. As most co-researchers were women and most of them had

chosen part time work to balance family and work commitments, they were most likely to experience emotional entanglement due to this choice.

A number of co-researchers explicitly stated that household labour and caring for their family was primarily their responsibility. Although they expressed that this might be unfair, they did not contest the division of labour (4.1.2.1); participation in the inquiry added of their self-confidence (0). In resource-constrained countries or countries in which traditional gender roles prevail, discrepancies regarding equality of household labour seem to be more profound than in developed countries (Cigno, C Giannelli & Rosati, 1998; Breen & Cooke, 2005; Gimenez, Molina & Sanz, 2007).

As occupational therapy is a care giving profession, the researcher assumed that most co-researchers value care and would take up their care giver roles, both for their clients and their families, earnestly. The ILO report suggests that this may be true universally:

“Within most economies of the world, women are primarily responsible for the care of family members and household tasks and therefore face greater constraints than men on the amount of time and effort they can put into paid employment and productive work”(United Nations, 2005).

In the healthcare arena, men have traditionally dominated the higher-status, higher-paying professions, while women have chosen so-called support occupations (Adams, 2010). This division of labour is changing: as many women are now entering the higher ranking professions (Adams, 2010); yet no evidence was found that men currently entering healthcare professions are in lesser status positions and receiving and lower payment (Adams, 2010).

5.2.1.3 LACK OF RESOURCES AND FINANCIAL MEANS

Lack of access to and availability of scholarly work, EBP skills, confidence in the value of the evidence available, and restricted time, in this research could be ascribed to restricted resources. Using Manfred Max-Neef's Model of Human-Scale Development (1991), the existential category of "having" or rather "not having" (in an existential nature) may have resulted in some co-researchers being very limited in their participation in EBP. Although the co-researchers identified the first five barriers described by Taylor (2005) in their reflective narratives, the extent to which these were valid was not foregrounded in previous studies.

One of the most demoralising factors for co-researchers was the absence of or inadequate ICT hardware¹⁹. Co-researchers found themselves with computers and internet connections that were slow and incapable of conducting efficient internet searches. Although lack of access to ICT compromised only one step in the EBP process, namely finding evidence, co-researchers found that this prevented them from participating in the whole process.

Accessibility and availability of ICT resources appeared to be a crucial part of the situational analysis required prior to a person, professional body or country opting for implementing EBP as ICT at service level is a vital part of best practice (Sharma, 2005). This was amplified by Dawes et al (2005) who stated that "EBP requires a healthcare infrastructure committed to best practice and able to provide full and rapid access to electronic databases at the point of care delivery" (Dawes et al, 2005:4).

¹⁹¹⁹ Namibia has been described as a country where the usage of ICTs is low and not affordable (World Economic Forum, 2012) in a report released by the World Economic Forum in 2012 (World Economic Forum, 2012) and is ranked 142 out of 150. The country also lacks an innovative environment for the development of technology, and government usage of technology is appalling (Heita, 2012).

To perform in a contemporary context effectively and efficiently, fast internet and compatible computer software is essential for general practice administration and not only for EBP. To run an effective and efficient office or business, a person should consider electronic and ICT equipment regardless of the requirements of EBP. Occupational therapists, in private and public service should acquaint themselves with modern technology in order not to be marginalised from general business practice, as most occupational therapists in Namibia adopt the role of being their own administrators. The following quote may shed some light on the importance of ICT and electronic systems support.

“The skills of the secretaries in the use of technological gadgets are basically portrayed in virtually all aspects of the working environment in a modern business office” (Akpomi & Ordu, 2009).

5.2.2 EBP ENHANCED CLIENT-CENTRED PRACTICE

In contrast to the barriers listed by Taylor (2000), co-researchers did not find that EBP conflicted with client-centred occupational therapy. On the contrary, co-researchers found that EBP enhanced the client-centred practice approach. The researcher considered that this might have been due to the co-researchers' therapy-centred approach prior to the study (Chapter 4.2.1.1).

5.2.3 DEVELOPING A VISION FOR EBP IN NAMIBIA

The findings suggested that the degree to which co-researchers were enabled to implement evidence-based approaches in their practices was not merely related to material or structural assets, but also depended on personal attributes such as commitment, self-efficacy and positive attitude. By adapting the five step process described by Dawes et al (2005), and adding a number of sub-steps (see TABLE 14), novice evidence-based practitioners could be assisted in developing the skills and organising the equipment needed before embarking on searches. This might assist

practitioners to assess their competencies and resources accurately thereby facilitating success in the EBP process.

TABLE 14: EXTENDED EBP PROCESS ADOPTED FROM DAWES (2005)

1.	Answerable Question (PICO)
2.	Retrieving evidence
2.1.	Organising access to ICT
2.2.	Acquiring computer skills (ongoing)
2.3.	Acquiring searching skills
2.4.	Access to literature
3.	Appraising literature
3.1.	Learning to read scholarly work
3.2.	Acquiring appraisal skills'
4.	Apply evidence
4.1.	Contextualise evidence
4.2.	Find resources
4.3.	Be resourceful
5.	Evaluate utilised evidence

The commitment of co-researchers to the group and to the researcher was a strength of this study, and worthy of consideration when implementing EBP in Namibia. Planning to implement EBP in Namibia in a sustainable way would need to include networking with colleagues in Namibia, members of the multidisciplinary teams. Most importantly, however, Namibian therapists need to network with experienced evidence-based practitioners on individual and country level. Ideas portrayed by co-researchers for successful implementation of EBP are captured as an attachment in Appendix M.

In the next section a detailed discussion of the researcher's vision for EBP in Namibia is portrayed. She drew on Bronfenbrenner's Ecological Model (1979) and The Theory of Creative Ability (Sherwood, 2005; Casteleijn & de Vos, 2007) and

integrated the concepts of both to configure the Model of Professional Growth and Empowerment. This Model depicts the relationships between several interrelated determinants as they emerged from the findings. It illustrates the process and empowering effect that learning about, and exploring, EBP had on the co-researchers. It also reflects the impact occupational therapists with EBP skills could have on healthcare services in Namibia.

5.3 THE MODEL OF PROFESSIONAL GROWTH AND EMPOWERMENT

Based on the findings of the research and the discussion points summarised in in Appendix M, various determinants for professional growth, and thus capacity to become evidence-based practitioners, were identified. These were:

- vision and intent to change. Co-researchers began to realise that without a will to change, or intention to change, or vision to direct the change, change would not occur (see 4.1.1 and 4.3.1).
- competence: Co-researchers began to realise that acquisition of knowledge and skills were essential to explore and start implementing the EBP model (see 4.2.1; 4.2.1.1; and 4.2.1.2).
- inter-related social environmental factors on meso- and micro systems level:. The findings showed that these positively or negatively affected practicing in an evidence-based way (see 4.1.2; 4.3.2 and 4.3.3).
- effort: Co-researchers explicitly stated that they found writing reflections and searching more difficult and less enjoyable than group discussions, yet they learned much from the former. A balance between more-enjoyable and less-enjoyable engagements, enhanced commitment and growth. The effect of input (effort) from co-researchers, and the just-right challenge (researcher's approach to keep co-researchers committed) resulted in transformation, empowerment or growth. This determinant was not named

by co-researchers, but became evident as findings were compared with literature.

The Model of Professional Growth and Empowerment comprises a number of diagrams demonstrating the process and effect different determinants have on individuals, the occupational therapy community, other health professions, and the population of Namibia through implementing EBP in Namibia. A discussion on the determinants and their interrelatedness now follows.

5.3.1 VISION AND INTENT TO CHANGE

In this study the researcher aimed to facilitate the process of change by providing challenges and support. She also attempted, however, to show co-researchers how they could understand their role differently and thus practice differently.

The findings suggested that a person can only transform intentionally if that person had a mind shift and developed a vision of how to be or perform differently. Having a vision of how EBP could change co-researchers current practice led to actions and insights that brought about shifts or improved performance (see 4.3.1.2). The researcher referred to co-researchers' status at the onset of the study as 'actual frames' (of reference) and their vision as 'desired frames' (of reference); the gap between actual and desired 'frames' the foundation for growth or empowerment at micro-, meso- and macro systems level. The areas of action competence (Jensen, 2000; Tones, 1994) that emerged from this research were:

- EBP skills as related to the EBP process;
- attitude towards EBP as observed in time management;
- commitment to EBP as observed in ICT infra-structure;
- structure to implement relevant evidence in practice settings;

- commitment to implement relevant evidence in practice settings;
- financial commitment to implement relevant evidence in practice settings;
- advocating for, or promoting EBP, in work-related situations;
- advocating for, or promoting EBP, with civic organisations (e.g. HPCNA);
- advocating for or promoting EBP, related to accessing research articles; and
- infrastructure and support systems or networks for sustainability of EBP.

Assessing or realising one's actual 'frames' as well as one's desired 'frames' thus were the first two steps towards growth. This first step was demonstrated by the co-researchers when they realised that their current practice did not meet international ethical standards and that EBP was 'the way to go'. Co-researchers acknowledged their desire to develop capacity, to address the discrepancy between desired and actual knowledge, skills, attitudes, resources and outcomes; they were also acutely aware of the fact that they had to act (see 4.3.1.2).

Co-researchers were confronted with a choice: they could either act and take up the challenge or refrain from action (see 4.1). Some co-researchers reported that their inclusion in the research group had benefitted them, but it is questionable whether that alone would have led to professional growth. Some learning would still have happened, but professional growth would probably not have occurred if co-researchers had not decided to act themselves. Goal directed action by co-researchers was taken because choice was seen, realised or understood. Effective action resulted in the achievement of choice, namely starting to implement the EBP model. This understanding of choice and empowerment is in line with Alsop and Henson's (2005) understanding of such concepts. The researcher, however, used four levels of choice, rather than Alsop's and Henson's three in guiding co-researchers towards participation in, and mastering of, some steps of EBP. These steps were:

- existence of choice but co-researchers not seeing choice
- co-researchers realised choice but did not exert choice
- co-researchers realised choice and utilised choice
- co-researchers achieving choice

The vision of what could be achieved or aspired to and the choices that lead to the desired frames of reference is schematically depicted in

TABLE 15.

TABLE 15: MIND FRAMES, EMPOWERMENT AND GROWTH

Action competencies related to actual frames of reference	Level of empowerment	Action competencies related to desired frames of reference
Actual EBP knowledge	<p style="text-align: center;">Not seeing choice</p> <p style="text-align: center;">▶</p> <p style="text-align: center;">Realising choice, but not exerting choice</p> <p style="text-align: center;">→</p> <p style="text-align: center;">Realising choice and utilising choice</p> <p style="text-align: center;">→</p> <p style="text-align: center;">Achieving choice</p> <p style="text-align: center;">→</p>	Desired EBP knowledge
Actual EBP skills		Desired EBP skills
Actual attitude to EBP		Desired attitude to EBP
Actual infrastructure for engaging in EBP		Desired infrastructure for engaging in EBP
Actual access to research articles		Desired access to research articles
Actual support system or network		Desired support system or network
Actual hegemonies related to EBP		Desired hegemonies related to EBP

5.3.2 BUILDING ACTION COMPETENCE

The findings of the study indicated that co-researchers acquired EBP knowledge and skills and also created knowledge related to EBP by integrating new knowledge to

their existing body of knowledge (Jean's diagram FIGURE 1). Listening, reading, discussing, reflecting and engaging in tasks are summarised as action. Increased knowledge and skills thus occurred through action. Assessment of competence and having a vision and a desire to grow towards an aspired competence level led to action and built competence. This process of acting towards a vision was also described by educationalists (Jensen, 2000; Tones, 1994) and referred to as 'action competence'. The concept includes having the ability and willingness to take action on issues of interest and that are directed towards a vision of a sustainable future. In this research, co-researchers had engaged with the challenge and begun the process of becoming evidence-based practitioners by recognising the need for EBP, and taking action to build capacity. After learning about and implementing the EBP process co-researchers claimed that they had:

- built competence;
- performed well in the eyes of their colleagues;
- developed their self-confidence and felt more positive about being occupational therapists.

Co-researchers claimed that they felt empowered by engaging in the EBP approach despite not having access to extensive academic literature. The experiences described by the co-researchers align with Mogensen's (2010) proposal that learners' improved performance results in an experience of empowerment.

5.3.3 MULTIPLE INTERRELATED FACTORS: MACRO-, MESO- AND MICROSYSTEMS

The interrelated nature of 1) personal, societal and global attributes 2) the factors that were experienced as barriers and supports by the co-researchers, and 3) learning and growth correlates with Bronfenbrenner's (1979) Ecological Model. In this model, Bronfenbrenner (1997) related human development to the following interactive systems:

- the microsystem (includes the individual and the family),
- the meso-system (includes work and, thus clients, colleagues and institutions), and
- the macro system (which represents global tendencies, financial and political influence)

These systems interact and impact on each other and changes in one system affect the other systems.

Input and capacity building occurred on microsystems level, while group interaction, commitment and support showed interaction between meso- and micro-systems.

Although the group had a supportive effect on the individual, co-researchers described barriers on meso- and microsystem levels. Of these, 'not having' impacted on the individual's capacity to engage in EBP process, while the gendered roles of individuals impacted on choices related to balancing work and family (e.g. part-time rather than full-time employment).

Macro system influences were conspicuous in currency exchange rates affecting purchase of academic literature negatively. The prevailing hegemony regarding published academic work demonstrated another impact at microsystem level curbing the effectiveness of the implementation of EBP in Namibia.

Notwithstanding, co-researchers were of the opinion that individual and group actions to drive EBP in Namibia could lead to its implementation. The level of practicing in an evidence-based way might, however, remain restricted unless change occurs on a macro systems level as asserted by Dawes et al:

“Finally, EBP requires a healthcare infrastructure committed to best practice, and able to provide full and rapid access to electronic databases at the point of care delivery. We believe that without the skills and resources for all the relevant components of this framework, the practice of a healthcare professional, or a healthcare organisation, cannot be said to provide their users with evidence-based care” (Dawes et al, 2005)

TABLE 16

TABLE 15 shows how capacity building and professional growth can be curbed through ecological factors of the macro-, meso- and microsystem, where macro systems have the most unrelenting impact.

TABLE 16: RESTRICTED GROWTH DUE TO EXTERNAL FACTORS

Action competencies related to actual frames of reference	Impact of systems on uptake of EBP	Action competencies related to desired frames of reference
Actual EBP knowledge	Unavailability of scholarly work (Macro system) ←	Desired EBP knowledge
Actual EBP skills		Desired EBP skills
Actual EBP attitude		Desired EBP attitude
Actual EBP infrastructure	Restricted time (Meso-system) ←	Desired EBP Infrastructure
Actual access to EBP articles	Lack of material and financial means (Meso-system)	Desired access to EBP articles
Actual support system or network	←	Desired support system or network
Actual hegemonies related to EBP	Individual not taking up EBP (Microsystem) ←	Desired hegemonies related to EBP

A number of co-researchers addressed some of these barriers during the study. They reported that as they exerted choice to act and persevered in striving to achieve the desired ‘frames’, they progressed in implementing EBP in their own practice.

5.3.4 EFFORT

The researcher matched the input of co-researchers with the appropriate levels of Creative Ability as described by Du Toit (Crouch & Alers, 2005; Sherwood, 2005; Casteleijn & de Vos, 2007) and amended by De Witt. The Model of Creative Ability proposes that advancing from one level to the next requires maximum effort, matched to a person's potential (Crouch & Alers, 2005; Sherwood, 2005; Casteleijn & de Vos, 2007).

In accordance with the Model of Creative Ability, the study findings clearly identified that effort was the key driver of action. The match of effort with potential and support was probably the facilitator that continuously assisted co-researchers to move from actual frames to desired frames in little steps. This was not a constant movement forward, but rather a cyclic and spiralling movement, comprising of a number of processes. The effort co-researchers were prepared to invest seemed to be the link between seeing choice and engaging in choice. Maximum effort is the input given by a person desiring maximum impact. Maximum effort, probably in response to the just right challenge with the just right support, led to growth.

Action could also be driven by an external force, such as rules and regulations, as expressed by Bandura (1997). In terms of EBP, rules and regulations could be instituted by the AHPCNA. However, effort would still be needed to bring about change in frames, whether these desired frames were set by the internal motivation to change or the external motivation to comply with the rules and regulations of an organisation.

Spearheading a new movement calls for a strong vision, resilience and maximum effort. Co-researchers seemed to have gained the vision, however, the findings also

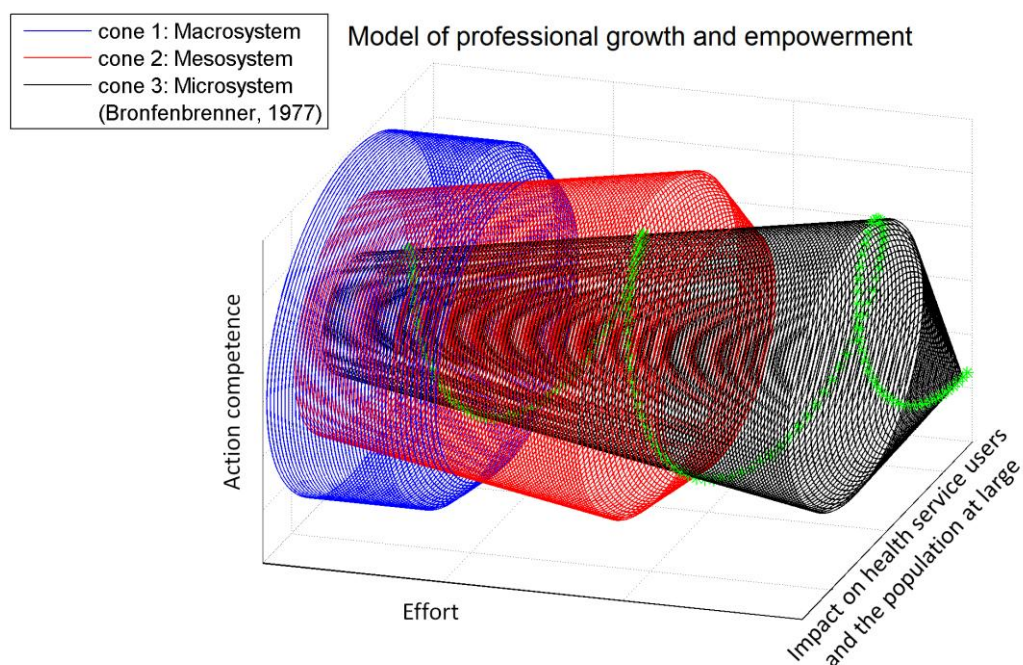
pointed at co-researchers' fear of not being able to continue with their efforts on an individual basis. The findings further suggested that a structure for continued group action could probably sustain their efforts of practicing within the evidence-based model and assist them in striving towards desired frames.

Effort was needed for each frame to reach the desired outcome. This effort could take on a variety of guises, such as advocating for open access literature, advocating for the importance of EBP at the office of the registrar of the AHPCNA; or a financial input such as purchasing ICT equipment. An example of the impact of financial effort was shown by a co-researcher who purchased fast internet connection with remarkably positive results.

Working on all areas of growth could ultimately drive EBP to become a force in the health arena in Namibia. The pattern of growth or empowerment of individuals and the group in this research showed that growth did not occur in a linear manner, but rather in spiralling cycles (depicted in green).

The determinants described above are depicted in The Model of Professional Growth and Empowerment as a rocket consisting of three concentric circles representing the three ecological systems. The size of the circles indicates action competence, while effort is depicted in stages, namely 1) realising shortcomings in actual frames, 2) achievement of choice or growth, and 3) aspiring to new desired frames. The length of the rocket depicts sustained effort. Change can thus be indicated through the size and form of the circle and the length of the rocket. The spiral in the rocket depicts the forward action of empowerment and growth. See FIGURE 2 for the Model.

FIGURE 2: MODEL OF PROFESSIONAL GROWTH AND EMPOWERMENT



5.4 PROFESSIONAL GROWTH AND IMPACT

The most exciting shift that co-researchers reported was their strong belief that EBP is essential for ethical practice and that practicing in an evidence-based way would improve their service and thus the impact their intervention could have on clients. The findings also suggested that the impact of EBP would be greater if practitioners from other professions in Namibia also embraced it as an approach to practice. Increased competence and its effect are depicted in the above Model by the point of the rocket: the wider its circumference, the bigger the impact.

This Model attempts to show that the group would be less vulnerable if structural support on macro systems level was provided (visually depicted in FIGURE 2 above).

The Model of Professional Growth and Empowerment illustrates the intricate interconnectedness of the systems. It shows that growth and empowerment at micro- meso- and macro systems level could develop at different paces in each system, but also that systems can constitute barriers for each other. The Model illustrates how increased action competence and effort could jointly sustain EBP and jointly have an increased impact on healthcare delivery in Namibia.

5.5 LIMITATIONS AND STRENGTHS

Due to the limited time allowed for the research, the full potential of the action research methodology, specifically co-operative inquiry, could not be explored. Although two cycles of co-operative inquiry were completed, co-researchers were restricted in their experience to the full repertoire of practical knowing within the given time span. The researcher was aware of this and made provision for it by limiting the number of aims and objectives of this study.

The methodology seemed to have worked well for this professional group, while the action research elements of doing, reflecting, learning and planning resulted in co-researchers' growth and provided them with valuable experiences.

The participation of a diverse group of occupational therapists in this inquiry resulted in rich and varied experiences which make a meaningful contribution to the body of knowledge of EBP in resource-constrained countries.

The researcher considered a wide spectrum of factors that could facilitate the four ways of knowing. Comparison of the elements of the Integrated Behaviour Change Model of Montano and Kasprzyk (Glanz, Rimer & Viswanath, 2008) (depicted in Appendix L) with her own approach, the researcher realised that she had

considered most of the elements named in the Model. In addition, she had identified that intent to change did not necessarily predict change. Directed action and effort, guided by the intent to change was needed to bring about change in behaviour.

The enthusiasm of the co-researchers and the success they experienced was an unforgettable experience for the researcher, which had unexpected benefits.

5.6 UNEXPECTED BENEFITS FOR THE RESEARCHER

In the process of analysing the findings and reflecting on the research process, the researcher became acutely aware of the impact this study had had on her. The interactive relationship between the co-researchers and herself broadened her understanding of EBP, and yielded personal benefits. The co-researchers' enthusiasm invigorated the researcher. Their craving for knowledge astonished her and became the driver for transfer of knowledge. Co-researchers' struggles with concepts meant the researcher confronted her own conceptualisation, which triggered new thinking. It was inspiring to see co-researchers' genuine care for their clients. Their grappling with the ethical implications of knowing about EBP and possibly not continuing to use it in their practices motivated the researcher to find ways in which EBP could be made feasible and sustainable in Namibia in the future.

CONCLUSION

The findings clearly showed that co-researchers had been brought to a point at which they desired to practice differently. Concurrently co-researchers identified the need for additional resources, skills, support from management and group support. Starting to act and exert effort moved them from actual frames toward desired frames related to EBP, addressing identified barriers and utilising support.

The Model of Professional Growth emerged from the study findings and was based on the experiences of co-researchers as they engaged in experience-based and/or instructional learning opportunities. This Model captures the determinants of growth in the co-researchers as they envisaged the impact EBP could have on their own practice and healthcare services in Namibia as a whole, should all health professionals adopt an evidence-based approach to practice.

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6 CONCLUSION AND RECOMMENDATIONS

INTRODUCTION

This research illuminated the experience of nine occupational therapists in Namibia as they engaged in a co-operative inquiry. The research set out to provide experience- based learning opportunities as well as practice opportunities in selected EBP skills. It also aimed at finding ways in which EBP could be implemented in Namibia. The first part of this chapter summarises the extent to which the study aims were achieved. Areas warranting further investigations are briefly described and followed with recommendations for practice and education.

This research illuminated the experience of nine occupational therapists working in Namibia, as they engaged in the co-operative inquiry. The research set out to provide experience- based learning opportunities as well as practicing selected skills of the EBP process. It also aimed at finding suggestions as to how EBP could be implemented in Namibia. The first part of this chapter summarises the extent to which the study aims were achieved. Areas emerged in which further investigations are warranted. These are briefly described and followed with recommendations for practice and education.

6.1 CONCLUSION

Co-researchers initially experienced ambivalence regarding EBP. Participation in the study was beneficial as co-researchers developed a vision for EBP in Namibia and gained knowledge and skills. Shifts in their understanding of EBP occurred, which initiated action and effort, resulting in professional growth.

Based on the findings the researcher concludes that selected and applied principles of a number of theories facilitated knowledge use and creation. Principles or theories that were helpful were:

- facilitating the four ways of knowing of the co-operative inquiry, namely experimental, propositional, presentational, and practical knowing;
- applying asymmetrical reciprocity of the Feminist Ethics of Care throughout the study;
- encouraging networking among co-researchers;
- acknowledging co-researchers expertise and wisdom in the field of occupational therapy;
- eliciting reflective thinking by encouraging introspection;
- responsiveness to co-researchers own goals and needs in designing FGMs and tasks;
- stating clear expectations related to EBP tasks and providing support to accomplish these tasks.

By applying these principles, the study objectives were met as:

- provide co-researchers with opportunities for experience-based exploration and capacity building for conducting searches for evidence
- engage co-researchers in a process of individual and joint reflection to explore the usefulness and feasibility of practicing EBP in Namibia
- explore and refine the concepts, principles and techniques of EBP individually and collectively with the aim of empowering occupational therapists in Namibia.

The barriers co-researchers experienced were partly similar to those experienced by practitioners elsewhere, however, some, such as financial restriction and

gender-related time constraints have not been previously recorded. The salient finding in this regard was that hegemonies around gender made participation and implementation of EBP in Namibia difficult. Some of the barriers could be eradicated by co-researchers themselves through maximum effort; however, others need changed gender perceptions at meso- and macro systems levels as well.

The co-researchers collectively stated that if occupational therapists advocate for EBP at decision-making and policy-making levels and substantiate the need for EBP with evidence, EBP could be implemented on a wider spectrum and thus increase its impact on healthcare service delivery in Namibia.

The interrelatedness of factors at different system levels was illustrated by the Model of Professional Growth which shows the links between capacity, effort, growth and impact.

Finally, the findings of this research identified that three groups of assets, built on each other and intricately interwoven, collectively determined the qualitative outcome of evidence-based approaches to practice. These were:

- financial and material assets (such as having a personal computer and broadband internet connection),
- personal assets (such as self-efficacy, capacity to aspire or envisage, knowledge of what exists).and human abilities (e.g. ITC skills, searching skills, appraisal skills), and
- social assets (social networks, support groups and evidence-based culture mentors).

Consequently, the researcher argued that the combination of the number of interdependent challenges, aggravated by the absence of an evidence-based

culture in Namibia, contributed to co-researchers' obstacles to experiment with the implementation of an EBP approach.

The researcher set out to explore the interest in, and feasibility of, implementing EBP in Namibia. The findings showed that Namibia-based occupational therapists could implement EBP provided that:

- fast, reliable and computable ICT is owned or accessible;
- skills related to computer and information literacy are improved on a microsystems level;
- skills and knowledge related to the EBP process are improved, especially those pertaining to retrieving and appraising evidence;
- EBP is prioritised on individual and group rosters;
- a support network (local, national and international) for evidence-based practitioners is implemented;
- the hegemony on the prevailing publishing model is addressed and/or access to scholarly articles, either electronically or as hard copies, is improved.
- EBP is acknowledged as an important ethical requirement for practice by the HPCNA;
- EBP is acknowledged by a wider spectrum of health professionals in Namibia.

6.2 RECOMMENDATIONS

The recommendations for education, practice and research that emerged from the study findings are presented under separate sub-headings.

6.2.1 RECOMMENDATIONS FOR EDUCATION

- the NAOT should promote EBP among practitioners by offering structured courses by experts for novices, and ongoing support groups for therapists at different stages of becoming evidence-based practitioners, i.e. from novice to advanced;
- action research as an instructional method should be explored and implemented in undergraduate student education programmes;
- social learning in practice settings where EBP is already implemented appears to be a valuable learning strategy for: 1) practitioners new to the field of EBP, and 2) undergraduate students to convey the message that EBP is an essential and integral step in the occupational therapy treatment process.

6.2.2 RECOMMENDATIONS FOR PRACTICE

- the NAOT should approach the AHPCNA to adopt directives and acknowledge registered health professionals who are evidence-based practitioners; e.g. by prescribing a specific number of compulsory continuing education units (CEUs) for EBP activities each year. Self-study activities, such as finding evidence, appraising evidence, comparing evidence and compiling practice guidelines, should be acknowledged by awarding CEUs;
- the NAOT should negotiate access to academic resources, such as the South African Journal of Occupational Therapy, the British Journal of Occupational Therapy, the Canadian Journal of Occupational Therapy, the Australian Occupational Therapy Journal and the American Journal of Occupational Therapy. The NAOT has approached OTASA and the American Association of Occupational Therapists for Country membership in order to access the journals, but the success of this process is pending the NAOT should take up the responsibility to raise awareness of EBP outside occupational therapy, i.e. for medical practitioners, allied health professionals, social workers

and/or psychologists, through collaborative learning groups, and/or multi-professional courses.

6.2.3 RECOMMENDATIONS FOR RESEARCH

- The NAOT could support/initiate research to explore effective and sustainable methods of providing ongoing support for therapists wishing to implement EBP.
- Comparative studies are needed to identify differences (or similarities) in EBP uptake between countries, e.g. South Africa and Namibia, in order to ...
- Research should be conducted to refine and implement the Model of Professional Growth and investigate the impact of this Model on service delivery.
- The high percentage of females choosing to study occupational therapy seems to be worthy of an investigation. Specifically, research should be done to determine the impact of gender on the profession, for example, whether and how division of labour affects the profession, the effect of a female-dominated profession on status, appreciation, and remuneration and how negative effects could be addressed to redress imbalances.

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APPENDICES

Appendix A: Learning Theories

TABLE 17: KNOWLEDGE CREATION AND TRANSFER – SUMMARY OF ADULT LEARNING STRATEGIES

ADULT LEARNING STRATEGIES					
Tenets and practices	Self-directed learning	Experiential learning	Trans theoretical model of behavioural change	Social learning	Transformative learning
Practitioners	Knowles, Brookfield, Grow	Rodgers, Kolb, Jarvis, Boud	Prochaska and DiClemente	Bandura	Mezirow, Perry, Boyd and Myers
Target	Individual	Individual	Individual	Group/Social	Group/Social
How learning occurs	Adults will learn well if they set their own learning goals, discover needed resources on their own, choose the methods by which they learn, and evaluate their own progress	Direct experience is a critical component of adult learning. Successful learning will occur when current tasks are linked to past experiences	People learn through intentional change, involving a process through a series of stages and relies on self-report	People learn from their environment, mainly by observing the behaviour of others. Imitation of behaviour may occur, but learning can also occur without behavioural change. Consequences of the model's behaviour may affect the behaviour vicariously	Adults can learn by examining previously unchallenged assumptions, working through previously unconsidered perspectives, and revising the way in which experiences are construed.
Readiness to learn	Involves a matrix which learners use to	Starts with the active, willing participation of	Learning starts with an awareness	Starts with cognition of other people's	Begins with questioning assumptions,

	locate themselves in terms of their readiness for and comfort with self-directed learning	learners in their own learning	that current behaviour might be problematic; stages of change described	behaviour and the outcomes of those behaviours	beliefs, and values , and considering multiple points of view
Reflection	Frequent self-assessment is critical when fulfilling and modifying one's own self-directed plan.	New experiences allow us to reflect from different perspectives. From these reflective observations, we engage in abstract conceptualisation.	People contemplate the pros and cons of changing. This involves assessment of self, environment and self (actual and imagined) and the environment.	Group/peer pressure and expectations, rather than self-reflection form basis for change. Positive reinforcement and punishment are key motivators.	Socio-cultural experiences cause learning to have meaning. Transformative learning involves becoming more reflective and critical.
Collaborative learning	Learning may be done independently but usually involves others; the individuals or groups are likely to change as the learning tasks change.	The individual's experience need to be followed by some organised reflection; the reflection enables the individual to learn from experience.	Mostly an individual process, however support from peers, people that are trusted is welcome. Fear of failure plays an important role in daring to continue with new behaviour.	Learning always happens in a social context, considering that people learn from each other.	When groups of people have common needs, it significantly increases their potential for learning and viewing the world differently. This leads to transformation.
Learning experience	Learning contracts written by the learner usually incorporate strategies that involve extensive experiential learning.	Learning that is achieved through reflection upon everyday experiences and is the way that most of us do our learning.	Processes of change determine outcome of learning. In the early stages cognitive, affective and evaluative processes	Much of learning happens this way by observing people's behaviour and the consequences; learning may occur without	Learning has to be tied to real-life needs that are not being met.

			occur; later stages rely on commitment, conditioning, contingencies, environmental controls and support.	change in performance. Reinforcement and punishment usually drive change in behaviour.	
Facilitation of learning	The instructor's role is that of a coach, resource, and mentor; the learner executes his or her own learning contract.	Developing people as individuals enables learning methods to fit each person's own preferred learning styles.	In initial stages facilitate reflection on own behaviour/ performance; in latter stages build networks that assist with commitment and sustaining new behaviour.	Providing tutors and mentors that assist people to imitate and follow behaviour. Reinforcement and punishment facilitates involvement.	Help learners focus on and examine assumptions that underlie their beliefs, feelings and actions.
Core concepts	Adults need to know why they are learning; they are motivated to learn by the need to solve problems; previous experience must be respected and build upon; learning approaches need to match their background and diversity; they need to be actively involved in the learning process	The core is being actively involved in one's learning; it is about deeply processing knowledge and skills through experience, reflection, experimentation and application	People progress through stages of change by following processes of change; in the early stages people apply cognitive, affective and evaluative processes, in the latter stages, they rely on commitment, conditioning, environmental controls and support	People learn by observing, however learning can occur without behavioural change. Cognition plays a major role in learning; people and environment reinforce modelling. Key elements are: attention, retention, motor reproduction, motivation; success breeds success – self-efficacy	Engage in learning by fostering critical thinking, questioning assumptions, beliefs, feelings and perspectives in order to grow personally and intellectually

Appendix B: Informed consent

TABLE 18: INFORMED CONSENT

Please read this Introduction carefully

Introduction:

I, Helga Burger, cell +264 81 129 7301, Borchers Street 7, Klein Windhoek am doing the following study in partial fulfilment of the requirement for my MSc in Occupational Therapy (course work) at the University of Cape Town:

EXPLORING EVIDENCE-BASED OCCUPATIONAL THERAPY AS AN EMPOWERING TOOL TO OVERCOME PROFESSIONAL MARGINALISATION FOR NAMIBIAN OCCUPATIONAL THERAPISTS

As you are working in Namibia and you have participated in the evidence-based practice (EBP) workshop, you qualify to participate in this study. This study aims to bring participants to understand their present, existential concrete situation as far as EBP and evidence-based occupational therapy (EBOT) is concerned, guiding each person individually but also in group context to gain skills and find different ways of knowing about EBOT. Collaboratively, the research team (you, co-therapists and myself) wishes to gain knowledge and skills, empowering us to overcome marginalising structures and systems to become EBOT practitioners for the benefit of our clients and the Namibian society.

As a co-researcher in this study you would have to be actively engaged in the six two-monthly meetings (90 minutes each), and you would have to keep a diary of your experiences as you practice the tasks decided on by the group. This diary, together with audio recordings from the meetings and observations will be used as the research data. If and how the data could be used for another purpose (not the dissertation) will be discussed in one of the meetings. The way how you would like to be acknowledged (as a participant and your intellectual property) will be discussed as well.

Unfortunately, I cannot reimburse you or any other participant for the time spent on the study or for any other costs incurred by you. However, I believe that participation could be enriching and that participants could gain professionally.

Because all participants in this research are colleagues in real life, I will take care that information you share in your diaries will be handled as confidential and that anonymity will be respected and cherished should this be requested: the group will decide what type of information will be shared in the group and what information will be shared only with Helga Burger.

When discussing findings from the research, your experiences will not be connected to your name in the documentation of this research unless participants wish to have their identity made known and connected to their intellectual property.

All data will belong to the University of Cape Town. Data will be securely stored for one year after the publication (should the study be published).

It is of the utmost importance that you understand that participation is voluntary and that you can withdraw at any stage of the study without giving reasons, and that this will not be held against you at any stage or in any situation.

Should you need more information, please contact Helen Buchanan, the supervisor, or head of the Ethics Committee.

My contact details are;

7 Borchers Street, Klein Windhoek

Tel: + 264 61 22 2150 or

Cell: + 264 81 129 7301

Appendix C: Example of a Focus Group Meeting

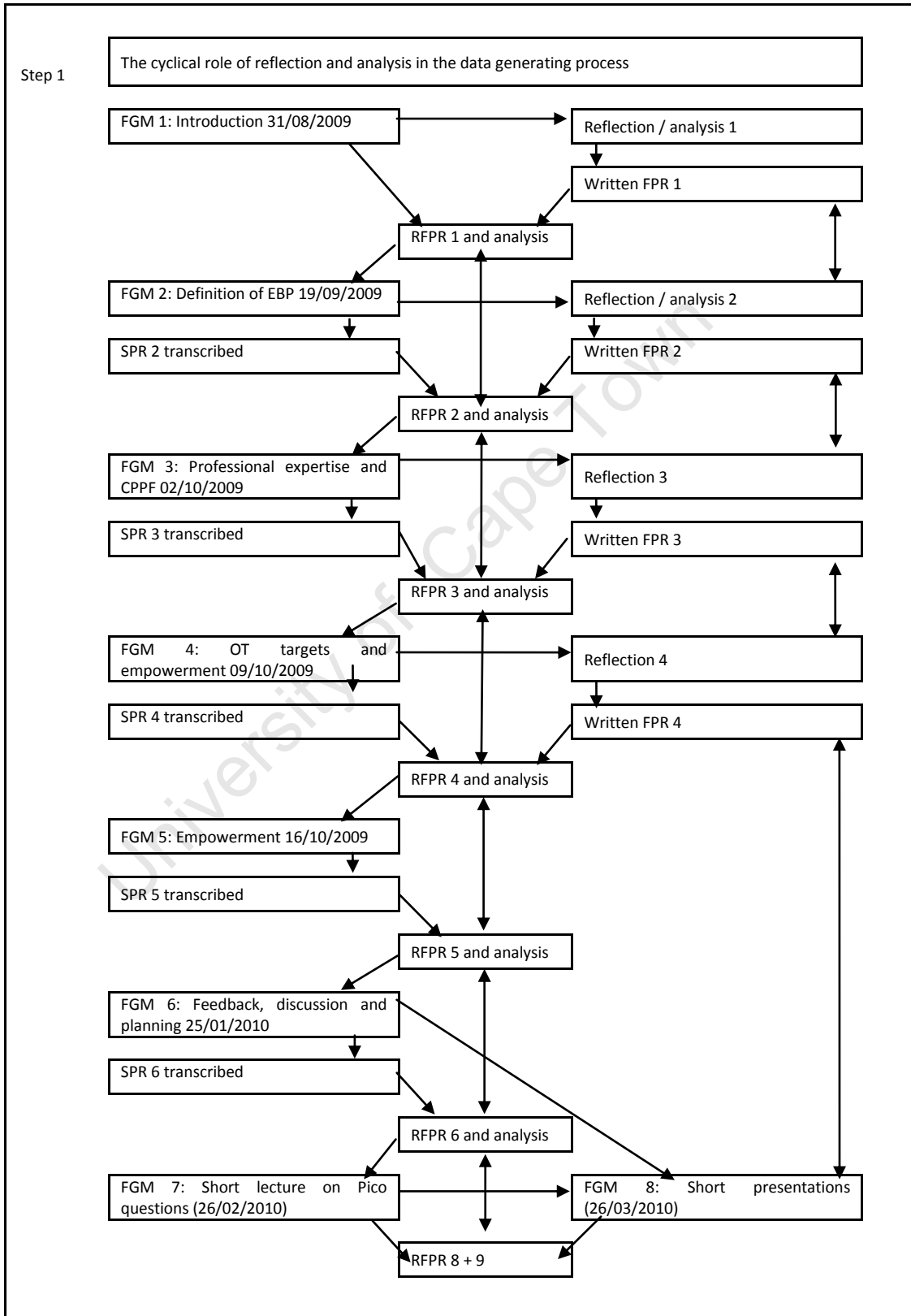
The researcher had an outline of the first four focus group meetings before commencing the research. After the second FGM, however, she restructured the third meeting and after each consecutive meeting she planned the next meeting. An example of a plan of a meeting is shown below (first FGM).

TABLE 19: PLANNING OF FIRST FOCUS GROUP MEETING (FGM)

<p>Cycle 1/ Phase 1/FGM1</p> <p>The researcher assumed a mentoring role, explaining the method, preliminary research aims, objectives and indicators to the co-researchers. In the first meeting, co-researchers had the opportunity to share their reasons for participating and their expectations. The process was facilitated by the researcher, creating a non-judgmental space for individuals to express their needs and visions. During this session the participants (individuals) started to engage with the phenomenon of integrating and utilising research evidence into their everyday practice – they were becoming co-researchers.</p> <p>For the writing of their first reflections, the researcher posed the following questions to the co-researchers to facilitate a critical review of their own practice and attitudes towards evidence-based practice:</p> <ul style="list-style-type: none">• how did co-researchers inform their current practice?• to what extent were they aware of developments in their profession in general and specifically within their field of practice (locally as well as globally)?• how did they identify and apply new knowledge which could potentially make their practice more efficient and effective?• what evidence was available on the internet if a therapist did not have access to a research library?• what had they learnt and how did they learn? <p>Co-researchers were prompted to search for the following information on the internet to guide their thinking:</p> <ul style="list-style-type: none">• humans as “occupational beings”;• how to practice occupation-based occupational therapy;• what they learnt about human rights issues in these readings.
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Appendix D: Data Generation

FIGURE 3: DATA GENERATION



Appendix E: First ATTEMPT at data analysis

This is an extract of first attempt at data analysis, 05/12/2009:.

TABLE 20: EXTRACT OF FIRST ATTEMPT AT DATA ANALYSIS, 05/12/2009

Reflections related to core barriers restricting Namibian OT's to engage in EBOT		
Awareness, collaboration, skills/knowledge, transformation	CODE	Co-researcher/ No of FGM
Procrastination	I, however, have perfected the art of procrastination.	2 FPR 1
	What frustrated me doing this task was: my slow computer (old), my postponing/ procrastination.	9 FPR 1
Lack of resources	I was a little bit frustrated with myself because of lack of personal computer to use for the research.	8 FPR 1
	it is unfortunate that my sources of information remain OT textbooks and Google, the hospital where I work does not have a library or membership to an organisation that can give me unlimited access to information.	4 FPR 3
The connection	The first problem that I encountered was poor internet connection and the amount of time it took to download information if the internet connected.	2 FPR 1
	Frustrations were also common. Due to poor or slow internet connections, it was sometimes difficult opening articles, links and web sites. It simply just took too long! By shutting it down, have I maybe missed something important?	7 FPR 1
	Basically I had problems in acquiring the information because of lack of resources such as personal computer with internet connection so I had to rely on laptop from a friend.	8 FPR 1
	I also managed to use the internet from my phone- (cell phone) but it has got limited memory so I could not get much information.	8 FPR 1
	What frustrated me doing this task was: My slow computer (old), my postponing/ procrastination.	9 FPR 1

	I have great difficulty connecting to the internet in the evenings and it continues to be a great frustration.	6 FPR 2
	Next a box appeared saying "INet must close". Now have to restart pc. Feel anxious because have only 45 min to search and type FPR and mail to HB. Pc so slow. Restart. Finally got to Google in Explorer. Takes 5 min. Frustrating. Remember Opera.	9 FPR 2
Restricted megabytes	The second problem was using an internet option that measures your downloads as it tends to add up quickly if you're researching various topics.	2 FPR 1
	... but it has got limited memory so I could not get much information.	8 FPR 1

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Appendix F: Extract of member checking

TABLE 21: EXTRACT OF MEMBER CHECKING 10/01/2010

Person	Meaning units / codes	Condensed meaning units	Comments by co-researcher
1	I checked our key-words as well as another topic where I need information about at the moment and I always experience similar 'feelings':	doing a search evokes feelings	
1	- surprised & excited about the high amount of results and information	feelings of excitement	
1	initially overwhelmed	feelings of being overwhelmed	
1	feeling of inability to structure and sort	feelings of being unable to structure and sort	
1	feeling of inability to assess/value the results	feelings of inability to value results	
1	- difficulty to remain focused on the topic, 'getting lost'	experiencing difficulties in staying focused	
1	- frustrated when reading abstracts only and then being restricted by limited access to articles	feeling frustrated because access to articles is restricted/ abstracts only	
1	Also, very interesting guidelines for patients/clients.	Finding guidelines for patients clients. Please explain what you meant (Name of co-researchers excluded)	

Appendix G: Extract of First attempt to code data

TABLE 22: FIRST ATTEMPT TO CODE DATA 06/02/2010

Participant code	Meaning units/codes	Amended condensed codes	Category name	Subcategories numeric	Category numeric
2	After the initial meeting, I was very excited and motivated to start with the research task and had great plans to start as soon as possible.	feelings of excitement initially	excitement about starting EBOT	1.1	1
7	Frustrations were also common. Due to poor or slow internet connections, it was sometimes difficult opening articles, links and web sites.	frustration of poor internet connection struggling to open articles	frustration due to poor internet connection /equipment	1.11	1
8	Emotionally I did not have (any) much problems though I had a little bit of frustration with myself because of lack of personal computer to use for the research. Nevertheless I look forward to the second session of your group.	feelings of frustration due to lack of computer /internet access	frustration due to poor internet connection /equipment	1.11	1

Appendix H: Extract of first attempt to categorise

TABLE 23: EXTRACT OF FIRST ATTEMPT TO CATEGORISE 23/03/2010

	Category: Feelings 1			Subcategories: I felt
	Codes		
1	excitement about starting EBOT			
2	overwhelmed by magnitude of information			positive feelings
3	dissatisfaction related to lack of skills			negative feelings
4	overwhelmed by magnitude of information		1	positive feelings related to EBOT
5	dissatisfaction related to lack of skills		2	positive feelings relatedness to colleagues
6	negativism not finding relevant info		3	negative feelings process
7	disappointment not trusting evidence		4	negative feelings equipment
8	frustration slow computer		5	negative feelings access denied
9	questioning self worth lack of skills		6	negative feelings own skills
11	frustration due to poor internet connection/equipment			
12	reassuring OT is done world wide			
13	gratitude to be participant			
14	engaging with information was rewarding			
15	feelings of affirmation of beliefs (ethical issues)			
16	frustration bad time planning			
17	enjoyment due to collaboration			
18	I love doing this			
19	stress due to deadline			

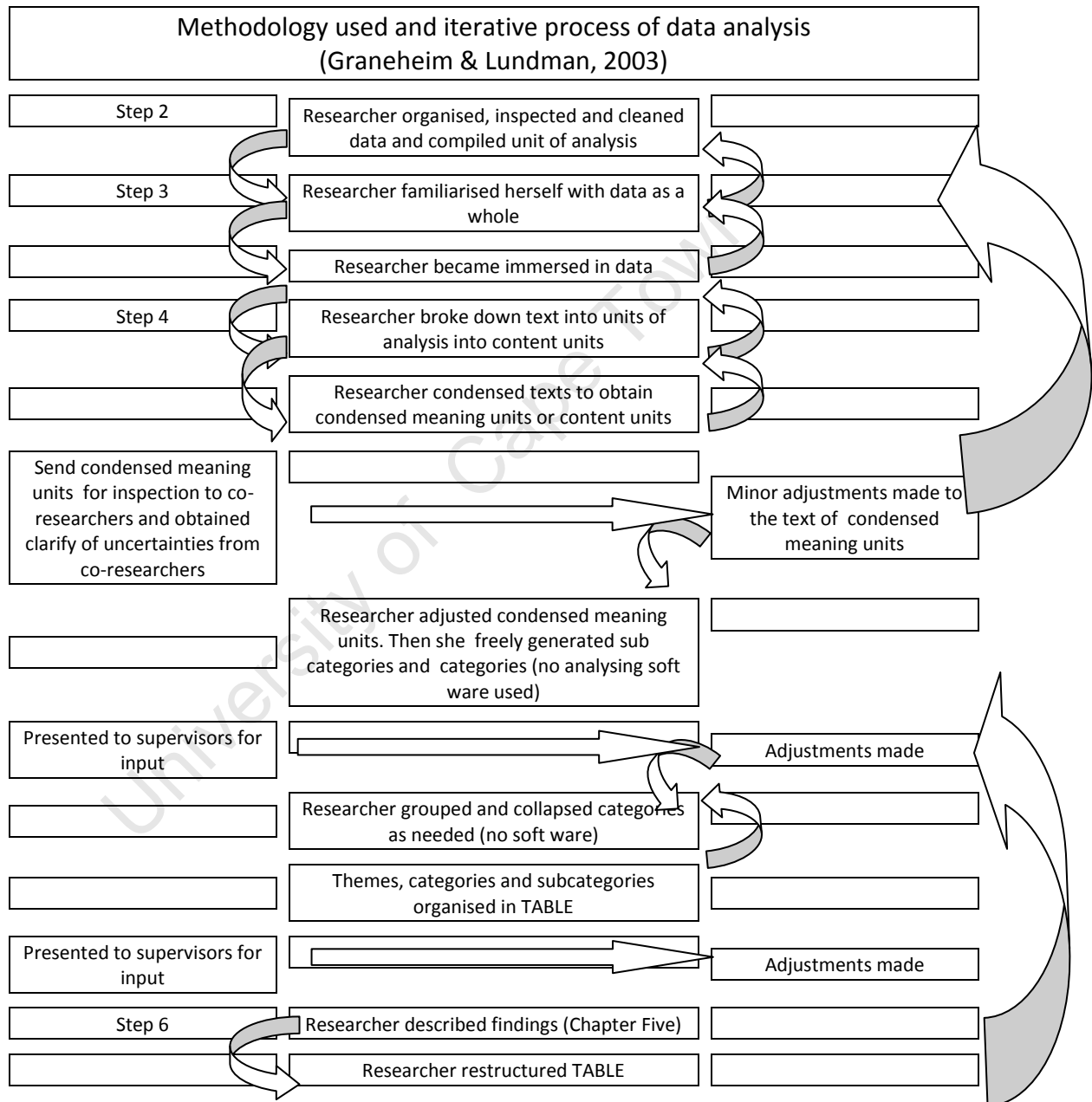
Appendix I: Extract of second attempt to categorise

TABLE 24: EXTRACT OF SECOND ATTEMPTS TO CATEGORISE 31/01/2011

Co-researcher code	Participant text	rephrased in my words and checked by participants	emerging codes	codes numeric	categories
1	I checked our key-words as well as another topic where I need information about at the moment and I always experience similar 'feelings':	doing a search always evoke similar feelings	ambiguous feelings	1	1
2	After the initial meeting, I was very excited and motivated to start with the research task and had great plans to start as soon as possible.	feelings of excitement initially	excitement about starting EBOT	1.1	1
7	Frustrations were also common. Due to poor or slow internet connections, it was sometimes difficult opening articles, links and web sites.	frustration of poor internet connection struggling to open articles	frustration due to poor internet connection/equipment	1.11	1
8	Emotionally I did not have (any) much problems though I had a little bit of frustration with myself because of lack of personal computer to use for the research. Nevertheless I look forward to the second session of your group.	feelings of frustration due to lack of computer /internet access	frustration due to poor internet connection/equipment	1.11	1
9	What frustrated me doing this task was: My slow computer (old),	frustration with old equipment	frustration due to poor internet connection/equipment	1.11	1
9	so I gotta hurry up. Except that one cannot hurry up an old computer!	frustration old equipment	frustration due to poor internet connection/equipment	1.11	1
9	Feel anxious because have only 45 min to search and type FPR and mail to HB. Pc so slow. Restart. Finally got to Google in Explorer. Takes 5 min. Frustrating. Remember Opera.	slow internet connections is so frustrating	frustration due to poor internet connection/equipment	1.11	1

Appendix J: The iterative process of data analysis

FIGURE 4: ITERATIVE PROCESS OF ANALYSIS



Appendix K: Audit trail

TABLE 25: AUDIT TRAIL

Action	Date	Reflections and planning of the researcher (experiential and propositional knowing)		
		First analysis of FPR by researcher	Observations/reflections directly after the FGMs/ transcribing FGMs and reading FPR	Decisions (action plan)
RFPR	Thursday 27/08/2009		Contemplating whether to choose keywords and what topics for the first search. Researcher was very ambiguous about this, wondering whether it would "pull off"	Choose "enabling occupation", "humans are occupational beings", "occupation based occupational therapy"
FGM1 Introduction and Personal Projects Analysis	Monday 31/08/2009		Too little time for each aspect. One co-researchers (CR) was 20 minutes late –needed much more time that envisaged.	
FPR received	16/09+ 17/09 2009	Excitement and enthusiasm about EBP, but also distress due to lack of knowledge and skills, were generally at loss, wandering off and reading what they could find on the topic	Key words well received, but searching found frustrating.	Need to discuss definition of EBP in detail. Searches defined by CR
FGM2 Personal Projects Analysis and Definition	Friday 18/09/2009		Much time spent of PPA. Started discussing the definition.	
				139

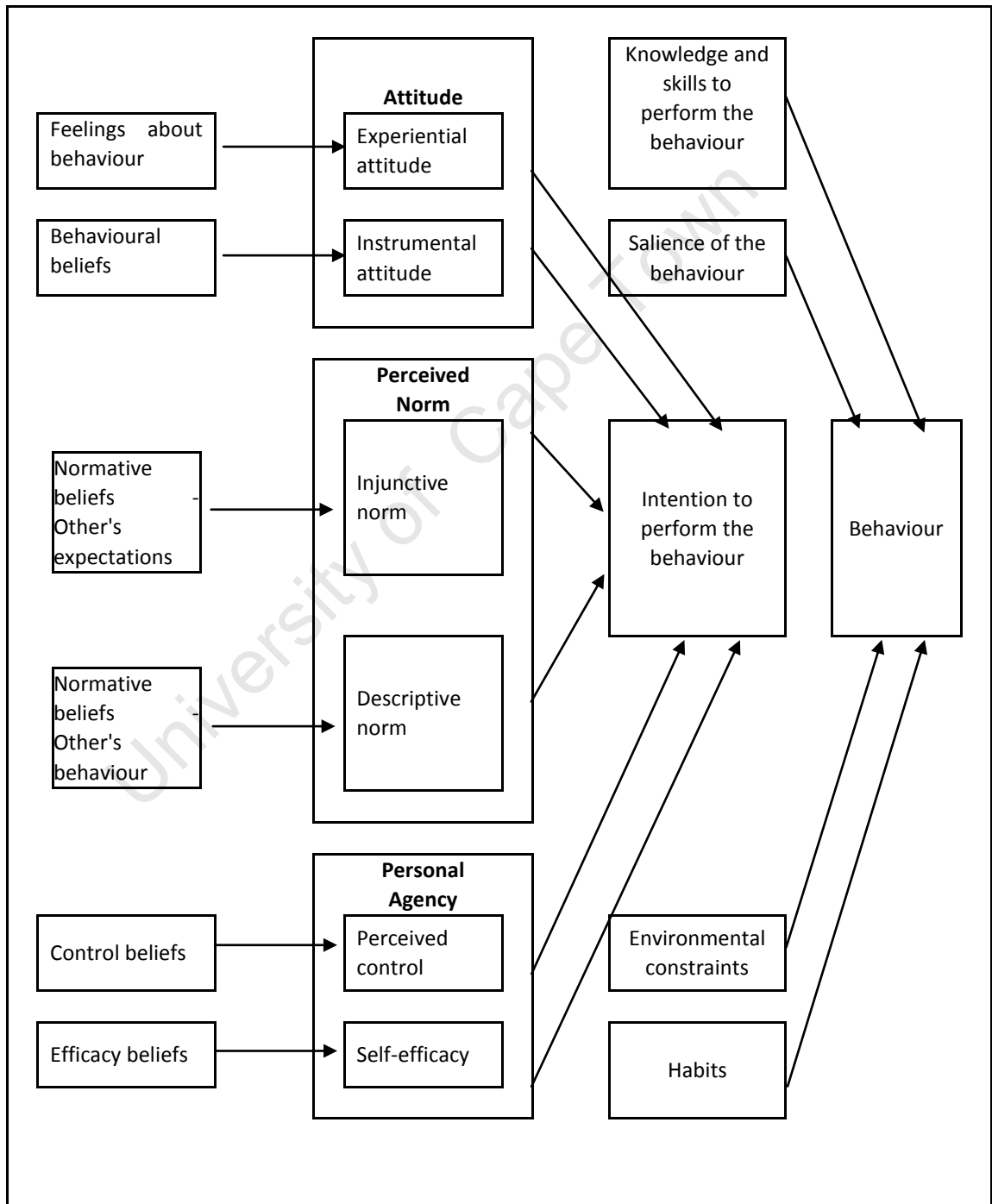
SPR transcribed	21-23/09/2009	Researcher sounded nervous and talked too much. Needs to give CR time to process. CR were excited about tacit knowledge and realised that clients were expert of their lives. CR did not see their expertise. They were distressed about the lack of acknowledgment they received and did not know how to explain what their unique contribution to healthcare worth was.	FGM presentation was better – researcher still talks too much. CR have to learn about EBP and how to do it. The initial idea of the researcher to lobby and mobilise CR to advocate for open access literature was too ambitious	
FPR received	01/10/2009	CR found it difficult to find appropriate keywords. Struggled to find appropriate articles. Did not use PICO question, but were more focused that the first time. Found searching stressful and costly. Confirmed that clients were seen as knowledgeable of their lives. Frustrated not having access to articles.	Researcher needs to lead CR to realise their role and unique contribution in healthcare	Define expertise, also professional expertise and the role thereof; use models (PEO) and COMP-E) and OPPM to do so. Divide in three groups and let groups present. Doing case studies
FGM3 Expertise of the occupational therapist as the expert; and application of OPPM	Friday 02/10/2009		Group work went well – still too little time given. CR did not formulate PICO questions. CR only covered the first three or four steps of the OPPM.	
SPR transcribed	05-07/10/2009	CR found this meaningful – were able to show their expertise in their fields and decided with more ease what they wanted to search for.	Presentations were fairly well delivered. CR started to realise that EBP can be applied to more than just treatment.	
FPR received	08/10/2009	CR disclosed that the group played an important role in staying committed. Working in	CR still expressed their ambiguity to EBP	Have another round of integrating EBP

		groups found beneficial. Elaborated on how and what they had learnt, and they found that this improved their professional self image. Frustrated not having access to articles.		with the OPPM. Showing CR the Targets of Enabling Occupation II , then applying their knowledge to case studies, trying to determine whether the outcome (target) influenced the way they would search for evidence
FGM4 OPPM and occupational therapy targets	Friday 09/10/2009		CR were keen to work in groups again and applying their newly acquainted knowledge	
SPR transcribed	12-15/10/2009	Some groups found that looking at the targets (outcome) changed their approach and they would search differently. Still did not formulate PICO questions		
FPR received	15/10/2009	CR reported that they had learnt a lot, especially pertaining to seeing their clients as important partners in the decision making process. They had started to change their focus in practice. Not having access to articles was found restricting. EBP necessary to practice ethically. Asking how they will keep EBP up after group dissolves. PPA redone and CR realised that they had to plan for EBP searches in their day as well as plan for skills development	Group was disheartened and on a low. The next session was to be the last.	Researcher decided to do the "empowering wheel" she had designed and give some theory on empowerment.
FGM5 Empowerment	Friday 16/10/2009	Participation in research evaluated and definition of empowerment assessed for their validity to CR experiences. Empowerment on personal, professional and community level assessed.		

FGM6	Tuesday 19/02/20 10	Initial findings presented and checked for validity.		Prepared one hour lecture on formulating and applying PICO questions before searching for evidence.
SPR transcribed		Marginalisation of Namibian therapists expressed clearly for the first time. Groups decided to have two more meetings, one on PICO questions done to present their final search and how they had planned to implement the evidence. Decide only to use Google.		
FGM7	Tuesday 26/02/20 10	Lecture given		CR were to present their PICO question, explained how they had searched, evidence found and how they were to utilise the evidence.
FGM8	Friday 26/03/20 10	CR presented their project. Generally the researcher was so impressed with efficiency in which CR had searched, presented the evidence and how they had decided to implement that, though, CR still struggled with formulating PICO questions. It was also alarming that evidence found and searched for was mainly medical model orientated and only qualitative studies were accessed (found) as most questions were treatment /intervention orientated.	The researcher was sad to let the group stop. It had been so much fun and was very rewarding; she had gained so much by engaging in these group discussions and by being part of a professional discussion group.	

Appendix L: Integrated Behaviour Change Model

FIGURE 5: INTEGRATED BEHAVIOUR CHANGE MODEL: GLANZ, RIMER AND VISWANATH (2008:77)



Appendix M: Summary of the inferences of the discussion

TABLE 26: SUMMARY OF THE INFERENCES OF THE DISCUSSION

Salient points from the discussion	Systems
The flourishing and knowledge-integrating effect of this co-operative inquiry brought about shifts in co-researchers understanding of EBP	Micro system
Matching competence with challenge as well as providing the right level of support to co-researchers in order for them to exert (maximum) effort was key to learning and changing behaviour.	Meso system
The importance of socialising therapists to become EBP was evident from the findings and supported by social learning theory (Bandura, 1997).	Meso system
Learning about EBP in natural contexts and by observing and imitating mentors could pave the way to establish EBP as a social movement among occupational therapists and establish a culture of EBP in Namibia.	Meso system
Not only was collaborative learning more enjoyable, external pressure and the commitment to comply with norms were seen as major motivators.	Meso- and macro system
The attitude towards EBP seemed to be related to previous experiences and previous knowledge of EBP and influenced participation either positively or negatively.	Micro- and meso system
Engaging in meaningful, goal directed occupations and experiencing success led to professional confidence and laid the foundation for risking exploring new terrain – practicing evidence-based.	Micro system
Understanding the ethical implications of EBP shifted co-researchers perspective on EBP, and the changed perspective fuelled action and the realisation that own input (effort) is needed to work evidence-based.	Micro-meso- and macro system interaction
Co-researchers' engagement in the study appeared to have been a journey of reflecting on their being, doing and becoming, and thus a journey of personal and professional growth and of flourishing.	Micro- and mesosystem
Some co-researchers understanding of gender role and division on household labour resulted in co-researchers feelings of guilt, as they had to change their time schedules to fit in the EBP research.	Micro-Meso- and macro system
Changing the balance of time spent on occupational therapy (work) and household labour was felt to be empowering by some co-researchers.	Meso system
Restricted access to academic literature threatened implementation of EBP. Ways to access evidence to be found as not being able to access evidence aborts the EBP practice process after step two, as developing skills in searching, appraising evidence, and implementing evidence is short-circuited in the absence of evidence. Consequently the decision-making process was limited to the knowledge held by the client and the tacit and explicit knowledge of the practitioner.	Macro system
Critical thinking should be developed as a professional skill of an evidence-based practitioner.	Micro
Commitment to the process of establishing EBP is essential.	Meso
Co-researchers had developed a vision of EBP in Namibia	Macro

Appendix N: Logic Model Plan for implementation of EBP in Namibia

FIGURE 6: LOGIC MODEL I PLAN FOR IMPLEMENTATION OF EBP IN NAMIBIA

