

# EARLY INTERVENTION FOR PARENTS OF LOW BIRTH WEIGHT PREMATURE BABIES: DEVELOPMENT OF A PROGRAMME FROM AN EDUCATIONAL PSYCHOLOGICAL PERSPECTIVE

by

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Submitted in partial fulfillment of the requirements for the degree:

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in the

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Promoter: Dr. Heila M. Prinsloo

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RESEARCH PROJECTS  
IN THE FIELD OF  
ARCHAEOLOGY  
AND ANTHROPOLOGY  
IN EGYPT  
AND THE  
NEAR EAST  
1990-1992

## ACKNOWLEDGEMENTS

### TO GOD, MY MOTHER AND MY FATHER

### DEDICATION

This study is dedicated to my Heavenly Father, my inspiration and strength.

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## ABSTRACT

The intervention in the case of LBW premature babies presents two problems and the study, therefore, reflects the contribution that an educational psychologist can make. Low birth weight (LBW) premature babies have been shown to present with learning developmental difficulties and they also present maladjustments some years after their birth. Recent research has found that the early life environment and early profound influence on a child's subsequent development than the child's birth weight. This was also confirmed in the study being born with LBW. Literature shows that the premature babies' parents anticipated normal delivery and short hospital stay and ordinary postpartum care was often followed by feelings of shock, denial, sadness and anger. Although problems in postpartum care were identified, it was also found that parents came to recognise that the experiences of parenthood were unique and one should not compare them with other parents.

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The intervention had been implemented once before at Mataria Teaching Hospital and the purpose of this study was to evaluate the second implementation of the programme. The qualitative analysis of the first implementation at the Pretoria Academic Hospital, resulted in significant changes being made to the programme. An implementer early intervention programme for parents of LBW premature babies, developed by an educational psychologist in relation to the content and feedback of the first implementation. The function of the interpreter and also cultural sensitivities were addressed in part of the qualitative analysis of the results of the second implementation. The programme intended to be implemented to change subjective areas such as parental knowledge, opinions, attitudes and behaviour. Some immediate behaviour changes were observed and it was expected that these would be sustained over a long period of time. Establishing the long-term outcomes that this programme may have on LBW premature babies and their families would be an important logical area for research. Relevant recommendations have been made.

## ABSTRACT

Early intervention in the case of LBW premature babies prevents later problems and this study describes the contribution that an educational psychologist can make. Low Birth Weight (LBW) premature babies have been shown to present with learning, developmental, behavioural, and emotional maladjustment some years after their birth. Social influences and family factors have a much more profound influence on a child's subsequent development than the biological factors which resulted in the child being born with LBW. Literature shows that the premature baby's parents' anticipated normal delivery and short hospital stay are suddenly replaced by a stressful birth, followed by feelings of shock, denial, sadness and anger. Although professionals working with premature infants have come to recognise that the experiences of parents during the infant's hospitalisation and homecoming are stressful and difficult, the predominant focus in most neonatal intensive care units (NICU's) is still the acute care needs of the infants. Because parents will ultimately assume care of the infant and will strongly influence the child's developmental outcome, NICU procedures and early intervention need to include psychological interventions for parents. The educational psychologist's field of expertise includes devising preventative strategies and providing guidance to parents and other relevant role-players in the upbringing, education and development of children. This study aims to develop a cost-effective early intervention programme for parents of LBW premature babies as a means of providing parent support and counselling. Theoretical aspects that were deemed critical to the development of the programme, as well as the results of the situation analysis, determined the programme's content. Other relevant disciplines (such as speech therapy, occupational therapy, physiotherapy, paediatrics, nursing and welfare), which successfully contributed to the educational psychology perspective, were liaised with. The programme targeted not only literate parents, but also semi-literate and illiterate parents. The programme was developed within the South African context, but in such a way that it can be adapted to be implemented in other developing countries in Africa as well. Egypt can be used as an example. The programme was implemented (for a second time, since it had been implemented once before) at Mataria Teaching Hospital in Egypt as part of the formative evaluation of the programme. The qualitative analysis of the pilot implementation, done at the Pretoria Academic Hospital, resulted in significant changes being made to *The Güldenpfennig early intervention programme for parents of LBW premature babies*. The role of the educational psychologist in relation to the content and feedback of the sessions, the participation of the interpreter, and also cultural sensitivities were outlined as part of the qualitative analysis of the results of the second implementation. This programme intended and succeeded to change subjective areas such as parental knowledge, opinions, attitudes, feelings, and in some instances behaviour. Short-term effects were immediately evident, and it is to be hoped that these would be sustained over a long period of time. Establishing the long-term outcomes that this programme may have on LBW premature babies and their families would be the next logical area for research. Relevant recommendations have been made.

## **OPSOMMING**

Literatuur bewys dat premature babas met 'n lae geboortemassa later leer-, ontwikkelings-, gedrags- en emosionele probleme kan ontwikkel. Die vroeë en stresvolle geboorte van die baba wek gevoelens van skok, ontkenning, hartseer en aggressie by die ouers. Die oorheersende fokus van die meeste neonatale intensiewe sorgeenhede is die akute versorgingsbehoeftes van die babas. Die ouers se stresbelaaide belewing en vrese word deur geen professionele persoon ondervang nie. Omdat ouers uiteindelik die sorg van hulle babas moet oorneem en dus die ontwikkelingsuitkomste sterk beïnvloed, behoort neonatale intensiewe sorgeenhede in vroeë intervensies ook sielkundige intervensies vir die ouers in te sluit. Sosiale invloede en gesinsfaktore het 'n baie groter invloed op 'n kind se verdere ontwikkeling as biologiese faktore wat 'n lae geboortemassa tot gevolg gehad het. Die opvoedkundige sielkundige se kundigheidsveld sluit die ontwikkeling van voorkomende strategieë en die voorsiening van ouerleiding in, asook leiding aan ander toepaslike rolspelers in die opvoeding, onderwys en ontwikkeling van kinders. Hierdie studie het ten doel om 'n koste-effektiewe vroeë intervensieprogram (*The Güldenpfennig early intervention programme for parents of LBW premature babies*) vir die ouers van premature babas met 'n lae geboortemassa te ontwikkel as 'n metode om ouerondersteuning en -berading te voorsien. Teoretiese aspekte wat as krities vir die ontwikkeling van die program beskou is, sowel as die resultate van 'n situasieanalise, het waardevolle insette ten opsigte van die programinhoud verskaf. Daar is met ander relevante dissiplines geskakel wat suksesvol tot die opvoedkundige sielkundige perspektief kon bydra (spraak-, arbeids- en fisioterapie, pediatrie, verpleegkunde en welsyn). Die program het geletterde, semi-geletterde en ongeletterde ouers as teikengroep gehad. Alhoewel die program in 'n Suid-Afrikaanse konteks ontwikkel is, is dit op so 'n wyse gedoen dat dit aangepas en gebruik kan word in ander ontwikkelende Afrika-lande. Egipte is as voorbeeld van so 'n land geneem, en die program is ook in die Mataria Opleidingshospitaal in Kaïro geïmplementeer as deel van die formatiewe evaluasie daarvan. Die kwalitatiewe analise van die loodsimplementering in die Pretoria Akademiese Hospitaal het geleid tot noemenswaardige veranderinge in die "*The Güldenpfennig early intervention programme for parents of LBW premature babies*". Die rol van die opvoedkundige sielkundige met betrekking tot die inhoud, hantering en terugvoer van sessies, die deelname van die tolk, asook die hantering van kulturele sensitiwiteit, is omskryf as deel van die kwalitatiewe analise van die daaropvolgende (tweede) implementering. Hierdie program het ten doel gehad om sekere subjektiewe areas, byvoorbeeld die ouers se kennis, opinies, houdings, gevoelens, en in sekere gevalle gedrag, te verander, en dit het ook daarin geslaag. Korttermynresultate het dadelik geblyk, en hopelik sal hierdie resultate oor 'n lang tydperk volgehou kan word. 'n Logiese uitvloeisel van hierdie navorsing sou wees om die langtermyn uitkomste te bepaal wat hierdie program vir premature babas met 'n lae geboortemassa en hulle families mag hê. Relevante aanbevelings is gemaak.

## KEY WORDS

Early intervention programme	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Formative evaluation	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Educational psychological perspective	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Preventative strategy	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Parent support and counselling	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Adult learning	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Parent-infant interaction	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Low Birth Weight premature babies	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Infant development	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
The educational psychologist as a facilitator	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1

## SLEUTELTERME

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Opvoedkundige sielkundige perspektief	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Voorkomende strategie	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Ouerondersteuning en -leiding	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Volwasse leer	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Ouer-baba interaksie	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Premature babas met lae geboortemassa	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Ontwikkeling van die baba	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1
Die opvoedkundige sielkundige as fasiliteerder	INTRODUCTION, PROBLEM STATEMENT AND AIM	Page 1

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Based on a sample of 133 "extreme" preterm babies born at gestations of 22 to 31 weeks, the following percentages of positive responses were found: 100% of mothers of 22-25 week babies, 78% of mothers of 26-29 week babies, 62% of mothers of 30-31 week babies and 50% of mothers of 32-33 week babies. The following percentages of positive responses were found: 100% of mothers of 22-25 week babies, 78% of mothers of 26-29 week babies, 62% of mothers of 30-31 week babies and 50% of mothers of 32-33 week babies.

### 3 The importance of the early years of life

Development theories on child development such as Piaget (1932 p.4), Freud (1925 p.3), Erikson (1950 p.93), Frayer (1973 p.203), Shonkoff & Phillips (1997 p.90) all emphasize the fact that the first two to six years are the most important developmental period in a child's life. During this period there is a rapid growth and maturation with respect to the physical, sensorial, perceptual, emotional, linguistic and communication abilities. In addition a new life receives various influences from the mother and father, which will affect his/her potential intellectual ability, but this potential has to be realized through interaction between the child and the people and things around him (the environment). A person's life begins and actualizes the potential with which he is born throughout his life, but the first few years of life is a crucial time for the self-discovery in terms of cognitive and social development (Leonard & Picaich, 1997 p.240).

Every baby is born with a certain number of neurones. These neurones (which are part of the nervous system of the brain) are irreplaceable. Each neuron develops protrusions, or dendrites, which