The management of infant developmental needs by community nurses

Part 1: Description of the responsibilities of community nurses with regard to the management of infant developmental needs

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This article is one of two that describes the responsibilities of community nurses, according to their legal scope of practice, with regard to the management of developmental needs of infants in primary health care clinics in South Africa. A subsequent article describes the development of guidelines for the support of community nurses to address the developmental needs of infants 0 - 2 years.

While evidence confirms that developmental surveillance should be incorporated into the ongoing health care of the infant, such services are not consistently provided in health care settings and, if provided, the delivery thereof suffers from significant inadequacies. A case study strategy was used to investigate the phenomenon and content analysis utilised to analyze the data. The Transactional Model of Development was selected to interpret the data obtained in the study.

Findings of the study show that infant developmental care is not included to its fullest potential in the health care delivered to infants and their families, thereby indicating that community nurses do not meet the standards of the profession with regard to the management of infant developmental needs. Health service managers need to review their commitment and type of support to community nurses, if infant developmental care, as part of community nurses' responsibilities, is to be effective and of high quality. Furthermore, community nurses and other health care professionals must recognize the nature and potential of inter-professional collaboration to ensure positive outcomes for infants with developmental delays and disabilities.

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Introduction

Universally there is an increased awareness that the early years of life are a period of considerable opportunity for growth, as well as vulnerability for harm. As the first years lay a crucial foundation for the health and development of children, it is critical not to just maintain, but also optimize the development and health of infants. Investments in infant development are fundamental for the future of every individual and for the wealth of the society (Halfon & Inkelas, 2003:3136; Köhler & Rigby, 2003:553; Meisels, 2000:3).

When a child is diagnosed with a developmental delay or disability, the impact on the parents and the family as a unit, is profound. The support that nurses render during the initial crisis, as well as through the different stages of grief and adjustment, can facilitate the acceptance of the parents and help to enhance the adaptation of the family in order to accept the infant and his/her special needs

(Pillitteri, 2002:1084; Wittert, 2004:n.p.; Ziolko, 1991:31). Community nurses, as part of the support network of families, can make an invaluable contribution to enable the families to take care of the developmental needs of their infants.

To be able to guide parents in the promotion of the normal development of infants, as well as the early identification of developmental delays and applicable referral for further evaluation, community nurses need a strong foundation of knowledge and skills regarding normal growth and development (Miles Curry & Duby, 1994:41). The nurses' basic training should equip them to recognize typical or delayed growth and development in infants in order to make the necessary referrals, and to be able to support infants and their parents during intervention (Stepans; Thompson & Buchanan, 2002:240).

Problem Statement

While evidence confirms that developmental surveillance should be incorporated into the ongoing health care of the infant, such services are not consistently provided in health care settings and, if provided, the delivery thereof suffers from significant inadequacies (Dworkin, 1989:1006; VanLandeghem; Curtis & Abrams, 2002:2). Furthermore, rehabilitation professionals, involved in early childhood care in South Africa, experience that the "diagnosis" of developmental disability is done much too late for effective intervention. According to them, mothers and caregivers bring infants too late for evaluation of their development "due to a lack of knowledge about child development and the functional skills (milestones) children should reach at certain stages" (Eksteen, 2000:25).

Infants and young children have a human right to develop to their full potential. To allow unmanaged disability and arrested development to occur in these children is a violation of their basic human rights (Meyers, 1993:37). The impact of disability is widespread as it extends beyond the disabled themselves – it touches the lives of family, friends and fellow community members. Due to this widespread impact, it is imperative to recognise the urgent need to put in place measures to address this growing threat (Department of Social Development, 2002:n.p.).

Research aims of the study
in their natural setting..

The aims of the study were to:
- Describe, according to the legal scope of practice of registered nurses, the responsibilities of community nurses with regard to the management of infant developmental needs at a primary health care level; and
- Develop guidelines for the support of community nurses in either training, continuing professional development or co-operation with other health care professionals and managers, in order to attend to the developmental needs of infants.

Methodology

According to Yin (2003:19-20) the research design of a given study provides the logic, the "blueprint" that links the data to be collected to the initial questions, and assists the researcher to execute the study in such a way that the validity of the findings is maximized.

The research design included two phases. The focus in the first phase was on the approach used to explore the responsibilities of community nurses with regard to the management of the developmental needs of infants in primary health care clinics, and in the second phase, the researcher addressed the development of guidelines to support these community nurses.

Research Design of Phase One

The strategy used to investigate the phenomena, was that of the case study, and specifically a single-case study. According to Yin (2003:41-43) a single-case study is an appropriate design, especially when the objective is to learn from the circumstances and conditions of an everyday situation in an institution, and the lessons learned are assumed informative regarding the experiences at the average institution. Furthermore, it is the preferred strategy when the questions "how", "why" and "what" are asked (the exploratory nature of the study); when the researcher has little control over the event or when the research is being carried out in a real life context (Yin, 2003:5-9). The researcher did not need to have control over the situation, as it had been the views of nurses, management, other health care professionals and parents that were being explored and these views were obtained

Unit of analysis: case definition and selection of the site

The case was the management of developmental needs of infants 0-2 years by community nurses, and the site, a local government primary health care clinic. The site was chosen by means of purposeful sampling, as it had the likelihood that all the viewpoints or actions, as related to the research problem and purpose, were present and could be studied (McMillan & Schumacher, 2001:401). A single site could be used, as health care in South Africa is rendered according to the principles of the primary health care approach, and functioning of primary health care clinics is sanctioned by national/district health policies (National Department of Health, 2001). Hence, the information obtained from one clinic should be applicable to other clinics functioning within the same district health system.

The context of the case study, people from outside the immediate case, included the following people with the purpose of enhancing insight into the case:
- Health service managers concerned with management and supervision of community nurses in primary health care clinics in the KOSH area (an acronym for the four towns in the area);
- Personnel involved with the continuous professional development of community nurses in the KOSH area;
- Other health care professionals concerned with infant development e.g. physiotherapists, speech-language therapists and occupational therapists working in the KOSH area;
- Families with infants 0-2 years of age, with typical development, residing in the KOSH area;
- Families with infants 0-2 years of age, with identified developmental delay/disability, residing in the KOSH area

Sampling

Sampling, where a selection is made out of a population, is improper in a case study (McMillan & Schumacher,

2001:404). Due to the qualitative nature of the research, non-probability samples were used to identify the following information-rich participants (Hoepfl, 1997:51).

- Community nurses – Five community nurses participated and were included by means of the site selection.
- Health service managers - Purposeful sampling and specifically, maximum variation sampling was used to select four participants (McMillan & Schumacher, 2001:402).
- Personnel involved with the continuous professional development of community nurses in the KOSH area - At the time of the study, only two people were involved in the training of community nurses, one from the local government health department and one from the provincial health department, and both of them were included in the study.
- Other health care professionals concerned with infant development in the KOSH area - Convenience sampling was used to identify other health care professionals concerned with developmental care of infants 0-2 years. One speech-language therapist, one occupational therapist and one physiotherapist, known to the researcher consented to participate in the study (McMillan & Schumacher, 2001:402).
- Families with infants 0-2 years of age, with typical development, residing in the KOSH area – Five participants were selected by case type, and specifically reputational-case, meaning the researcher obtained recommendations of knowledgeable experts for the best examples because the study required an examination of a particular type of case (McMillan & Schumacher, 2001:402). Community nurses working in clinics in the KOSH area, assisted with the identification of families.
- Families with infants 0-2 years of age with an identified developmental delay/disability,

residing in the KOSH area – Six participants were selected by case type, and specifically reputational-case (McMillan & Schumacher, 2001:402). The other health care professionals that participated in the study, assisted with the identification of families.

Data collection

In this study, multiple sources of evidence were used, as any finding or conclusion in a case study is likely to be more convincing and accurate, if it is based on multiple sources of evidence.

- **Interviews:** The researcher used comprehensive, semi-structured interviews and developed an interview guide for each of the different groups. Topics were selected in advance and were guided by the objectives of the study. The study supervisors perused the initial draft of the questions to ensure that questions were open-ended, sensitive, neutral and clear to the interviewee (Britten, 1995:251; Greeff, 2002:302-303). Although it was prepared in a way to ensure that the same information was obtained from each person, the researcher decided on the sequence of the questions during the interview. The interviews were conducted in either Afrikaans or English and participants could choose the language with which they felt most comfortable. As the interviews progressed, the researcher realized that additional questions were necessary to explore all avenues of information better and the interview guides were adapted where necessary. Recurrent themes indicated that sufficient information has been collected. The researcher conducted 31 interviews over a period of five months, and maintained a chain of evidence to allow any external observer to follow the process of data collection.
- **Field notes:** The researcher took short notes during each interview to remind her of events that could influence the study and its development, to

record specific observations, as well as any inadequacies experienced by her. It was done to supplement the data collected with the interviews and for cross-reference of documents mentioned during interviews.
- **Document study:** Systematic searches of official documents (policy documents, 50 client records drawn randomly, and training programmes) were executed to enhance understanding of the data gathered by other methods, and to illuminate and contextualise the responses to the research questions provided during the interviews (Hewitt-Taylor, 2002: 35).

Data analysis

A basic approach, content analysis, was used for analysing the transcribed interviews. This approach involved a systematic process of sifting, recording and sorting material according to key issues and themes. The researcher formed categories and searched for meaningful patterns among the categories (Taylor-Powell & Renner, 2003:2). Two independent qualitative researchers analysed the interview transcripts of all the participants, to verify that all relevant themes, categories and subcategories had been identified. In Table 1, the themes, categories and subcategories are indicated.

Measures to ensure rigour of the research design

As the researcher adopted Yin's approach to the case study, she applied case study tactics and verification strategies as used by Yin (2003:35):

- **Construct validity:** Multiple sources of evidence and more than one data gathering method were used. A chain of evidence was established and the field notes of the researcher indicated the circumstances under which the evidence was collected, e.g. time and place of the interview.
- **Internal validity:** The study did not seek to associate cause and effect. Triangulation of data was applied (Tellis, 1997:n.p.; Yin, 2003:97-101) and two independent qualitative researchers were used to verify

Table 1: Themes, categories and subcategories

Themes	Categories	Subcategories
Support by management for developmental care of infants	• Health care governance	• Policies and guidelines • Induction of staff (orientation) • Role expectations • Documentation • Professional performance management (supervision) • Training • Client feedback
	• Organizational culture and climate	• Acknowledgement of input and achievements • Investment in staff • Communication including feedback
	• Resources and infrastructure	• Finances/funds • Adequate staffing • Adequate equipment • Appropriate facility
	• Interagency collaboration	• Liaison and meetings
Developmental care of infants by community nurses	• Rights of the infant to develop to its full potential	• Infants cannot speak for themselves • Aim of life to develop into independent adult • Burden on community • Parents' responsibility • Government priorities
	• Focus on infant developmental needs	• Perception of management • Perception of community nurses • Perception of people involved in the training of nurses • Perception of other health care professionals • Perception of parents • Assessment of infant for developmental delays and disabilities • Promoting development • Barriers that nurses experience in infant developmental care • Surveillance and home visiting
	• Professional accountability	• Perception of scope of practice of the nurse • Competence • Evidence-based practice • Ethical standards

Themes	Categories	Subcategories
	• Personal professional development	• Preservation of human dignity • Pre-service knowledge base • Identification and acknowledgement of training needs • In-service training • Continuous professional development • Formal training programme • Focus on infant development
	• Family care	• Relationship with parents • Addressing concerns of parents • Information on resources • Recognition of cultural traditions and practices • Reflection on personal interaction style
	• Parents' view and expectations of community nurses	• Perception of service delivery • Accessibility • Approachability/interpersonal skills • Competence • Information and advice • Explanation of procedures
Management of infants with developmental delays and disabilities	• Identification of infant developmental delays and disabilities	• Identification
	• Intervention for infant developmental delays and disabilities	• Intervention
	• Support to parents of infants with developmental delays and disabilities	• Anticipatory guidance • Follow-up services • Effects of developmental delays and disabilities on parents • Social support
	• Views on late identification of infant developmental delays and disabilities	• Lack of focus on infant development by community nurse • Changes in health care • Workload • Impact of HIV and poverty • Logistics • Traditional healer

Themes	Categories	Subcategories
	• Collaboration with other health care professionals	• Insufficient knowledge about typical infant development • Negligence/denial by parents • Lengthy process of identification • Wait-and-see attitude • Referral and feedback • Interaction/communication with other health care professionals • Ensuring continuity of therapy • Interdisciplinary training and skills development

that all themes, categories and subcategories had been identified during the analytic process.

- **External validity:** A detailed description of the case context was given. The transferability of findings was not specified, but sufficient information that can be used by others to determine whether the findings are applicable to a new situation, was provided.

- **Reliability:** To address the problem of reliability, the researcher tried to minimize bias and errors in the study, and meticulously documented the procedures followed, so that an external observer would be able to follow the derivation of any evidence. Furthermore, the researcher ensured that by transcribing the interview tapes verbatim, no original evidence was lost. The field notes of the researcher indicated the circumstances under which the evidence was collected, e.g. time and place of the interview.

Ethical Considerations

The researcher addressed ethical issues, such as harm to participants, informed consent, deception of participants, and violation of privacy/confidentiality, researcher competence and release of findings (Strydom, 2002:64) during the study. Prior to conducting the case study, permission to carry out the research was obtained from the relevant authorities - a research proposal was submitted for approval to the Faculty of Health Sciences Research Ethics Committee, University of Pretoria; and permission was obtained from the Town Council. A letter, stating the purpose of the research, possible benefits of the research, and procedures to be followed was provided to all participants to obtain informed consent. Participation was voluntarily and participants could withdraw at any stage of the study.

Phase Two

The development of guidelines for the support of community nurses in either training, continuous professional development or co-operation with other health care professionals and managers, in order to attend to the developmental needs of infants, was covered in this phase. The completed guidelines were referred for examination to a wider group of experts involved in child health care. To accomplish this, a focus group interview was undertaken with health care professionals, representative of the health care professionals in the case study context, and after comments from these experts have been taken into account, the researcher drafted the final set of guidelines. This phase is discussed in full in a subsequent article.

Research Findings

Following is a summary of the research findings. Quotes from the research participants are used to illustrate the key points that emerged through this study:

- **Absent health care governance, concerning the management of infant developmental needs.**

Health care governance can be seen as a framework to help management to continuously improve the quality of care, as well as to safeguard standards of care, delivered by community nurses (Tait, 2004:724; Wilkinson; Rushmer & Davies, 2004:106). Management indicated that they visit clinics, ensure that staff knows what is expected of them and give feedback where necessary. The nurses on the other hand experienced management as being absent, and they felt they do not get the necessary feedback about their performance.

"... to find out if they know what they must do and then to make sure that they really can do it ... to say where and when a mistake was made to rectify it."

"Yes we usually met with our assistant director. So, she does not say anything whether you must keep your good work or what, so that you do not know whether you are working fine ..."

- **Inadequate commitment and support to community nurses by health services managers.**

According to McGillis Hall; McGilton; Krejci; Pringle; Johnston; Fairley & Brown (2005:181-185), little empirical research exists that examines the area of the supportive relationship between nursing staff and managers in health care settings.

Various qualities that define a supportive manager have been identified: respect and trust; praise, recognition and positive reinforcement; role-modelling and helping behaviour; personal caring behaviour; absence of personal defensiveness. Overall, the health

service management felt they had a supportive relationship with the community nurses, as indicated by the following comment.

"To have a good relationship with your staff, to be available for them in order that they don't see you as someone up there, they must thus have the confidence to approach you as manager if they have a problem ... to say when a mistake was made to rectify it."

However, the following responses reflect that this was not how the community nurses experienced it.

"... I don't know, it feels as if we are functioning alone, I mean without support. You must rely on your knowledge and take care to stay within, carry on according to the protocols. Further, I don't think you must believe or dream about support."

"... I personally experience them (health service management) as negative. The support you get from executive management is always just criticism (laugh). It's never positive, that is true, it's always about you spend too much money, you dispense too much medicine, you should have managed with less and you must be able to do a lot with everything that is what it comes to."

• **Organizational culture and climate is not conducive to the optimal management of infant developmental needs.**
Leaders who manage the organizational culture and climate can tap the full potential from their employees. On the other hand, if it is not managed, the workers will be less than average or mediocre, and this could eventually have an effect on the quality of the health care service context in which community nurses relate to infants and families (Snow, 2002:393-395; Wilson; McCormack & Ives, 2005:28).

"... to build good relationships with them, to motivate them ... to act as mediator with staff conflict ... to support staff during illness and personal problems and to provide emotional support where necessary ..."

"... if I must say nil, that is now very nasty if I say it like that ... I don't know, it feels as if we function on our own, I mean without support ... further, I don't

think you must believe or dream about support."

• **Interagency collaboration to obtain the necessary intellectual and institutional resources is not pursued.**
Although management from the various health services in the KOSH area have formed an informal linkage and relationship to discuss cases and problems, they continue to plan and carry out their own services autonomously. Community nurses unfortunately, are not part of this networking, as it is viewed as a function of the executive management and there are official channels according to which these aspects are addressed.

"... we've got the meetings every third month with ... more the maternity section at the hospital where cases and referrals are being discussed ... you know it becomes known at the meetings ... if there are any problems between the clinics and the hospitals ... so they are aware."

"... we report these things to management at the level higher than us and they take it to central meetings with the hospital ... so it moves up through the channels."

• **Limited/absent focus on infant developmental care during contact with infants and their families.**
Although the community nurses agreed that it is their responsibility to focus on the developmental needs of infants, their focus was inconsistent. Their focus was mainly on growth and nutrition, as stipulated in the priority programmes, and maybe a review of the milestones.

"... I think it will differ from person to person ... a nurse how dedicated she is, how she considers her work ... not always focused to ... physical to check the milestones when you, the immunization ... I think sometimes the milestones or the other signs and symptoms are perhaps not really noticed."

"... I think the people do, see it just as part of the routine, they won't especially go out of their way ... Yes, the growth more that anything else ... on the other (other domains of development), no."

The researcher felt it was necessary to gain insight in the parents' perception of

the focus of community nurses on infant developmental needs. The following responses suggest a limited or absent focus on the part of the community nurse.

"There are so many people and that causes that they then cannot get to the deeper part of the knowledge and work that must be addressed, they just want to finish their work."

"... when one goes to a paediatrician or to a doctor, then they always want to know more, does he sit or does he smile ... and so forth, and that is not what they are doing at the clinic."

• **Voiced concerns regarding existing infrastructure and resources are not addressed.**
In this study there was no consensus about the necessary infrastructure and resources. According to the researcher, the expressed constraints concerning infrastructure and resources (human and financial) should not have a detrimental effect on the management of infant developmental needs by community nurses.
However, health service management need to address constraints timely and collaboratively with the community nurses, to ensure that a possible lack of resources and infrastructure do not impede the delivery of a quality health care service to infants and their families.

"... I can't remember when last one has for instance, received a poster or a pamphlet, apparently there is no money for such things ..."

"In that one we have enough, we have enough resources, enough staff, we don't short anything ..."

• **The practice of community nurses, concerning infant developmental care, does not meet the standards of the profession.**
Community nurses are responsible both legally and ethically for the care they provide. Most community nurses in this study could identify the scope of practice from a developmental care aspect, and agreed that developmental care is part of their responsibility. However, their practice did not reflect developmental care as part of their service to infants and their families, as indicated by the following comments by both community nurses and parents.
"In a first world, yes, but not in a third

world ... in a first world ... you have enough time to do infant development ... I think it has a place; it must have a place, but in reality, I don't think it happens like that."

"...all sorts of services are shifted off so that the children actually bit in the dust ... not being done, indeed I am very honest, it is being treated shabbily ... it basically comes to that we don't meet our responsibilities regarding this children."

"They don't examine the babies. They only weigh them and that is most probably why most of our children's problems are not identified."

"... if the queues are long somewhere along the way these nurses get tired and they don't really give the kids a thorough attention ..."

• **The knowledge base of community nurses, concerning infant development, is insufficient.**

Due to the nature of infant developmental care, community nurses need to maintain current information regarding the latest research in this field. However, during the interviews, the community nurses indicated a lack of knowledge about infant development care and this lack coincided with their inconsistent focus on infant development.

"... you know, the most important one is the knowledge, I don't know how to assess ..."

"... I think a professional nurse is not knowledgeable, completed enough to manage ... the assessment of ... infants' disability, I think we are lacking ... in that area, we are lacking the necessary knowledge ..."

Furthermore, personnel involved in the training of community nurses indicated that the focus of in-service training programmes was mainly on the priority programmes as identified by the Department of Health of the North West Province.

"... no, not specifically regarding development of babies and early identification of developmental delays. Currently the biggest priority is HIV, anything concerned with HIV..."

"Commonly we focus on what we do in
our clinics ... we are more focusing on STI's and HIV ..."

• **Community nurses do not embrace family-centered care as their philosophy of care to infants and their families.**

Family-centered care has become widely accepted as part of the philosophy of care-giving in infant health care, because of the growing recognition of the family's importance to an infant's recovery and the impact of an infant's illness on the family (Franck & Callery, 2004:265-266; Tomlinson; Thomlinson; Peden-McAlpine & Kirschbaum, 2002:162). The comments, from both community nurses and parents, indicate that community nurses have not yet embraced family-centered care as their philosophy of care.

Parents indicated that they have certain expectations of the nurse-parent (family) partnership (relationship).

"... a supportive atmosphere where you have the confidence to ask things ... warmth, genuine interest and time, and that the patient experience there is time for me ..."

"Nurse A... is a lovely person who always has the time to tell or show you nicely and she always asks how things are at home. Not everyone has her nature and qualities. They won't easily get such one again."

Most of the parents indicated that they expected nurses to give advice and information without having to ask for it.

"... I thought it was automatic ..."

"... I feel there must be a comfortableness from her to share things with me, irrespective whether I've asked ..."

Parents felt that they did not get sufficient chance to voice their concerns and the research findings indicated a lack of information to parents about the procedures carried out by the community nurses.

"...I think every nurse should give you a chance to ask questions ... to say how you feel, what you experience ... then your actual needs, your fears."

"There are too many people in the clinic and with some of the nurses, one doesn't always have the confidence to ask, you
are too scared to ask ... they just want to get their work done and you feel you don't want to waste their time unnecessarily with your questions."

"No, she didn't explain at all."

• **Inefficient management of infant developmental delays and disabilities by community nurses.**

Community nurses have a significant role to play in the care of developmental disabled children and their families in facilitating the process of adaptation, providing family support, facilitating access to local services and co-ordinating services. They need to assess parents' own appraisals of their situation; the resources available in the family and the coping strategies used, and then respond to this identified need and help parents mobilize resources and build upon their strengths (Kirk, 1999:351; Pelchat & Lefebre, 2004:125; Sloper, 1999:91).

In spite of community nurses being in a crucial position to identify infant developmental delays and disabilities early, the parents in the study indicated that either they themselves identified the delays or disabilities, or when the community nurses identified it, it was done at a late stage.

"I've seen it myself ... I spoke myself ... his head was floppy ... this child is not well ... they (the community nurses) saw afterwards."

"He was about ten months ... they (the community nurses) never noticed yes."

Intervention provides families with services and support within or outside of the clinic. The only interventions indicated by the nurses, were that of referral and limited health education (anticipatory guidance).
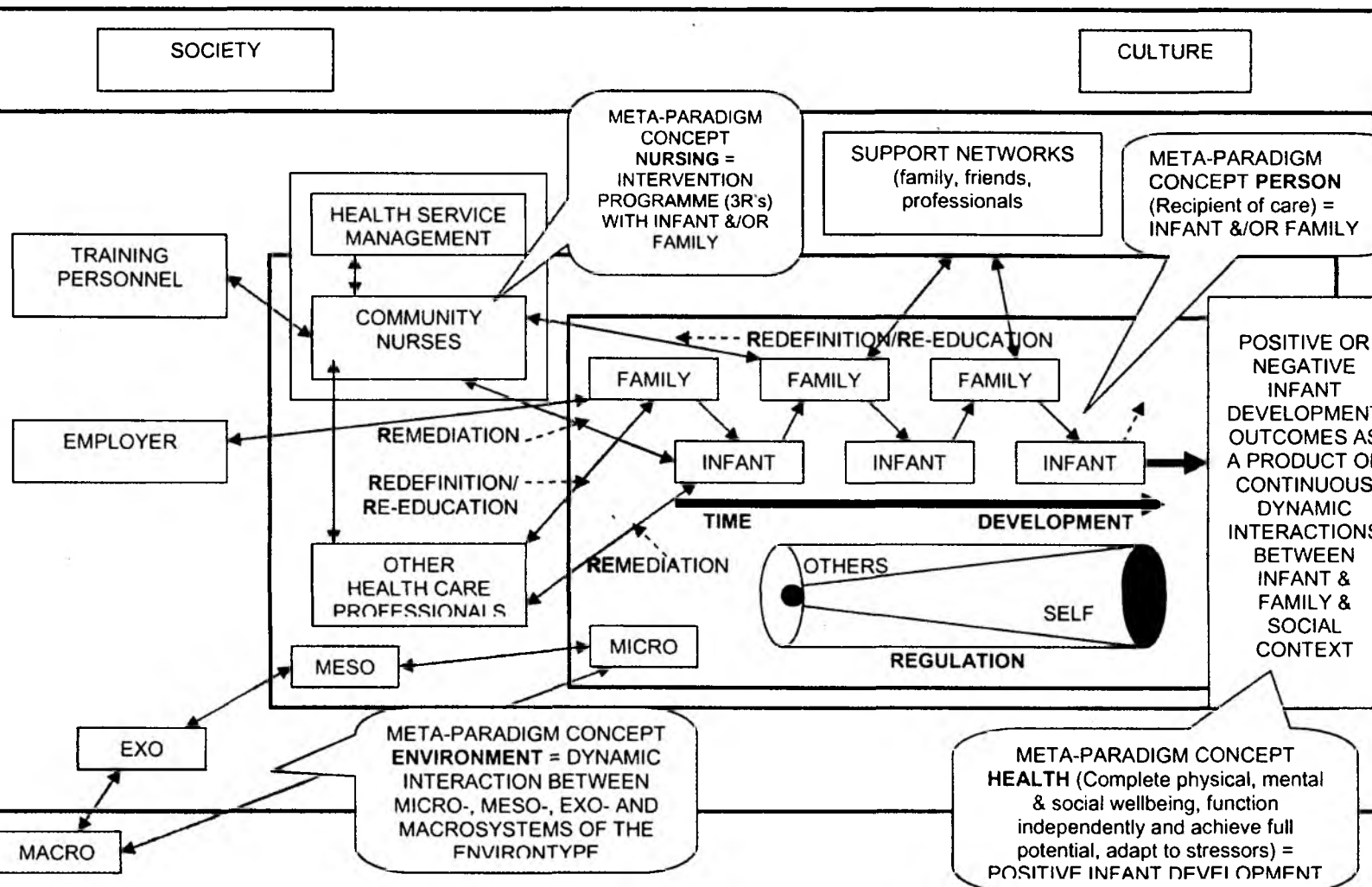
"Depending on the type of, you know disability, I will refer ..."

"... now I must start teaching the mother, finding out how is she bringing up this child and help to teach her maybe where I can see she is lacking and also if there is something that she need me to refer ..."

Community nurses have limited, if any, knowledge about the formal and informal resources in the community.

SOCIETY

CULTURE

META-PARADIGM CONCEPT **NURSING =** INTERVENTION PROGRAMME (3R's) WITH INFANT &/OR FAMILY

SUPPORT NETWORKS (family, friends, professionals

META-PARADIGM CONCEPT **PERSON** (Recipient of care) = INFANT &/OR FAMILY

HEALTH SERVICE MANAGEMENT

TRAINING PERSONNEL

COMMUNITY NURSES

POSITIVE OR NEGATIVE INFANT DEVELOPMENT OUTCOMES AS A PRODUCT OF CONTINUOUS DYNAMIC INTERACTIONS BETWEEN INFANT & FAMILY & SOCIAL CONTEXT

REDEFINITION/RE-EDUCATION

FAMILY   FAMILY   FAMILY

EMPLOYER

REMEDIATION

REDEFINITION/ RE-EDUCATION

INFANT   INFANT   INFANT

TIME   DEVELOPMENT

OTHER HEALTH CARE PROFESSIONALS

REMEDIATION

OTHERS

SELF

MICRO

MESO

REGULATION

EXO

MACRO

META-PARADIGM CONCEPT **ENVIRONMENT** = DYNAMIC INTERACTION BETWEEN MICRO-, MESO-, EXO- AND MACROSYSTEMS OF THE ENVIRONTYPE

META-PARADIGM CONCEPT **HEALTH** (Complete physical, mental & social wellbeing, function independently and achieve full potential, adapt to stressors) = POSITIVE INFANT DEVELOPMENT

"... no ... I don't know ... if there is any provision for resources for infants ..."

"... no we don't have the specific places that we know of ... no, I can't at the moment think specifically ..."

As indicated in the research findings, some of the parents did not receive any support at all, or the support was insufficient to deal effectively with their problems. The parents perceived support (informational, instrumental, emotional and appraisal) as a necessary element in the parent-nurse relationship. The following comments indicate that some of the parents have not yet accepted or worked through their mixed-up emotions.

"You know, very upset and angry. Angry at the people who never noticed it and who worked with him and never made us aware of it."

"... we feel we've been left in the lurch."
"She just told me that I must accept it, my baby will not be like other babies ... (felt too overcome to continue) ... she never, she just said that I must accept it ... I will like her to try to (too overcome to add any thing) ... it was very difficult at that moment."

The next response indicates unawareness on the part of the community nurse that support consists, besides words of reassurance, of facts, advice, positive affirmation and empathy (McWilliam & Scott, 2001:57-59), as well as a lack of competence to support the parents.

"We only reassure the parent at primary level. From there we refer them to ... the different departments at the hospital ... if we're to support parents here, I don't think you'll have ample time to do that ... we refer them to people ... with the necessary skills."

Follow-up by community nurses following referral is minimal, if not non-existing, and most of them indicated that they do not get any feedback after the referral of a client.

"You know most of the times, to say the truth, we don't try to keep track, but if that family come to the clinic again, we do ask them ..."

"No, I haven't kept track, because from them (other health care professionals),

we don't actually get feedback."

• **Inter-professional collaboration in the management of infant developmental care is absent.**
Community nurses are ill informed about the role and functions of the different health care professionals and they rather preferred to refer to the paediatric clinic, where the onus would be on the doctor to decide what action he/she would take.

"...you must rather refer to the doctor, maybe he wants to determine ten other things before you side skip him and go to physio (physiotherapy)."

"I think it is of cardinal importance, but I think it doesn't happen at all. Even for those of us who know that it must happen, it doesn't happen ... and not always to the advantage of the patient. I think there must be better co-operation between therapists who is doing the intervention and the nurse who is doing the identification thereof ..."

"... I also think that ... training sessions to say precisely what each type of therapist is doing ... correct referrals is very important, because I feel the information regarding that is not always sufficient. A person does not always ask what the different disciplines are doing."

"... we've got a psychologist ... she goes from clinic to clinic, introduces herself and tell them what they must refer to her ... I mean it was an eye opener to them, because they didn't know who, what she sees, or if they get a patient then they don't know what to do with the patient ..."

Theoretical Framework
The Transactional Model of Development (Sameroff & Chandler, 1975:187-244), generally used by the Disciplines of Child Development and Early Childhood Intervention, was utilized to interpret the data obtained in the study and to serve as a framework for the development of guidelines. In the Transactional Model of Development, how a child turns out is neither, a function of the infant alone nor of experience alone. The model places an equal emphasis on the effects of the infant and of the environment. The experiences from the environment are not viewed independently from the infant (Sameroff & MacKenzie, 2003:16). Furthermore, the

Transactional Model of Development relates to the meta-paradigm of nursing, which presents the most global perspective of the nursing discipline and served to assist the researcher in addressing the aims of the study, as it coincides with all four concepts: person, health, environment and care (nursing) (McEwen, 2002:40).

In the Transactional Model of Development, the development of the infant is seen as a product of continuous dynamic interaction between the infant and the experience provided by his or her family and social context. In comparison, in the meta-paradigm of nursing, there is also dynamic interaction between the person (recipient of care), the nurse, and the environment. The transactional model acknowledges promotive factors that aid in the general development of infants. In comparison to the meta-paradigm concept of health, the transactional model also seeks to maintain, promote and restore the development (meta-paradigm concept of health: promotion of optimal development, early identification of developmental delays and disabilities, and appropriate interventions) of infants and their families, and this is done by focusing on the child-rearing regulatory system. The Transactional Model includes the environment of the infant in such a way that the experiences provided by the environment are not independent of the infant and this correspond with the meta-paradigm concept of environment where there is also a focus on the constant interaction between the person (recipient of care) and the environment. The infant, by his or her previous behaviour, may have been a strong determinant of current experiences. Therefore, it helps infants to attain their developmental potential by adjusting the infant to fit the regulatory system better, or to adjust the regulatory system to fit the infant better. This coincide with the meta-paradigm concept of nursing which has as its objectives the promotion of health, prevention of illness, alleviation of suffering, restoration of health and optimum development of health and includes all aspects of the nursing process (McEwen, 2002:40; Sameroff, 1993:6; Sameroff & Fiese, 2000:142; Thorne; Canam; Dahinten; Hall; Henderson & Reimer Kirkham, 1998:1258).
In Figure 1, the intertwinement between the Transactional Model of Development

and the meta-paradigm concepts of nursing, in the management of infant developmental needs by community nurses, is indicated.

Recommendations

These findings have implications for nursing at the following levels:
Research:
Research should be conducted to:

- Establish the effect of inter-professional collaboration on the quality of developmental care for infants and their families.
- Establish referral and management procedures to aid communication between health care professionals, and to enhance the continuity of care for infants and their families.
- Establish if comprehensive training in infant developmental care has a positive effect on the outcomes of infants and their families.

Education:

- There is an essential need for community nurses to have a full understanding of all aspects regarding infant development. Therefore, it should be included in the curriculum of both under- and postgraduate students, as well as in the content of continuous professional development programmes.
- Community nurses should be educated in the role and function of other health care professionals to enhance continuity of infant developmental care, and other health care professionals should be incorporated in the education programmes of community nurses to ensure a more holistic approach to infant developmental care.
- Community nurses should take ownership of their own continuous professional development; they need to identify their own needs and limitations and implement the necessary steps to augment any shortcomings.

Practice:

- Community nurses need to reflect on their developmental care to infants and families, as reflection can enable them to devise strategies to rectify shortcomings such as, insufficient anticipatory guidance and parental concerns not being elicited.
- Health service managers need to include infant developmental care as an aspect of the professional performance expectations for community nurses.
- Health service managers need to become more aware about their commitment and type of support to community nurses, if infant developmental care, as part of community nurses' responsibilities, is to be effective and of a high quality.
- Health service managers and community nurses need to institute collaboration with other health care professionals to ensure the delivery of holistic infant developmental care.
- Community nurses and other health care professionals need to make a concerted effort to follow-up after referral of clients, as well as give feedback to each other to ensure the continuity of care.
- Barriers to the implementation of effective infant developmental care by community nurses must be assessed, so that strategies to overcome these barriers can be implemented.
- Community nurses need to become knowledgeable about the resources in their community that could promote early infant development.

Conclusion

The study highlighted the shortcomings of community nurses in the delivery of developmental care to infants and their families. With these findings as a point of departure, guidelines (phase two) were developed for the support of community nurses in order to attend to the developmental needs of infants. With a better understanding and increased investment in the field of infant developmental care, community nurses could ensure care-giving environments that help infants reach their full developmental potential. The challenge before community nurses is not to squander the opportunity, but to maximize it.

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