THE UNIVERSITY OF ZAMBIA
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THE USE OF PARTICIPATORY THEATRE IN EARLY CHILDHOOD DEVELOPMENT INTERVENTIONS: A FOCUS ON MOTHER GROUPS IN CHOMA AND PEMBA, ZAMBIA.

BY
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A dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the Masters of Arts degree in Child and Adolescent Psychology (M.A).

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DECLARATION

I Mwaba Moono Chipili, hereby solemnly declare that this dissertation is my own work. It has not been previously submitted to this or any other university for the award of an academic degree.

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CERTIFICATE OF APPROVAL

This thesis by Mwaba Moono Chipili is approved as fulfilling the requirements for the award of a Master of Arts degree in Child and Adolescent Psychology by the University of Zambia.

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Table of Contents

List of Figures and Tables

ACRONYMS

CDA	Child Development Agent
CHW	Community Health Worker
CK-CDI	Caregiver Knowledge of Child Development Inventory
ECD	Early Childhood Development
ECCDE	Early Childhood Care Development and Education
ECCE	Early Childhood Care and Education
EFA	Education for All
ELT	Experiential Learning Theory
KAPS	Knowledge, Attitudes and Practices survey
OTO	Onsite Training Observation
PC	Primary Caregiver
PT	Participatory Theatre
SB	Saving Brains
SB-II	Saving Brains Phase II
SC	Secondary Caregiver
TO	Theatre of the Oppressed
TfD	Theatre for Development

ABSTRACT

This study was an inquiry into the use of participatory theatre (PT) in early childhood development (ECD) interventions with regards to information dissemination and its impact on learners. This study occurred both within the context of a larger study 'Improving ECD in Zambia' and as an independent study carried out in Choma and Pemba, Zambia whose sample included 129 participants, with 9 participants from the core study (n=9) and 60 primary and secondary caregiver dyads from the independent study (n=120; females=116, males=4). The study sought to answer the following questions: i) how acceptable was participatory theatre as a means of disseminating information to the mothers in this study, ii) how feasible was the use of participatory theatre in this study, iii) was recall of information enhanced by use of participatory theatre aesthetics, and iv) were activities learnt during these sessions implemented at home? Knowledge was assessed using the Caregiver Knowledge of Child Development Inventory (CK-CDI; Ertem et al., 2007) as integrated with Knowledge, Attitudes and Practices survey (KAPS; based on Rockers et al. 2016). Focus group discussions from the core and independent study asserted that participatory theatre activities were acceptable to learners and implementable. T-test results showed there was a significant difference in CK-CDI scores at baseline and endline, all primary caregivers scored higher at endline (M=23.98, SD=4.76) compared to baseline (M=16. 71, SD=5.51), t(43) =-2.81, p=.007, hence in both groups knowledge was enhanced. It also showed that there was a significant difference in CK-CDI score between the control (M=21.9, SD=5.11) and PT group (M=25.64, SD=3.79), t(43) =-2.81, p=.007; hence PT had an impact on the learner's knowledge. However, a regression showed that primary caregiver knowledge did not predict secondary caregiver practice, b = .062, t(44) = 3.59 p=.32. The results indicated that the use of participatory theatre had an impact on the learning of the participants compared to traditional learning models. The implications of these findings on participatory theatre integration into early childhood interventions such as the contribution to knowledge gap on interactive models of information dissemination and enhancement of early childhood development programmes are discussed.

Keywords:

Child development agents, Early childhood development, Participatory theatre, Primary caregivers, Secondary caregivers,

CHAPTER ONE: INTRODUCTION

1.0. Overview

This chapter commences by introducing the background of the study, statement of the problem, and aim of the study. Additionally, it will cover research objectives, research questions and justification of the study, scope of the study, theoretical framework followed by operational definitions and ethical issues included in this paper.

1.1. Background

A child's early years are the most critical as 'patterns of behaviour, competency, and learning are initiated and established; socio-environmental factors begin to modify genetic inheritance, brain cells grow in abundance' and as a result these are the primal years in which to invest in children (Young, 2000; 2002). Early stress during these years, therefore, as induced by inadequate nutrition and psychosocial stimulation, can have a negative impact on learning outcomes and in turn lifelong development (Walker et al., 2005; Shonkoff et al, 2012). A focus on early childhood development (ECD) is therefore important, not only for good child development but also as a firm foundation on which later educational experience can be built, with 'ECD intervention directed resource allocation being part of the solution to this developmental potential crisis in the developing world' (Engle et al., 2007; Engle et al., 2011) to create a platform for much needed developmental stimulation.

Although, many developing countries currently seem to be enthralled by the concept of ECD, 'this is not a new phenomenon' (e.g., Hildebrand, 1981). In 1990 a World Conference on Education for All (EFA) was held in Jomtien, Thailand at which it was agreed by 155 developing countries to not only universalise primary education and massively reduce illiteracy by the end of the decade, but also provide the basic learning needs of the child. It is, therefore, through this EFA movement that the globalisation of early childhood development focus took place, with a much broader emphasis on development of the child (Marfo et al, 2004) since developmental competence is a learning need. As a result, countries were urged to expand Early Childhood Care, Development and Education (ECCDE) programmes to include family and community interventions thus targeting disadvantaged and disabled children. This was reaffirmed at the World Education Forum held in Dakar, Senegal in 2000.

According to Engle (2007) while progress has been made, most governments in developing countries are yet to prioritise early childhood in their health, education, poverty reduction and other national plans. As a result, many of these developing countries still lack concrete early childhood development policies, strategic plans and laws (Engle, 2007; Vargas-

Baron & Schipper, 2012) that would otherwise be beneficial to the growth of the ECD cause. For instance, in Zambia after the '1990' conference, it was not until 1996 that the Ministry of Education (MOE) developed the National Policy on Education, "Educating Our Future," and child education was pin-pointed 'in response to the developmental needs of the nation and individual learners' (ZANEC, 2012). Further still, it was not until 2011 that implementation was attempted with the introduction of the Education Act of 2011 in which ECCDE was emphasised upon and defined; and the launching of the Zambian ECD Manual in 2017. Hence, it is not surprising that progress regarding early childhood in Zambia to date though present, is still lagging (Thomas & Thomas, 2009). Other than bureaucratic issues, this pace may be due to the 'tendency to fragment early childhood care development and education (ECCDE) into separate entities rather than as a whole' (Jones, n.d.) which is still the case today. This fragmented approach could be cause for the low developmental potential in developing countries (Grantham-McGregor et al., 2007) and thus a holistic approach should be adopted. This concurs with the United Nations' Special session of 2002 at which it was agreed that every child should have a nurturing, caring and safe environment in order to survive, be physically healthy, mentally alert, emotionally secure, socially competent, and able to learn (UN, 2002).

Despite this consensus, it has been noted that the majority of the ECD literature is still mainly from the United States and other developed countries (Gertler et al., 2014). While Western attempts show success, it has been noted that most intervention attempts in the developing world have been of low significance or effect, as evidenced in 'the persisting school dropout rates, high levels of illiteracy and failure to attain development potential due to poverty (Grantham-McGregor et al., 2007), which is also the case in Zambia (CSO, MOH & ICF International, 2014). This is due to the lower nutritional status and higher mortality rates of children in the developing world, including Zambia (Grantham-McGregor et al., 2007; CSO et al., 2014). Hence the need to prioritize programs that improve child survival and growth by promoting nutritional supplementation and appropriate feeding practices. Meanwhile, stimulation programs, especially those scaled up to the national level, are also typically more expensive and difficult to implement effectively, meaning that very few have been undertaken (Gertler et al., 2014). While this has contributed to the dearth of longitudinal data on ECD stimulation programs everywhere, the lack of evidence is most pronounced in the developing world (Gertler et al., 2014). Could it be argued that the issue is not 'insufficiency of funds' (Thomas & Thomas, 2009) but one of the misappropriations of funds? The misappropriation in this case, referring not only to the misuse of donor funds (BBC News, 2018) but also to the

neglect of 'indigenous knowledge systems which could act as a source for creating more effective learning environments rather than sole dependence on Western models in the African context' (Banda, 2008) and thus provide useful dissemination channels in ECD interventions in developing countries such as Zambia.

The high levels of poverty in Zambia have also had a negative impact on the sustainability of ECCDE programmes in Zambia, especially in rural areas. For instance, according to the Zambian Demographic Health Survey (CSO et al., 2014) sixty percent of Zambians are classified as poor with prevalence being more severe in rural than urban households (78 percent and 28 percent respectively). This is due to inadequate food security in the majority of households that depend on consumption of their own agricultural produce. As a result, the Zambian government though committed to providing quality early childhood education to all eligible children as reflected in the Ministry of Education Strategic Plan 2003-2007 will have to place greater emphasis on the child's nutrition and stimulation in early childhood in order to achieve this end. It is not enough to simply have government run preschools nationwide. Furthermore, though critical early childhood education (ECE) should not be delved into without a focus on early child development (ECD) which not only looks at the child's linear growth but is also a key determinant of the child's performance socially and academically as they enter preschool and primary school education. Investing in the early years, therefore, is essential for sustainable human development and future poverty alleviation. However, this will only be fully achieved by adopting a holistic integrated approach that is also context specific to meet these needs in their varying manifestations.

The government (through its various ministries) noticing that it may not be equipped to undertake the integration of ECD on its own, has elected to work with international non-governmental organisations (NGOs) such as the United Nations Children's Fund (UNICEF), World Health Organisation (WHO) including World Bank not only for the fulfilment of the Sustainable Development Goals (SDGs) one through to seventeen but also foster research evidenced seminars such the Symposium on Early Childhood in Eastern and Southern Africa held in Livingstone in 2008, and the Evidence for Impact Symposium held by Population council in 2017. Such endeavours are for the progression of early child centred programmes in that early childhood development and early childhood education segments of ECCDE should no longer viewed as separate entities but as different sides of the same coin. One simply cannot exist without the other. In this case, ECD includes all interventions directed at children or their

caregivers, preferably integrated as a package of services that support the holistic development of the child (UNICEF, 2013; Rockers et al, 2016).

Previous study

Considering this realization, many studies have been and are currently being conducted in a bid to improve nutritional status in Zambia through the Scaling Up Nutrition (SUN, 2015) and other initiatives. With community-based approaches being the most optimal models to adopt regarding driving behavioural change as they 'promote community ownership and sustainability of ECCDE services' (Serpell & Nsamenang, 2014) it would be appropriate to adopt a programme embraces this community based approach fully. Parental involvement in such programmes also appears to strengthen the positive impact of early childhood interventions (Schweinhart, 1993; Rockers et al, 2016; Rockers et al, 2016).

Rockers and colleagues (2016) conducted a study for one year in order to assess the feasibility and impact of a package of community-based early childhood services in a rural context in Zambia. This cluster randomised trial (CRT) was held in Southern Province, whereby in the intervention clusters, households were visited biweekly by a health worker dedicated to child development, and caregivers were invited to attend biweekly group meetings where they were taught a diverse parenting curriculum. Findings showed that the intervention package had a positive but low impact on child development in comparison with the control group though, children receiving the intervention package had fewer illness symptoms, consumed more protein, and had more recent interactions with their caregivers (Rockers et al., 2016). Rockers and colleagues (2016) also reported that the intervention had a significant positive impact on key parenting behaviours related to child development, including caregiver-child interaction and child nutrition. Despite the pronounced shifts in parental behaviour, the behavioural changes observed in the intervention group were not enough to yield large improvements in child development (Rockers et al., 2016). It was argued that there might have been a potential bias as self-reports were used and this may explain why though positive behaviours where reported, the child development outcomes proved to be low in addition to possible assessment factors. Another factor was the absence of information to account for which aspect of the study caused the behaviour change between the Child Development Agent (CDAs) visits or the mother groups. This and many other factors lead to the conclusion that a follow-up study was needed.

Follow-up study

A follow-up was set to assess the operational feasibility and developmental impact of an integrated community-based early childhood development (ECD) program (Rockers et al., 2016). Although biweekly meetings occurred, CDA visits were eliminated in this phase. From the previous study it was noted that it would also be essential to continue with a community-based approach, with a participatory element being added to help increase sense of ownership (Serpell & Nsamenang, 2014) and possibly allow for the use of 'local funds of knowledge' as a resource for curriculum development and implementation thus adapting a syncretic approach to learning (Banda, 2008). With this view in mind a participatory approach incorporating participatory theatre (PT) was then advocated. The "Improving ECD in Zambia" project was also known as "Saving Brains" at community level, and this was its second phase "Saving Brains-II".

Current study

As SB-II was a follow-up, it would be difficult to attribute all changes to the Theatre ECD curriculum due to possible information build-up given the length of the study (2 years at the point of follow-up). An independent study was therefore undertaken outside the SB-II project to ascertain the effect of the ECD curriculum developed in parenting groups. This study occurred in two phases with the follow-up study (Saving Brains, SB-II) being the context in which the first phase was setup; and the second phase –independent of the SB-II project- acted as a scene to validate the curriculum's reliability, acceptability and feasibility. Both phases incorporated participatory theatre (PT) elements such as theatre of the oppressed and popular theatre to not only allow for the inclusion of study participants as co-researchers during the curriculum development (based on nutrition and child stimulation) and implementation processes in the parent study but also to encourage an active learning process during this course. The independent study compared the theatre ECD curriculum against a traditional ECD curriculum for more concrete appraisal of outcomes.

1.2. Statement of the problem

Children in developing countries are growing up at a disadvantage (Grantham-McGregor et al., 2007). According to Mofya-Mukuka (2014) Zambia has one of the highest rates of malnutrition in the world with stunting rates at 40% (having reduced from 46.7% in

2007), underweight at 15% (having reduced from 25.1% in 1992) and wasting at 6% (having increased from 3.1% in 1996) all of which serve to undermine a child's development. This concurs with the findings in the Lancet child development series' assertion that over 200 million children under 5 years worldwide are not fulfilling their potential for growth, cognition, or socio-emotional development and most of these children live in south Asia and sub-Saharan Africa leading to poor academic and social competence which in turn increases the intergenerational transmission of poverty (Black et al, 2017; Grantham-McGregor et al., 2007; Walker et al., 2011). Therefore, as can be observed the need for ECD interventions is a necessity in such contexts as Zambia, not only for improved school outcomes but also as a step towards poverty reduction.

Furthermore, although steps are being taken to remedy or improve this state in ECD research, there has been a growing concern regarding the seemingly low effect sizes in health-related research overtime. Nores and Barnett's (2010) reviews of thirty interventions in developing countries on child cognition, behaviour, schooling and health found that educational interventions and mixed nutrition and educational interventions produced the greatest benefits to children's cognition (effect size 0.35) in comparison with cash transfer programs (effect size 0.17) or nutrition alone (0.25). It was noted that though educational interventions had the largest effect size on schooling and behavioural outcomes; nutrition interventions had the largest impact on child health (Nores & Barnett, 2010). These interventions were effective both in the short and over the long-term except for the health domain in which the effect sizes decreased over time. This implies a decrease in cognitive outcomes over the long-term thus affecting longitudinal study outcomes. The positive outcomes in the educational sector may be due to the audio-visual interactive nature of information dissemination, unlike the usual 'talking to' or discussions held in community meetings and possible avenue for repetition as this environment may encourage the use of knowledge gained; thus, providing a window of investigation into what modes of learning or information dissemination channels will provide the best outcomes in the long run. Rockers, Fink and Levenson's (2016) findings in the Zambian context, also indicated that visual and interactive information dissemination has a more positive impact on behaviour change than traditional methods. There is, therefore, a need to investigate the use of audio-visual and interactive information dissemination learning methods. In this case, interactive theatre, being an audio-visual medium was adopted to see if enhancements in ECD interventions in the health

sector or improved outcomes may arise; and perhaps make steps towards minimizing the decline overtime.

1.3. Justification of the study

This study sought to examine and possibly demonstrate the effectiveness of PT as a mode of information dissemination that is applicable and relevant to current ECD intervention efforts. It served as a source of information and guideline on the use of participatory theatre (PT) techniques, especially theatre of the oppressed aesthetics and popular theatre as a way of improving the quality of an intervention as it is implemented in a rural Zambian setting. The use of PT allowed the researcher to use indigenous methods of information dissemination (local funds of knowledge) which were readily available to participants in the context of study while including them as co-researchers. This helped the researcher use tools that were relevant and culturally appropriate to that context and inclusive of both literate and non-literate individuals. The information gained may also serve as a guide for which the implementer can assess what alternative approach to take as well as changes to undertake during the ongoing implementation process. However, the use of PT in this study is simply to highlight a possible reflective and progressive alternative mode of incorporating participatory action research into an intervention in a rural context and not as a prescriptive measure. Information garnered from this study may also serve to encourage active participation during training sessions in future projects, which may not only enhance information uptake but also vicariously act as a stimulation base for improved child development outcomes as indicated in this study and possibly future ECD interventions.

1.4. Aim:

1.4.1. To generate evidence as well as validate a curriculum developed as an intervention for early childhood development using participatory theatre (PT) as a means of disseminating information on nutrition and early childhood development stimulation and its impact on the learners.

1.5. Objectives:

The researcher sought to:

1.5.1. Develop a curriculum for early childhood development based on participatory theatre.

1.5.2. Assess the acceptability of participatory theatre (as presented in this curriculum) by looking at the perceptions and attitudes of participants on participatory theatre aesthetics.

1.5.3. Assess the feasibility of participatory theatre by examining uptake at endline compared to baseline data as well as practicability.

1.5.4. Determine the efficacy of the curriculum by assessing if the theatre techniques used will enhance recall of information learnt in the study.

1.6. Research Questions:

1.6.1. How acceptable was participatory theatre as a means of disseminating information to the mothers in this study?

1.6.2. How feasible was the use of participatory theatre in this study?

1.6.3. Was recall of information enhanced by use of participatory theatre aesthetics?

1.6.4. Were activities learnt during these sessions implemented at home?

1.7. Scope of the study

This study was conducted in Southern Province, restricted to two districts namely: Choma and Pemba which are predominantly rural. In the larger study, an ECD curriculum using participatory theatre (PT) as its dissemination medium was developed and tested for intervention participants only, while in the smaller (or independent study) this curriculum was adapted into a theatre based and non-theatre based format and then tested on an experimental (PT) versus a non-experimental (non-PT) group. This inquiry into the incorporation of PT in ECD interventions was best suited to this context as rural domains tend to have a rich resource for local funds of knowledge characteristic of oral tradition and theatre which were incorporated into the study.

This section refers to the limitations and delimitations of this study.

1.7.1. Delimitations

This study was restricted to the confines of a specific area- Choma and Pemba- as it was more cost effective than pursuing multiple varying contexts. This not only served as a cost-

effective measure in terms of transportation but also in terms of time as the researcher had ready access to the target contexts. In this study data for assessment was only collected from a sample of 129 participants as the researcher felt that would be a manageable size and was in line with effect size calculations. The researcher also opted to use convenience and systematic sampling methods. Participatory theatre was used as the researcher having a background in theatre noted this would be an optimal background to encourage learning through experience as advocated by the ELT framework, while traditional learning was used to serve as a comparison. The participants were limited to CDAs, female primary caregivers (PC-with children between the ages of two to four) and secondary caregivers (SC) as this consisted the persons that have immediate contact and interaction with the child in this set-up. Selecting these respondents also helped the study minimize possible ethical issues that might have arisen regarding possible stress in the engagement of young children during learning sessions. CDA responses fed directly into the curriculum development process, with both CDAs and Head mothers acting as co-researchers in this study in Phase I. In phase II, mothers with children between the ages of two to four participated so as not to deviate from the target group assessed during the curriculum development in phase I. At this stage, curriculum development had ceased, and the contexts served to validate the pre-developed curriculum to save on costs. Parents in the mother groups provided information on attitudes towards use and feasibility of PT and non-PT elements used in the study, while the secondary caregivers gave information on basic knowledge about child development as passed down by the primary caregiver to assert if implementation occurred in the home setting. Both mothers in the experimental group and those in the control were assessed on level of knowledge about child development and nutrition using an adapted version of the caregiver knowledge of child development inventory (CK-CDI) integrated with a knowledge, attitudes and practices survey (KAPS) designed by researcher.

1.8. Theoretical Framework

The Experiential Learning Theory (ELT) was the most suitable framework when analysing aspects such as incorporation of participatory theatre (PT) as a means of teaching or information dissemination in ECD interventions as it supported the position of PT in ECD interventions in relation to adult learning (with mothers in the study as direct learners in this case) and young children through playful interaction (indirect learners). Here, learning is the process by which knowledge is created through the transformation of experience (Kolb, 1984). Building on the foundational works of Kurt Lewin (1946), John Dewey (1938/1997) and others,

ELT offered a dynamic theory based on a learning cycle driven by the resolution of the dual dialectics of grasping experience (concrete experience and abstract conceptualisation) and transformation of experience (reflective observation and active experimentation) (Kolb & Kolb, 2008). These two dimensions define a holistic learning space wherein learning transactions take place between individuals and the environment. As a result, knowledge would arise from the combination of grasping and transforming experiences with PT as the process for achievement or the learning space in this context.

Therefore, effective learning is achieved when a person progresses through a cycle of four stages: of (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then (4) used to test hypothesis in future situations, resulting in new experiences (Kolb & Kolb, 2008). For instance, the **Concrete Experience** (CE) asserts that by doing or learning through action a new experience of situation is encountered, or the reinterpretation of existing experiences (Kolb, 1984). Here an action-oriented process, for instance, through the use of traditional games, role play (forum theatre), songs, dance and other participatory theatre aesthetics the learner (or mother) was able to experience her learning (new information as a new situation) or re-interpret what she already knew (who or what a mother's role is in a child's life). **Reflective Observation** (RO) of the new experience then occurs or is encouraged. This reflective observation is of importance so that the learner through facilitation can assert if there are any inconsistencies between experience and understanding (Kolb, 1984).

Action oriented learning as inducted through PT would thus encourage the learner to reflect on what she has just done or observed. For instance, further reflection was encouraged in this case through a character-building exercise in PT (e.g. pass the ball exercise where anyone holding the ball said something on a particular topic that had previously been learnt) or through guessing games based on situational experience.

Kolb (2008) asserted that **Abstract Conceptualization** (AC) followed in that reflection giving rise to a new idea, or a modification of an existing abstract concept. For instance, experience informed role play allowed for preconceived abstract concepts to be modified or enhanced, thus rooting or grounding the learned concept. This is essential as the now positively enhanced or modified 'parental ethno-theory' (as asserted by Super and Harkness' developmental niche) became the basis for experimentation in real life. This may also account for views that preceded or explained changes in parenting practices in parenting behaviour

focused ECD interventions. Then through **Active Experimentation** (AE) the learner would therefore apply the new abstract conceptualizations to the world around them to see what results would occur (Kolb, 1984). PT however, allowed for a simulation of possible outcomes of learning in a safer environment before the parent could practice this new or re-learnt information in real life. Improvisational techniques employed also encouraged and enhanced problem-solving skills and that simulation acted as a real-life template. The use of PT through an ELT based framework allowed for situated learning to take place in that learning took place in the same context in which it is being applied, thus learning and doing are inseparable (Lave & Wenger, 1991).

Kolb (1984) further purported that there are individual differences in learning based on the learner's preference for employing different phases of the learning cycle, namely: i) diverging (feeling and watching-CE/RO), ii) assimilating (watching and thinking-AC/RO), iii) converging (doing and thinking- AC/AE) and iv) accommodating (doing and feeling-CE/AE). The incorporation of PT elements such as songs, folklore, forum theatre, trust building exercises provided the learner an opportunity to experience the style best suitable to them. According to ELT learning, therefore, is a process of constructing knowledge that involves a creative tension that is responsive to contextual demands.

This process portrayed an idealised context, as introduced by PT, in which the learner, 'touches all the bases-experiencing, reflecting, thinking, and acting-in a recursive process that is responsive to the learning situation and what is being learned' (Kolb & Kolb, 2008).

1.9. Operational definitions of terms

Acceptability: In this study acceptability refers to the attitudes of the mothers and CDAs towards the PT techniques (activities).

Animateur: The term refers to the person whose role is to engage audience with a new or unfamiliar form of performance, "bringing it to life" beyond what might be expected in a traditional sense, in this case using oral tradition as theatre and a formal learning medium. While an animateur is likely to have some skill in performance (with voice, performance or instrument), facilitating, teaching and possibly arrangement of performances, their principal role is to assist the communication of the group participants as actors, spect-actors and co-facilitators within the group and later on to non-group members through participatory theatre and facilitating dialogue between performers and audience members.

Child Development Agents (CDAs): These refer to community health workers (CHWs) who have received training in early childhood development either through the curriculum as designed for this study or previous studies.

Community Health Workers (CHWs): These are volunteer health workers that are well respected, local members of the communities they work in and vouched for by the Health workers at their respective Health facilities. They are also known as child development agents (CDAs) in the Saving Brains project. They also have an extensive knowledge of Tonga and cultural activities in the context of study.

Control group: This refers to mothers will receive lessons using traditional learning methods (from expert/teacher to non-expert/student).

Early Childhood Development (ECD): In this study ECD is interchangeable with Early Childhood Care, Development and Education (ECCDE) and Early Childhood Care and Education (ECCE) but not Early Childhood Education (ECE). It also refers to a critical stage in an infants' age at which interventions are optimal.

Experimental group: This refers to mothers who will receive lessons using PT as a medium of learning.

Facilitator: This refers to individuals who have received training on how to run a session using PT techniques and guide session's direction in line with agreed upon objectives. The facilitator ensures that sessions do not divert from main topic and that all participate, without using force only guidance. In this study, the CHWs, head mothers and researcher (having received training in facilitation) are the facilitators at one point or the other. The facilitator also acts as the

animateur during the learning sessions until such a time that the facilitator has apprenticed fellow participants to be the animateurs.

Feasibility: In this study the feasibility of PT will be assessed by interviewing secondary caregivers in the households of the mothers in the study. For instance, how much do they know about nutrition and stimulation and any activities they know that would stimulate the child's development. How easy was it to implement what was learnt?

Head Mothers: This term refers to the caregivers that led the facilitation in the community based parenting groups in phase I of the study. These mothers were voted into power by their fellow mothers in the groups based on literacy ability in local language and facilitation skills.

Impact: In this study, the impact or effectiveness of participatory theatre on learning and will be assessed by finding out how much the mothers know on specific topics that they were previously ignorant on or had less information on during pilot data collection (baseline).

Onsite Training Observations (OTOs): In this study, curriculum development process involved a site-by-site observation by the Curriculum developer to assess if lessons were understood by the CDAs and would be implemented as simulated in the training workshops.

Participatory Theatre (PT): This refers to theatre that requires its audience (spect-actors) to get involved in the acting on a physical and emotional level using improvisational methods. In this study it combines the use of popular theatre and theatre of the oppressed aesthetics to serve as a learning medium.

Popular theatre: As used in this study refers to theatrical elements that draw on existing cultural expressions in a given community. This refers to traditional games, use of drums, folksongs, folklore and other local funds of knowledge (indigenous to that context) which can be used to drive social-behavioural change.

Primary caregivers: These refer to the biological mother of the child or person primarily responsible for taking care of the child basically taking the role of mothering.

Secondary caregivers: These refer to persons (usually adolescent or preadolescent children, friends of parents, grandparents and other relatives) that take care of the child in the absence of the primary caregiver.

Spect-actors: These are the audience who are now turned into actors in the simulation of real-life occurrences as experienced by them.

Theatre of the oppressed (TO) aesthetics: This refers to techniques developed by Augusto Boal used to incorporate participation in participatory theatre, including forum theatre. In this study, some of these serve as a source of activities adapted to the Choma- Pemba rural setting and cultural applicability. These aimed at helping mothers by empowering them with skills to reflect, analyse and solve their own problems.

1.10. Ethical Issues

All procedures were conducted according to local standards of research with human participants. This protocol, the informed consent documents, and any subsequent modifications were reviewed and approved by the University of Zambia (UNZA) Biomedical Research Ethics Committee. All staff having contact with participants received training on the protection of human research participants prior to conducting any study activities.

The participant risk was minimal for mothers and children. Specific concerns for ethical considerations are explained in detail in this document *(see Chapter 3 section 3.9)*.

CHAPTER TWO: LITERATURE REVIEW

2.0. Overview

This section contains research and literature relating to nutrition, stimulation and theatre as highlighted in Early Childhood Development (ECD) in Africa and other developing countries. Learning theories that support the use of theatre in ECD interventions have also been included, to help give a background to this study. This literature review is guided by the following objectives: i) to view studies in support of nutrition, ii) to review studies that advocate for stimulation, iii) to view the case for an integrated approach in ECD and iv) assert the use of theatre aesthetics in interventions to influence behavioural change. This section consists of an empirical and theoretical review.

2.1. Empirical Review

It has been asserted that ECD focus is crucial for child development. In this section we are taking the time to assert why nutrition and stimulation are essential for optimal child development. We will also review how theatre has been used in ECD or health related interventions and make an argument as to why it should be used in ECD curriculum design and implementation, as seen in this study. It is important to note that there is little literature on Zambia in this regard, hence, most of the literature reviewed is from studies conducted in similar geographical contexts with a few exceptions.

2.1.1. Considerations for nutrition when dealing with ECD

As evidenced by numerous studies (Pelletier, Frongillo, Schroeder & Habicht, 1995; Grantham-McGregor et al., 2007; Jukes, 2006; McGrath & Schafer, 2014) it is fact that one cannot look at ECD minus the aspect of nutrition being a concern. Does this imply that what a child eats will determine their rate of physical growth as well as brain development? Yes, because in the 'absence of good nutrition a child cannot thrive' (UNICEF, 2012). Regardless, of this knowledge the levels of child and maternal under-nutrition remain unacceptable throughout the world, with 90 per cent of the developing world's chronically undernourished (stunted) children living in Asia and Africa (WHO, 2014). Though detrimental it is often undetected until severe, and as a result under-nutrition undermines the survival, growth and development of children and women, and it diminishes the strength and capacity of nations (UNICEF, 2012). Considering this critical problem, we reviewed a few studies to assess this fact in both the developing and developed contexts.

Equity considerations in nutrition programming are particularly important, as stunting and other forms of under-nutrition afflict the most vulnerable populations (UNICEF, 2012), these tend to be those coming from rural and peri-urban areas due to many factors such as poverty, poor or inadequate sanitation facilities. Therefore, stunting reflects failure to receive adequate nutrition over a long period of time and can also be affected by recurrent and chronic illness (WHO, 2006). However, height-for-age represents the long-term effects of under-nutrition in a population and is not sensitive to recent, short-term changes in dietary intake (CSO, MOH & ICF, 2014) making it crucial for nutrition specialists to monitor short-term or intermittent food influxes or dietary changes, as well, to prevent this negative change from continuing for prolonged periods of time; concurring with Petrou and Kupek's (2010) observation that many children, in the developing context, suffer from malnutrition either chronically or episodically. This is true for Zambia where 40 percent of children under age 5 are stunted, and 17 percent are severely stunted with those in rural areas being most affected (CSO et al., 2014). Hence a critical need for more nutrition centred ECD interventions such as SUN to address the inadequate nutrition which is a threat to children's growth. For instance, malnourished children show cognitive deficits as well as impairments in motivation, curiosity, and the ability to interact with the environment (Arija et al., 2006; Smithers, Golley, Brazionis & Lynch, 2011). Furthermore, during the drought in Kenya, it was also reported that the children became less active during play and less focused in class (McDonald, Sigman, Espinosa & Neumann, 1994) among other factors. Aside, from immediate strength or energy and mobility deficits due to early malnutrition especially during the first three years of life (or 1000 days), other developmental deficits tend to last for a lifetime in the affected child, if not attended to. For example, among Ghanaian children who survived a severe famine in 1983, those who were youngest at the time of the famine (under age 2) scored lower on cognitive measures throughout childhood on to adulthood than did those who were older (ages 6 to 8) (Ampaabeng & Tan, 2013). Thus, affirming that child development is indeed affected by nutritional status, in this case ECD interventions must include education on good nutrition practices if they are to be effective.

Quansah, Ohene, Norman, Mireku, and Karikari (2016) stress that social factors have profound effects on health. They also agree with the assertion that children are especially vulnerable to social influences, particularly in their early years. As a result, adverse social exposures in childhood can lead to chronic disorders later in life. In their study (Quansah et al., 2016) they sought to identify and evaluate the impact of social factors on child health in Ghana.

According to Quansah and colleagues (2016) the major social factors influencing child health in the country include maternal education, rural urban disparities (place of residence), family income (wealth or poverty) and high dependency (multiparousity). These factors are associated with child mortality, nutritional status of children, and completion of immunisation programmes, health-seeking behaviour and hygiene practices (Quansah et al., 2016). Quansah and others (2016) concluded that though several social factors influence child health outcomes in Ghana, developing more effective responses to these social determinants was key and would require sustainable efforts from all stakeholders including the Government, healthcare providers and families. This implied a need for ECD interventions that educated the parent on nutrition. Therefore, as this study co-investigates, with the mother, on the optimal forms of child stimulation and nutrition it allows mothers to identify locally available foods, which contribute to good nutrition, and these are usually more accessible and cheaper than certain products using culturally available tools as embedded in PT which encourages learning through active involvement of the learner. The findings may in turn serve as a guideline for these stakeholders.

According to Petrou and Kupek (2010) the importance of reducing childhood under-nutrition has been enshrined in the United Nations' Millennium Development Goals. Their study explored the relationship between alternative indicators of poverty and childhood under-nutrition in developing countries within the context of a multi-national cohort study (Young Lives). Approximately 2000 children in each of four countries - Ethiopia, India (Andhra Pradesh), Peru and Vietnam – had their heights measured and were weighed when they were aged between 6 and 17 months (survey one) and again between 4.5 and 5.5 years (survey two) (Petrou & Kupek, 2010). The anthropometric outcomes of stunted, underweight and wasted were calculated using WHO 2006 reference standards. Maximum-likelihood probit estimation was employed to model the relationship within each country and survey between alternative measures of living standards (principally a wealth index developed using principal components analysis) and each anthropometric outcome. An extensive set of covariates was incorporated into the models to remove as much individual heterogeneity as possible. According to Petrou and Kupek (2010) the fully adjusted models revealed a negative and statistically significant coefficient on wealth for all outcomes in all countries, with the exception of the outcome of wasted in India (Andhra Pradesh) and Vietnam (survey one) and the outcome of underweight in Vietnam (surveys one and two). In survey one, the partial effects of wealth on the probabilities of stunting, being underweight and wasting was to reduce them by between 1.4

and 5.1 percentage points, 1.0 and 6.4 percentage points, and 0.3 and 4.5 percentage points, respectively, with each unit (10%) increase in wealth. The partial effects of wealth on the probabilities of anthropometric outcomes were larger in the survey two models. In both surveys, Petrou and Kupek reported that children residing in the lowest wealth quintile households had significantly increased probabilities of being stunted in all four study countries and of being underweight in Ethiopia, India (Andhra Pradesh) and Peru in comparison to children residing in the highest wealth quintile households. Random effects probit models confirmed the statistical significance of increased wealth in reducing the probability of being stunted and underweight across all four study countries. It was concluded that, although multi-faceted, childhood under-nutrition in developing countries is strongly rooted in poverty (Petrou and Kupek, 2010) as is the case for Zambia. Therefore, effective interventions aimed at preventing inappropriate feeding practices and behaviours and increasing micronutrient intake should be supplemented by targeted poverty-alleviating strategies that are known to be cost-effective, in this case a participatory approach.

Malnutrition, however, is not just a problem for developing countries. Many children in the United States and other developed countries are deprived of diets that support healthy growth because of socioeconomic factors (Alaimo, Olson & Frongillo, 2001; Brotanek, Gosz, Weitzman & Flores, 2007; Killip, Bennett & Chambers, 2007; Galal & Hullet, 2003).

All the studies reviewed imply that low-income families may have difficulty providing children with the range of foods needed for healthy development. This is due to a strong likelihood that a child with low nutritional and cognitive development in early childhood will have future problems in school (UNICEF, 2012). However, effective ECD interventions can increase the income of a future adult (Psacharopoulos & Patrinos, 2004). Thus, reducing the role played by ‘a failure to develop the potential of children under six years in both cognitive and educational levels in the continuity of intergenerational poverty (Grantham-McGregor et al., 2007). Although, investment in early childhood is the best strategy to reduce inequalities, fight poverty and build a society with sustainable social and environmental conditions (Engle et al., 2011); for ECD interventions to be effective it is vital for basic needs such as food, sanitation and stimulation be addressed.

2.1.2. Considerations for stimulation in ECD

Neurological research argues that the quality and extent of stimulation the child receives after birth either promotes or shuts down the expression of genes that control

neurological development in different areas of the brain (e.g., the area responsible for language) (Nsamenang & Tchombe, 2011). Young (2002) affirms this is so as neural connections are made as particular experiences occur, and frequency of exposure to stimulation increases the density of neuronal connectivity. Therefore, in very deprived conditions, it can be noted that connectivity is substantially reduced (Young, 2002). In this section we review information on child stimulation as evidenced in research.

De Paula and colleagues (2013) assert that stimulation is essential for positive child development to occur. Their study aimed to evaluate the perception of mothers with children aged zero to three years old on the association between environmental stimulation and normal development of these children assisted at a Health Unit in São Luís, Maranhão, Northeast Brazil, and to identify the level of maternal understanding on the stimulation of the family environment in which the child is inserted (de Paula et al., 2013). This study was a qualitative research that enrolled 15 mothers of children aged zero to three years old treated in the Health Unit Antonio Carlos Reis, Cidade Olímpica from October 2009 to March 2010. Data collection instruments used were medical records, semi-structured interviews applied in household with parents, participant observations, and home visits. The results, according to de Paula and colleagues (2013), showed that most mothers were teenagers, single, did not work outside the household, had incomplete primary education, and family income from 0 to 0.5 minimum wages. The main difficulties these mothers faced were: lack of preparation to raise their children, low level of resolution of everyday situations, and father absence on family life (de Paula et al., 2013). After identifying how mothers associated environmental deprivation with normal child development, it was concluded that the mother's perception on the environment in which their children lived and the lack of stimulation in these places affected the children's development (de Paula et al). Therefore, there is a need for improved levels of stimulation and of the links between child, family, and health professionals for proper child development to occur. A parent's knowledge is the driving factor in this case.

In South Africa, another study was conducted for six months with a focus on promoting maternal and child interaction through stimulation (Cooper et al., 2002). Mothers in this study were recruited in late pregnancy and came from a peri-urban settlement outside Capetown with high levels of unemployment and illiteracy. The total sample size was 64, with the intervention group having 32 and the remaining half was the control group (n=32). The mother infant dyads matched on at least two of the characteristics: maternal age, parity and marital status in an adjacent area. The study was implemented by paraprofessionals using an adaptation of the

'Health Visitor Preventive Intervention Programme incorporating key principles of the World Health Organisation document: 'Improving the Psychosocial Development of Children' as a guideline. According to Cooper and colleagues (2002) the intervention was delivered through home visiting and provided support for the mother, encouraged her in sensitive, responsive interactions with her infant, sensitised the mother to her infant's abilities using the Neonatal Behavioural Assessment Schedule and provided advice on management of sleep, crying and feeding. Intervention involved two antenatal visits, twice weekly visits for 4 weeks at postnatal stage, weekly for the next 8 weeks, fortnightly for a month and then monthly for 2 months (a total of 20 visits). These paraprofessionals received initial training over a 4-month period and were provided with session by session group supervision by an experience community clinical psychologist. At 6 months post-partum outcomes were assessed for child outcomes of growth and there was a significant effect of the intervention on child weight and height. Maternal outcomes in terms of parenting (mother-infant interaction) also found that intervention mothers were more sensitive in play and tended to show more positive affect during feeding.

However, when the same study was replicated (Cooper et al, 2009) over a larger sample (449) outcomes tended to differ. For instance, although child outcomes for infant attachment were more significant for infants in the intervention group who were securely attached at 18 months than in the control group, no association was found between mother-infant relationship outcomes and infant attachment. Maternal outcomes in parenting observed through video interactions were slightly significant at 6 and 12 months, with intervention mothers being more sensitive and less intrusive with their infants (effect sizes = approximately 0.25) than the control mothers. In relation to maternal psychosocial function, which was not seen in the pilot, a lower prevalence of depression in intervention versus control group at 6 months (21% versus. 29% respectively) and 12 months (18% versus 28%) was observed though it was not statistically significant (Cooper et al, 2009). Cooper and colleagues (2009) also reported that there were fewer depressive symptoms among intervention mothers at 6 and 12 months but these differences were only significant at 6 months (depression was not correlated with infant attachment or mother-infant relationship variables). Although not heavily extensive it can be noted that stimulation in children though not prevalent is essential not only for the sake of the child's growth but helps improve maternal mood (or feelings) and did have a positive effect on depressive symptoms as well. The differences in outcomes at short-term and long-term may also imply a need for 'enhancers' in ECD related interventions. In this study we suggest PT can help act as enhancing factor.

In Maulik and Darmstadt's (2009) descriptive review of the evidence for the effectiveness of interventions targeting children in the birth to age three age range, low cost stimulation interventions including play, reading, music and tactile stimulation (e.g. kangaroo care for pre-term babies) were used. From this review they concluded that play-based interventions and interventions that promoted shared reading were the most effective and feasible interventions for developing countries (Maulik & Darmstadt, 2009). This shows that playful interactions serve as a medium through which this stimulation is provided.

From the literature given it can be seen that other than nutrition, stimulation through mother-infant interactions is critical for the development of the child; and therefore, must not be ignored to ensure intervention success.

2.1.3. An Integrated Approach

As both nutrition and stimulation are critical to child development especially when incorporated at an early age or during the first one thousand days an integrated approach would be favourable. According to Mc-Grath and Schafer (2014) for optimal physical and cognitive development to occur, a child requires adequate nutrition, but this should occur in addition to physical and emotional stimulation from a caregiver. In response to the 2012 Sahel food crisis, in West Africa it was noted that programmes, in which interventions for nutrition, maternal mental health and psychosocial stimulation are integrated, provided much wider benefits to a child's psychological and cognitive development than standalone nutritional responses (Mc-Grath & Schafer, 2014). With this in mind, UNICEF prioritised the integration of psychosocial stimulation, within their community-based nutrition response, during the West Africa Sahel food crisis. Brief trainings were organised within five West African countries in order to strengthen the capacity of UNICEF and partner organisations to initiate psychosocial activities within their nutritional programmes. After an integrated approach was used findings showed reductions in the average duration of treatment of malnourished children, which was 12 days prior to the integration of psychosocial support, with the average duration reduced to 8 days after an integrated approach had been, adopted (UNICEF, 2012). Findings such as these are the reason why an integrated approach was used in this study to allow for stimulation as well as nutritional needs of the child and thus ensure wholistic growth (or child development).

2.1.4. Theatre as the Optimal Delivery Model in ECD Interventions for Nutrition and Stimulation (Child Health)

Numerous studies have been conducted in the Western context as evidenced by various research articles attesting to the positive social-emotional outcomes associated with arts participation in childhood (e.g., Cirelli, Einarson & Trainor, 2014; Nicolopoulou, Brockmeyer, de Sá & Ilgaz, 2014; Churchill-Dower, Sandbrook & Fort, 2013). However, there's a dearth of literature in the Africa in terms of use theatre in ECD interventions, especially in Sub-Saharan Africa but this is not to say they are non-existent. In this section we will make a case for theatre by assessing studies that incorporated elements of theatre in their curriculums and outcomes in the African context.

Many studies have employed the use of elements of theatre such as role play, music and dance with regard to ECD and other related interventions. However, the trend has been to use community theatre (or PT) as a mode of analysing data and translating or validating findings (Serpell, 1993/2010; Stuttaford et al., 2006). This is because of its ability to communicate research findings in an emotive and embodied manner; theatre holds particular potential for health research, which often engages complex questions of the human condition (Rossiter et al., 2008; Quinlan, 2009).

In his book the Significance of Schooling based on the lives of young people born into the rural Chewa, Serpell (2010) describes how popular theatre (a participatory form of theatre) proved a more effective means of evoking multiple audiences to take part in the validation of research conclusions instead of debate. It was observed that when debate was used, though carefully prepared, in a common language of use and based on the communities' responses, the representatives of national health and agricultural agencies dominated the discussions, and those women villagers who attended remained essentially passive throughout in practice (Serpell, 1993/2010). However, when PT involving fictional dramatization, with renowned exponents of the art of popular theatre (Professor Mtonga and Ms Tamika Kaluwa) at the helm, results proved different. Serpell (1993/2010) and team co-constructed and staged a drama, dance, and musical performance with the active participation of local teachers and school leavers, as well as a team of experienced animateurs, attracting a large and enthusiastic audience from several villages in and around the neighbourhood. Analysis of the informal reflections by members of the audience during and immediately following the drama showed that it had successfully engaged a wide range of local stakeholders, including women, who are

a crucially important constituency both for understanding child socialization practices and for participating in the design and implementation of progressive social change (Serpell, 2010).

In light of these findings, Serpell (2010) asserts that formulating an effective dramatization of research results is at least as challenging as writing a technical paper for publication and calls for interdisciplinary collaboration. For certain important audiences, it may be the most viable way of engaging them with substantive issues identified by systematic research on African child development (Serpell, 2010). Therefore, if PT can serve as a means for disseminating, analysis and validation of research findings can it not be used as a means for structuring a curriculum and disseminating information within that intervention?

The answer is yes. Proponents of PT (Kabaso, 2013; Manukonda, 2013; Mda, 1993; Mlama, 1991) assert that PT is the most effective form of communication in that it gives target group representatives-who typically develop and perform the plays- the opportunity to tell their own stories, involvement and address matters that are relevant to them. However, despite it being one of the most effective ways of participatory inclusion, it is not enough if it is not embedded in culturally relevant and accepted aesthetics of the context in which it is to be used. For instance, Serpell and Nsamenang (2014) assert that 'the design of ECCE services in Africa should focus on local strengths including indigenous games and music, emphasize community-based provision, incorporate participation by pre-adolescent children; use indigenous African languages and local funds of knowledge.' Participatory theatre in this case not only adapts theatre of the oppressed (TO; Boal, 1979) aesthetics but also uses elements of popular theatre (Mlama, 1991; Kabaso, 2013) that are relevant to that context with CDAs and head mothers acting as key informants and co-researchers on cultural relevance and applicability of these elements. This is does not mean that relevant Western bases of knowledge are to be ignored, but in this case a 'syncretic approach is advocated combining indigenous cultural resources with ideas from Western culture' (Banda, 2008) in the development and implementation of ECD related curriculums. In this study PT serves as a process of learning, and information generation. Therefore, in its participatory form, theatre can be used as a tool of effective communication in the process of behavioural change which is the goal ECD interventions.

Local funds of knowledge are a rich resource for learning in the Zambian context (Banda, 2008), as evidenced by Mtonga's (2012) compiled texts of indigenous Chewa and Tumbuka children's songs and games observed in the 1980s in rural and urban areas of Zambia. His close analysis of specific examples illustrates how these 'games help children to think, intellectualize or discuss their own activities, and explore the world around them.' For instance,

‘seeking and guessing games, and riddle contests involve reasoning and understanding the psychology of other participants’; and language games demonstrate ‘playful and skilful manipulation of certain word-sounds in order to distort meaning, allow for practice, create new concepts, or paint a satirical caricature’ (Mtonga, 2012). Despite their value, they are mostly ignored due to “Christianity” labels and labelling of certain cultural arts as “witchcraft” although arguments are being made to the contrary (Nawa, 2018; Lusaka Times, 2018). However, the use of these local funds of knowledge provides resources that can allow the researcher to create an optimal learning process not only for the children but simulation of these traditional games, songs or proverbs allows for active and reflective learning to occur in the caregiver (e.g., Abubakar, 2011) using readily available resources.

Mtonga (2012) further emphasised that in the Chewa cultural tradition, ‘play and games also have a role in responsibility training and general socialisation. It is these games that can enhance stimulation for child development while ‘socialising them to live up to expected societal roles in future’ (Mtonga, 2012). These traditional games, songs, lullabies, poems and narratives are what constitute popular theatre as incorporated in PT. Their inclusive tendencies are also in line with that of PT where the element of exclusion is non-existent making it suitable for ECD studies as all regardless of age participate. The element of classism is also non-existent in this context. The use of PT elements also proves cost effective in that indigenous knowledge is retained and no expensive purchases are required on the part of the mother. PT allows for playful interactions between a mother and her child in an environment in which all (that is the other mothers) are working towards a common goal, thus less fear of scepticism from those not part of the study.

Theatre of the oppressed (TO) in this context is not looking at oppression of one person by another but more the constraints or difficulties faced (Boal, 2005) by these mothers due to poverty and a lack of needed knowledge. Hence, these aesthetics or techniques are aimed at providing the mother with tools to liberate herself from these constraints and make suitable changes to her and her child's (or children's) lives using available means. However, it is important that individuals with knowledge on popular theatre and TO be availed not only to facilitate the process of acquiring facilitation skills but also monitor the learning context so that physical or psychological harm is minimised (ideas are not imposed nor the process laissez affaire; Boal, 2005). The facilitator prompts or evokes discussions and monitors the experiment. In this case, ‘forum theatre (FT) provides the space for dissection and debate theatrically within the frame of the performance itself’ (Boal, 2005). For instance, a skit is

made (improvised, not fully scripted) and at the end, the audience is asked to provide an alternative form of doing what the protagonist did. As each new spectator becomes a protagonist (spect-actor), the other actors are moved to improvise and realign themselves in relation to the changing action; the narrative is unmade and remade before our eyes. Each FT simulation is culturally specific, because if the spect-actors cannot identify with the protagonist, they will struggle to replace her effectively. For example, one cannot tell participants to make a skit about an airport when they have never seen one. As a result, there may be no interventions offered, or those that are 'may stem from a feeling of duty or a perspective of authority not rooted in authentic experience' (Babbage, 2005). Babbage has argued that a well-researched (informed through cooperative inquiry) forum presented to a well-chosen audience will not encounter this difficulty, and that it is the responsibility of anyone practising the work to ensure that material is both immediately relevant and effectively mediated. The use of participatory theatre as incorporated in this case therefore allows for use of culturally relevant tools (songs, poems, proverbs, folktales and experiences, etc), to dissect, reflect and form relevant solutions using information availed.

It is important to note that theatre is alive and thriving in the African context as a driver for behaviour change through traditional games, songs, proverbs, folktales, dance and other forms of theatre that inform the participatory approach (Folarin, 1998; Yakubu, 2003; Kabaso, 2013; Manukonda, 2013). Theatre in the African context has always been participatory, for instance, in the call and response nature of storytelling, or songs and games, therefore the use of PT will allow for learning or information dissemination to occur using familiar aesthetics. In this case, it's application in ECD interventions may serve as a key factor supporting the mobilization of 'local funds of knowledge' which emphasize the use of home languages and cultural resources such as local stories and songs, proverbs, chorals (or kuyaabila which is a form of traditional poetry in Southern Province, Zambia) as pedagogical tools to improve instruction, and in this case child development.

2.2. Theoretical Review

Of the numerous theories of learning, the behaviourist, cognitive, socio-cultural and eco-cultural theories were selected for purposes of emphasising the role of participatory theatre (PT) in this study. In this study the focus of study was the mothers, their learning and how they may pass on this learning to their children as well as people in their immediate environment.

2.2.1. Behaviourist theories

Behaviourism, in this case focused on assumptions by primary theorists such as Pavlov, Thorndike, Skinner and Bandura. The three Behaviourist assumptions, which are central to explaining the learning process, hold that: (1) learning is a change in behaviour; (2) the environment (stimulus) shapes behaviour; and (3) the closeness in time for occurrence of event creates a firm bond (Nsamenang & Tchombe, 2011). Behaviourism therefore focuses mainly on the objectively observable aspects of learning with reinforcement increasing the likelihood of a behaviour recurring and punishment inhibiting it. However, our emphasis in this study is not on punishment. This so as Thorndike (1932) noted that the most fundamental type of learning involves the forming of associations (connections) between sensory experiences (perceptions of stimuli or events) and neural impulses (responses) that manifest themselves behaviourally (Schunk, 2004). PT aesthetics allow for a link between what is experienced or observed using PT and daily life. These associations are what encourage the learning process. He believed that learning often occurs by trial and error (selecting and connecting). PT proves optimal in this case, for instance, in a forum theatre (FT) experiment the audience not only associates with the observed positive outcomes or the negative ones; but alternative methods or ways which are more rewarding are presented. This concurs with Thorndike's (1932) caution against teaching content that is removed from its applications in that learners need to understand how to apply knowledge and skills they acquire. As PT is application oriented it allows for the creation of a conducive learning opportunity in which activities in the curriculum serve as links between what is learnt and how they can be used at home for their child's development.

Meanwhile Pavlov asserted that association learning is not only motivational but encourages the acquisition of new associations (Schunk, 2004). In this case, daily activities such as singing, games or folktales serve as the unconditioned stimulus which results in positive association (or a conditioned response) with development in the child. PT encourages the use of local funds of knowledge, which may have been previously practiced as 'just day-to-day' acts which are now deemed essential for child stimulation. For example, singing to and with the child, sending the child to do simple tasks ('butume' or 'erranding') becomes a mode of enhancing social cognition or future social competence. PT in this instance helps the parent make use of readily available resources as presented in the target community. It also helps the primary learner (parent) 'learn through small steps that lead to mastery of new skills or new concepts' (Nsamenang & Tchombe, 2011). For instance, successful character building

exercises to show “what a good parent does” encouraged the participants in this study to take part in skits (role play of that parent) which the participants could discuss and reflect upon to arrive at a desired response to the statement. A new skill is also gained through performance and reflection. The skit allows for presentation of internal conceptualisation of knowledge and gives an opportunity to seek positive alternatives that they have not been arrived at minus the performance.

Behavioural theories posit that by doing learning occurs therefore the absence of neural stimulation will result in no observable change; and thus no learning. PT allowed for stimulation to occur in both the adult and the young learner in readiness for practice.

2.2.2. Cognitive Theories

According to Piaget (1952) the individual learns through the manipulation of materials in his or her physical environment. His experiments on his children showed that learning is a process by which the learner actively constructs or builds new knowledge and ideas based upon current and past knowledge or experiences (Piaget, 1952). This advocates for active learning, a process which can be attained through the incorporation of PT aesthetics in learning environments (information dissemination). Real learning, therefore, comes from experiences that arouse the learner’s curiosity and give them the chances to work out their own solutions (Nsamenang & Tchombe, 2011). For example, in PT was achievable through the element of forum theatre (PT) in which problems observed in the play are corrected through character changes which encourage the remaining actors to use improvisational reactions until a solution, for the people by the people is attained. Traditional games or guessing games adapted to suit the main objectives of intervention also allowed for manipulation of this ‘simulated problem or obstacle' through reflection and action. The facilitator (or joker) prompted and provoked through questioning but did not give solutions; these were arrived at by the audience or spect-actors of their own accord. Hence, the use of PT agrees with Piaget’s (2008) central position that regards learning as a discovery process, where the learner learns from actions instead of passive observations. The use of visual aids and actions (such as games, making toys, active storytelling, action songs) would most benefit the child and the adult learner (parent) at this stage as it would allow for cognitive stimulation. PT therefore is optimal for the learning process as it stimulates the senses in readiness to access knowledge.

2.2.3. Social constructivist or cognitive theory

The social cognitive theory is often described as the 'bridge' between traditional learning theory (i.e. behaviourism) and the cognitive approach, because it focuses on how mental (cognitive) factors are involved in the learning process (Bandura, 2005). Bandura (1977) asserts that humans are active and think about the relationship between their behaviour and its consequences. Therefore, learning is not only an interactive process but reciprocation between the individual and the environment. In this case, people are drivers of change. Observational learning (also vicarious) learning could not occur unless cognitive processes were at work (Bandura, 1977). Thus for one to acquire knowledge they should be able to think which is true not only for the parent but the child as well. PT allows for observations not only for the child but the parent who uses the performance as a possible template for future behaviour (or model).

According to Bandura (1977) modelling, can only occur under specific conditions, namely: i) attention- factors that increase or decrease attention; ii) retention- recall of what was paid attention to; iii) motor reproduction- reproducing the image; and iv) motivation- having a good reason to imitate. Therefore, PT as used in this study not only grabbed the observer's attention by tackling issues affecting the observer as well as being entertaining (to enhance retention), and provides a chance to replicate behaviour (for instance, through forum theatre, dance, songs, games) which in turn enhances recall but group reflections of positive alternatives also allow or provide motivation for continuing that behaviour.

The potentials and power of observational learning was also advocated by Dewey (1997) implying that as we observe the external, we also engage in self–observation which is internal to us. Social learning theory "demands guided facilitation of students' interaction in cooperative learning" (Dewey, 1997) which PT as a participatory approach advocates. Here, Dewey notes that 'students' ability to retain information through social interaction is strengthened as they engage in cooperative learning with peers,' which is better attained if interactions are made in language which learner can fully understand using materials that culturally relevant. This would make the use of PT in ECD an effective means of cooperative learning for the mother and allows for imitation (vicarious learning) by the child as they are part of these playful interactions. As quality of PT is enhanced through indigenous language and local funds of knowledge it made for an effective context in which reciprocal determinism occurred. In this case the knowledge gained served as a reference for future practice and transfer of knowledge through observation.

2.2.4. The Socio-cultural constructivist theory

Vygotsky (1978) described learning as a social process and the origination of human intelligence in society or a given culture. Lev Vygotsky's socio-cultural or constructivist model illustrates the interaction between social and practical elements in learning through speech and practical activities. This means that for learning to occur individuals construct new knowledge on the foundations of what they already know and through social interactions.

The learner is said to function at two levels: firstly, as he or she constructs meaning through practical activity at an intrapersonal level and secondly as she or he interacts with others using speech and cultural tools to connect the meaning of the interpersonal world shared with others (Vygotsky, 1978). Therefore, a curriculum design using PT allowed for personal conceptualisations through reflection and active observations while engaging the individual's senses; and social interactions through games, discourse in same language (indigenous to that context), songs, dance derived from indigenous knowledge systems of that context. This model advocates collaborative learning with peers and other adults while emphasizing the importance of the relationship between learners and co-teachers in the learning processes (Nsamenang & Tchombe, 2011). In this case the participants in this study were not simply docile beings waiting to receive knowledge but were active participants that engaged in a co-learning process that allowed for positive exchange of knowledge.

Vygotsky felt that "one's interactions with the environment contribute to success in learning." PT as used in this study allowed for the active interaction of participants with their environment as they knew it to derive more knowledge and allow for future practice as the elements were not alien but familiar. Furthermore, PT is a collaborative process that centres on the combination of the teacher-centred and student-centred approaches in which both the facilitator and co-learners alternate in the knowledge exchange process to allow for more intellectual development through collaborative learning and cooperative learning in groups. Thus the incorporation PT in ECD interventions (or interventions aimed at behavioural change) allowed for this shared learning process to occur.

According to Dewey (1997), the 'primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in a concrete manner what surroundings are conducive to having experiences that lead to growth.' For the learner, in this study, this entailed learning in a language she understood while using models that were common to her environment as invoked by PT. PT also took into account use of methods such as proverbs or poems, traditional

songs, dance, games and storytelling. Culture is therefore a critical foundation for learning as indicated through the use of local funds of knowledge made available through the use of PT in this study.

2.2.5. A Socio-Ontogenetic Argument for the Assessment of Implementation (PT) through Secondary Caregivers' (SC) knowledge.

In the African context it is important to note that learning occurs through socialisation. In this study, secondary caregivers were interviewed on their knowledge of child development so as to assess if PT implementation occurred. This built on from the concept of vicarious learning and the theory of African socio-ontogeny with regard to socialisation. For instance, according to Nsamenang's (2006) theory of social ontogeny developed in 1992 'social apprenticing,' is an activity that corresponds with childhood in the African context. Its principal developmental task is to recognize, cognize and rehearse social roles that pertain to four hierarchical spheres of life: self, household, network and public (Nsamenang, 2006). Adults therefore assign family and neighbourhood responsibility to pre-adolescent and adolescent children. Nsamenang (2006) argues that adult delegation of responsibility for care and socialization of younger children serves the function of priming the emergence of social responsibility. He further asserts that the priming strategies embedded in indigenous African child-care practices have important implications for the design of culturally appropriate forms of intervention to optimize developmental opportunities for children in contemporary Africa (Nsamenang, 2006). With this in mind, it was argued that if PT is effective then it could be assumed that information learned in the intervention would be socialised into these secondary caregivers. On the basis of this theory it was assumed that the primary caregiver serves to act as a co-implementer for what is learnt during and after the study. It therefore also made an argument for the secondary caregiver's assessment at endline as a source to see if the primary caregiver's knowledge translated into at home practice.

2.3. Conclusion

From the above reviews it can be asserted that environmental risk factors such as malnutrition, poor health, non-stimulating home environments, and child maltreatment have all been shown to have a negative impact on children's development (Grantham-McGregor et al., 2007). Once they grow up, these children are more likely to have low productivity and income, to provide poor care for their children, and to contribute to the intergenerational transmission of poverty (Grantham-McGregor et al. 2007) as they are less likely to contribute

to the growth of their country's economy in adulthood. As these risk factors tend to be more concentrated among poor households with less educated parents, the incorporation of PT in ECD interventions might help minimise information dissemination constraints that tend to arise in non-participatory methods. The above theories also allowed for the argument of how PT serves as an appropriate medium for the dissemination of information in ECD interventions and why it should be considered in the research process. As a participatory form it allowed for the use of rich indigenous knowledge systems characteristic of the context of study. Use of PT provides a platform through which researchers and participants (co-researchers) create solutions to existing problems using local funds of knowledge. While TO considered these risk factors (i.e. poverty, disease, poor sanitation) to be forms of oppression and focuses on empowering participants with skills to arrive at much needed solutions applicable to their contexts. This concurs with Serpell's (1999) argument that child development can only be realistically attained by working with and through the child's existing families thus excluding the expert paradigm and adopting a more participatory approach.

Participatory theatre not only serves to enhance the relevance, applicability and recall of ECD information but it could allow for the minimization of use and impact of culturally alien implementation tools in their raw forms. The syncretic approach might also allow for interpretation of this scientifically sound information (regardless of source) in a way that is applicable to the Zambian context. It is important to note that the participant is not an ignorant bystander but a wealth of information on what elements may be applicable or suitable for them. Because combined ECD interventions are essential, this study affirms that the use of PT in curriculum design and implementation will enhance the stimulation environment not only for the child but for the mother as well; as she is an active learner and participant in deciding or coming up with solutions relevant to her and her child within her context of existence.

Furthermore, it is noted from the literature review that this study serves to fill the data gap regarding early childhood and parenting programmes using participatory theatre a medium for information dissemination and developmental stimulation, especially the Zambian context. This research is therefore contributing towards this information gap and outcomes could give impetus to the development of a model framework that looks at the usage of non-digital interactive models of information dissemination in early childhood development and stimulation programmes for optimal long-term results. Especially with regard to seeking effective means of curriculum design and disseminating relevant information without alienating the learners?

CHAPTER THREE : METHODOLOGY

3.0. Overview

This chapter presents a narrative on the methodology that was employed in the study.

3.1. Research Approach and Design

This study adopted an embedded mixed methods approach, in which quantitative findings validated qualitative findings about use of PT in the intervention. In addition, the study used a semi-experimental design, with participatory action research (during intervention) and ethnographic studies (during and post intervention) employed as methodologies for the best representation of theatre tools as used in ECD with a goal to create behaviour change.

Participatory action research (PAR) is a kind of community-based action research in which there is collaboration between the study participants and the researcher in almost all the steps of the study: determining the problem and how the study results would be disseminated (Lewin, 1946) with the exception of research methods used, data collection and analysis. The participants and the researcher were co-researchers throughout the implementation of this research study. According to Kelly (2005: 65), PAR provides an opportunity for involving a community "in the development and assessment of a health program." In this study, the group comprised of Community Health Workers (CHWs) also known as child development agents (CDAs), head mothers and the researcher progressing through the stages of planning, acting, observing and reflecting upon the proposed ideas or tools of implementation with a take on cultural relevance and face validity. The implementation of solutions occurred as an actual part of the research process; hence delay in implementation of the solutions is reduced. This was heavily practiced during the curriculum development phase.

While ethnographic studies (or research) entail collection and analysis of cultural data (Agar, 1986), in this case the lived experienced (the PT curriculum), maternal beliefs and parenting practices employed by the mothers, with the key informants as the source. It is focused on getting the emic perspective rather than etic. Thus, the combination of these two methods not only allowed for assessment and implementation of culturally relevant techniques but also enabled the researchers to get in-depth perspectives of the key informants in that context. In addition, it also allowed for the validation and corroboration of results obtained in this study.

In line with the participatory and ethnographic format, this study was set up in two phases, I and II.

The first phase used a trainer of trainer model in which the researcher travelled to the project sites every six weeks to deliver a participatory theatre curriculum and stayed in the target context for a period of 1-2 weeks per visit. The curriculum was further restructured according to the CDA and head mother input in order to suit the target context. This segment was largely embedded in the participatory approach, with the initial training sessions for each training round being a team of the researcher and the CDAs, followed by onsite observations of training as conducted by the CDA to the head mothers with the researcher acting as a participatory facilitator, and worked together with the CDAs and HMs at this point to ensure that activities in the lessons being delivered were relevant. These training sessions also included translation validation and changes in messaging of certain topics were needed. The CDAs, HMs, researcher and internal reviewers formed the co-creation team, and worked together for a period of 8 months. The lessons were then taught to the parenting groups by their respective head mothers. Please note that the none intervention sites had no parenting groups and thus there was no interaction between the co-creation team and participants outside the intervention sites.

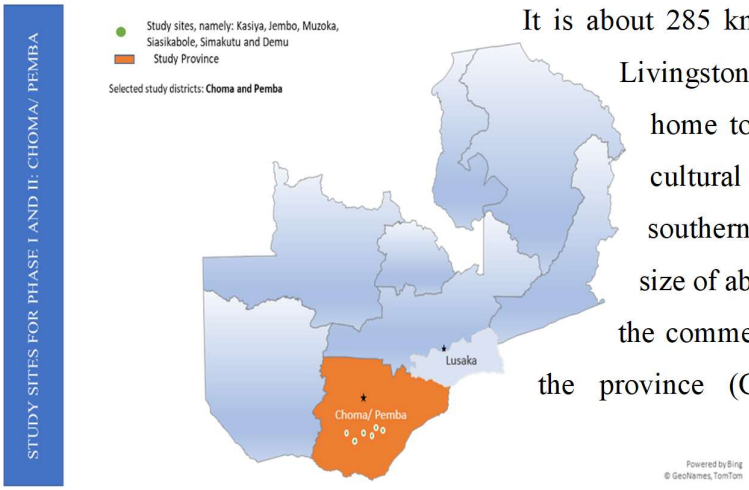
While in the second phase, it was more ethnographic in that the researcher was stationed in the target context, different from the Phase I sites for a period of about 2 months and worked together with two CDAs, building on the content built in Phase I which was then adapted for phase II, with the new team. One CDA were trained in the PT curriculum and theatre methods, and trained the PT group; while the other CDA had no training in the PT curriculum and was unfamiliar with PT methods. The non-PT CDA trained the non-PT group. The PT group was deemed the experimental group while the non-PT group was the control group. Both CDAs had experience in training at health facility level and were selected upon recommendation by the study coordinator in the parent study. All trainings in both the control and experimental groups occurred under the observation of the researcher as a co-participant. The researcher opted to designate trainings to these CDAs to minimise researcher bias.

In both phases, we were able to assess attitudes and perceptions towards the use of participatory theatre through engagement at co-creation levels and attendance at parenting group levels through cooperative enquiry during curriculum development and focus group discussions. In phase I focus group discussions were held at the end of curriculum development (pre-baseline outcomes), while in phase II these were held at both baseline and endline. Furthermore, phase II used the CK-CDI to assess retention in both groups *(see section 3.6.1 for more details on study variables and section 3.7 for more information on the procedure)*.

3.2. Study Site

Most studies assessing the use of theatre for children have been limited to the urban and peri-urban areas, however, for this study the rural context was selected. This study was conducted in six rural health catchment areas, located in Choma and Pemba districts of Southern Province. Choma is the headquarters or capital of Southern Province of Zambia (as of 2012), lying on the main road (Great South Road) and railway from Lusaka to Livingstone (Zambia Travel Guide, n.d).

Figure 1: Study site map



It is about 285 km from Lusaka and 188 km from Livingstone (Zambia Travel Guide, n.d). It is home to a small museum dedicated to the cultural heritage of the Tonga people of southern Zambia. Choma has a population size of about 244,180 people and it serves as the commercial hub for the central region of the province (CSO, 2010). The Nkanga River Conservation Area lies nearby.

Pemba is a smaller district with a population of about 64,918 (CSO, 2010). It is also situated on the 'Great South Road' that runs between Lusaka and Livingstone; and is about 261 km from Livingstone. The main ethnic group in the town is the Tonga. Prominent educational institutions found here are Pemba Basic School, Pemba High School, Jembo Mission High School and Kasiya Secretarial College. Pemba was declared a district by the late head of state Michael Chilufya Sata in 2012. Pemba also hosts the Zambia National Broadcasting Corporation (ZNBC) television transmitter station for the Southern Province.

Sikalongo and Simakutu are located in Choma district, while Kasiya, Muzoka and Jembo are in Pemba. Jembo and Muzoka are closest to the main road. A sixth village, Demu, outside the catchment area of the parent study was selected in Pemba for phase II of this study. All the six villages in both districts were characterized as rural with subsistence farming and gardening being the primary source of food and income. Other means of income include pottery, small livestock

rearing, basket weaving, reed mat weaving and making of traditional instruments such as the talking drums, drums and marimba.

3.3. Study Population

The focus of this study was to assess Mother Groups in Choma and Pemba, in the Southern Province of Zambia. Mothers in these groups were selected using cluster sampling as part of the parent study, these took part in the first phase (Phase I). Mothers in this study were all based in a typical rural setting, with only Jembo and Muzoka being the nearest to the Town (about 5 to 10 kilometres away from the tarred road in this case). In the second phase (phase II), participants were selected from Demu, in Pemba only, as most of the villages were within the catchment area of the parent study. Participants in Phase II were selected using convenience and systematic random sampling, independent from the parent study. Mothers in this phase were also based in the rural setting. In both areas, travel in the villages is by foot with only a few owning bicycles or cattle driven coach carts. Most mothers in these groups had no formal education and were semi or fully illiterate with their livelihood being heavily dependent on subsistence farming in this agrarian society, with few especially those in Muzoka dabbling in clay pot making as an income source.

3.4. Study sample

For better presentation this is separated by the two phases through which this study occurred.

3.4.1. Phase I

This phase was centred on the development of the participatory theatre-based curriculum used a medium for implementing an intervention for early childhood development in the parent study. The curriculum development phase comprised 59 participants (n=5 CHWs; n=54 mother heads) who had direct interaction with the researcher through co-learning workshops and onsite training observations (OTOs); with an additional 200 participants simply acting as recipients of the curriculum from the head mothers only. Initially, the total number of participants was 526 (n= 258 control, n= 268 intervention) but by the beginning of Phase I the parent study had about 400 participants (approximately n=200 control, n=200 experimental) although by endline only n=195 experimental group and n=182 control group were assessed. The control group received no lessons or material or interaction (direct or indirect) from the researcher in this phase. At the end of the parent study, only nine (n=9; 15%) participants out of the fifty-nine (n=59) that took part in the curriculum development process were selected to participate in a focus group discussion set at

asserting the mother's views on the curriculum, knowledge and the use of theatre as an information medium. The selection was restricted to 9 participants due to logistic availability in terms of ease of travel to the locale of the researcher as advised by the study coordinator in the parent study. The other sites were too far, while Muzoka though being near a town had transportation difficulties, hence it was not feasible to include these head mothers. As a result, only head mothers from Kasiya and Jembo were selected for this activity.

3.4.2. Phase II

This phase was centred on the validation of the participatory theatre-based curriculum when used as a medium for implementing an intervention for early childhood development and its impact. Sixty primary and secondary caregiver dyads (n=120) were selected to participate in this phase of the study, at baseline later to be divided into two arms the experimental group (n=30 dyads; 50%) and the control group (n=30 dyads; 50%). This was in line with the sample size calculations that predicted a 0.5 effect size minimum using previous literature to assess the mean value of the instrument CK-CDI and allowed for an account of the 20% predicted attrition rate bring the total to 120 participants (n=60 primary-secondary caregiver dyads). These were further placed into two study arms of the control and experimental groups. Out of the 60 primary-secondary caregiver dyads (n=120) that were recruited in Phase II, 30 dyads were placed in the control group (n=30) and another 30 dyads were placed in the experimental group (n=30). The experimental group referred to participants who received lessons using PT as a learning medium; while the control group referred to those who received lessons using traditional methods. In this phase, only the primary caregivers (n=60) took direct participation in the lessons to allow for assessment of secondary caregiver (F=41; M=4) knowledge as gained from the primary caregiver (through vicarious learning- Bandura, 1986 as information was trickled-down from the parents' actions or instructions of care) at end line.

All Primary caregivers (PCs) were female only with ages ranging from 19 to 69 years with the average age being 34 ($M=33.9$, SD= 11.3), while secondary caregivers (SC) included both males (n=4) and females (n=41) between the ages of 8 to 71 years with the average being 17 years (M=17.5, SD=16.24). PC mode=22 while SC mode=9 indicating that most PCs were 22 years old and most SCs were 9 years old. The PC samples consisted of mothers and grandmothers, while the SC population consisted of siblings (male and female), aunts, grandparents and a father. It is still evident that childcare is heavily reliant on the female than the male. Additionally, it was noted that most parents rely on their older children or dependents

(in this case, mainly those between the ages of 9 to 15 years of age) to assist them with the child's care both when they are around and when absent.

Other primary caregiver characteristics obtained included: i) household size, ii) employment status, iii) marital status, and iv) level of education. Number of people per house ranged between 3 to 13 persons per household with the average being 8 persons per household (M=8, SD=3.317). 1.7% had 11 people per household, 3.3% had 13 persons per household, 5% had 10 persons per household, another 5% had 12 persons per household, 6.7% had 8 persons per household, 10% had 3 persons per household, 11.7% had 4 persons per household and another 11.7% had 9 persons per household, 13.3% had 5 persons per household and 16.7% had 6 persons per household.

Statistics showed that 3.3% were in formal employment (e.g. teacher, medical personnel, janitor, etc), 1.7% were unemployed and 95% were in informal employment (e.g. small business known as 'Tuntemba', small scale farming, trades such as basket weaving, pottery, etc). Thus, study participants can be characterized as self-employed. Most of the PCs were married, as shown 1.7% were widowed, 11.7% were divorced, 11.7% were single and 75% were married. While with education status, most proved to have received some basic and high school education, as shown: 3.3% were uneducated, 33.3% had received primary education, 60% had received secondary education and 3.3% had been to college or university.

3.4.3. Sample size considerations.

We hypothesized a change in effect size of 0.5 Standard Deviations in our main outcome, the CK-CDI. We used previous literature to assess the mean value of the CK-CDI in absence of intervention and found it to be 19 points out of 40 (Ertem et al, 2007). Thus, predicted a standard deviation of around 10. We also predicted that the intervention group will be able to score an average of 5 points above the control group, or 30 out 40. Both predictions proved true *(see Chapter 4).*

Given the pilot nature of this study, we used an alpha (probability of Type I error) of 0.1, which is acceptable for pilot studies. To detect the expected effect with the parameters above, we calculated that we would need a total of 101 mothers in the study. The table below summarizes the parameters used.

Table 1: Sample size calculations for Phase II of the study

Model 1.0: Sample Size Calculator for Individual Random Assignment Designs (IRA)—Completely Randomized Controlled Trials		
Assumptions		Comments
MRES = MDES	0.50	Minimum Relevant Effect Size = Minimum Detectable Effect Size
Alpha Level (α)	0.1	Probability of a Type I error
Two-tailed or One-tailed Test?	2	
Power (1-β)	0.80	Statistical power (1-probability of a Type II error)
P	0.50	Proportion of the sample randomized to treatment: $n_T / (n_T + n_C)$
R^2	0.00	Percent of variance in the outcome explained by covariates
k*	0	The number of covariates used
M (Multiplier)	2.51	Automatically computed
N (Sample Size)	**101**	The number of individuals needed for the given MDES.

A sample size of 101 was derived, however as 20% attrition was predicted, the sample size was increased to 120 participants. Despite this precaution an attrition rate of 25% (n=15 dyads) was noted, about 5% above the predicted value. 13 dyads dropped out for various reasons such as "time, work and superstition," while 2 dyads though not considered dropouts could not take part in the endline assessments due to bereavements. It is important to note that the attrition rate was not the same in each arm, as the experimental group experienced less attrition (n=5 dyads/30; 17%) than the control group (n=10 dyads/30; 33%). Phase I participants were not included in these calculations.

3.5. Sampling techniques

This study used both convenience and systematic sampling methods. However, a strict inclusion and exclusion criteria was adhered to.

Inclusion criteria:

- Mothers with children aged four years and below in the selected health facility in Southern Province were eligible to participate.
- Primary caregiver must live near the selected health facility (between 5- 10 kilometres).
- Child's primary caregiver was required to be 15 years or older.
- Secondary caregivers living with the primary caregiver (dependents or older children) were also eligible to participate in the evaluation at end line.
- Child's primary caregiver was to be female (as the parent study focused on mother groups).
- CHWs working at the selected health centres in Pemba (and were part of the parent study) were selected to be trained in the curriculum as CDAs.

Exclusion criteria:

- Primary caregivers who were unwilling to provide informed consent.
- Primary caregivers who were unwilling to give assent.
- Secondary caregivers without PC assent.
- Secondary caregivers who did not give verbal assent despite PC assent being given.
- Families that planned to move from their health centre catchment zone during the period of this study.
- Mothers who lived far away from the health facility (above 15 km).

3.6. Data collection instruments

The study used both qualitative and quantitative data collection instruments to allow for the rigorous collection of data in this study. In phase I only qualitative instruments were used to collect data, while in phase II both qualitative and quantitative data collection instruments were used.

In the **qualitative segment**, a cooperative inquiry guide was used to inform, design the curriculum and allow for monitoring of the intervention process; and provided a feedback loop on how 'participatory theatre methods (theatre of the oppressed aesthetics, forum theatre and popular theatre) were used for information dissemination (Boal, 1979; Kabaso, 2013; Mlama, 1991) during implementation of the curriculum in Phase I. It also served to inform the intervention on local funds of knowledge and other PT methods that were incorporated into the curriculum; and the removal of those that were not applicable. Attitudes or acceptability were also gathered here to feed directly into the curriculum development process. While FGDs in both phase I and II were used to assess attitudes towards the learning methods (PT and traditional) that were used in both the experimental and control groups. Furthermore, outcomes from the FGD in Phase I were compared with those in Phase II to assert if there was a consensus or differences in participant views on the medium of dissemination. In phase I, only one FGD was conducted at endline. While in Phase II, 4 FGDs were conducted for each study arm (one at baseline and another at endline per group).

The Caregiver Knowledge of Child Development Inventory (CK-CDI; Ertem et al., 2007) was adapted and used to collect **quantitative** data and scoring on knowledge of primary caregivers at both baseline and at end line. The CK-CDI consisted of 10 questions in the Developmental Skills Component and 10 questions in the Developmental Stimulation Component. The range of scores was 0–40 with higher scores indicating more knowledge. The internal consistency of the CK-CDI was computed with Cronbach α and construct validity was examined using factor analysis *(see Chapter 4)*. The CK-CDI was integrated with a knowledge, attitudes and practices survey (KAPS as adapted in Rockers et al., 2016) and included open-ended questions used to assert implementation of lessons at home through assessing the basic knowledge of the secondary caregiver (SC) on child development and nutrition, as part of the final questionnaire at end line; these were later graded according to a 1-10 scale developed by the researcher for analysis in SPSS.

3.6.1. Variables

The variables measured in this study are attitudes (also acceptability), information retention, and changes in early childhood knowledge on stimulation and nutrition practices. The independent variable is the mode of learning (participatory theatre or traditional learning models), while the dependent variables are attitudes, retention and implementation (changes in early childhood stimulation and nutrition practices). Attitudes were assessed through perceptions and class attendance; retention was assessed through scoring on information on caregiver knowledge of child development inventory (CK-CDI) as adapted by the researcher (using WHO and UNICEF ages and stages directives, feedback from curriculum development process, and shared topics between the control and the intervention) and implementation (practice) was assessed through interviewing secondary primary caregivers in the household as well as primary caregiver reports on the KAPS. The CK-CDI was also used to compare scores of mothers in the experimental on lessons learnt using PT versus lessons learnt without PT, to help minimise influence of possible confounding variables due to pre-existing knowledge build up as would have been the case in the parent study.

3.7. Data collection procedure

This process was divided into two phases: a) Phase I: curriculum development and b) Phase II: Curriculum validation.

3.7.1. Phase I: Curriculum development

In line with the first objective, a curriculum for early childhood development based on participatory theatre was developed in the first phase. This phase occurred in the context of a larger study known as “Improving Early Childhood in Zambia- SB II”. Here, 59 participants (n=54 mother heads, n=5 CDAs) were selected in the parent study to take part in the co-learning curriculum development workshops and process. Please note that all participation was voluntary and not forced in any way. Four objectives, i) curriculum development, ii) curriculum acceptability, iii) curriculum feasibility, and iv) curriculum efficacy; were outlined to serve as guidelines through this development process and implementation. The curriculum development took a period of eight (8) months and was developed through direct interaction between the researcher (curriculum development lead-CDL) and participants.

First, a workshop was held with the curriculum development lead (CDL) and CDAs in attendance. Here they brainstormed on the content focused on child development and nutrition; with reference to an outline the CDL and parent study investigators developed based on the

previous phase of the parent study (5 topics being built upon as previously learnt in the first year, 6 completely new lessons based on what participant recommendations in year one and observations by the researchers, and 1 simply being a revision on what was learnt at the end of the intervention as suggested by core participants). During the workshop, a scheme of three participatory theatre (PT) based lessons was introduced to the CDAs for analysis, further adaptations and translations conducted based on the common language in that region, Tonga.

After completion, it was then introduced to the 54 head mothers for further analysis with the CDAs acting as the facilitators in their respective rural health facilities and the researcher acting as an observer (participatory observation). To avoid head mother apathy to training, the researcher was introduced as the CDAs colleague who had been invited to sit through the lessons and learn with them due to interest in child care. This allowed the researcher to guide the CDA through questioning instead (with the lesson guide acting as a reference). For instance, if the CDA skipped an activity or misinterpreted it the researcher would flip through the pages to that activity read through it and say, "*according to this part …. Or am I wrong about how I understand this…?*" at that point the CDA then would make corrections and at this point the HMs would also become engaged and ask questions were not clear as well as make suggestions for how the activity could be better understood. If changes were required, the researcher would take note and change the curriculum as required and agreed upon. This process set precedence and was the norm for the next eight (8) months also serving as a platform for feedback and reviewing of new lessons. This process occurred every six weeks during this period at which facilitation training with regard to use of PT was also conducted and the content as well as the structure of the lessons discussed, and changes implemented according to the co-researcher's suggestions. Adaptations were made according to the cultural applicability and acceptability. This ensured that the methods employed had a semblance of consistency and were in accordance with what the co-researchers deemed acceptable for their context. Each session simulated the actual lessons and learning mode; therefore, all lessons were experienced, as is advocated by ELT. After implementation of lessons by the head mothers' feedback was given to the CDAs who in turn reported to the researcher via phone.

Figure 2: Curriculum development and implementation process

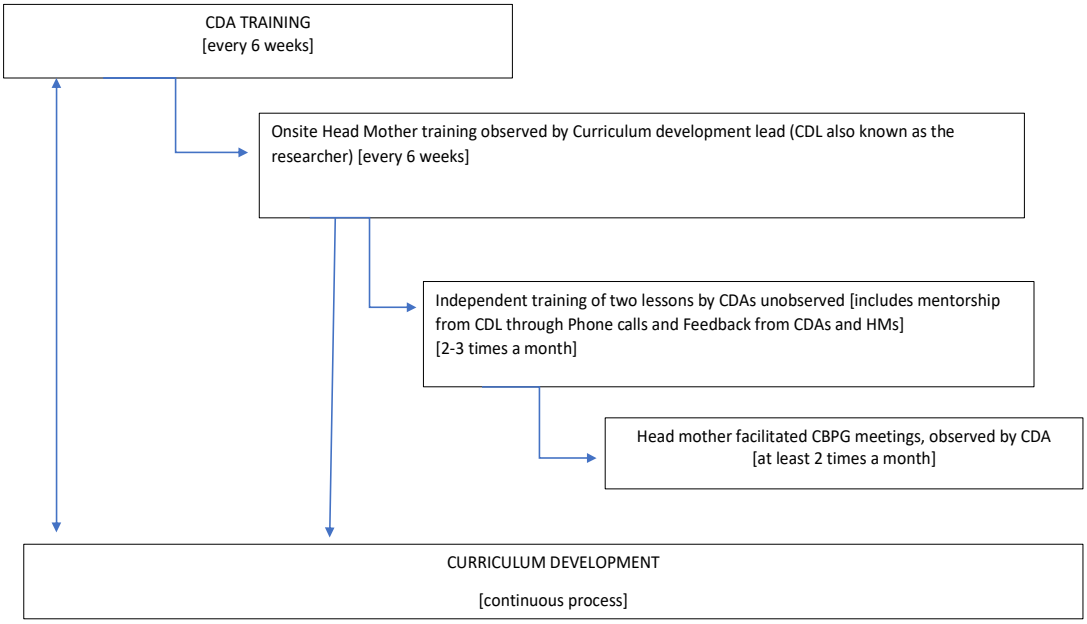


Figure 3: Curriculum (Phase I)

The curriculum development stage used cooperative inquiry (with 8 questions acting as the guideline though subject to change in nature and number depending on the situation at hand) as a feedback format to feed into the development of the study and allow for necessary and timely changes to be made in real time. This also allowed for the curriculum development to occur concurrently with its implementation. It was called the '*Buntu Muboongo curriculum'* serving as a medium through which ECD knowledge on nutrition and stimulation was implemented in the Saving Brains II intervention (Phase I) and follow-up in Phase II (see Appendix C and D, for the complete curriculum).

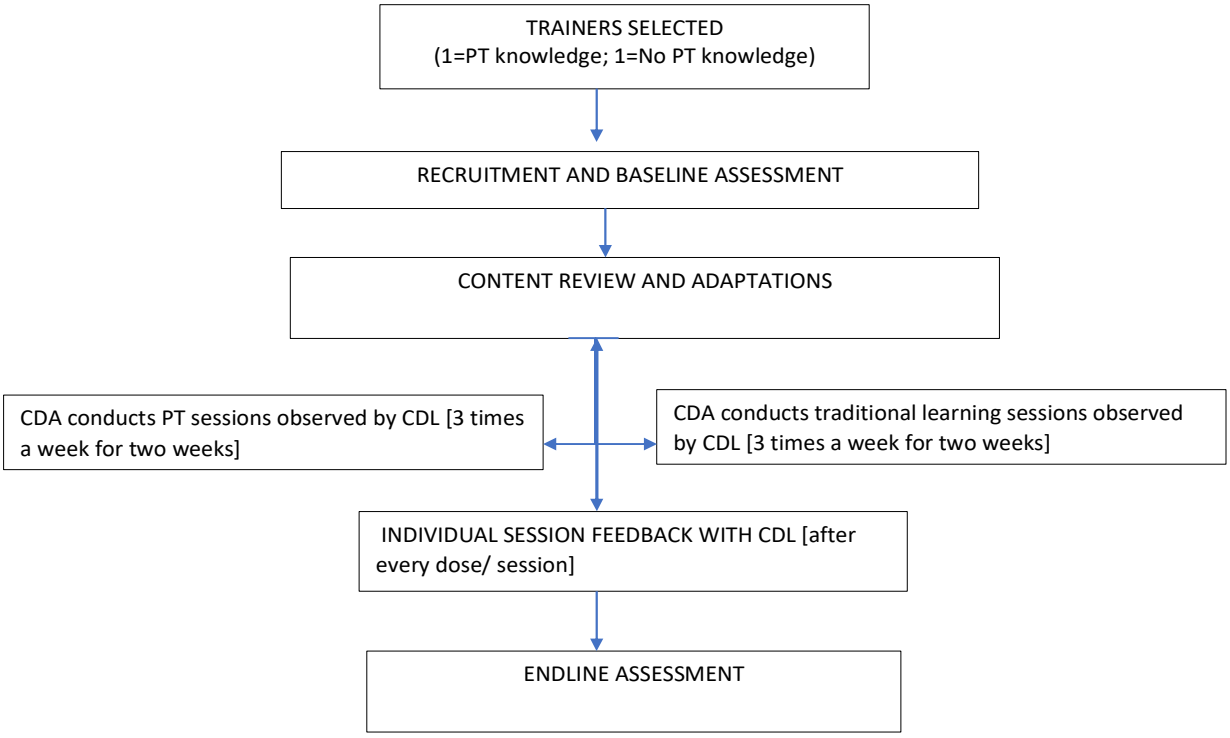
The curriculum was based and centred on participatory theatre, available knowledge on ECD as provided by various sources of research as cited and inquiries conducted during this study. The study allowed for the exploration of this alternative [not prescriptive] mode of creating dialogue in an intervention, in this case the curriculum.

Cooperative inquiry, a participatory approach tool, served to gain more information on the knowledge of head mothers and CDAs in these clusters on child development, to create and implement the curriculum. Each mother-head represented a mother group. Every workshop held served as a baseline to gauge how much the mothers know about the next topics before they were implemented or further developed; and provided a platform for which they could air out their views on the previous topic or activity. Field notes were taken by the researcher during each session, simply to feed the curriculum development process. At the end of Phase I, a focus group of nine (n=9) participants was held assessing their thoughts on the training and learning process of PT versus traditional methods.

The lessons covered were (see Appendix C and D, for the complete curriculum): 1) community involvement in raising a child or ECD, 2) Stunting (height for age indication of nutrition status in children), 3) Cognitive development, 4) Language development, 5) Sanitation (natural water purification methods for those who cannot access or afford chlorine), 6) Physical development, 7) Nutrition (diverse diets using locally available foods), 8) Nutrition (diverse diets: creating a balanced meal_ practical on how to prepare these foods in a balanced and healthy form), 9) Social emotional development (a family affair/ family involvement or role played), 10) Social emotional development (raising a healthy child _ emotional regulation), 11) Revision of what was learnt (into the looking glass), and 12) Planning a performance according to PT guidelines (using PT to share what has been learnt).

3.7.2. Phase II: Curriculum validation

Figure 4: Curriculum validation process outline



In Phase II, participants were recruited at the Demu village health facility during under 5 clinic sessions with the help of the head nurse; Demu Primary School and Demu SDA church through the help of the head master and the head man respectfully outside the catchment area of Phase I (SB II- parent study). The researcher selected two CDAs, one with PT experience having received training during Phase I and another having no such training, only training in their work as a community health worker. Participants were recruited or excluded based on the inclusion and exclusion criteria above. Consenting mothers were subsequently randomized into either 1) traditional learning class or 2) participatory theatre class.

After randomization in either arm, the mothers were further divided into smaller groups within each arm, to allow for four groups of 15 mothers each, to be taught over a period of two weeks. Although the groups stayed the same, it took longer to conduct the classes and recruitments than expected. This was, due to misconceptions about the study, for instance believed satanic ties, no promise of remuneration at point of recruitment and heavy rains a large number of mothers dropped out from the programme causing the researcher to spend more than

month on recruitment and another month for the lessons to occur at a rate of two classes per fortnight. Each session was held for about 2.5 hours instead of the predicted 1.5 hours due to the content in lessons. Please note that for Phase II, the 12 lessons were compressed into 6 lessons. The experimental group had their classes in the morning due to their active nature and the control group had their classes in the afternoon. Assignment to either group was also dependent on the availability of the participant at the required time, as at recruitment phase participants had no clue in which group they were being placed in save the time although they did know that one class would be active and the other would just be like the clinics they received at the clinic.

Classes took place at an empty teacher's home, 3 times a week for 2 weeks, assigned to us by the head teacher. Traditional and participatory theatre classes took place on the same days although at different times to help maximize the use of time, as some recruitment was still ongoing at this time as well; as the participants in different arms did not meet on site risk of contamination was minimized to some extent. Only consented study participants could attend the classes. Despite the lack of popularity in the beginning, mothers came on board especially after the first lessons were held. See the pictures of classes held below.

Figure 5: Depiction of Classes in Phase II in both arms

PT Class (interactive)

Traditional learning class (non-interactive)

Pictures taken by Mwaba Moono Chipili

In this phase, of the twelve lessons developed in the SB II project, six topics were selected for use in this phase, with the remaining six being fused in under these topics depending on compatibility (see Appendix C and D). The main topics covered were: 1) Community involvement raising a child or ECD, 2) Stunting (height for age relation to nutrition status), 3) Cognitive and Language development (merging of two lessons), 4) Nutrition (feeding practices), 5) Physical development (developing fine and motor skills), and 6) Social emotional development. No performance was scheduled despite requests by the participants due to budget constraints. Minimal adaptations were needed in this context due to large similarity with Phase I sample. Cooperative enquiry was used throughout lessons implementation.

At baseline, an FGD was conducted for an hour, consisting of six participants, so as to assert their views on ECD, parenting practices and role of mother in a child's life. The investigators (researcher and the two CDAs) also collected basic demographic data from participants such as age, education level, marital status and number and age of children; including knowledge on ECD using the adapted CK-CDI questionnaire for all consented participants before the intervention began.

At the end line, we conducted two separate FGDs with 6 participants from each intervention arm to assert the participants' views on the lessons they received. Another assessment on the knowledge of mothers on child development and nutrition was conducted using the CK-CDI as integrated with the KAPS, and five open –ended questions at the end of the questionnaire directed at the secondary caregiver. The enumeration was conducted at the empty teacher's home according to the agreed appointed time due to convenience, with each assessment taking about 1 hour per person. All willing and available participants took part in the final assessments.

Though recommended, it was impossible to conduct a follow-up assessment after end line.

3.8. Data Analysis

Qualitative data obtained from four focus group discussions (FGDs; one from Phase I and three from Phase II) was coded and analysed using NVivo 12 plus qualitative analysis software. Firstly, a code book was developed with sections Pre-baseline (interview for Phase I data to gauge knowledge and perceptions), Baseline (interview for assessment of perceptions and overall knowledge before commencement of Phase II) and Endline (had two separate FGDs

for the control and experimental groups). 400 sub-codes were derived, from which 325 were relevant to research questions and study design. These were further categorized into three (3) parent codes namely, knowledge, practice and perceptions with these sub-nodes acting as child nodes depending on the interview data presented as shown through word and text queries (see Appendix F for complete summary report and codebook). All child nodes that were not relevant or proved redundant were then deleted. No analysis was done for cooperative inquiry and field notes as it was deemed unnecessary.

Quantitative data obtained from the closed ended questionnaires (a combination of the CK-CDI and KAP survey) was analysed using analyses found in the Statistical Package for Social Sciences (SPSS). Descriptive statistics of the CK-CDI scores were presented using tables and figures; and. inferential statistics were conducted using Analysis of Covariance and Hierarchical Regression analyses presented using tables. Analysis was done for both baseline and endline data.

3.9. Ethical Consideration

Ethical approval for both the parent study "Improving ECD in Zambia" also known as Saving Brains II (Ref No.2013-Dec-010, IRB No. 00005948, EWA No. 0001169) and the independent study was obtained. Letters of approval were also gotten from the Ministry of Health (MOH) Pemba district and Choma provincial offices (see Appendix E). The participants were briefed about the study and its importance. The participants were well informed about the possible benefits and risks that would arise from the study. They were also briefed about the procedures that would be performed and then the participants were asked if they wished to participate in the study. Once they had agreed, they were provided with a consent form which they were required to sign (signature or thumb print- see Appendix A). All the participants were not coerced in any way into taking part in the study, if they chose not to and if they decided to discontinue participation during the course of the study, they did so without having to explain why and without facing any negative consequences. The secondary caregivers also gave assent to participate in the study. No visual or audio recordings were taken without permission. Visual data (that is video clips and pictures) were only be used for academic presentation purposes (poster presentation, journal article, seminars and curriculum book publishing). They were not be traded for any personal gain.

3.9.1. Risks to participants

The parent study also aimed at ensuring that there was only a minimal risk to participants, be it physical or psychological. In this case, the researcher had to ensure minimal risks to the main study as well as participants. Regarding the main study, the researcher ensured that methods of data collection did not affect the main study in terms of length, questionnaires were concise and not lengthy and through a focus on only mothers who were consented. Pilots were conducted at both baseline and end line to ensure quality of assessment tools; including expert validity. No coercion was used, nor intent to deceive. Data collection did not target unconsented children nor children below the age of 5, although the lessons did; through their mothers. To prevent risk to the children, no harmful exercises were used and any techniques to be employed were proofed by the UNZA supervisors, CDAs and head mothers. The use of PAR ensured co-researcher involvement occurred throughout the entire process of the intervention, hence participants had the right to reject any or all lessons given.

The researcher ensured intensive facilitation training for the CDAs and oversaw the CDAs' training of the head mothers to ensure that facilitators were competent and had a full understanding of the methods implemented and how they were to be implemented. The researcher conducted onsite visits every sixth week and kept in contact with all CDAs through biweekly phone calls, encouraging them to call if there is a problem in Phase I. While in Phase II, the researcher was present to observe all the lessons, and supervise facilitation. It was also the facilitator's role to ensure that ethics such as do no harm, do not use violence (physical or verbal) and do not impose information even if you are right, allow the participants or co-collaborators to solve problems or issues of conflict on their own were enforced. Prompting instead of confrontation was used to arrive at conflict resolution. As participants had to travel to a specific central location during post-parent study for FGDs, a transport refund and lunch allowance was given, a total of ten (10) kwacha. A lunch allowance was given to participants during lessons to avoid discomfort due to hunger during lessons due to length of lessons and ensuring their full attention. They were only informed of this remuneration after recruitment, informed consent and baseline data was obtained to avoid undue influence.

Despite primary caregivers (PCs) attending sessions with their children, no assessment was directed at the children, as PCs were the primary focus. Parents agreed to attend sessions with their children during sessions. The researcher however had no direct interaction with the children only with the caregivers who were the target population. At the end of the procedures,

the participants were thanked for their contribution to the study, their most valuable time and their cooperation.

3.9.2. Privacy and Confidentiality

Privacy was observed through use of identification numbers. For instance, names were not used, and audio recordings were used only to enhance aid detailed note taking during focus group discussions (FDGs). Video clippings and pictures were taken and kept however only to show how some elements of theatre were applied solely for research and academic purposes; with permission.

Data obtained in this study was only used for research purposes as well as academic or field publication only. This information was not used to disparage, or harm anyone and simply added to the knowledge base in the field of Psychology and acted as a guideline for the incorporation of participatory theatre in behavioural change interventions. All activities and content in the curriculum were adapted to suit the cultural context in which the research is being done, as was done in this case.

CHAPTER FOUR: PRESENTATION OF RESULTS

4.0. Overview

This chapter contains the findings of the study. The results are presented according to the research questions.

4.1. Research Question One: Curriculum Acceptability

To answer research question one, a curriculum was developed (in accordance with objective 1_see picture 1 in methodology above), then measures were taken to assess how acceptable participatory theatre as a means of disseminating information to the mothers in this study. To answer this question, the study conducted three focus groups. The first consisted of nine (n=9) participants from the first phase and the other three consisted of six (n=18) participants per group at two different times (one group at baseline- pre-intervention and two groups at endline- post intervention).

All participants that took at post intervention (n=21) found the curriculum acceptable. This was assessed through the positive reviews they gave in this regard. For instance, a mother head in phase I (pre-baseline) though hesitant at first found the method of learning beneficial and beneficial and thus acceptable her regard:

"At first, I used to think that I'm wasting my time because we look funny when we are doing the exercises, but when I see my daughter singing the songs or doing the exercises we have been doing I know that this is the right thing. She is learning well, she is even faster than her elder sister who was not part of this program. It is good, we need more programs like this."

[Participant 09 phase I_ pre-baseline]

This assertion is like that of another participant in the second Phase:

"…most things we just used to hear about them without doing them but here I was forced to practice them, like talking to my baby and playing with them. I did them here first, I used to think it was a waste of time but when I see how happy my child is I feel it is a good thing and also you have explained to us why we should do certain things instead of just telling us to do them without a reason."

[Participant 01 Phase II]

All the participants expressed positive feelings/ perceptions towards the curriculum with some attributing it as a source of stress relief, a good knowledge base and expressed relatability to the curriculum, despite noting that the sessions were quite long. They also showed preference for the PT based learning compared to previous learning (non-PT) methods:

"…there was a difference between how we were learning this time and the way we have been learning in the past because those people in the first phase just used to talk with their mouths, telling us what to do. But this time these lessons are ours, we come every time to meet here and you listen to us and we help each other by learning from each other…. Even you (referring to the researcher) last time you said there are things that you did not know before…"

[Participant 07 Phase I_ pre-baseline]

"…this form of learning where we exercise with our children is very good, it made us happy because it showed us how we can raise our children so that they grow healthy and become intelligent. It is different, but I feel we should always learn this way. It is good..."

[Participant 06 Phase II-experimental group]

However, positive feelings towards the mode of learning was not only limited to the participants in the intervention (SB-II) and the experimental group. The control group also expressed positive feelings and acceptance towards the lessons they received:

"We felt good because there were a lot of things that we did not know but now we know them so we have been freed so that we can raise our children."

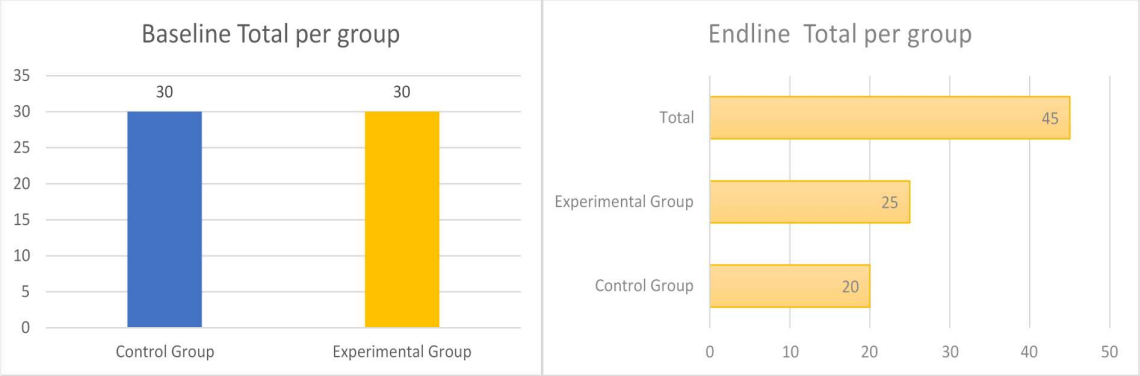
[Participant 04 Phase II control group]

"We felt good because we learnt that raising the child is a good thing and that we have to read books for them so that they grow up well, and we can even talk to our children."

[Participant 01 Phase I_ pre-baseline]

Although attendance was not thoroughly tracked the rate of attrition in each group indicates that the curriculum in the experimental group (attrition 17%) was more acceptable than the one in the control group (attrition 33.3%).

Figure 6: Rate of attrition in control vs experimental group



Hence from the findings here it is noted that the PT curriculum was indeed acceptable to the participants and their child. An interesting observation though is that when asked which lessons they liked, the control participants all showed a preference for visually stimulating and inclusive lessons: such the book making activity (cognition and language lesson), sanitation (water purification) and height chart making (stunting lesson). For instance:

"...we didn't know that you can purify water with charcoal using 2 buckets, a sieve, a clean cloth and river sand. This was very good for us because sometimes you can't always boil the water."

[Participant 01 Phase II control group]

"...I really liked the one for making that ruler for our children. I really didn't know that I can see if my child is healthy from their height... we should try with all our strength to get mothers to take part in lessons such as this one, so that all our children can grow well..."

[Participant 04 Phase II control group]

From the observations above and the qualitative and quantitative data available it can be noted that in both phases we found that both the first and second objectives were achieved.

4.2. Research Question Two: Curriculum feasibility (knowledge uptake and practice)

In response to **Research question 2**, how feasible was the use of participatory theatre in this study, with reference to knowledge uptake, a t-test and a hierarchical regression were used to assess the feasibility of participatory theatre by examining uptake compared to baseline data as well as practicability being the guideline (in line with Objective 4). Levene's test was checked and there was no violation of the assumptions. This means that lessons given had a

significant impact on knowledge regardless of group they were assigned to as shown in Table 2.

Table 2: Mean CK-CDI scores (for group comparison)

Caregivers	control	experiment	interpretation
Baseline	18.15	15.56	Initial scores were relatively the same, with the control group performing slightly better than the experiment group (p=0.022).
End line	21.9	25.6	Endline scores showed that experimental group performed significantly better than the control group (p=0.007).

Independent t-test analysis results further indicated that there was a significant difference in primary caregiver scores of mothers in both groups at baseline and endline. Independent t-test results indicated that all primary caregivers (PCs) irrespective of grouping (i.e. control vs experimental) scored higher at endline (M=23.98, SD=4.76) compared to baseline (M=16. 71, SD=5.51), t(43)=-2.81, p=.007, d=0.83. These results concurred with the primary caregivers' reports that they had learnt new information during the study, irrespective of arm, noting, "We learnt things we did not know…" In addition, references through NVivo coding (*see Table 3 below*) indicated that new information was learnt and that the theatre aesthetics were feasible.

Table 3: Overall qualitative coding analysis (based on coding references in baseline and endline)

	Knowledge	Practice	Perceptions	Total
Baseline	35	7	5	47
Endline	65	18	38	121
Overall Total				168

This study also followed the guidelines by Keppel and Wickens (2004) to measure effect size. These guidelines state that partial eta-squared values ranging from 0.01 to 0.05 represent small effects, 0.06–0.14 represent medium effects, and values greater than 0.14 represent large effects. Thus, this study is feasible with an effect size of 1.5-2% in the independent study.

Data was checked for normality and it was found that primary caregivers' data on childcare was normally distributed while secondary caregivers' data on childcare was not normally distributed (see Appendix G). The PC scores had a wide range of 8 to 30, n=45 (M=16.7, SD=5.51) skewness of .418 (SE=.354) and kurtosis of -.525 (SE=.695); while SC scores had a range of 2 to 9, n=45 (M=6.93, SD=1.95) skewness of -.852 (SE=.354) and kurtosis of .007 (SE=.695). The normal distribution indicated that the findings in this regard were reliable thus making an additional case for the feasibility of this study as it targets PC knowledge on child care. However, SC score distribution indicated unreliability of findings, but this has no bearing as SC knowledge was not affected by PT or non-PT learning and was reliant on vicarious learning through instruction from the PC (*see Research Question 4 and Chapter 5 for further elaboration of this finding*).

Therefore, results in both qualitative and quantitative analysis indicated that this intervention is feasible, with noted and perceived improvements occurring in knowledge uptake, practice and perceptions regarding ECD and PT aesthetics.

4.3. Research Question 3: Effectiveness of the PT on primary caregiver knowledge on childcare (information recall)

Research question 3 assessed if the recall of information was enhanced by use of participatory theatre aesthetics, a one-way ANCOVA was conducted to compare the effect of the participatory theatre on child care knowledge and reported practice by the PC. This was done by comparing endline scores of the control group and the experimental group while controlling for covariate such as the number of children, house hold number, parental employment and parental education. ANCOVA results showed there was a significant effect of participatory theatre on primary caregivers' knowledge on childcare, F (1, 39) = 9.732, p= .003, partial η^2= .02. These results also showed that there was a small but significant effect size of 2%. The Bonferroni post hoc comparisons indicted that primary caregivers in the experimental group had statistically significant higher mean scores compared to their counterparts in the control group.

Table 4: Effect of PT on Primary caregivers' knowledge

source	SS	df	MS	F	*p*	Partial ŋ²
number of children	14.69	1	14.69	0.801	0.376	0.02
parental education	58.36	1	58.36	3.07	0.087	0.073
Parental employment	108.82	1	108.82	5.931	0.02	0.132
house hold number	23.6	1	23.6	1.286	0.264	0.032
group	178.5	1	178.5	9.732	0.003	0.2
Error	715.54	39	18.3			

Note. R^2 = .284, Adj. R^2 = .192

Independent t-test results also showed that there was a statistically significant difference in CK-CDI score between the control (M=21.9, SD=5.11) and experimental group (M=25.64, SD=3.79), t(43)=-2.81, p=.007 showing that PT had a larger influence on the learner's knowledge compared to traditional learning. Although learning occurred in both groups as shown in the previous section (*4.2. Research Question 2*), the above findings indicate that the recall of information was further enhanced by use of participatory theatre aesthetics in comparison to the non-PT medium.

4.4. Research Question 4: Implementation at home

A hierarchical regression was used to find out if primary caregivers` knowledge predicted secondary caregivers` knowledge on childcare, in line with **Research question 4.** This was to assess practice of knowledge learnt by PC in household through knowledge of the SC as instructed by PC. Three models were used, in the first model, baseline scores and group were entered. The model was statistically significant, F (2, 42) = 13.8, p= .001 and R^2 accounting for 39.7% of the variation in childcare. In the second model, two variables were added, these were the child`s age and gender. The model was statistically significant, F (4, 40) = 7.08, p= .001 and R^2 accounted for 47.6% of the variation in childcare. In the final model, three more variables were added in and these were parental education, parental employment

status and secondary caregivers` knowledge mean scores on childcare. The model accounted for 49.5% of the variation in childcare and was statistically significant, F (7, 37) = 5.17, p= .001. Despite, the statistical significance of relationships within the three models, outcomes showed that there was no relationship between the primary caregiver knowledge and secondary caregiver knowledge (*see* Chapter 5 for explanation of outcomes).

Table 5: Regression of primary caregivers' knowledge predicting secondary caregivers' knowledge with various background variables and baseline scores.

	Model 1			Model 2			Model 3		
variables	B	SE	β	B	SE	β	B	SE	β
Baseline scores	0.437	0.107	0.505**	0.372	0.115	0.505**	0.398	0.117	0.46**
group	4.871	1.17	0.514**	5.774	1.265	0.609**	6.41	1.375	0.677**
child`s age				-1.498	1.068	-0.187	-1.56	1.064	-0.194
child`s sex				-1.191	1.351	-0.124	-1.357	1.352	-0.141
parental education				1.614	0.907	0.221	1.946	0.947	0.267*
parental employment				0.679	0.41	0.25	0.687	0.408	0.253
SC knowledge							-0.376	0.324	-0.155
R2		0.397			0.476			0.495	
Δ R2		0.368			0.394			0.399	
F for change R2		13.8			1.448			1.348	

Note: * p< .05; **p< .01.

However, ANCOVA results showed that participatory theatre had a significant effect on SC knowledge, F (1, 39) = 7.131, p= .011, partial η^2= .0155. These results showed that there was a small but significant effect size of 1.5%. The Bonferroni post hoc comparisons of the

two groups also indicted that secondary caregivers in the experimental group had statistically significant higher mean scores compared to their counterparts in the control group.

Table 6: Effect of PT on SC Knowledge

source	SS	df	MS	F	*p*	partial ŋ²
number of children	5	1	5	1.642	0.208	0.04
parental education	19.04	1	19.04	6.247	0.017	0.138
parental employment	4.29	1	4.29	1.41	0.242	0.035
house hold number	17.81	1	17.81	5.846	0.02	0.13
group	21.73	1	21.73	7.131	0.011	.0155
Error	118.88	39	3.04			

Note. $R^2 = .296$, Adj. $R^2 = .205$

This concurred with focus group discussion findings which showed that learning occurred and that they practiced what they learnt at home. Most of the participants said they did practice what they learnt in the classes at home, in both the control and experimental group. For instance, in the experimental group four out of six participants reported that they practiced what they learnt at home:

"..my child continues to follow what we learn even at home he wants to play the games we learn here.....the children were able to follow what we learnt here, and they would tell their grandmother." [Participant 03 and 06 Phase II experimental group]

While in the control group three out six participants said that they shared what they learnt with others:

"Yes, we do share with information with others that even as we are doing chores we need to laugh with the child, some of my friends wanted to join but they found that their children were too old to join."

[Participant 04 Phase II control group]

From the above, we can see that although the use participatory theatre in this study was deemed feasible by the fact that it was developed using local funds of knowledge, acceptable to the mothers and was replicable as evidenced in Phase II; it is not clear if practicability (feasibility) was able to truly occur at home *(see Chapter 5 for further discussion on Research Question 4)*. It would be important to carry out further investigations on why this was the case.

4.5. Conclusion

This chapter presented the findings of the study in line with the study questions. The study found that participants deemed the use of PT as an information medium acceptable. Furthermore, it was noted that this intervention is feasible, and the PT methods used in the control group were acceptable as indicated by the focus group statements. Irrespective of grouping learning did occur in both the control and experimental groups with the experimental group retaining more knowledge compared to the control group. Despite information up take occurring, PC knowledge had no impact or effect on SC knowledge. However, PT did influence childcare knowledge in both the PC and SC though small with an effect size ranging 1.5-2%, which given the sample size was reasonable and expected.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.0. Overview

This chapter presents the detailed discussion of the study findings. In the present study, the effect of two learning mediums (PT vs non-PT) on parental knowledge were assessed. This provided the opportunity to address several important theoretical and practical issues with regards to information dissemination in ECD interventions specifically with regards to childcare knowledge, perceptions and practice in the Zambian context, and more specifically in rural areas. The main aim of this study was to generate evidence as well as validate a curriculum developed as an intervention for early childhood development using participatory theatre (PT) as a means of disseminating information on nutrition and early childhood development stimulation and its impact on learners. The findings were that the curriculum had an impact on primary caregiver knowledge scores, perceptions and reported practice; and parental sensitivity was also enhanced (*see Rocker et al, 2018*). Although, it also had an effect on the secondary caregiver knowledge, primary caregiver knowledge had no impact on secondary caregiver knowledge. Improvements in knowledge were not limited to the experimental group, as the control group also reported knowledge improvements. However, participants receiving participatory theatre (PT) performed better than those who learnt using a traditional medium (non-PT).

The first research question, in line with objectives one and two, was to assess how acceptable participatory theatre as a means of disseminating information to mothers in this study. First, participatory theatre was packaged in an early childhood stimulation curriculum (*according to Objective 1*) and then implemented in both Phase I and II. The ELT framework as proposed proved to be suitable model through which a theatre based ECD curriculum could be disseminated and 'experiential learning' (Kolb & Kolb, 2008) could occur. The contextual culture as used through local funds of knowledge (Banda, 2008) provided by the co-researchers/ co-learners (during the initial curriculum development and implementation

process) played a relevant role in feeding this curriculum, with participants then being familiar with not only the language of dissemination but the aesthetics used.

Although overall, participant responses (in both arms) indicated that they accepted the curriculum they received, with those exposed to the PT medium after past pre-exposure to non-PT mediums showing a preference for the PT medium through which they had received health and ECD related messaging (*in line with objective 2*). In this case apathy and alienation towards content was minimized and theatre methods (Boal, 2005; Banda, 2008; Mtonga, 2012; Kabaso, 2013) to simulate real life problems for real life solutions to be arrived at were employed. Evidence reflected that change therefore was not brought on primarily by the lead researcher but was as a result of the participants own drive and simulated experience.

Furthermore, attendance results reinforced this assertion by evident higher attrition rates in the control group (non-PT) versus the experimental group (PT) in Phase II. This helped minimize the concerns for possible bias present in Phase I as the participants were core curriculum developers, while in Phase II they were mainly active recipients of the dose with minimum revision inputs as learning occurred to allow for further adaptation. It can be assumed that the participatory approach, gave the target population a sense of ownership which may in turn have reduced the sense of alienation that participants may feel in learning environments that exclude community involvement and engagement (Banda, 2008; Serpell & Nsamenang, 2014) as an exchange of knowledge occurs; due to the opportunities with which the participants in the PT arm fitted the curriculum to themselves instead of vice-versa. The consensus that activities where not strange confirms that using tools that are indigenous to the context of study is key. Hence, the use of PT through oral tradition, folklore and songs can be utilized for intervention quality enhancement.

The second research question assessed how feasible the use of participatory theatre in this study was, with reference to knowledge uptake analysed by endline versus baseline score comparisons (partially in line with Objective 4). Overall outcomes (both quantitative and qualitative) indicated that all participants despite their group (control versus experimental) had better performance at endline than at baseline with mothers learning in this study knowing more information on child nutrition and stimulation at end line than they did at baseline. The participant knowledge increased irrespective of study arm as indicated by the CK-CDI scores concurs with research outcomes so far that have shown that ECD curriculums with an emphasis nutrition and stimulation will result in an increase in knowledge of the primary caregiver (Cooper et al., 2009; de Paula et al., 2013; Quansah et al., 2016; Rockers et al, 2016).

In addition, parent study (Phase I_ randomized controlled trial setup) outcomes also indicated knowledge increase in the primary caregivers, improved parent-child interactions, reduction in stunting, improved physical growth and improvement in child development (Rocker et al, 2018). This improvement showed that such an intervention is feasible and especially a model that can be adapted to suit low-resource settings in Zambia regarding ECD intervention implementation.

Despite content being the same, participants in the experimental group performed better than those in the control group. Primary caregiver scores, thus, showed that PT had a significantly higher effect on knowledge uptake. Behavioural scientists have used theatre to disseminate results (Serpell, 1993; Stuttaford et al., 2006) and implement ECD stimulation studies as done by Rockers et al and this study, further supporting the feasibility of PT usage in ECD interventions. The results in this study indicate that a PT curriculum is feasible and can despite its rare usage pave a way for the delivery of holistic and inclusive replicable ECD interventions in rural Africa. After all, the wealth of oral tradition is what PT embodies (Mba, 2003; Banda, 2008). If that is the case, as evidenced by both the parent and independent study, then why not use this medium for health messaging and information delivery in ECD interventions and other such studies?

The third research question assessed if the recall of information was enhanced by use of participatory theatre aesthetics (*in line with objectives 3 and 4*). Despite their significance, Phase I results could not be fully attributed to the impact of theatre, hence the analysis of this question relied on Phase II outcomes. Theatre (PT) was found to have an effect on primary caregiver knowledge as indicated by the experimental group. This shows that PT aesthetics enhanced information recall and there is a significantly positive link between PT and increased knowledge retention. This concurred with Manukonda (2013), Kabaso (2013), Boal (2005) and various theatre practitioners and theorists' (Mda, 1993; 2003; Serpell, 1992; Mtonga, 2012; Banda, 2008) assertion that theatre is a most effective means of communication.

Theatre not only serves to entertain but to educate as well. Many theorists have inferred that learning is more effective when it is experienced (Kolb & Kolb, 1984; 2007; Dewey, 1997; Vygotsky, 1978; Rogoff, 1995; Tappan, 1998). According to the Experiential Learning Model (Kolb, 1984; 2007), learning occurs from grasping (concrete experience & abstract conceptualization) and transformation (reflective observation & active experimentation). In this case, PT serves to allow for adult simulation of thoughts and concepts leading to active thinking, participation and learning and serves as an early childhood stimulation lab for the young child. PT becomes the optimum medium to create a learning and stimulation environment for both mother and child.

Another interesting finding in this segment was that parental employment had a significant effect on PT while parental education did not. This could be due to the tendency not to embrace the cultural aesthetics (Lusaka Times, 2018; Nawa, 2018) especially in elitist households or a reduction of experience with cultural practices, hence a separation between formal settings education and cultural knowledge in the Zambian set-up. Furthermore, in this context most employment referred to agrarian and marketing activities which do not necessarily require a high level of education. This is not to say that formal education hinders PT practice, but simply that there could be more resistance to cultural constructs or aesthetics as this is not part of their full experience. There is therefore a need to sensitize persons with higher formal education exposure on the relevance of cultural aesthetics as is encouraged through the preservation of intangible cultural heritage.

In addition, studies have shown that visual and interactive information dissemination has a more positive impact on behaviour change than traditional methods (Rockers et al., 2016). This concurs with participant responses in relation to preferred lessons/ sessions in both study arms in which they reported preference for audio-visually stimulating and interactive classes.

In short participants showed preference for sessions that stimulated the six senses, the PT cohort catered to this sensory stimulation (McGraw, Webb & Moore, 2008) throughout its course thus resulting in positive learning outcomes and longer information retention. There is, therefore, a need to investigate which audio-visual and interactive information dissemination methods, in this case theatre, may enhance ECD interventions in the health sector or improve outcomes and perhaps stop the decline overtime.

The fourth research question was used to find out if lessons learnt during these sessions (Phase II) were implemented at home (in line with objective 3). Results were obtained by comparing whether primary secondary caregivers` knowledge predicted secondary caregivers` knowledge on childcare to help assess homestead practice. This was as research has shown that the secondary caregiver (these can be older siblings, aunties, uncles and grandparents) plays a critical in parenting in most households in Africa, including Zambia (Abebe & Aase, 2007; Ekeopara, 2012; Mooya, 2015; Sichimba, 2015). However, outcomes showed that despite PT influencing SC knowledge, there was no significant relationship between primary caregiver knowledge and secondary caregiver practice (implementation in the home stead).

Despite secondary caregivers' outcomes, their role in parenting cannot be ignored. For instance, older siblings, aunties, uncles and grandparents are key in easing the burden of parenting for most young parents in the Zambian set-up were reliance on the extended family is deemed more reliable (Mooya, 2015; Sichimba, 2015) than paid child care services, which in most cases especially in the rural context is not a familiar practice or cultural. Furthermore, older siblings are the key participants in erranding (Nsamenang, 2006) a key parenting component in Africa, including Zambia which is used to socialize the growing child into the home and societal environment. In fact, it is noted that parenting of younger sibling is part of erranding and plays an extensive role especially in the absence of other extended relatives in the homestead. This includes taking care of younger siblings a cultural aspect that the child-to-child approach places its basis (Webb, 1988; Serpell & Marfo, 2014; Serpell & Nsamenang, 2014).

It is evident that learning has occurred in the secondary caregiver however that learning, in this case, cannot be attributed to the primary caregiver's knowledge. Children learn through vicarious learning (Bandura, 1986) either through observational or instructional modelling. This was applied to the secondary caregiver despite varying age ranges from pre-adolescence

to geriatric, as the SC is usually a dependent in the household and thus subject to the guidelines of that household. Economic and educational status played a role in SC results as well.

The absence of a visible relationship between PC knowledge and SC knowledge does not necessarily mean there is none. According to Bandura (1986) a relationship must exist, and the fact that PT had an effect on both PC and SC knowledge scores is also an indicator that an intrinsic relationship exists between the two variables.

There are a number of reasons that could explain the absence of relationship between PC and SC knowledge, below are but a few:

Disparities of composite scores, that is the number of composite scores both CK-CDI scores (40) and SC scores (10) varied, a revision of the tool could have been advised.

Differences in tools used and non- validity of the SC score test implied a more reliable tool could have been used for the assessment of knowledge trickle down using well known tools such as the International development early learning assessment (IDELA) for young SCs and Observational tools such as the home observation instrument for measurement of the environment (HOME) and Home Environment Potential Assessment (HEPA) for both younger and older SCs. The SC score test may not have been reliable enough to allow for a valid assessment of trickle down of knowledge (or vicarious learning). Therefore, a multi-dimensional criterion should have been used instead.

Timing and behaviour (habit) formation can be factored in as well as the time frame may not have been enough for a reliable assessment for practice to be conducted. This concurs with theories of habit formation which assert that it takes about 60 days on average for a behaviour to become a habit (Lally, van Jaarsveld, Potts & Wardle, 2010). A habit is an automatic or repeated behaviour (Hull, 1943; Gardner, 2012). In this case, training occurred for two weeks and a day later assessment was conducted. Though cost effective, it was not enough time to assess behaviour change. It would therefore be advisable that following behaviour change aimed assessments should at least between 60-254 days for a more effective outcome (Lally et al, 2010). Usually habit may initially be triggered by a goal, but over time that goal becomes less necessary and the habit becomes more automatic (Wood & Runger, 2016). In this case it is not an issue of too much time elapsing but not enough time.

At this stage, the primary caregiver (PC) may not have had enough time to think over their goals (e.g. long term versus short-term) and detailed rewards (e.g. needs versus gains) therefore implementation may possibly have not occurred outside the training sessions or instructional trickle down of knowledge may not have been in full effect at the time of assessment, however intermittent or uncertain rewards have been found to be particularly effective in promoting habit learning (Wood & Runger, 2016) thus reverting the cause for this outcome to the two reasons above or this period may have not been sufficient time for an effective number of behaviour repetitions (Gardner, de Brujin & Lally, 2011; Neal et al, 2011; Gardner, 2012) for modelling or trickle down to be assessed through SC knowledge. Findings therefore show that PT is an effective means for information dissemination.

CHAPTER SIX: CONCLUSION

6.0. Overview

This chapter contains the conclusions, limitations and recommendations of the study.

There is no doubt that interactive methods of information dissemination such as participatory theatre (PT) are a rich resource for the creation and implementation of effective ECD stimulation programmes. The present study highlighted that interactive methods of learning may be the key to enhancing ECD interventions for long-term positive effects. Despite, its short-term nature this study supports the assertion that it is advisable to look into conducting studies that are not only culturally relevant/ applicable but also stimulating as is characteristic of participatory theatre and other audio-visual aesthetics; as well incorporate more community-based formats for ECD directed curriculum development. This allows for inclusivity in a bottom-up/ top-down process and a sense of ownership as the participants actively engage in every step of the programme. This may in turn be a step towards aiding the continuation of programmes even after the donor funding phase is completed. Parent study outcomes also indicate in part the importance of adapting PT models for larger ECD interventions targeting rural Zambia, and possibly Africa. This study has also contributed to the literature on ECD stimulation intervention especially in Zambia where it is currently understudied and underfunded.

6.1. Limitations

Since this study was conducted with a small sample and was restricted to Choma and Pemba districts of Southern Province, findings could not be generalized to the rest of rural Zambia due to variations in cultural aesthetics and practices. It would therefore be unfair and an untrue representation if these finding were to be generalized to the entire country ignoring the existing and possible differences in these contexts existing in Zambia such as languages (over 72 languages and dialects), ethnic groupings (9 major ethnic groups) and cultural beliefs and or systems. Curriculum in phase I was limited to mothers with children aged two to four

years as those where the age ranges of focus in the parent study; hence it would not have been time and cost efficient for the independent study to expand on this content to include younger and older children within the 0-8 year range covering the early childhood period.

6.2. Recommendations

The following recommendations can be made to Non-governmental organisations and government line ministries;

6.2.1. Future ECD interventions must consider the usage of PT mediums embedded in the target contexts' positive practices for more impact on participant outcomes. This would also enhance the sense of ownership towards the intervention as they are familiar with the aesthetics and able to relate and contribute meaningfully in the learning process as alienation is minimized.

6.2.2. Future early childhood interventions should focus on long-term and large-scale studies in ECD using PT as medium of information dissemination for behavioural change as well as other interactive mediums as this may in turn result in better outcomes for the interventions and more long-term benefits for the participants. PT is not only for results dissemination, it is a powerful medium of learning that should be used especially in ECD and other learning interventions.

6.2.3. Interventions must be treated as co-learning platforms. Community based programming should not be limited to simply selecting data collectors or community health workers from the target community, sensitizing them about the project and then developing content for them to use without their in-depth involvement for their application. They should entail the in-depth engagement of community stakeholders in the development of content (guided) so that it can better be applied to their context. The involvement of community stakeholders early on in the intervention processes helps eliminate the element of the other, and gives a sense of ownership towards the programme hence allowing for continuity even after the initial drivers (usually NGOs) cease working in that context.

6.2.4. There is need for further sensitization of community stakeholders (i.e. study participants-especially those with higher education and government bodies, and other learning or behavioural change oriented bodies) on the importance of not only the preservation of intangible cultural heritage, but also the importance of using cultural or oral tradition aesthetics (e.g. folktales, songs, dance, games, etc) as mediums for information dissemination as

embraced by participatory theatre (PT) in early childhood intervention for more effective behavioural change due to their staying power.

6.2.5. Lastly but not least, although there is no argument on the effectiveness of interactive mediums for ECD interventions, due the study size (120-500 dyads) across the two phases it would be insightful if more extensive studies regarding the cost effectiveness and cost-efficiency of PT interventions on a larger scale. This would include resource allocation and input distribution among stakeholders both at community and national level. This will help reduce the generational poverty levels and its impact, and also increase productivity and therefore national income.

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APPENDICES

Appendixes run from A to G.

8.1. Appendix A: Informed consent- Participant Information sheet, Informed consent and assent

8.1.1. Participant Information Sheet:

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

Telephone: +260-211-290258/293937 P O Box 32379
Fax: +260-211-290258/293937 Lusaka, Zambia
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HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

PARTICIPANT INFORMATION SHEET

TITLE OF RESEARCH: The Use of Participatory Theatre in Early Childhood Development: A Focus on Mother Groups in Choma and Pemba.

PURPOSE OF THE STUDY:

This study has been made to help mothers increase their knowledge on good nutrition and how growth potential can be encouraged in young children. Hopefully, by participating, the quality of mother-child interactions will be enhanced, to improve your relationship with your child as well their growth potential in the main areas of development. It is our hope that the results of this study will also increase the interest of both researchers and policy makers in early childhood development in general, and specifically when it comes to how information in early childhood programmes is shared.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT:

This study focuses on using available resources to encourage good child growth. In this study two main methods of learning will be used: i) lessons that require simple discussions and ii) lessons using participatory theatre as a means of learning. You will be one of the 128 participants selected at this health facility here in Pemba. You have been chosen because you live near this health facility and also have a child or children under the age of three.

If you agree to be in this study, we invite you to attend mothers' group meetings at the health facility or in your community. These meetings will start soon and run for 2 weeks only, occurring 3 times per week during that time. Each meeting will talk about the different faces of parenting and which practices can help your child reach their full growth potential.

We will also ask you to participate in two interviews, one now and another at the end of the study. For the first interview now, we will ask you just a few questions about your relationship with your child and your views on what makes a good mother. For the second interview at the end of the study, we will ask what you know about raising a healthy child. None of the questions will involve any harm to you or your child. Please, note that we will ask one of your older children or dependents (only the one who tends to spend the most time with the child) a few questions about raising a healthy child too.

CONFIDENTIALITY:

Your answers will be kept confidential. Your name will never be used in connection with any of the information you tell us. The results of the study may be published for scientific purposes, but the results will be anonymous and your name nor anything that can recognize you will ever be published. Instead, all names will be converted into a number and the connection between the name and the number will be destroyed as soon as the study has ended.

VOLUNTARY PARTICIPATION AND WITHDRAWAL:

Participation in the study is voluntary. It's OK if you don't want to participate. There is no penalty nor consequence of any kind. You should also feel free to not respond to questions that make you uncomfortable. You can stop at any time with no explanation, and you will face no penalty at all.

RISKS AND BENEFITS:

Benefits: Research is designed to benefit society by gaining new knowledge. You may not receive any personal benefit by participating in this study. However, it may increase your knowledge child growth. The study may also benefit the knowledge about improving the effectiveness of early childhood programs, which might in the future benefit our children.

Risks: You may feel uncomfortable answering the questions in the presence of other people in your home or during discussions. You also do not have to answer questions that make you feel uncomfortable, and we will make all efforts to ask you questions in a private manner.

CONTACTS FOR QUESTIONS (Names, addresses and phone numbers of the following):

1. **Principal Investigator**
   Mwaba Moono Chipili
   Masters in Child and Adolescent Psychology Student,
   Humanities and Social Sciences, Department of Psychology
   University of Zambia
   P.O. Box 32379
   LUSAKA

   Contact: 0974556278

chipilimwaba@yahoo.co.uk

2. **Dr. M. Nkolola–Wakumelo**
   Chairperson, Humanities and Social Sciences, Research Ethics Committee,
   University of Zambia
   P O Box 32379
   LUSAKA

3. **Prof. I.A. Nyambe**
   Director, Directorate of Research and Graduate Studies
   University of Zambia
   P O Box 32379
   LUSAKA

8.1.2. Consent form:

THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH ND GRADUATE STUDIES
HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

Telephone: +260-211-290258/293937 P. O. Box 32379
Fax: +260-211-290258/293937 Lusaka,
Zambia
E-mail drgs@unza.zm

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

CONSENT FORM
(Translate into vernacular if necessary)

TITLE OF RESEARCH: THE USE OF PARTICIPATORY THEATRE IN EARLY CHILDHOOD: A FOCUS ON MOTHERGROUPS IN CHOMA AND PEMBA

REFERENCE TO PARTICIPANT INFORMATION SHEET:

1. Make sure that you read the Information Sheet carefully, or that it has been explained to you to your satisfaction.

2. Your permission is required if pictures, video or audio recording is being used.

3. Your participation in this research is entirely voluntary, i.e. you do not have to participate if you do not wish to.

4. Refusal to take part will involve no penalty or loss of services to which you are otherwise entitled.

5. If you decide to take part, you are still free to withdraw at any time without penalty or loss of services and without giving a reason for your withdrawal.

6. You may choose not to answer certain questions that are asked in the study. If there is anything that you would prefer not to discuss, please feel free to say so.

7. The information collected in this study will be kept strictly confidential.

8. If you choose to participate in this research study, your signed consent is required below before I proceed with the interview with you.

VOLUNTARY CONSENT

I have read (or have had explained to me) the information about this research as contained in the Participant Information Sheet. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I now consent voluntarily to be a participant in this project and understand that I have the right to end my participation at any time, and to choose not to answer certain questions that are asked in the study.

My signature below says that I am willing to participate in this research:

Participant's name (Printed):
…….....……
……....

Participant's signature (or thumbprint): ……
Consent Date: …….....

Researcher Conducting Informed Consent (Printed)
…….

Signature of Researcher: ……..…….. Date:
…….

Signature of parent/guardian: ……. Date:
……..

8.2. Appendix B: Data collection and monitoring tools

8.2.1. Cooperative inquiry (used in Phase I and II):

Cooperative enquiry questions are used to query activities and get perceptions as well as feedback during curriculum development.

-Self introduction: take time to get to know each other as co-participants

- Ask about issues, affecting the community in general. Talk about these, the narrow down to child development.

Beginning

4.0. Who can help resolve these problems?

5.0. How would you like to be involved in finding a solution?

6.0. What do you remember from previous experience?

7.0. How can you apply that knowledge to this situation?

During lessons:

A sample lesson is experienced and questions are asked or arise during the course of this process.

8.0. How do you feel about these activities? Or what do they make you think about?

9.0. Do they make sense to you?

10.0. Can you relate to them?

11.0. What traditional games or songs do you think can be used to explain child development?

12.0. What changes should we make to the activities?

13.0. Which activities should we remove or replace?

14.0. What activity do you know that we can replace the said activity with

15.0. How can we better address this issue?

N.B: Please note that as this is a participatory approach, more questions will be generated in line with child development during the sessions. The above are simply sample questions.

Thank you

8.2.2. Baseline data collection tools

a. Quantitative data collection: Caregiver Knowledge of Child Development Inventory merged with Knowledge, Attitudes and Practices survey (CK-CDI/KAPS)

EARLY CHILDHOOD STIMULATION NUTRITION SURVEY: PEMBA
[FOR USE AT BASELINE]
SECTION A: GENERAL IDENTIFICATION

A1.	**Mother's STUDY ID Number**	*(range from 010-060)*
A2.	**Enumerator's Name**	
A3.	**Date of interview**	dd/mm/yyyy
A4.	Child birth date	dd/mm/yyyy
A5.	Child sex	1 Male 2 Female
A6.	Interview Language	1 Tonga 2 Lozi 3 English 4 Other

SECTION B: Informed Consent

B1.	Mother has consented	1 No 2 Yes
B2.	Mother has consented on behalf of dependent (secondary caregiver)	1 No 2 Yes

SECTION C: Participant Information

C1.	Birth date	dd/mm/yyyy
C2.	Marital status Note: If married; go to C 8	1 Married 2 Single 3 Divorced 4 Widowed
C3.	Employment status	1 unemployed 2 formal employment [i.e. teacher, medical personnel, janitor, etc] 3 Informal employment [i.e. business, farming, etc]
C4.	Number of people in household	……..
C5.	Number of children	…….
C6.	Number of children under five	……
C7.	Level of education	1 No education 2 Primary

		3 Secondary 4 College 5 University
C8.	Father's employment status	1 unemployed 2 formal employment [i.e. teacher, medical personnel, janitor, etc] 3 Informal employment [i.e. business, farming, etc]
C9.	Father's education level	1 No education 2 Primary 3 Secondary 4 College 5 University

SECTION C:
In the past 3 days, did you or any household member engage in any of the following activities with the child?

D1	Read books or looked at picture books with the child?	1 No 2 Yes
D2	Told stories to the child?	1 No 2 Yes
D3	Sang songs to the child or with the child, including lullabies?	1 No 2 Yes
D4	Took the child outside the home, compound, yard, or enclosure?	1 No 2 Yes
D5	Played with the child?	1 No 2 Yes
D6	Named, counted, or drew things to or with the child?	1 No 2 Yes

SECTION D: KNOWLEDGE OF PARENTS (CKCDI)
Now we are going to ask you a few questions about a child's development.

E1.	When does a child's brain begin to develop and learn?	**…….**
E2.	When do children begin to see?	**…….**
E3.	When do children begin to follow a moving person or toy, with their eyes?	**…….**
E4.	When do children begin to vocalize in response to someone talking to them?	**…….**
E5.	When do children begin to smile socially, that is smile into the face of another person?	**…….**
E6.	When do children begin to say single meaningful words?	**…….**
E7.	When do children begin to play imaginary play like feeding a doll or driving a toy car?	**…….**

E8.	When do children begin to reach for a toy, cup or plate in front of them?	**…….**
E9.	When do children begin to grasp tiny things like groundnuts, with their fingertips?	**…….**
E10.	When do children begin to walk alone with good co-ordination?	**…….**
E11.	When should mothers start giving their children charcoal or sticks to draw in the sand?	**…….**
E12.	When should mothers begin to look at pictures with her child and also show the child objects in the environment?	**…….**
E13.	When should a mother begin to allow her child to play with other children?	**…….**
E14.	When should mothers allow their children to start sitting without support?	**…….**
E15.	At what age should a mother start talking to their child?	**…….**
E16.	When should mothers begin to show colorful objects to children to help them practice reaching?	**…….**
E17.	When should mothers begin to teach children to count?	**…….**
E18.	When should mothers begin to teach children colors?	**…….**
E19.	When should mothers start to allow children to eat by themselves?	**…….**
E20.	When should a mother begin to give children clean and safe household items to play with?	**…….**
	Total score out of 40	…….

Scoring [CKCDI guide scoring used *see below*]
The range of scores is 0–40 with higher scores indicating more knowledge.
Answers that fall within the correct range are given 2 points.
Answers that fall 1 month below or above the correct ranges are given 1 point;
All other answers are considered incorrect and receive 0 points.

CK-CDI Scoring Guide:

CKCDI Question	**Answer**	***Component**
1. When does a child's brain begin to develop and learn?	In utero or birth	1
2. When do children begin to see?	In utero or birth	1

3. When do children begin to follow a moving person or toy, with their eyes?	Birth to 2 months	1
4. When do children begin to vocalize in response to someone talking to them?	Birth to 2 months	1
5. When do children begin to smile socially, that is smile into the face of another person?	Birth to 2 months	1
6. When do children begin to say single meaningful words?	9–14 months	2
7. When do children begin to play imaginary play like feeding a doll or driving a toy car?	12–24 months	2
8. When do children begin to reach for a toy in front of them?	4–5 months	3
9. When do children begin to grasp tiny things like raisins, with their fingertips?	7–9 months	3
10. When do children begin to walk alone with good co-ordination?	10–15 months	3
11. When should mothers begin to talk to children?	In utero or birth	1
12. When should mothers begin to show colorful objects to children to help them practice reaching?	0–4 months	1
13. When should mothers begin to teach children to count?	12–24 months	2
14. When should mothers begin to teach children colors?	12–24 months	2
15. When should mothers start to give children a spoon or a fork to let them eat by themselves?	9–12 months	2
16. When should mothers begin to give children paper and crayons to draw and color?	12–24 months	2
17. When should mothers begin to let children sit with support?	3–4 months	3
18. When should mothers begin to give children clean	4–6 months	3

and safe objects or toys which they can mouth?		
19. When should mothers begin to look at children's books with their children?	4–6 months	3
20. When should mothers begin to give children clean and safe household items to play with?	4–6 months	n/a

*Component 1: cognitive and social-emotional development of young infants; component 2: cognitive and social emotional development of toddlers; component 3: gross and fine motor development.

Scoring

The range of scores is 0–40 with higher scores indicating more knowledge (maybe increased to 42).

Answers that fall within the correct range are given 2 points.

Answers that fall 1 month below or above the correct ranges are given 1 point;

All other answers are considered incorrect and receive 0 points.

At end line more questions will be added in line with what will be taught.

SECTION F: Child Nutrition and Health

"Now I will ask you questions about some specific foods your child ate. Please tell me for each food whether your child ate it yesterday?"		
F1	Roller-meal porridge or nshima?	1 No 2 Yes
F2	Breakfast-meal porridge or nshima?	1 No 2 Yes
F3	Rice, or bread?	1 No 2 Yes
F4	Jiggies or biscuits?	1 No 2 Yes
F5	Pumpkin (not including leaves), carrots or sweet potatoes?	1 No 2 Yes
F6	Irish potato or cassava?	1 No 2 Yes
F7	Vegetable leaves, e.g., pumpkin leaves, cassava leaves, spinach, kale or rape?	1 No 2 Yes
F8	Fruits, e.g., mango, paw-paws, orange, banana, guava wild fruit such as masuku?	1 No 2 Yes
F9	Other vegetables, e.g., eggplant, cabbage?	1 No 2 Yes

F10	Beef or goat meat?	1 No 2 Yes
F11	Chicken?	1 No 2 Yes
F12	Fish or dried fish?	1 No 2 Yes
F13	Other meat, e.g., field mice	1 No 2 Yes
F14	Soya pieces	1 No 2 Yes
F15	Eggs	1 No 2 Yes
F16	Any food made from groundnuts, beans, soybeans, lentils, cowpeas?	1 No 2 Yes
F17	Breastmilk?	1 No 2 Yes
F19	Animal milk, cheese, or yogurt?	1 No 2 Yes
F20	Oil, vegetable oil, or butter (including food made with it)?	1 No 2 Yes
F21	Infant formula?	1 No 2 Yes
F22	Fortified cereals purchased?	1 No 2 Yes
F23	Yummy soy?	1 No 2 Yes
F24	Other [specify]?	.....
F25	In the past [4 wks/30 days] was there ever no food to eat of any kind in your house because of lack of resources to get food?	1 No 2 Yes
F26	If yes to F25, how often did this happen in the past [4 wks/30 days]?	1 Rarely (1-2) 2 Sometimes (3-10) 3 Often (11+)
F27	In the past [4 wks/30 days] did you or any household member go to sleep at night hungry because there was not enough food?	1 No 2 Yes
F28	If “yes to F27, how often did this happen in the past [4 wks/30 days]?	1 Rarely (1-2) 2 Sometimes (3-10) 3 Often (11+)
F29	In the past [4 wks/30 days] did you or any household member go a whole day and night without eating anything at all because there was not enough food?	1 No 2 Yes

F30	If yes to F29, how often did this happen in the past [4 wks/30 days]?	1 Rarely (1-2) 2 Sometimes (3-10) 3 Often (11+)
"Now I will ask you some questions regarding health services your child recently received."		
F31	Has the child had fever in the past two weeks?	1 No 2 Yes
F32	Has the child had diarrhea in the past two weeks?	1 No 2 Yes
F33	Has the child had a cough in the past two weeks?	1 No 2 Yes
F34	Has the child had difficulty breathing in the past two weeks?	1 No 2 Yes
F35	Overall, how would you rate the child's health today?	1 Poor 2 Fair 3 Good 4 Very good 5 Excellent
F36	When was the last time you took the child to visit a health facility?	dd/mm/yyyy
F37	Did the child sleep last night under a bed net last night?	1 No 2 Yes
F38	Are you currently attending any women or mother groups, i.e. groups where you talk about savings, child care of other issues?	1 No 2 Yes
F39	If yes to F38: what kind of group is this?	1 Mother's group 2 Savings 3 Church/religious 4. Agricultural/ganyu
F40	If yes to F38: how often does the group meet?	1 5+ times per month 2 4 times per month 3 2-3 times per month 4 1 time per month 5 < 1 time per month
F41	If yes to F38: how often do you attend the group?	1 Every time they meet 2 Most of the times they meet 3 About half of the time 4 Only rarely

F42	If yes to F38: what is your main challenge in attending the group (select only one)	1 Distance 2 Busy with children 3 Busy with work/chores 4 Husband or others do not allow 5 Other [specify] .....
F43	Does the household have any soap or ash in the house now for handwashing?	1 None 2 Soap 3 Ash
F44	Yesterday, how many times did you wash your hands using soap or ash?	___ times
F45	Do you usually wash your hands with soap or ash before preparing food?	1 None 2 Soap 3 Ash
F46	Do you usually wash your hands with soap or ash before eating food?	1 None 2 Soap 3 Ash
F47	Do you usually wash your hands with soap or ash after changing the babies' nappy?	1 None 2 Soap 3 Ash
F48	Do you usually wash your hands with soap or ash after going to the bathroom/toilet?	1 None 2 Soap 3 Ash

Thank you for answering this interview!

b. Qualitative data collection: Focus group discussion questions (at baseline)

Duration: 1 hour
Introduction:

Hello, I'm Mwaba from ZCHARD and assisting me is…….. my colleague. I will guide the discussions and my partner will write down most of what will be discussed.

We are here to talk about what you think about the lessons that you offered either at the clinic during under-five visits and the Saving Brains (SB-II) mother groups. You were selected because you received the lessons in phase II of the Saving Brains project and you attended most of these mother group meetings.

Please, remember that participation is voluntary. If you feel you do not want to take part in these discussions, you are free to leave any time.

I have laid down some ground rules to guide this discussion:

- There are no wrong or right answers here only differing views. The goal is to hear and share views, therefore I encourage everyone to talk and respond freely. Keep in mind that we're just as interested in negative comments as well as positive comments.

- We ask that you please turn off your phones or put them on silent just for this hour. If you must respond to a call, please do so as quietly as possible and rejoin us as quickly as you can.

We will be recording this session using a microphone as we don't want to miss any of your comments. Also, we will be using numbers to identify ourselves today, so that you may be assured of complete confidentiality. We've placed number cards on the table, for which I will ask each one to pick randomly. The number you pick is what we will identify you by for the duration of this meeting.

To this end, we will not use any names in our reports. The reports will serve to help us plan future community programs like this one.

Phase I and Phase II: Endline Questions

Questions:

1. What do think is the role of a mother? Do you think mothers of this community do that?
2. What are your views about the lessons offered during this study (or SB-II)?
3. Do you think there is any difference between these lessons and those you have received elsewhere (e.g. under-five clinic)? If yes, what made them different? If not, why do you think there was no difference?
4. What was your experience during these lessons?
5. Have you learnt anything new in these lessons that you did not know before? Explain
6. Is there anyone else that you have shared this knowledge with that is not in the study? If yes, who?
7. Do you think there is a difference between mothers in these classes and those who are not? How?
8. Do you think you have benefited from these lessons? If yes, how have you benefited? If not, why do you think this is the case?
9. Do you think your child has benefited from your attending these lessons? How?
10. What did you like most about the lessons?
11. What did you not like about the lessons?
12. If you could change something about the lessons, what would it be?
13. Are there any other comments?

Thank you!

Phase II: Questions (before categorization into control and experimental groups)

Questions:

1. What do think is the role of a mother?
2. Do you think mothers of this community do that?
3. Do you think you share the same views as most mothers in your community?
4. If necessary what can we do to change their thinking?
5. What are your views about the lessons offered at the clinic?
6. What have you learnt from them?
7. Are you in any groups, that look at child care?
8. Would you like to take part in any groups or programmes that talk about child care? Why?
9. Do these lessons make any difference in your lives?
10. What can be done so that mothers should start following what they learn at the clinic?
11. What do you know about early childhood development?
12. If you could change something about the lessons, what would it be?
13. Are there any other comments?

Thank you!

8.2.3. Endline data collection tools (Phase II only)

a. Quantitative data collection: Questionnaire Quantitative data collection: Caregiver Knowledge of Child Development Inventory merged with Knowledge, Attitudes and Practices survey and secondary caregiver questions(CK-CDI/KAPS/SC)

Child Development and Nutrition Survey
[For use at Endline]
SECTION A: GENERAL IDENTIFICATION

A1.	**Mother's STUDY ID Number**	*(range from 010-060)*
A2.	**Enumerator's Name**	
A3.	**Date of interview**	dd/mm/yyyy
A4.	Child birth date	dd/mm/yyyy
A5.	Child sex	1 Male 2 Female
A6.	Interview Language	1 Tonga 2 Lozi

		3 English 4 Other

SECTION B: Informed Consent

B1.	Mother has consented	1 No 2 Yes
B2.	Mother has consented on behalf of dependent (secondary caregiver)	1 No 2 Yes

SECTION C: Participant Information

C1.	Birth date	dd/mm/yyyy
C2.	Marital status	1 Married 2 Single 3 Divorced 4 Widowed
C3.	Employment status	1 unemployed 2 formal employment [i.e. teacher, medical personnel, janitor, etc] 3 Informal employment [i.e. business, farming, etc]
C4.	Number of people in household	……..
C5.	Number of children in the household	…….
C6.	How many children do you have?	…….
C7.	Number of children under five	……
C8.	Level of education	1 No education 2 Primary 3 Basic 4 Secondary 5 College 6 University
C9.	Father's employment status	1 unemployed 2 formal employment [i.e. teacher, medical personnel, janitor, etc] 3 Informal employment [i.e. business, farming, etc]
C10.	Father's education level	1 No education 2 Primary 3 Basic 4 Secondary 5 College 6 University

SECTION D: PRACTICE

In the past 3 days, did you or any household member engage in any of the following activities with the child?

D1	Read books or looked at picture books with the child?	1 No 2 Yes
D2	Told stories to the child?	1 No 2 Yes
D3	Sang songs to the child or with the child, including lullabies?	1 No 2 Yes
D4	Took the child outside the home, compound, yard, or enclosure?	1 No 2 Yes
D5	Played with the child?	1 No 2 Yes
D6	Named, counted, or drew things to or with the child?	1 No 2 Yes
HOME Inventory: "We are interested in knowing the kinds of things you and your children do in the home on a regular basis. I'm going to ask you questions about you and [name]."		
D7	How many children's toys are there in your household in total?	……..
D8	Of the above, how many home made toys does your child have?	……
D9	Of the above, how many purchase (store bought) toys does your child have?	
D10	Does the child have a push along or pull along toy?	1 No 2 Yes
D11	Does the child have a large muscle toy like a big ball or truck?	1 No 2 Yes
D12	Does the child have a cuddly toy or role playing toy?	1 No 2 Yes
D13	Do you have something that you give to [name] to play with you or another member of the family that is made from things in the house?	1 No 2 Yes
"Some parents are very busy and it is difficult for them to find time to do things with their child. I'm going to ask you about some things you might do with your child."		
D14	Do you have time to play with toys with [name]?	0 Child has no toys 1 No 2 Yes
D15	If yes to D14: how often?	__times per__ (unit)

D16	Do you play any other games with [name] (e.g. hide and seek, amina (pat-a-cake), action songs (kambelele kalilalila-meemee))?	1 No 2 Yes
D17	If yes to D16: how often?	__times per__ (unit)
D18	Do you ever sing with [name]?	1 No 2 Yes
D19	If yes to D18: how often?	__times per__ (unit)
D20	Parents are often very busy. When you are working in the house, like cleaning or washing, do you chat with [name] while you work?	1 No 2 Yes
D21	If yes to D20: how often?	__times per__ (unit)
D22	Do you ever read to [name] or look at pictures in a book?	1 No 2 Yes
D23	If yes to D22: how often?	__times per__ (unit)
D24	Do you ever tell [name] stories?	1 No 2 Yes
D25	If yes to D24: how often?	__times per__ (unit)
D26	Do you eat with your child?	1 No 2 Yes
D27	If yes to D26: how often?	__times per__ (unit)
D28	When you are feeding your child, how often do you talk to them?	1 Never 2 Sometimes 3 Always
D29	When you talk to your child, how often do you think they understand what you are saying?	1 Never 2 Sometimes 3 Always
D30	What do you talk to your child about?	…… ……..
D31	**[Observe, don't ask question]:** Mother keeps tabs on child's whereabouts by brief physical checks while he is playing in another room or looks at him often if nearby.	1 No 2 Yes
D32	When you have to go out who looks after [name]? When mother is away care is provided by one of two regular substitutes (older than 15 years)	1 No 2 Yes
D36	Does [name] have a special place in which to keep his toys and treasures? [must be accessible]	1 No 2 Yes
D37	**[Observe, don't ask questions]:** Parent communicates clearly with visitor. Not difficult to understand.	1 No 2 Yes
D38	**[Observe, don't ask questions]:** Parent expresses ideas freely and easily and uses statement of appropriate length for conversation (gives more than brief answers).	1 No 2 Yes

D39	**[Observe, don't ask questions]:** Parent initiates verbal interchange with visitor - asks questions, makes spontaneous comments.	1 No 2 Yes
D40	**[Observe, don't ask questions]:** Parent spontaneously vocalizes to child at least twice during visit (not scolding).	1 No 2 Yes
D41	**[Observe, don't ask questions]:** Parent usually responds verbally to child's speech (can be a word or a few words, if child does not vocalize during visit score minus).	1 No 2 Yes
D42	**[Observe, don't ask questions]:** Parent tells child name of object or person during visit.	1 No 2 Yes
D43	**[Observe, don't ask questions]:** Parent praises child's qualities twice during visit.	1 No 2 Yes
D44	**[Observe, don't ask questions]:** Parent caresses, kisses or hugs child during visit (simple signs of affection count e.g. hold hand, stroke head).	1 No 2 Yes
D45	**[Observe, don't ask questions]:** When speaking about child, parent's voice conveys positive feelings.	1 No 2 Yes
D46	**[Observe, don't ask questions]:** Parent responds positively to praise of child by visitor.	1 No 2 Yes
D48	Children can be very troublesome at times. Do you ever have to slap or beat [name]?	1 No 2 Yes
D49	If yes to D48: Over the past week, how many times did you have to do this? [Parent reports no more than one instance of physical punishment in past week]	__times per week
D50	**[Observe, don't ask questions]:** Parent does not shout at child during visit.	1 No 2 Yes
D51	**[Observe, don't ask questions]:** Parent does not express overt annoyance with or hostility towards child or complain that child is troublesome.	1 No 2 Yes
D52	**[Observe, don't ask questions]:** Parent does not scold or criticize child more than once during visit.	1 No 2 Yes
D53	**[Observe, don't ask questions]:** Parent does not interfere in the actions of the child or restrict his movements more than 3 times during the visit (not counting restrictions to protect the safety of the child).	1 No 2 Yes

D54	**[Observe, don't ask questions]**: Parent does not slap or spank child during visit.	1 No 2 Yes
D55	Does father/father figure help to look after the child every day?	1 No 2 Yes
D57	Do you and father/father figure eat at least 1 meal per day with [name] together?	1 No 2 Yes
D59	Does [name] have his/her own books?	1 No 2 Yes
D60	If yes to D59: how many books? [score "yes" if child has 3 or more children's books. Do not count school books.]	1 No 2 Yes
D62	Sometimes adults taking care of children have to leave the house to go shopping, wash clothes, or for other reasons and have to leave young children. How many days in the past week was [name] left alone for more than an hour with no one watching?	__times
D63	How many days in the past week was [name] left in the care of another child, that is, someone less than 10 years old, for more than an hour?	__days
D64	How often do you talk to friends or other mothers about your child?	__times per week

SECTION E: KNOWLEDGE OF PARENTS (CKCDI)
Now we are going to ask you a few questions about a child's development.

E1.	When does a child's brain begin to develop and learn?	…….
E2.	When do children begin to see?	……..
E3.	When do children begin to follow a moving person or toy, with their eyes?	……
E4.	When do children begin to vocalize in response to someone talking to them?	**……**
E5.	When do children begin to smile socially, that is smile into the face of another person?	……
E6.	When do children begin to say single meaningful words?	……..
E7.	When do children begin to play imaginary play like feeding a doll or driving a toy car?	……..
E8.	When do children begin to reach for a toy, cup or plate in front of them?	……..

E9.	When do children begin to grasp tiny things like groundnuts, with their fingertips?	……
E10.	When do children begin to walk alone with good co-ordination?	……
E11.	When should mothers start giving their children charcoal or sticks to draw in the sand?	……
E12.	When should mothers begin to show look at pictures with her child and also show the child objects in the environment?	…….
E13.	When should a mother begin to allow her child to play with other children?	…….
E14.	When should mothers allow their children to start sitting without support?	…….
E15.	At what age should a mother start talking to their child?	…….
E16.	When should mothers begin to show colourful objects to children to help them practice reaching?	…….
E17.	When should mothers begin to teach children to count?	……..
E18.	When should mothers begin to teach children colours?	……
E19.	When should mothers start to allow children to eat by themselves?	……
E20.	When should a mother begin to give children clean and safe household items to play with?	……
	Total score out of 40	…….

[Now I'm going to ask you questions about what you have learnt on child development and Nutrition]

E21.	When does a child begin to imitate adult actions?	**1. Birth-2 months** **2. 3-6 months** **3. 1-2 years** **4. 3-4 years +**
E22.	When does a child begin to develop friendships?	**1. Birth-2 months** **2. 3-6 months** **3. 1-2 years** **4. 3-4 years +**
E23.	When is the child able to speak and understand words and ideas?	**1. Birth-2 months** **2. 3-6 months** **3. 1-2 years** **4. 3-4 years +**

E24.	How many areas of development are there in which the child needs to grow?	**1. 0** **2. 1** **3. 2** **4. 4**
E25.	How many food groups are needed to create a balanced meal?	**1. 0** **2. 1** **3. 3** **4. 4**
E26.	A two year old child needs to have……. Number of meals in a day.	**1. 2** **2. 0** **3. 3** **4. 5**
	Answer the following with True/ False	
E27.	Cognitive development looks at how the child thinks.	**T/F**
E28.	A mother's role is to guide, feed and protect	**T/F**
E29.	Playing with a child is a waste of time	**T/F**
E30.	Stunting does not show that a child has poor nutrition	**T/F**
E31.	There is no difference between stunting and wasting.	**T/F**
E32.	Stunting is not the same as dwarfism.	**T/F**
E33.	The stunted height is different for both girls and boys.	**T/F**
E34.	A mother needs to talk to her child during feeding to teach the child how to talk.	**T/F**
E35.	Children learn through play	**T/F**
E36.	At 2 years, a child is able to listen and understand what is being said.	**T/F**
E37.	A mother needs to look into the child's eyes and talk to her/ him during feeding.	**T/F**
E38.	A child will still grow healthy without a diverse balanced diet	**T/F**
E39.	A child's nutrition status has an impact on that child's relationship with the mother.	**T/F**
E40.	If I don't have chlorine, then I won't be able to purify my drinking water	**T/F**
E41.	I only need to wash my hands with soap, after using the toilet.	**T/F**
E42.	A good mother should let her child play all day	**T/F**
E43.	Play is important for the child's development	**T/F**
E44.	The mother alone should be involved in the child's care for good development to happen	**T/F**
E45.	A mother should never respond to what the child wants.	**T/F**
E46.	A mothers needs to look after herself as well in order to better take care of her children	**T/F**

E47.	A child does not learn anything through storytelling, it is a waste of time	**T/F**
	Total score out of 47	

SECTION F: Child Nutrition and Health

"Now I will ask you questions about the same specific foods your child ate. Please tell me for each food whether your child ate it yesterday?"

F1	Roller-meal porridge or nshima?	1 No 2 Yes
F2	Breakfast-meal porridge or nshima?	1 No 2 Yes
F3	Rice, pasta, or bread?	1 No 2 Yes
F4	Jiggies or biscuits?	1 No 2 Yes
F5	Pumpkin (not including leaves), carrots or sweet potatoes?	1 No 2 Yes
F6	Irish potato or cassava?	1 No 2 Yes
F7	Vegetable leaves, e.g., pumpkin leaves, cassava leaves, spinach, kale or rape?	1 No 2 Yes
F8	Fruits, e.g., mango, paw-paws, orange, banana, guava wild fruit such as masuku?	1 No 2 Yes
F9	Other vegetables, e.g., eggplant, cabbage?	1 No 2 Yes
F10	Beef or goat meat?	1 No 2 Yes
F11	Chicken?	1 No 2 Yes
F12	Fish or dried fish?	1 No 2 Yes
F13	Other meat, e.g., field mice	1 No 2 Yes
F14	Soya pieces	1 No 2 Yes
F15	Eggs	1 No 2 Yes
F16	Any food made from groundnuts, beans, soybeans, lentils, cowpeas?	1 No 2 Yes
F17	Breastmilk?	1 No 2 Yes
F19	Animal milk, cheese, or yogurt?	1 No 2 Yes
F20	Oil, vegetable oil, or butter (including food made with it)?	1 No 2 Yes

F21	Infant formula?	1 No 2 Yes
F22	Fortified cereals purchased?	1 No 2 Yes
F23	Yummy soy?	1 No 2 Yes
F24	Other [specify]?	1 No 2 Yes
F25	In the past [4 wks/30 days] was there ever no food to eat of any kind in your house because of lack of resources to get food?	1 No 2 Yes
F26	If yes to F25, how often did this happen in the past [4 wks/30 days]?	1. Rarely (1-2) 2. Sometimes (3-10) 3. Often (11+) ***Not applicable***
F27	In the past [4 wks/30 days] did you or any household member go to sleep at night hungry because there was not enough food?	1 No 2 Yes
F28	If "yes to F27, how often did this happen in the past [4 wks/30 days]?	4. Rarely (1-2) 5. Sometimes (3-10) 6. Often (11+) ***Not applicable***
F29	In the past [4 wks/30 days] did you or any household member go a whole day and night without eating anything at all because there was not enough food?	1 No 2 Yes
F30	If yes to F29, how often did this happen in the past [4 wks/30 days]?	7. Rarely (1-2) 8. Sometimes (3-10) 9. Often (11+) ***Not applicable***
"Now I will ask you some questions regarding health services your child recently received."		
F31	Has the child had fever in the past two weeks?	1 No 2 Yes
F32	Has the child had diarrhoea in the past two weeks?	1 No 2 Yes
F33	Has the child had a cough in the past two weeks?	1 No 2 Yes
F34	Has the child had difficulty breathing in the past two weeks?	1 No 2 Yes

F35	Overall, how would you rate the child's health today?	1 Poor 2 Fair 3 Good 4 Very good 5 Excellent
F36	When was the last time you took the child to visit a health facility?	dd/mm/yyyy
F37	Did the child sleep last night under a bed net last night? ***[answer F38, if answer is No]***	1 No 2 Yes
F38	If Not; why?	.....
F38	Are you currently attending any women or mother groups, i.e. groups where you talk about savings, child care of other issues?	1 No 2 Yes
F39	If yes to F38: what kind of group is this?	1 Mother's group 2 Savings 3 Church/religious 4. Agricultural/ganyu
F40	If yes to F38: how often does the group meet?	1 5+ times per month 2 4 times per month 3 2-3 times per month 4 1 time per month 5 < 1 time per month
F41	If yes to F38: how often do you attend the group?	1 Every time they meet 2 Most of the times they meet 3 About half of the time 4 Only rarely
F42	If yes to F38: what is your main challenge in attending the group (select only one)	1 Distance 2 Busy with children 3 Busy with work/chores 4 Husband or others do not allow 5 Other [specify]
	Sanitation Behaviours	
F43	Does the household have any soap or ash in the house now for hand washing?	1 None 2 Soap 3 Ash
F44	Yesterday, how many times did you wash your hands using soap or ash?	___ times

F45	Do you usually wash your hands with soap or ash before preparing food?	1 None 2 Soap 3 Ash
F46	Do you usually wash your hands with soap or ash before eating food?	1 None 2 Soap 3 Ash
F47	Do you usually wash your hands with soap or ash after changing the babies' nappy?	1 None 2 Soap 3 Ash
F48	Do you usually wash your hands with soap or ash after going to the bathroom/toilet?	1 None 2 Soap 3 Ash

SECTION G: Secondary Caregiver's knowledge

Now I am going to ask you a few questions about what you do with the child when you are at home.	
G1.	What instructions does mommy (or aunt etc)leave when she leaves you with the baby? …… …….
G2.	What do you do if the baby gets sick and mom (or aunty etc) is not around? …… ……..
G3.	How many times do you feed the baby? [can ask for details on what the meals usually consist of] …… …… …… …… …… …….
G4.	What do you do when you feed the baby? [for example, you talk to the child during feeding or stay silent and so on] …… …… …… …… ……..
G5.	Are the instructions she leaves different from the ones she used to give before (let's say more than two weeks ago)? …… …… …… …… ……
G6.	Is there anything you are doing that you never used to do before (say more than two weeks ago)? [If YES, specify]

	…… …… …… …… …… ……..

Thank you for answering this interview!

b. Qualitative data collection: focus group discussions with participants from both arms

-Refer to section b (Phase I and II endline questions) as the same questionnaire was used at endline for both arms.

8.3. Appendix C: Curriculum developed at Phase I

8.3.1. Buntu Mboongo curriculum

THE EARLY CHILDHOODDEVELOPMENT PARTICIPATORY THEATRE BASED CURRICULUM [BUNTU MUBO'ONGO]

FACILITATOR'S MANUAL

A researcher's guide

[Draft Version 2]

Mwaba Moono Chipili*, Erricah Silukaye, Susan Ng'andu, Loveness Shanabuchinga, Lydia Muleya, Mirror Michelo, Arianna Zanolini and Bowen Banda.

2016/7

In Collaboration with AIR and ZCHARD for the Saving Brains Project

Buntu Mubo'ongo Facilitator's Manual: A researcher's guide.

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Cover page picture taken by Mwaba Moono

Chipili

***In Collaboration with AIR and ZCHARD for the Saving Brains Project Phase* II**

2016/7

Contents

Zambian children under age 5 face multiple obstacles with respect to their survival and development.[1] Currently, weight and height for age measures show that forty percent of children under age 5 are stunted, 6 percent are wasted, and 15 percent are underweight. [2] It is a critical issue in addition to exposure to infectious diseases, poor sanitation, unhealthy environments and various problems growing children are likely to face. This implies that there is a need for early childhood care and education (ECCE) programs with an integrated and holistic approach[3] as a large body of evidence that shows that such programs – including kindergartens and parenting programs have a powerful effect on improving children's health, cognitive development, and social and emotional development.[4] As such ECD programmes are few in the Zambian context[5] interventions such as the *Improving Early Childhood Development (ECD) in Zambia project* have been embarked on. It is in the second phase of this study [also known as Saving Brains] that this curriculum was developed.

Studies have shown that the level of knowledge a mother has about child growth and a development has an impact on her child's wellbeing.[6] As non interactive methods of information dissemination have proved not to be as effective with regard to interventions focusing on behaviour change[7][8], creative and visual stimuli like pictures, diagrams, colours and physical activities have been adopted as these tend to

increase the effectiveness of dialogue in any group regardless of education levels.[9] This curriculum is an attempt to provide support and guidance to help increase caregiver knowledge on child nutrition and stimulation so as to enhance child development in children under the age of five.

The *Buntu Mubo'ongo curriculum* served as a medium through which ECD knowledge on nutrition and stimulation was implemented in the Saving Brains II intervention. This curriculum is based and centred on participatory theatre, available knowledge on ECD as provided by various sources of research as cited and inquiries conducted during this research. It also provides an alternative [not prescriptive] mode of creating dialogue in an intervention.

This curriculum *Buntu Mubo'ongo* prepares the researcher (as a facilitator) as s/he in corroboration with the target participants (or co-learners) to promote child health using local funds of knowledge. This participatory approach gives the target population a sense of ownership which may in turn reduce the sense of alienation that participants may feel in learning environments as an exchange of knowledge occurs.

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[1] Central Statistical Office (CSO) [Zambia], Ministry of Health (MOH) [Zambia], and ICF International. 2014. *Zambia Demographic and Health Survey 2013-14.* Rockville, Maryland, USA: Central Statistical Office, Ministry of Health, and ICF International.

[2] Central Statistical Office (CSO) [Zambia], Ministry of Health (MOH) [Zambia], and ICF International. 2014. *Zambia Demographic and Health Survey 2013-14.* Rockville, Maryland, USA: Central Statistical Office, Ministry of Health, and ICF International.

[3] Ministry of Health (MoH) [Zambia]. 2012a. *Annual Statistical Bulletin*. Lusaka, Zambia: Ministry of Health.

[4] United Nations Children's Fund (UNICEF; 2014) Study of parental knowledge, attitudes and practices related to early development: Solomon islands. UNICEF

[5] Education for All 2015 National Review Report: Zambia.

[6] Central Statistical Office (CSO) [Zambia], Ministry of Health (MOH) [Zambia], and ICF International. 2014. *Zambia Demographic and Health Survey 2013-14.* Rockville, Maryland, USA: Central Statistical Office, Ministry of Health, and ICF International.

[7] Serpell, R. (1993). *The significance of schooling: life-journeys in an African society*. Cambridge, UK: Cambridge University Press. (Digitally reprinted in 2010).

[8] Rockers, P., Fink,G. & Levenson, R. (2016, June 2) Tools to Improve Parental Recognition of Developmental Deficits in Children. Paper presented at the Innovations for Behavioural Change in Health: Evidence from Zambia conference organised by American institute for Research (AIR) in collaboration with Millennium Challenge Account Zambia, Lusaka, Zambia.

[9] VSO (n.d) Participatory approaches: A facilitator's guide. Retrieved on 29th July, 2016 from: http://community.eldis.org/.59c6ec19/VSO_Facilitator_Guide_to_Participatory_Approaches_Principles.pdf

Training with the Buntu Mubo'ongo Curriculum

Materials needed to support learning using this curriculum:

- A researcher's manual [required] to provide guidance and rationale for activities in the curriculum.
- A participant's manual [required] for use by participants during learning sessions[10] and for home use.
- An activity list [optional] for use by both the facilitator and participants.
- Materials checklist [optional] for use by facilitator.
- A facilitator trained in facilitation in participatory theatre (this includes theatre of the oppressed techniques and popular theatre)

Curriculum Goals and

Constraints Goals

The overall goals of this curriculum are to:

- Provide a mode of learning that is not only interactive but incorporates indigenous modes of information dissemination in an ECD intervention.
- To act as a guide for the researcher who seeks to use participatory theatre as a means of dissemination in an ECD intervention.

Other goals are to:

- Provide additional information with regard to child nutrition and stimulation.
- Encourage playful interactions between child and caregiver [mother, sibling, father or adult involved in child's care].
- Use materials from the immediate environment to provide adequate nutrition and stimulation for development.

In this case a participatory approach as well as the use of participatory theatre helps achieve these goals.

Constraints

This curriculum is adapted to specific settings (Choma and Pemba) in the southern province of Zambian. It is therefore, important that the researcher takes note of their context of study before employing some of the activities in this curriculum. Some activities have also been renamed to avoid or reduce issues arising from cultural superstitions; hence the researcher will need to go through original sources to be able to effectively incorporate the activities into their target contexts of study.

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[10] Called learning sessions as it is bidirectional in this course, both the facilitator and the participant will acquire and share knowledge.

Training

- Course Outline
- Course needs:
    - Facilitator
    - Facilities
    - Materials Checklist [not yet included]

Course Outline

This curriculum consists of lessons centred on child development stimulation and nutrition. Activities largely include the use of participatory theatre (PT) and cooperative enquiry through prompts (a participatory action research (PAR) method)

as a means of gaining information when conducting the learning sessions and workshops.

Lesson One: Introduction to Early Childhood Development

Synopsis: This lesson talks about the community's involvement and role in raising a child. It will serve as an introduction to what will be taught about child development as well as the method to be employed as well as a form of gauging what the participants know about nutrition and stimulation with regard to child development. Three huts and a dice will be moulded to create a homework giving activity.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* and *popular theatre* have be adapted by the primary investigator to suit this context, word games, clay moulding, singing and dancing as well as active story telling.

Lesson Two: Stunting

Synopsis: This lesson seeks to address the issue of nutrition status as indicated by the child's height. Here it is noted that being underweight, discoloration of hair and other basic indicators of malnutrition in children are not the only forms through which it can be noted. Causes of stunting as well as ways of prevention are discussed. Height charts will be guided by the World Health Organisation (WHO) charts for girls and boys by age.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* have be adapted by the primary investigator to suit this context, height chart making exercise, word and dice games, singing and dancing as well as active story telling.

Lesson Three: Cognitive development

Synopsis: this lesson talks about the role of a mother in stimulating good child development using games as well as talking to the child. This is largely encouraging of playful interaction between child and family members as well as discussing and doing activities that enhance child cognitive and language development that can be done with the child even as the caregiver goes about their daily chores.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* have be adapted by the primary investigator to suit this context, word and dice games, butume exercises, book making, singing and dancing as well as active story telling.

Lesson Four: Language Development

Synopsis: this lesson looks at how language development can be stimulated through mother to child talk about past events, songs, rhyming and poetry. Encourages mother to make feeding time an adventure for the child to encourage child to eat as well as promote language development at a critical time (since feeding is one of the child's most important events aside from play).

Activities include: games and exercises from the *arsenal of theatre of the oppressed* have be adapted by the primary investigator to suit this context, feeding exercise game, word and dice games, singing, poetry, rhymes and dancing as well as active story telling.

Lesson Five: Water, sanitation and hygiene

Synopsis: this lesson looks at the dangers of unsanitary habits or practices and their link to stunting. It also discusses alternative methods water purification using readily available cost free methods.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* have be adapted by the primary investigator to suit this context, physical, word and dice games, erranding exercise, book making, singing, poetry, rhymes and dancing as well as active story telling.

Lesson Six: Physical development

Synopsis: this lesson talks about how exercise is integral to the physical wellbeing of the child. It notes that play is how this exercise is carried out, and thus it is important that all children play in one form or the other. At this age, mother serves as the guide for how long this play goes on and what type of play it is.

Activities include: relaxation and trust building exercises (by Augusto Boal though they will be adapted by the primary investigator to suit this context), feeding, exercise, word, physical and dice games, singing and dancing as well as active storytelling and play acting.

Lesson Seven: Nutrition (feeding practices)

Synopsis: this lesson looks at how to prepare a healthy balanced meal for the child, number of meals a day that the child should have, and planning for a meal.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* and *popular theatre* have be adapted by the primary investigator to suit this context, feeding exercise, word, physical and dice games, singing and dancing as well as active storytelling and play acting.

Lesson Eight: Preparing a balanced meal

Synopsis: this lesson act s as a practical for lesson 7. Here a meal is prepared correctly using locally available foods depending on the season. Preparation includes observation on how to make sure food is clean and nutrients are not lost due to overcooking.

Activities included: cooking and feeding

Lesson Nine: Social emotional development *[focus on the mother's well being]*

Synopsis: this lessons looks at the emotional health of the family, especially the mother who in most cases is the primary caregiver, will affect the child's emotional regulation abilities. It asserts that a family has a role to play in the child's social emotional development.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* have be adapted by the primary investigator to suit this context, word, physical and dice games, singing and dancing as well as active storytelling and play acting.

Lesson Ten: Social emotional development [*focus on the child's well being***]**

Synopsis: this lesson looks at how a well regulated child, that is, one whose environment has been made conducive for healthy growth, is able to develop meaningful and healthy relationships and interactions.

Activities include: games and exercises from the *arsenal of theatre of the oppressed* and *popular theatre* have be adapted by the primary investigator to suit this context, word, physical and dice games, singing and dancing as well as active storytelling and play acting.

Lesson Eleven: Recap on lessons learnt

Synopsis: this lesson serves as an evaluation the curriculum according to the participant's views. Here lessons are discussed and favourite activities are repeated.

Activities include: Any activities from previous lessons as selected by the participants.

Lesson Twelve: Performance [Optional]

Synopsis: This curriculum is embedded in participatory theatre, hence the entire process is treated as if the participants are preparing for a big show. In this case, the entire group prepares performances and a date for the show is set. All the activities, especially the arsenal of theatre of the oppressed and popular theatre are meant to improve group cohesion and provide the participants with skills as actors in the final show.

Facilitator [Requirements]

- Facilitators need to have an understanding of a comprehensive participatory theatre (PT) and it's aesthetics before they are allowed to facilitate these learning sessions.

- If working as part of a participatory workshop, refresher trainings for facilitators should be organized at least every 6 weeks of optimal delivery of information to occur, especially if they have had no prior experience with this method. The first workshop should last at least a week; then follow-ups can occur.

  Note: These sessions do not need to be as intensive as the first ones and serve as a means of monitoring if methods of facilitation taught are what is being done; unless the trainer observes the need. However, it is expected and of highest importance that all facilitators keep themselves updated about technical issues covered in participatory theatre as part of their development.

- Each session requires two facilitators. The team of two facilitators per group should clarify who is facilitating which part of the activities/discussions beforehand. It is fine if one of the facilitators takes a lead role in conducting the activities while the other one assists (e.g. by note taking, demonstrations of certain activities, distributing learning manuals and ensuring materials needed for that session are available) or if both share the activities and change roles throughout the station. It is crucial that the two facilitators agree and rehearse in advance who does what. Both facilitators are responsible for what happens during the learning session.

- The facilitators act as a well coordinated and strong team in order to optimally support the participants and serve as role models for a constructive way of communication. During each session, the facilitators are to guide the participants through the lesson, which consists of different activities and materials to promote a discussion and interaction among participants and the facilitators related to the respective key messages.

  Note: Each facilitator has a different personality with strengths and weaknesses. It is recommendable to be aware of your own strengths when taking over the role of a facilitator in this curriculum. Often it is particularly easy for two facilitators to successfully cooperate, if their strengths complement each other.

Facilities

- This curriculum can be taught in any safe environment [either outdoors or indoors]. It has no structural requirements. Location is dependent on the researcher, facilitator or participants

Who is a facilitator?

In this course anyone who guides the learning process of this curriculum is a facilitator.[11] This facilitator will help participants learn the skills presented in the course *The Early Childhood Development Participatory Theatre Based Curriculum [Buntu Mu Bo'ongo].* Participants in this course will learn the skills to needed to raise healthy, capable, and happy children; as well as serve as information base for the facilitator on local aesthetics that can be incorporated in this curriculum so that it may better serve them.

In this curriculum, you will demonstrate what a mother [or primary/secondary caregiver] needs to do, lead discussions, help participants practise skills and give feedback to them as well as receive feedback from them. You will not offer any medical help unless you are qualified to do so. You will give participants any required help they may need to successfully complete the course and learn the skills that will help them improve the development of their children in the community.

The **Participants' manual and the activity checklist** structure the process of learning the information the caregiver will need. Your task is to facilitate their use of these materials and a ratio of two facilitator to 12 or 20 participants is recommended for facilitators to give enough attention to participants in the course to learn information and skills. Two facilitators work as a team with a group of participants.

What do you do, as a facilitator?

Your major responsibilities of the facilitators are to:[12]

- encourage participants to talk and share their own knowledge and to enjoy this;
- encourage participants to reflect their own behaviour and actions;
- provide participants with correct information during discussion segments ONLY if the group does not know the correct answer to a question;
- give options where to get further information and encourage participants to access (family-friendly) health services;
- Give options for behaviour change: widening of choices for protective behaviour taking into consideration the needs of the mother and her child.

Note: *Facilitators are the heart of any good learning session as the success of lessons depends on good facilitation. A facilitator needs to know and practice facilitation skills such as creating a good learning environment, asking the right questions and practice probing and bouncing back of questions during facilitation. A good facilitator should avoid lecturing! Please regularly practice self-reflection based on the recommended participatory facilitation methods.*[13]

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[11] The terms researcher and facilitator will be interchangeable in this manual.

[12] VSO (n.d) Participatory approaches: a facilitator's guide. Retrieved from: http://community.eldis.org/.59c6ec19/VSO_Facilitator_Guide_to_Participatory_Approaches_Principles.pdf

[13] Refer to VSO (n.d.) participatory approaches: a facilitator's guide; and Boal, A. (2005) games for actors and non-actors.

Always Remember to:

- ✧ ***Read through the lessons a day or two before you share it with the participants.***
- ✧ ***take note of the materials you need to access before the lesson occurs.***
- ✧ ***Read through the information bank so that you can summarise the content during the lesson.***

  You don't need to read it word for word.

For your eyes: some colour codes in the lessons

Purple: All notes or guidelines or instructions are directed at you.

Light Blue: Notes in light blue are directed at both you and the participant.

Dark blue: these notes can be shared if you feel the need to.

What will this manual help you to do?

This ***manual*** will guide you through the learning sessions in this curriculum. They indicate how to use the ***lead*** each session. They also describe the ***objectives*** of the lessons, rationale for activities used and a list the ***materials needed*** for the session. They guide you through the ***process*** of a session with the participants.

To prepare yourself for a session:

- Read the ***facilitator's manual***.
- Meet with your co-facilitator to identify what the session requires and who will prepare for which activities.
- Gather and organize the supplies and other materials needed for the session.
- Practise activities, demonstrations, and other activities which are new for you. Especially '***the play of sorts'*** activities.
- Refer to the recommended readings noted in the footnotes for the further clarification, if necessary.
- Identify possible questions participants may ask, and practise how you will answer them.

Lesson 1: A Re-introduction to Early Childhood and Development

It takes a village to raise a child

Objectives:

By the end of this session participants should:

- Reduce anxiety and build trust

- Reaffirm hopes for child's growth
- Learn what early child development is
- Discuss the importance of maternal involvement in ECD
- Know why it is important to integrate ECD learning with nutrition
- Reaffirm why they are here and developmental benefits

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], clay, grass or twigs, old juice bottle [preferably a plastic coke bottle], knife or scissors, plastic wrappers [blue, green and brown], old plank [a plastic or metal sheet can also be used], ball [or soft cloth] and lots of care .

NOTE: *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:

Always remember to begin a session by:

- Greeting the participants and their children.
- Introduce yourself and briefly talk about what the meeting is about.
- Encouraging co-learners to sit in a circle, imitative of a village meeting. If possible the facilitator can have a drum[1] (old pots or buckets can serve as alternatives) present to begin the session.
- Thanking participants for attending this meeting and telling them you are happy to be meeting with them.

[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture, I felt it would be an effective means for signalling to the participants that the session has began as well as getting everyone involved through sound and movement.

[2] This exercise was inspired by notes in Boal, A. (2005) Games for actors and non-actors and Anderson, J., Michel, J & Silverberg, J (2001) Ready for action: A popular theatre/popular education manual, encouraging a warm up before a lesson begins so as ready the learners for learning.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

Relaxation and trust building exercises

Facilitator:

- Ask all to stand, maintaining a circle, and do a stretch exercise.[2] For instance, stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck.
- Encourage mothers to encourage children to stretch as well.

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

***NOTE**: We are doing this to relieve tension, to relax because a mother is supposed to be stress free (be in a good mood, balanced mood/ state) so that she can pay better attention to her child.*

Sing-Along Time

Facilitator, say:

- "Does anyone know a song that talks about raising a healthy child?"
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

Always encourage use of local songs.

Circle of knots exercise[3a]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name (e.g. say: wise

mothers! Or clap hands together or both) when circle is small.[4]

- Then make a big circle once more.

Q&A

Q: Why are we doing this exercise?

A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low.*

Getting to Know Each Other

The Name Game[b]

Please note: This game is most effective for a group that does not know each other very well or a new group However, you still do it even if you already know the co-participant's names. This game helps co learn each other's names in an interesting and active manner. It is important for the facilitator to theme the game. For example, we are going to say our names and act out what we like to do. Or act out what we wish for our children.

[3] Only the first part of this activity, the elastic circle is used.

[4] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non- actors..

Facilitator, say:

- Here, one of us will say their name together with an action. For instance, I can say, 'my name is Luyando' and because I like birds, 'I will imitate a bird by fluttering my wings' (spread out arms and pretend to fly) as I say my name. [So if my name is Luyando and I like to or wish to do something (e.g. cooking) or be able to be someone in future (e.g. a kind mother). I say my name and choose an action that best describes my likes or wishes, then the co-participant either lifts or points or refers to child

and encourages child to say their own name (child may imitate mother's action)].

- The group will then repeat the mother's and or child's name with action. [This helps child develop sense of self (I am me) and others (they are and we are) other than his/her name and those around].
- Now let us all seat down. [In the absence of chairs use vitenges or mats.] Don't forget to maintain the circle.

Variations: game can change, over time in that facilitator can include vocal sounds, clapping, song during which co-participant shouts name, then the child's name and others repeat afterwards. Here other participants can sing back the name and do the action. Another variation could be that participant says their name, or just says out what they wish or hope for themselves and child.

This activity allows mothers to actually think about what they truly want for their child and themselves. It also helps develop concentration, memorization, creativity and motion skills as well as character development (an imagination skill).

Inquiry Questions:

How are you feeling? What do you think about the exercise? Did you understand each other's actions? What did you think about as you did the action? Did it help you think about what they really want for yourself and your child? Do you know why they are here? Why are we meeting? Or what made you come or want to be part of this meeting? Have you had any lessons talking about child health in the past? If yes, what information do you remember?

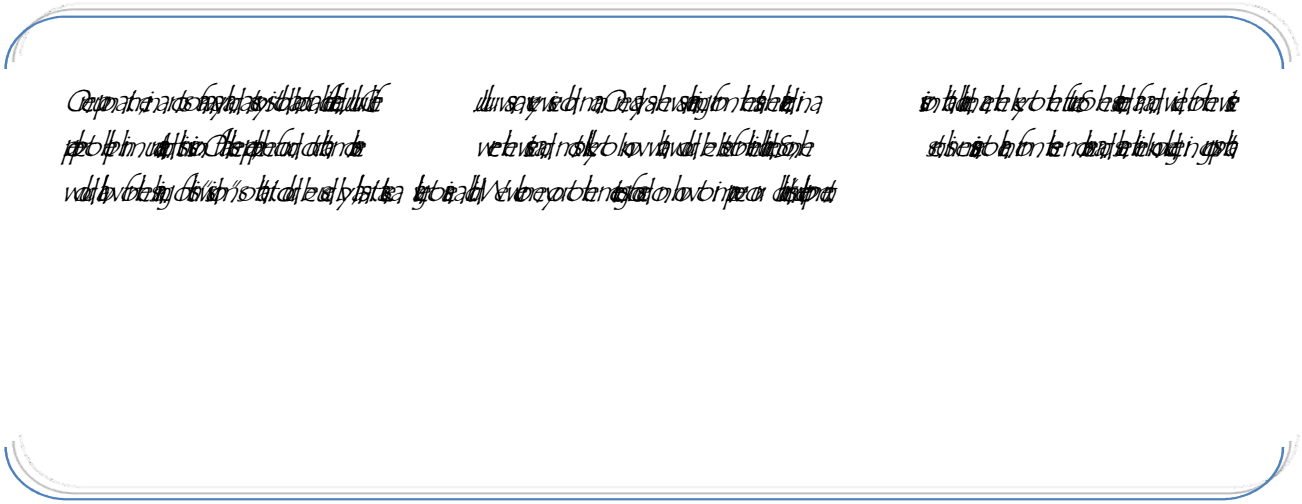
A Throw Down Memory Lane

Materials: a home-made ball [you can tie a soft cloth into a ball if this is not available]

Facilitator:

- Briefly introduce what the groups are about.
- Then add: 'We've all come to learn from each other. Feel free to ask, correct, teach, etc.' *In this case we are here to talk about what early childhood is and what role mothers play in a child's growth.*

A Tale [to be told by facilitator or co-participant] [5cdef]



Then say:

- Now, we will take this time to use the ball of remembrance[6g].
- Here, we will say what we know or remember about child development. For instance, facilitator can use these questions as guides: what do you know about early childhood development? Or what do you think early childhood development means? etc.

[5] Banda (2002) argues that storytelling (a key component of African oral tradition) is a local fund of knowledge through which learning can occur. In this case it also serves as an aesthetic of popular theatre along with songs, fables and other oral forms of communication that are indigenous to African tradition (Kabaso, 2013; Manukonda, 2013;Mlama, 1991) including Zambia.

[6] This activity is named for the passing technique used in acting during character development or learning script (Barton, 2009). In this case, I felt it would work well in gauging how much the participants knew on child development.

- After, I ask a specific question, I will pass the ball to one of you.
- The person holding the ball has to give an answer; then pass the ball to next person who also has to answer.
- We will do this while sitting [or standing, depending on what position we feel like being in] and whoever has the ball says something about child development.

Note: This game can be accompanied by a song and person with the ball when song ends says something.

INFORMATION BANK: EARLY CHILDHOOD DEVELOPMENT (ECD)

[7]

Early childhood development [h]

Early childhood is a critical stage of development (from zero to three years) that forms the foundation for the child's future well-being and learning. It is in this phase that children learn the most, and things that they experience in early childhood will shape who they become. This does not mean that development cannot be stimulated after the age of three.

What are the main areas of development? [i]

The areas of development are– cognitive (thinking ability of child), language (talking), physical or motor (walking, hand movements, and other body movements), and social/emotional (talking, playing with others) – which all contribute to the long-term well-being of the child. It is therefore important to take steps to ensure the growth of child development.

Why is it Important? [j]

These early years of life are a window of opportunity to lay a strong foundation for a child's life. Proper health, nutrition, and early stimulation play a critical role for brain development and child well-being. Around the world, poor children under 5 lag behind their more advantaged peers in physical, language, cognitive, and socio-emotional development. Without access to quality ECD, poor children often fall behind their more advantaged peers before they even begin school. As they get older, the gaps widen: they are likely to perform poorly in school, earn less as adults, and engage in risky social behaviours.

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[7] In this segment, not much information was added as the target participants had already received prior information on ECD. If need be, the facilitator is free to add more detail as long as it is scientifically sound, or reduce the content. This lesson, in this context served more as an introduction to the theatre component.

Supporting early childhood development improves equity improving the health, nutrition, and education outcomes of children.
Children who participate in quality ECD programs **are more ready to learn** when they begin school and are less likely to repeat grades or drop-out of school, which reduces the overall costs of the education system. When they get older, they are more likely to earn more and less likely to engage in crime.

Why should you be involved?[k]

It has been noted that learning is enhanced when parents/family and the early childhood setting work together. By being involved in your children's early learning, parents can improve their children's motivation to learn and thereby enhance their growth potential.

Luyando and Luano: A Story Stem Activity[8l]

Facilitator:

- Here you create a fictional character 'Luyando or Luano' and make a bit of a back story or beginning. For instance: "Luyando was a happy little, who lived in Pemba. Every morning her mother would "
- Then, each person will take turns saying something or adding to this story. For instance, saying something that led to good development of Luyando or the poor development of Luano.
- Then discuss the good or bad aspects of this story and allow for corrections where mistakes were made (misinformation).

Do not be judgemental. Your role as a facilitator is to guide.

Remember*: Use prompts especially if co-participants cannot decide which attributes are healthy or unhealthy. For instance, you could say, 'Do you think that action was good for Luyando or Luano? Or what about that action made you think that it was a healthy or unhealthy choice?*

NOTE: *This story can serve as a basis for discussion on what is known as good nutritional and care giving practice in your context of study. It allows you as a researcher to take note of the basic information that the participants have on a given topic.*

8 This is inspired by the story stem assessment. In this instance, I used it as a source for a verbal representation of what the participants know about what practices lead to healthy or healthy development in a child.

The Mother Hen Activity [9m]

Facilitator:

- Ask all to stand in two lines (queues) then face each other.
- Then tell them that the person they are facing is now their mother in this exercise. This mother must take care of her "young child" and make sure no harm comes to them, for instance bumping into someone, or a stone or tree or wall. The chick is supposed to follow the mother's voice and trust that the mother hen will keep her safe.
- Ask the mother hens, to make chicken sounds (clucking) and approach their chicks (who have to close their eyes), then begin to walk. Mother must make sure that their child is following, able to hear her clearly. The chick must follow the sounds of their mother hen.
- The mother hen make three sounds: a quiet, calm noise for the child to follow, one loud noise to warn of danger so that the chick can stop when faced with "danger"(please note that is no actual danger, do not cause harm or encourage it) and then a humming sound to act as a pretend feeding break.
- The goal is for the mother hen to guide, and protect their chicks without touching them with her hands. Do not force, guide.
- Once this is done (duration, 5-7 minutes), the facilitator can ask the following questions per pair:

Questions

How did you (the 'chick') feel as you were being led? How did you (the 'mother hen') feel as you led your chick? What did you fear? At what point where you really worried? What did you think or do, in that instance?

- And then the one who was the mother hen can now play the role of the young chick and the one who was the chick at first can now become the mother hen.
- Repeat the questions after the switch and exercise is done.

[9] This activity is originally known as Noises in Boal's Games for actors and Non-actors, second edition. However, I renamed it, after observing a hen and its chicks, and added to the rules to suit the goals of this course. In this case this

activity proved very effective in explaining what a mother's role is in her child's life. The mothers and community health workers also felt it was a very relatable concept.

> ***NOTE***: *You as the facilitator act as a guide through this process. You will decide when to start and when it's feeding time. You will also explain the game to other participants as it begins. Perceived danger however will be determined by the" mother hen" who will lead the chick. Only the chick closes its eyes, the mother hen needs her eyes to remain open so that she can see where they (mother and chick) are going. If children are present the mother hen also takes responsibility for the children as well. She must encourage them to take part in the movements as well.*
>
> **Additional questions [ask after this exercise is done]**: Did you learn anything from this exercise? Is this similar to the relationship between a mother and her child? If yes, why? If no, why? What is a parent's role in the child's development?

Discussion: **Guide, Protect and Feed**[10n]

Facilitator:

- *treat this discussion as a continuation of the mother hen activity.*

  Feel free to refer to this activity, especially if participants appear

  at a loss for answers.

Question: Is Nutrition important?

Response: Yes or No [ask participants to give a reason why regardless of the response]

> ***NOTE***: *In our case, our argument is for 'Yes'. However, give the participants a chance to air out their views before making this case.*

Why is it important?

Nutrition should be considered when feeding a child. This is because, when a child is not well fed (diverse diets and balanced diets) then the child will not grow properly. **Development is therefore affected if a child is malnourished or undernourished.**

Inadequate nutrition before and after birth (in the first years of life) can seriously interfere with brain development and lead to neurological and behavioural disorders such as learning disabilities and mental retardation, stunting and many other negative defects.

[10] This discussion is guided by the mother hen activity, and acts as a response to the question on a parent's role. Using this activity to drive the information home is easy as it acts as a visual and practical example for the mother.

The malnourished child's immune system may become weak, making the child more susceptible to illness. The child's physical growth is also affected.

Question: Can a crop (e.g. maize or sweet potatoes) grow properly without the sunlight, water and fertilizer?

Response: No [in this context this response was unanimous as agrarian life is the norm]

Add: and this is the same case with children.

Additional Question: What are some of the locally available foods that are good for the child's healthy growth?

Always Remember: *Good nutrition and adequate psychosocial stimulation (through playful interactions between mother and child and child's peers and other adults) are necessary for a child to grow well. So feed child well, talk to them, and so on.*

Creating the Village of Dreams[11]

Facilitator: create a checklist before you begin to ensure that all the required materials are available.

Materials: 1 medium to large cardboard box or plank (any safe clean item that can serve as a base), liquid glue (or tree glue), a pair of scissors (or knife), **clay**[12], twigs / and dry grass, colourful paper (small pieces to paste on door), ruler and an old plastic bottle (preferably one with a pointed top e.g. a Mazoe or coca cola bottle).

NOTE*: If you do not know how to mould clay, introduce someone either from within the group or outside who can act as the guide for this activity. All must participate. The village doesn't need to be perfect, only that it must be a group effort, so as to allow for social interaction.*

During this activity, the mother must also help her child or children make a clay dice and she must guide them through this activity. It is important that the mother talks to and with the child, smiles a lot and praises the child's efforts as well as encourages that child throughout the process. This serves as an opportunity to encourage maternal guidance (scaffolding) of child as they (mother and child) create something.

[11] In the Zambian clay moulding is something almost all adults did during childhood. I created this activity after observing children in my neighbourhood, Kalingalinga; play with clay outside my gate. This idea was further brought to by studies such as the Panga Munthu test (Kathuria and Serpell, 1999) where moulding of wet clay into a person is used as a mode of assessment. During the curriculum development, mothers and child development agents (CDAs) also agreed that clay moulding and hence the making of huts (and other clay figures) is a common trait in this context as well. The CHWs went on to inform the researcher, that the art of hut making using clay had evolved and children where now using

old bottles instead of making the huts block by block as was done in the past by the researcher and also as observed in Kalingalinga

[12] Clay dough can be used but it is important to allow participants to use materials that are readily available in their context. In this case, it was actual clay.

Some specifications: there must be three huts: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy. For instance, does she have any one who can help her take care of her children or help with the house chores? Does she have someone she can talk to? In this scenario, the facilitator can encourage the mother to share some of her problems (one or two) and the group can provide emotional support (especially if she does not have any close friends) or help her reach a solution using the resources available to her.

Demo from Simbulo, Kasiya: village of dreams and two die.

Picture taken by Mwaba Moono Chipili

Instructions [from activity guide[13] or facilitator]:

Making the huts

- Sand the plank or reinforce card boards.
- Wet the clay (if dry although it is usually wet), then mix it with your bare hands.
- Cut the plastic bottle in half with a knife, and then push the clay into the top half while it is upside down. Make sure that it fills this part completely. Feel free to press the clay with your palms or fist.

[13] This refers to person who will guide this activity in case the facilitator does not know how to make these huts. In a context where this activity is not common you can replace it with one that is and still maintain the representations.

- Then turn the bottle down (so that the small part faces up) and hit the top, while the clay is still wet, until the moulded clay comes out, onto the sanded plank or card board or plastic lid (flat surface required).
- Next, cut a few twigs, and stick them to the pointed part of the mould until no clay be seen from the top and a roof is made. Then tie a piece of sack string or tree bark at the point where the twigs meet. [You can use water to make the twigs stick better, or sew a roof using reeds and cotton and simply place it on top instead.]
- Afterwards, cut a strip of coloured paper to stick as a door.
- Then leave to dry.
- Repeat this process until you have three huts.
- Next create the dice

Making the dice:

- Use remaining clay, to mould a square block.
- Then stick, tiny pebbles on each side [starting from one to three only].
- Leave to dry
- Once done, wash hands and clean up working stations.

***NOTE**: Once, the huts and dice are dry a game will be attempted. Here, the mother will throw the dice. Then depending on which point the dice falls (1, 2 or 3) that is the activity (her homework) she will do that week. An activity list is provided for huts 1 and 2, while hut 3 activities are subject to the mother's wishes for herself.*

This game is aimed at helping the mother think of her child and herself in a positive light, as well as provides activities that a mother can do with the child. It also encourages a mother to talk about what milestones the child may have attained depending on their ability to do certain tasks. Discussions can also be held on what techniques the mother used to encourage her child in that task and the difficulties faced when doing the activity (in the next session). This also creates a form of emotional support group/ session for the mother.

General Homework:

Facilitator, say:

- **Talk to your child about the day to day activities as you do them. For instance, you can talk about sweeping, why you are doing it, whether he or she would like to learn how to do it?**

Sharing Knowledge: 15 minutes of fame

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:

- *Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.*

Good day exercise [the final act]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then May will return the favour, by saying her name is Jane and…...

Note: this allows mothers to leave group with positive feelings about themselves and each other.

NOTE TO FACILITATOR

Things to consider during the sharing knowledge segment:

Personal goals: will be obtained from the name exercise, wishes, dreams for self and child and other discussions that focus on the mothers' personal hopes.

Group goal: should be discussed in the sharing knowledge segment

Planning for the final Performance:

[Guidelines follow the popular theatre seven step process of performance planning]

4 **1** Why: discuss personal and group goals?

Who: choose who this performance will be for, e.g. community,

friends and family, etc. When: what will you do? What is the time

frame?

Where: will the performance be outdoors or indoors, under a community tree, at someone's home, etc.?

Purpose: what do you want to learn or recall from your performance? What do you want others (your audience) to learn?

What for: what will your play talk about?

How: how will you achieve your group goals in your play and/or presentation?

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[14] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for further guidelines on how to plan a performance using participatory theatre.

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Lesson 2: Stunting_ A Crisis

Raising a child is like building a house

Objectives:

By the end of this session participants should:

- know what stunting is
- be able differentiate between stunting, dwarfism and wasting
- know the risk factors that cause stunting
- be able to tell if their child is stunted or not
- be able to know the steps to take if child is stunted

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], manila paper (or old carton boxes), clear cello tape, 1 meter board ruler (or measuring tape), coloured markers (one or more), a pair of scissors, ball stick, a clay village (village of dreams), activity list and a dice.

Remember*: *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.

Introduction

Facilitator:

Always remember to begin a session by:

- Greeting the participants and their children.
- Introduce yourself and briefly talk about what the meeting is about.
- Encouraging co-learners to sit in a circle, imitative of a village meeting.

  If possible the facilitator can have a drum[1] (old pots or buckets can serve as alternatives) present to begin the session.
- Thanking participants for attending this meeting and telling them you are happy to be meeting with them.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

Relaxation and trust building exercises

Facilitator:

- Ask all to stand, maintaining a circle, and do a stretch exercise.[2] For instance, stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck.
- Encourage mothers to encourage children to stretch as well.

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

Facial expressions[3] help teach the child how to express emotions.[a]

***Remember**: We are doing this to relieve tension and relax so that the mother is to be stress free (in a good, balanced mood/ state) so that she can pay better attention to her child.*

Sing-Along Time

Facilitator, say:

- "Does anyone know a song that talks about the effect of a mother's care on the child? For example, an action song like iluyando lupati (talks about love).

[1] Refer to footnote '1' in lesson 1

[2] This exercise was inspired by notes in Boal, A. (2005) Games for actors and non-actors and Anderson, J., Michel, J & Silverberg, J (2001) Ready for action: A popular theatre/popular education manual, encouraging a warm up before a lesson begins so as ready the learners for learning.

[3] Facial expressions are an essential survival emotional skill, especially during the first years of life, through which the child is able to elicit the caregiver's help and attention. Children also have a predisposition to attend and respond to facial expressions from their primary caregivers, hence the mother's face serves as the child's learning interface in this case.

- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?
  Always encourage use of local songs.

Circle of knots exercise[4b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name (e.g. say: wise mothers! Or clap hands together or both) when circle is small.[5]
- Then make a big circle once more.

Q&A

Q: Why are we doing this exercise?
A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low or when learners seem tired or attention seems to be wandering to bring their focus back to the lesson at hand.*

Getting to Know Each Other

The Name Game[c]

Please note: This game is most effective for a group that does not know each other very well or a new group although; you can still do it even if you already know the co-participant's names. This game helps persons each other's names in an interesting and active manner. It is important for the facilitator to theme the game. For example, we are going to say our names and act out what we like to do. Or act out what we wish for our children.

---

[4] Only the first part of this activity, the elastic circle is used.

[5] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non- actors..

Facilitator, say:

- Here, one of us will say their name together with an action. For instance, I can say, 'my name is Luyando' and because I like birds, 'I will imitate a bird by fluttering my wings' (spread out arms and pretend to fly) as I say my name. [So if my name is Luyando and I like to or wish to do something (e.g. cooking) or be able to be someone in future (e.g. a kind mother). I say my name and choose an action that best describes my likes or wishes, then the co-participant either lifts or points or refers to child and encourages child to say their own name (child may imitate mother's action)].
- The group will then repeat the mother's and or child's name with action. [This helps child develop sense of self (I am me) and others (they are and we are) other than his/her name and those around].
- Now let us all seat down. [In the absence of chairs use vitenges or mats.] Don't forget to maintain the circle.

Variations: game can change, over time in that facilitator can include vocal sounds, clapping, song during which co-participant shouts name, then the child's name and others repeat afterwards. Here other participants can sing back the name and do the action. Another variation could be that participant says their name, or just says out what they wish or hope for themselves and child.

This activity allows mothers to actually think about what they truly want for their child and themselves. It helps develop concentration, memorization, creativity and motion skills as well as character development (an imagination skill). It's also fun to do!

Homework Review: Talking to your child

Facilitator, ask:

- Did any of us, do the homework we said we would do in the previous lesson?
- If yes, how did we feel about the exercise? Was it helpful? Was it easy or difficult to?
- If no, why? [Do not be judgemental; instead take this time to encourage the mother together with the team to do it next time. Also give other mothers a chance to share how they managed to do the task.]

NOTE: *although this activity will have been given by you. Remember that your role is to facilitate. Here, the idea is to provide a platform whereby mothers can encourage each other to perform activities that stimulate positive child development. If a mother did not do anything with the child, you will not only encourage her to do an activity with the child but also take this opportunity to allow mothers to suggest activities that she can do to stimulate her child's development as they work (do household chores, e.g. talk to child about the work, ask child "to help" with chores, for instance, hold this cup for me).*

The Life of Luano: A play of sorts

Ball-pass activity[d6]

Materials: a home-made ball [or soft cloth]

Facilitator, say:

- Now, we're going to play catch. Here a ball (or soft cloth), will be thrown from one person to the next, while we are seated in a circle. In this game, no one is allowed to talk unless they are holding the ball. I will ask a question, and then throw the ball to any one and that person has to say something in response to that question. Afterwards, you will then pass the ball or throw it to someone else. We will keep doing this until I ask another question.

- Good nutrition and playful interaction is very important for child development to happen. For optimal physical and cognitive development to occur, a child requires adequate nutrition, but this should occur in addition to physical and emotional stimulation from a caregiver.[e] *[You can add more information relating to nutrition or desired topic]*.

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6 Simply known as 'passing' in the original text (Barton, 2009.Pp. 273). This activity is usually used to add more colour to learning lines in a play. However, as both hearing and receiving cues are activity, I felt it provided an interactive and stress free context in which activities can be reflected on and reviewed. This activity will be intertwined with the 'village of dreams' review sessions in the coming lessons.

Questions [to ask:]

Do you remember the story of Luyando and Luano? What do you remember about it? Was it useful to you? Did you learn anything from it? Do you think that could happen in real life? Why do you think so? And so on.

NOTE*: you can ask a participant to clarify a response and even add or direct a second question towards the person holding the ball (e.g. what do you mean by that? How? What? And so on)*

Then the play[7]:

Facilitator, say:

- From what we have discussed on what we recall about the story we are now going to make a simple play about *the effects of poor nutrition.*

- You can place yourselves into two groups: group A and group B [you can also guide this process to avoid the formation of cliques]. Then, group B will make a short play that shows or tells us of the negative effects of either *under-nutrition* or *inadequate stimulation* (in short choices that led to poor development in Luano).

- Once the play is done, the audience (Group A) will comment on what they saw in the play. Members of Group A will also point out, the following:

    - The choices made by the main character, in this case the 'mother.'
    - Whether the choices she made were good or poor.
    - Whether the choices made could have been different. Was there an alternative reaction or action that the character of focus could have chosen?

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[7] This activity is called the 'performance game' and is a form of Forum Theatre. This is a theatrical game in which a problem is shown in an unsolved form, to which the audience, again spect-actors, is invited to suggest and enact solutions.

    - What actions could be done to chance the final outcome as depicted in the play.

- Then, I will tell Group B to redo the play and as the play reaches a point where an alternative reaction was warranted I will shout stop. Here the actors must freeze, then someone from Group A will replace the character of focus and continue the play but with the suggested alternative. In this scenario, the ending changes because the reaction changes. That member

of Group A now becomes a spect-actor.

Then the issues are further discussed. An element of hot seating[8] *can be added then or at a later stage.*

Further Questions:

Why do we sometimes make poor choices? How can we avoid doing so? Can we share our information with friends or the community? How would you like to share it? Can such a 'play' work?

INFORMATION BANK: STUNTING

What is stunting?

Stunting is when the child is very much shorter than the required or average of the children (0-59 months) in that area (e.g. country) due to long term practice of poor nutritional practices.[g] In Zambia, 40 % of children below the age of 5 years are stunted.[h] This is a critical issue because stunting is an indicator of malnutrition. It is different for both girls and boys.[ij]

Table 1: indicates average height and stunted height as noted in both girls and boys

[8] This is when the fictitious character is interviewed. Here, the audience gets to ask any questions they want of the character, but should focus on getting her to justify her behaviour in the play. As this activity can get quite intense, it would be advisable to only attempt it once the group has been together for a longer time and developed stronger ties within (when trust has been well formed).

Sex	Two year old	Three year old
Boy	Average height: is 86-87 cm Stunted height: at 81 cm and below.	Average height: 96 cm Stunted height: 88 cm and below.
Girl	Average height: 85-86 cm Stunted height: 80 cm and below.	Average height: 95 cm Stunted height: 87 cm and below.

Question [rhetorical]: Is stunting the same as dwarfism? Response: No.

Dwarfism[k] is a genetic disorder or defect, while stunting[l] is a result of chronic malnutrition (if noticed early it can be corrected) Stunting is preventable.

Stunting is height deficit resulting from:[mn]

- Poor nutrition: unbalanced diets, low diversity of diets, junk foods, etc. Therefore, a child must have a balanced meal, high protein diets (goat milk, beans, eggs, etc.) with a variety of colourful fruits and green vegetables.

  Reminder: refer to the feeding card and feeding mat.[9]

- inadequate child stimulation and activity, plus non-responsive feeding.

[9] Refer to the charts in the CSH Nutrition promoter guide. Mothers received these in phase I of the Saving Brains project. It is however, the facilitator's own

prerogative on whether to use it or not in the presence of other similar or related materials.

Inadequate child stimulation and activity is when a caregiver does not talk with the child, or play with them, or guide them through interactive activities. While non- responsive feeding is when the mother can't understand what child is saying with their actions. For instance, can't tell when child is hungry and if she does, cannot tell when child is satisfied. This may lead to overfeeding or underfeeding.

Positive Alternative: A mother needs to talk to their child, even if the child can't respond yet. Mother makes a happy face and then can point to an object around the house (or outside_ in the field) and tell the child about that object. For instance, she can begin like: Oh, look at this shiny thing. Do you know what this is? This is a pot, we use it for cooking (Can do the same with trees, maize and other crops, livestock, family pets, etc.). *If the child can, it is important for the mother to allow the child to talk or answer (verbal response) and touch the object (non-verbal response).* Mothers should have playful interactions with their child as play is the way that children learn (that is their work).

Responsive feeding can be achieved by talking to the child as you feed them and reading the non-verbal cues. It allows baby to regulate his own appetite and eating, which has been associated with a healthy weight status.

- Poor care practices, inadequate sanitation and water supply, food insecurity, low dietary diversity, inappropriate food allocation within the household (for instance, belief that children should eat less because they are small), short birth spacing which may cause mother to stop breastfeeding early because there's another baby.

Question [rhetorical]: Is stunting the

same as Wasting? Response: No

Stunting results from chronic undernourishment, which retards linear growth,

whereas wasting results from inadequate nutrition over a shorter period, and underweight encompasses both stunting and wasting. Typically, growth faltering begins at about six months of age, as children

transition to solid foods that are often inadequate in quantity and quality, and increased exposure to the environment increases their likelihood of illness.

Another Sing- Along![10]

Facilitator:

- Let's all sing a song that talks about love being the key to a child's good growth and the lack of it being a cause for bad growth.
- Let's do all the actions with this song, for example, clapping hands, moving body, etc.

Growth Measuring Exercise[11]**:** Making the Height Measuring tape reminder

Facilitator:

- All, that is the facilitator and other mothers should work together towards making a tape that will help them to remember to check their children's height as it is essential to their development.
- You will guide and lead this process, while mothers will follow your lead as they also make their own tapes.

Materials: manila paper [number depends on number of participants][12], clear cello tape, 1 meter board ruler (or measuring tape or string), coloured markers (blue, green, purple, black or yellow),[13]Pair of scissors (or knife) **and** ball stick[14]

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[10] Another song so as to reanimate the mother and child. It is most likely that after being seated or dormant for a while the children might get restless, hence the need for this interlude.

[11] This activity is inspired by the study by Rockers, P., Fink, G. & Levenson, R. (2016) Tools to improve parental recognition of developmental deficits in children. However, as we did not have access to the height charts, a height tape was used instead guided with height measurements guided by the WHO child growth charts.

[12] During this session, each A3 manila sheet created three measuring tapes, in our case. Old carton boxes can also be used, as was the case in Simakatu, thus staying true to the theme of using locally available materials and reducing litter. It is also a cost effective alternative.

[13] Charcoal can also be used instead of markers.

[14] Tree glue can be used as an alternative if accessible.

Instructions:

- Place the ruler against the chart paper, to measure a length of 1 meter. Press down hand and cut through the paper vertically. Measure a width of about 10 cm.
- Then use marker to write markings according to the ruler measurements (0 to 100 cm).
- Use a coloured marker or pencil/pen (highlight if possible) to mark the required heights for 2 year olds and 3 year olds.
- Cover the marked tape with cello tape.
- And stick it to your door post or on any wall surface
- Cut circles with a smiley face which you will stick.
- Then measure child's height against this Vertical Growth Measuring Tape. Stick a smiley face next to your child's height if it is good and stick a sad face next to your child's height if it is not good.

Note to the Caregiver [from the facilitator]: *If your child's height is good, that's awesome but you need to continue giving your child a good diverse nutritional diet and keep on stimulating his or her development in the four areas as we discussed. If it's not good (that is at 79 cm for girls and 81cm for boys) that means you may need to go to the clinic so that they can check if your child's health is okay. Do not be disheartened as this can be corrected with a good diverse diet and stimulation. Be positive minded and continue to do your part as a mother.* ***Do not forget that your child's growth has just been delayed and not stopped.***

The tortoise race[o15]

Facilitator, say:

- Now I will draw two straight lines on the ground on two opposite ends. One will be the starting point and the other finishing point on the ground using a stick.
- Then we are all (including our children), going to race. The rule is that one must move from one end to the other as slowly as they can (as slow as or slower than a tortoise). [Don't forget the funny faces.]
- The last person to reach the mark is the winner.

NOTE: *The goal here is to remind mothers (caregivers) that not all children grow at the same pace; the most important thing is that you attain the main goal in the end. Which is to have a developmentally healthy and highly stimulated child as this will influence (have a positive impact) the child's future performance, academically, socially and physically. Encourage mothers to talk about how they feel.*

Homework: the village of dreams[16]

NOTE: *Use this game as a means of giving homework. It is meant to make having an extra task to do a fun process.*
Also keep a written record of the task each mother chooses to do

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).
- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.
- For huts 1 and 2, the tasks are highly subjective in that the mother bears all control on whether the task will be done or not. There is also no exact way of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done. *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

Sharing Knowledge: 15 minutes of fame[17]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say: Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

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15 Known as 'Slow motion'

16 I created this game as I was looking for a way to make homework fun and also have a process delegation of tasks that was left to chance. No one can accuse another of giving them a difficult task or favouring another because selection is personal. It also encourages mother to truly think about their personal goals, their goals for their child and provides an emotional support system for the mother. Although it was not assessed, it is my hope that this activity (through hut 3) will help reduce maternal depression.

Good day exercise [the final act][p]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then Mary will return the favour, by saying her name is Jane and…....

NOTE: this activity allows mothers to leave group with positive feelings about themselves and each other.

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[17] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

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Lesson 3: Cognitive Development

A child's brain is like a field

Objectives:

By the end of this segment participants should:

- Know that a child learns from their environment
- Know that a child's thoughts are cultivated by things they learn from their environment through the mother, family, peer and other interactions.
- That a child's mental development is dependent on playful interactions

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Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], piece of sack string, 10 pieces of paper (cut out), pencil or charcoal, glue, a clay village (village of dreams), activity list and a dice.

Remember*: *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.

Introduction

Facilitator:

Always remember to begin a session by:

- Greeting the participants and their children. Ask about their day, week, etc.
- Introduce yourself and briefly talk about what the meeting is about.
- Encouraging co-learners to sit in a circle, imitative of a village meeting. If possible the facilitator can have a drum[1] (old pots or buckets can serve as alternatives) present to begin the session.

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[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture, I felt it would be an effective means for signaling to the participants that the session has begun as well as getting everyone involved through sound and movement.

- Thanking participants for attending this meeting and telling them you are happy to be meeting with them.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

Relaxation and trust building exercises

Facilitator:

- Ask all to stand, maintaining a circle, and do a stretch exercise.[2] For instance, stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck.
- Encourage mothers to encourage children to stretch as well.

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

Facial expressions[3] help teach the child how to express emotions.[a]

***Remember**: We are doing this to relieve tension and relax so that the mother is to be stress free (in a good, balanced mood/ state) so that she can pay better attention to her child.*

Sing-Along Time!

Facilitator, say:

- "Does anyone know a song that talks about the effect of a mother's care on the child? For example, an action song like iluyando lupati (talks about love).
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

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2 This exercise was inspired by notes in Boal, A. (2005) Games for actors and non-actors and Anderson, J., Michel, J & Silverberg, J (2001) Ready for action: A popular theatre/popular education manual, encouraging a warm up before a lesson begins so as ready the learners for learning.

3 Facial expressions are an essential survival emotional skill, especially during the first years of life, through which the child is able to elicit the caregiver's help and attention. Children also have a predisposition to attend and respond to facial expressions from their primary caregivers, hence the mother's face serves as the child's learning interface in this case.

Always encourage use of local songs.

Circle and cross (X) exercise[4b]

Facilitator:

- Here you simply draw a circle or a cross (or an X) the air. First tell mothers and their children to draw a circle with the left hand, and then tell them to draw an X with their right hand draw in air, and finally get them to draw the circle and the cross at the same time.
- The goal is **'think it, don't see it'**

Variation: try to do this exercise using your legs, while standing or sitting.

NOTE: *this cognitive exercise encourages one to be attentive as they try to do a simple but complex task. Please, be aware that most, including yourself may not be able to do this task perfectly but that is okay. We are simply trying to make one focus their attention towards achieving one goal.*

Circle of knots exercise[c]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name (e.g. say: wise mothers! Or clap hands together or both) when circle is small.[5]
- Then make a big circle once more.

[4] This exercise requires both psychological and physical activation. It is extremely difficult to achieve in practice, therefore do not feel the need to compel participants nor yourself to succeed. The record so far is 3 people out of thirty according to Boal (2005). It is however a good game for exercise the mind as well as your limbs.

[5] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non- actors..

Q&A

Q: Why are we doing this exercise?

A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

Village of dreams: pass the ball activity[6] Materials needed: a ball or soft cloth

Facilitator:

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth.
- Ask everyone to reflect on the "village of dreams" activity that we chose. Say: "Which activity did you commit to do by yourself or with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."
- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you propose new activities or alternative ways of doing them.

[6]The passing game from Barton's (2009) Acting: Onstage and off book, serves as the base for this task. I created this activity so as to create a stress free environment for reflection on homework tasks. As the mother passes the ball and responds to facilitator's questions and the discussion proceeds, the mother is disarmed and appears less likely to worry about reflection activity at hand. She is free to play with the ball (e.g. squeeze or throw in air) before passing it on.

- Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, stir this cibwantu for me).

Getting to Know Each Other

The Name Game[7d]

Please note: This game is most effective for a group that does not know each other very well or a new group However, you can still do it even if you already know the co- participant's names. This game helps co learn each other's names in an interesting and active manner. It is important for the facilitator to theme the game. For example, we are going to say our names and act out what we like to do. Or act out what we wish for our children.

Facilitator, say:

- Here, one of us will say their name together with an action. For instance, I can say, 'my name is Luyando' and because I like birds, 'I will imitate a bird by fluttering my wings' (spread out arms and pretend to fly) as I say my name. [So if my name is Luyando and I like to or wish to do something (e.g. cooking) or be able to be someone in future (e.g. a kind mother). I say my name and choose an action that best describes my likes or wishes, then the co-participant either lifts or points or refers to child and encourages child to say their own name (child may imitate mother's action)].
- The group will then repeat the mother's and or child's name with action. [This helps child develop sense of self (I am me) and others (they are and we are) other than his/her name and those around].
- Now let us all seat down. [In the absence of chairs use vitenges or mats.] Don't forget to maintain the circle.

[7] Note that even though; this may be the third session, depending on choice of lesson order, no changes were made as participants of this curriculum tended to like this activity a lot. It seemed to be the most liked in this case, hence I did not feel the need to change it as yet.

Variations: game can change, over time in that facilitator can include vocal sounds, clapping, song during which co-participant shouts name, then the child's name and others repeat afterwards. Here other participants can sing back the name and do the action. Another variation could be that participant says their name, or just says out what they wish or hope for themselves and child.

True or False Exercise[8]

Facilitator:

- Before you begin you can do the ritual or circle of trust or circle and cross activity, as a warm up.
- Base the quiz on general knowledge as well as what has been taught [according to your study or programme's course content].[9]
- Draw a line on the ground with truth on one end and false on the far end and undecided on the middle.
- You will ask the question, and participants will respond by rushing to the position that states their answer (true, false or undecided).
- Then, ask participants to justify their answer. For instance, why do you think it is true or false or unknown, etc?
- Once the justification is given, those that agree with the participant are free to change position to the person whose statement they agree with. Those that do not, can maintain their original positions.
- If no one can arrive at the correct answer, you are free to provide it.

True/False Questions and Answers:

i) Children learn through play? True
Play gives the child many opportunities to think and solve problems. Also helps them note what is socially accepted and what is not. To children, play is their work.

ii) Children need store bought toys or games to enjoy playing? False

Children don't need store bought items to enjoy play, home-made ones can be enjoyed just as well. Give examples: Home-made puzzle from Magazine cut outs, drawing in the sand, trace their own hand in a home-made book, etc.

iii) Stunting (chronic energy protein malnutrition) does not affect the child negatively? False

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8 This game is based on the, agree or disagree, number line used in Theatre for development (TfD). I have however, modified it to suit my purpose, which is discourse, in this case.

9 Questions in this quiz are based on content in lesson1, 2 of this course; the previous curriculum (in Saving Brains phase I: Cognitive development lesson) and Smith, K. P. & Pellegrini, A. (2013) Play Synthesis: Learning through play.

Stunting is an indicator of chronic malnutrition. The presence of stunting therefore means the child is not being well fed, or stimulated. Malnutrition can lead to severe developmental problems, e.g. stunting affects ongoing cognitive processes (attention, working memory, executive functions) during childhood.

iv) Playing with a child is a waste of time? False
It is not a waste of time to take time to play with the child as such interactions serve to teach the child not only about their environment, but how to cope when faced with certain problems and so on.

v) At 2 years, babies can listen and understand what is being said? True
Asking simple questions can help them develop, or improve their language skills.

vi) You should look into your child's eyes and talk to them while feeding? True
A mother needs to talk to her child, even if the child can't respond yet. Responsive feeding helps the mother know when the child is not only hungry but when the child is full by reading his or her facial and body language.

vii) Stunting is the same thing as dwarfism? False
Stunting is when a child is shorter than the average required age in a region, while dwarfism relates to a genetic disorder. Stunting is corrective during early childhood by a change in diet and environmental stimulation while dwarfism is not.

viii) A child will still grow healthy even if they don't have diverse diets? False
Inadequate nutrition before and after birth (in the first years of life) can seriously interfere with brain development and lead to neurological and behavioural disorders such as learning

disabilities and mental retardation, stunting and many other negative defects. Child's immune system may become weak, making the child more susceptible illness. The child's physical growth is also affected.

Circular Rhythm[e]

- Start by introducing an action that everyone in the circle is to repeat, one after the other until the last person in the circle.
- You can then introduce a games such as 'do like I do' or 'Guntswana'(similar to the latter) which both employ the use of circular rhythms.
- However, in these games, a person goes to the centre a sings (it's a call and response scene):

Caller: I do this [does an action]

Response: I do this [imitates caller's action] Caller: I do this [does an action]

Responders: I do this [imitates caller's action]

Caller: and I do that

Respondents: and I do that

- Then the next person takes over with a different action and repeats the song.
- The game continues until all persons in the circle have participated.

NOTE: Allow participants to include similar local action games that follow this pattern.

INFORMATION BANK: COGNITIVE DEVELOPMENT

What is cognitive development?[f]

This is the development of a child's thinking skills. By age two a child knows that things continue to exist even if they cannot see them. They not only listen but understand what is being said to an extent, that's why facial expression and tone are important as they convey a positive affect, attitude to the child thus influencing his or her interest in what is being done.

Why is it important?[g]

It helps the child develop important problem solving skills as well as reasoning ability (from simple to complex form later in life).

What can be done to enhance cognitive development?

Other than good nutrition, playful interactions between mother and child, child and peers or other adults, and child and the environment are key in stimulating cognitive development.[h] It is important to note the feeding[i] and play are a child's most important events during early childhood.

Let's pretend[10]

Toss the Object[j11]

Facilitator, say:

- Now, let's play a game. I am going to throw you an object (it can be anything, e.g. a ball, a bottle, etc depending on how I seem hold it). Remember, we are just pretending.
- Then, the person I throw it to be able to pretend to catch the imagined object with all the required actions. For instance, must be able to pretend if object is heavy and catch it as a heavy object; then toss it to another person and so on.
- You can change what the object is, with every throw.
- Make eye contact.

A Book Making Activity[k12]

Materials: piece of sack string ,a pencil, 5-10 pieces of paper (cut out), pencil or charcoal, glue and old magazines or newspapers.

Demo from Siasikabole, Simakutu

Picture taken by Mwaba Moono Chipili

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10 Pretend play is very important at this stage. Toddlers engage in pretend play when they imitate actions and events they have experienced in their family life. Play allows children to use their creativity while developing their imagination, dexterity and physical, cognitive and emotional strength."(Ginsberg, 2007, pp. 182-183).Thus a game like toss the object plays an important role in stimulating the mother and child's

11 This game is good for creating awareness, improvisation skills and making creative movements that are essential in this learning process and also develop the participant's participation skills as a whole.

12 Activity is partly derived from previous curriculum in Saving Brains phase I. This is so as this lesson was not conducted during that phase due to time factor, hence the need to do so once the study resumed. However, it 's content is also supported by Nyhout & O'Neil's (2014)studies relating to storybooks, where aspects such as structure and type of content in children's books are analysed.

Instruction:

- Cut pieces of paper into small sizes (use your palm as a guide for the size: upright for length and ¾ of your palm sideways for width).
- Then cut small holes on one edge (one long side) through which the sack string can pass, then tie it to bind the book.
- Cut the pictures into smaller pieces if large or shape them.
- You can now stick the pictures in this book with tree glue. Name each picture or write a word that best describes what is in the picture.
- In this book, you can trace[13] parts of your child, e.g. child's hand, foot or toes, etc and encourage the child to name[14] those parts.
-

NOTE: *Always remind the caregiver that it is not only important to talk to the child, but it is also important to describe and name objects or parts (while pointing to them).*

Butume Activity[15] (erranding)

Facilitator:

- You will instruct participants on what to do.

Instructions:

- First a caregiver, tells child to go and sit near an object [the child should be free to play with object if he or she choose to. Encourage caregiver not to scold her or him for that.]

[13] Tracing component is based on tracing activity from Sturm Niz, E. (n.d.) expert recommended activities that will enhance your 2 year old's development. Retrieved from: http://www.parents.com/toddlers-preschoolers/activities/indoor/activities-for-two-year-olds/. Although this task has been scaled down from the whole body just certain parts, e.g. hands.

[14] Naming of objects component is based on this study by Buris, E. S. & Brown, D. D. (2014) When all children comprehend: increasing the external validity of narrative comprehension development research; as well as kathuria and Serpell's (1999) naming task in the Panga Munthu test The mother is the child's guide, through the discovery process by the child of content in the homemade book or in their physical environment.

[15] This activity is inspired by Nsamenang's theory of African Social Ontogeny (1992), Barry & Zeitlin (2013) and Tchombe & Nsamenang (2013) in their introduction for the book *Cross-cultural Psychology: An Africentric perspective*. Their overall arguments for erranding as an African mode of socialization helped me form this activity. As this lesson looks at cognition, I felt the erranding task allowed for the stimulation of social cognition using a routine and indigenous activity, in this context.

- Then, the caregiver should tell the child to bring the object and give it to her. Caregiver can ask: what is it? What is it used for? Do you want to share it with me?
- If child says yes, s/he wants to share then caregiver should show positive affect (happy facial expressions) and praise the action. For instance: Oh wow, thank you very much. If not, caregiver can say: Oh that's okay. I see you still want to play with it. Positive facial expressions and gestures should be shown here too
- Then caregiver can ask child to share or take the object to another

child or familiar adult. Here you simply observe the interactions that will happen.

NOTE: *Variations in activity can be made but keep the activities simple. Encourage caregivers not to worry if child does not do this task exactly during the first few tries. Remember he or she is only two years old, however, overtime the child will be able to do it. This task is a gate way for erranding and encourages internal verbalisations (thinking or reasoning) in the child as well as socialisation.*

GENERAL HOMEWORK

Facilitator, say:

- **try sending your child to do some simple exercise, e.g. take the cup to daddy, or draw water for mommy in a cup, do you want to help mommy cook or do you want to help daddy in the garden (apprenticeship), etc.**

Homework: the village of dreams[16]

NOTE: *Use this game as a means of giving homework. It is meant to make having an extra task to do a fun process.*

Also keep a written record of the task each mother chooses to do

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).

- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.
- For huts 1 and 2, the tasks are highly subjective in that the mother bears all control on whether the task will be done or not.
- There is also no exact way of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done. *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

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16 I created this game so the delegation of tasks was left to chance. No one can accuse another of giving them a difficult task or favouring another because selection is personal. It also encourages mother to truly think about their personal goals, their goals for their child and provides an emotional support system for the mother. Although it was not assessed, it is my hope that this activity (through hut 3) will help reduce maternal depression.

Sharing Knowledge: 15 minutes of fame[17]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:

Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][l]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then May will return the favour, by saying her name is Jane and…...

Note: this allows mothers to leave group with positive feelings about themselves and each other.

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[17] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

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[b] Boal, A. (2005) Games for actors and non-actors, second edition. Taylor and Francis online publication. [Only the first part of this activity was used as the second part was deemed too complex at this stage.]

[c] Boal, A (2005) Games for actors and non-actors, second edition. Taylor & Francis online publication.

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Lesson 4: Language

Development *The*

knowledge of speech

Objectives:

By the end of this session participants should:

- Recall that children learn to speak by being spoken to.
- Know that children think through language.
- Know that children need to be talked to in order for them to grow well.
- That conversation and songs are important for child's memory and thinking.

Materials needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], two spoons, a piece of string (or bark or tape), a clay village (village of dreams), activity list and a dice.

Remember*: *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.

Introduction

Facilitator:
Always remember to:

- Greet the mothers and their children as they walk in.
- always be friendly and welcoming
- Encourage all to sit in circle, as you continue this "village meeting."
- Beat the drum to signal that the meeting has begun.
- Thank mothers for coming to today's session

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

Formation: The nature choir

Facilitator:

- Ask all to stand, maintaining the circle, and do a stretch exercise: stretch arms upwards, sideways, back to front, touch your toes,

bend your knees, jump and try to

touch the sky (reach for the heavens) and move head and neck.[1]

Encourage mothers to encourage children to stretch as well!

[This exercise then transitions into the zoo house game]

The Zoo House Game[2a]

Facilitator:

- Ask, each mother one at a time to imitate the sounds of nature (e.g. trees, crickets, cows, goats, chickens, cockerels, guinea fowls, wild birds, etc.) or sounds they have heard in the mornings as they wake up. They should accompany them with a funny face!
- Once that is done, ask the mothers to move closer together if they have made the same sound so you can form a few groups.
- Each group *must* encourage the children[3] to do the same sound too,
- Now the group is ready for a choir!
- I will be the first conductor, then anyone who wants to can takeover once I step away from the front join the choir.
- Tell each group to go one at a time, then together, make it loud, make it soft etc.
- Let's have fun!

Q & A

Q: *Why did we do these series of activities?*

A*: First, we did it to start off with good energy. It is always important to communicate good energy to the kids and to ourselves. We also want to remind ourselves that we are a group. In terms of child development, facial expressions help teach the child how to express emotions; sounds create a basis for child to develop their language.*

[1] This is the relaxation exercise. Here it is merged with a series of activities that will lead to the nature choir.

[2] This task has been adapted to suit context. Since most mothers could not read, the writing of animal to imitate was eliminated. The zoo house has also been combined with sound environment and the human orchestra activities of popular theatre.

[3] Mothers come with their children to these lessons. Therefore, each group here will consist of mothers and children. As this curriculum includes both, parents must encourage the children to be involved in the process.

Circle of trust exercise[4b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands):
  stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[5]
- Then make a big circle once more.

Q&A

Q: Why are we doing this exercise?
A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low or when learners seem tired or attention seems to be wandering to bring their focus back to the lesson at hand.*

Village of dreams: pass the ball activity[6]

Materials: a ball or soft cloth

Facilitator:

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth
- Ask everyone to reflect on the "village of dreams" activity that we chose. Say: "Which activity did you commit to do by yourself or

with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."

[4] Also known as the Joe Egg

[5] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

[6] The passing game from Barton's (2009) Acting: Onstage and off book, serves as the base for this task. I created this activity so as to create a stress free environment for reflection on homework tasks. As the mother passes the ball and responds to facilitator's questions and the discussion proceeds, the mother is disarmed and appears less likely to worry about reflection activity at hand. She is free to play with the ball (e.g. squeeze or throw in air) before passing it on.

- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you propose new activities or alternative ways of doing them.
- Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, put this plate in that dish for me)."

Rhyme-Along Time!

Facilitator:

- Say: "Does anyone know a rhyming[c] song, choral (ciyabilo) or poem suitable for children?"
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

Q&A

Q: *Why are rhymes and songs important?*

A*: Songs are important because children learn words and language best when it is musical and when it has a rhyme. This is how children learn language best*

NOTE*: You have the task of looking for traditional poems, chorals or rhymes that are suitable for children in your context study before this session occurs.*

Please encourage use of local rhymes, chorals or poems.[7]

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[7] Please note that children learn words best through rhyme (Read, 2014; zerotothree.org) and music (zerotothree.org). Read asserts that rhyme and the pause effect (in story books) has a positive effect on the child's ability to learn words or terms, hence it can be argued that when dealing with language development_ the rhyme acts as an effective stimulatory factor. Poems were included as they bare the pause effect which is useful in a context where most mothers are not literary. These aesthetics are also indigenous to the African context, thus there inclusion allows the use of local funds of knowledge as described by Banda (2008, 2009).

INFORMATION BANK: LANGUAGE DEVELOPMENT

Language in Children

At age two, children are able to speak.[d] Their vocabulary may range from 2-3 words to 50 words and more. However this vocabulary is only increased or created as a result of verbal interactions with caregivers, peers and other adults (or older children) around them.[e] The more actively interactive a discussion is the more likely the child will remember the words.

All mothers talk to their children; perhaps some do it more than others. *Why?* Because, most see talking to babies as pointless: he or she is a just a baby so what do they know? But that is not true. **Babies learn through being spoken to, this encourages not only thinking (internal verbalization) but language (external verbalization) as well.**[f] In order for language to develop mothers should alternate turn-taking rhythm and rhythmic chorusing and bodily stimulation.[g] This means aside from asking child their names, telling them what it means, talking about their family in positive terms (social roles), and allowing them a turn to talk as well (respond): singing to children with actions is helpful as well.[h]

Importance of language stimulation[i]

Talking to children is crucial for their development. For instance talking about past events helps improve memory: children learn how to structure their memory narratives (recount their memories to other people) in a culturally appropriate way.

Conversations with the child help the child's emerging self concept and their understanding of self and others. Do not forget that stimulation in all areas of development is important in preventing stunting. In this case verbal stimulation must occur in line with non-verbal stimulation (actions) in order to make a more effective impact. For example, singing songs with actions and so on.

Games for language development

Facilitator:

- After the information bank session. Follow up with this activity to help drive the information learned home.
- Encourage each mother and child to pair up, in their own space, but not too far to hear what is being said.

Makani Ajilo (Stories from the Past)[8j]

Facilitator, say:

- Now that you're comfortable, we are going to do an activity that is very important for your child's language development.
- After today, you can continue to do this type of activity at home as well.
- Today, I want you to talk to your child about two events that happened no longer than 4 weeks ago.
- For instance, talk about the time grandma came to visit or when you went to the market or visited a relative or when a relative came to visit.
- You can talk about events that happened when you were with your child or those that happened when you were not with your child. You can talk about things that happened to you or you can talk about what you saw.
- Make facial and hand gestures as you talk to your child. You can make funny faces; make sounds (e.g. cow's moo or cat's meow, or how daddy sounded).
- Be in character, pretend to be the person or the animal. Make this conversation as visual as possible.

This is how children learn, by looking at your face and connecting with the words.

Suggested Activity for Language Development

NOTE: *This activity will not be done as part of the group but individually. Explain the task as described below and encourage the mothers to practice it during the next two weeks. Tell mothers that they are free to share information on how it goes at the next meeting.*

Responsive Feeding Exercise[k9]

Materials: two spoons and tree bark or sack string

Facilitator, say:

- In the second lesson we learnt that responsive feeding helps in the prevention of stunting (especially with relation to underfeeding). A mother must therefore monitor what her child eats and the amount.
- Here your *task* is to talk to your child as you feed them.

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[8] Tulviste et al (2013) argue that children at this age have no proper concept of the future, hence stories told must be based on past events that happened as this helps the child form perceptions about the people and things around them. It is important to note that as the context of study is similar to that of the Tulviste African rural context it was easy to adopt the instructions used to this context.

[9] Adapted from the responsive feeding activity on: http://www.parents.com

- You can pretend that the spoon is an train trying to deliver goods (the food) into a special destination (the child's mouth). Be excited, happy!
- You must tie two spoons tightly together by their handles, so that when the child eats the mother can also use the other end to feed herself.
- This will encourage the child to eat as mummy is doing it too.

Walk, stop, justify[l10]

Facilitator, say:

- First, let's walk the way we usually walk on a daily basis [your normal walk]. Here we will be imitating ourselves.
- Then, when I say STOP you have to stay frozen the position, the command found you in. For example, if your leg is up when I say STOP, leave it up.
- Then, I will come and ask you why you are in that position. You response should make sense. You cannot say it is because I said stop, but you can say, 'I saw an ant so I lifted my leg' or 'I am playing hop scotch (locally known as pade) with my child.' In this case you position has been justified.

Variations can be added, for instance: walk how you walk when you are tired, happy, and sad, bored or feeling lazy. Allow mothers and their children to walk around,

- Then tell them to stop.

NOTE: *This activity helps the mother look to herself in decision making instead of blindly following what others are doing. Here, we encourage the mother to reason within herself before seeking outside help. The child also learns not only about body parts and positions but that their several states of being and that those actions have explanations. As the child is still young they not fully grasp this concept, however it a fun activity that also helps stimulate their physical development and incorporates listening, observation and response.*

General Homework: Storytelling (Twaano) is important[11]

Facilitator, say:

- Storytelling is important. So next time you are at home you can tell your children a folktale.

[10] This task encourages language development through action and explanation of the said action.

[11] Shiel, G., Cregan, Á., McGough, A. & Archer, P. (2012) assert that shared reading practice studies show that oral language (mainly receptive vocabulary) has relatively strong effects for children between the ages of 2-3 (our target audience). As our context is not very literary, I felt a traditional activity could be used instead to elicit the same results.

- Don't forget to use lots of gestures, facial and vocal expressions. You should also point to objects in the environment that maybe the same as objects or characters in your story.
- If possible, ask the grandmother or grandfather or father to tell the story instead. You can then ask, the children (not only the two year olds) what was the moral? Or what they learnt from the story?
- Then, when we meet for the next lesson each mother can tell us how

this exercise went.

Homework: the village of dreams[12]

NOTE*: Use this game as a means of giving homework. It is meant to make having an extra task to do a fun process.*
Also keep a written record of the task each mother chooses to do

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).
- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.
- For huts 1 and 2, the tasks are highly subjective in that the mother bears all control on whether the task will be done or not. There is also no exact way of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done. *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

Sharing Knowledge: 15 minutes of fame[13]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

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12 I created this game as I was looking for a way to make homework fun and also have a process delegation of tasks that was left to chance. No one can accuse another of giving them a difficult task or favouring another because selection is personal. It also encourages mother to truly think about their personal goals, their goals for their child and provides an emotional

support system for the mother. Although it was not assessed, it is my hope that this activity (through hut 3) will help reduce maternal depression.

13 Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

Facilitator, say:
-Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][m]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then Mary will return the favour, by saying her name is Jane and…...

NOTE: this allows mothers to leave the group with positive feelings about themselves and each other.

Have a lovely day…

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Lesson 5: Water, Sanitation and Hygiene.

A mother's role is to protect [It's About Us, It's All In Our Hands]

Objectives:

By the end of this lesson the participant should:

- Recall the importance of hygiene and sanitation
- Have a glance at the effects of poor hygiene and sanitation
- Be able to know which practices are not hygienic.
- Be able to pinpoint alternative sanitation and hygiene practices
- Be able to relate child growth with hygiene practices

Materials needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], two buckets, sticks, sieve (the one used to when making mealie meal), a clean cloth, river sand, charcoal , a clay village (village of dreams), activity list and a clay dice.

> ***Remember:*** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:
Always remember to:

- Greet the mothers and their children as they walk in.
- always be friendly and welcoming
- Encourage all to sit in circle, as you continue this "village meeting."
- Beat the drum to signal that the meeting has begun.
- Thank mothers for coming to today's session

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help or want to make suggestions.*

Relaxation and trust building exercises

Facilitator:

- Ask all to stand, maintaining a circle, and do a stretch exercise.[1] For instance, stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck.
- Encourage mothers to encourage children to stretch as well.

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

Facial expressions[2] help teach the child how to express emotions.[a]

***Remember**: We are doing this to relieve tension and relax so that the mother is to be stress free (in a good, balanced mood/ state) so that she can pay better attention to her child.*

Sing-Along Time!

Facilitator, say:

- "Does anyone know a song that talks about cleanliness?
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one.

Always encourage use of local songs.

Circle of trust exercise[3b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[4]
- Then make a big circle once more.

[1] This exercise was inspired by notes in Boal, A. (2005) Games for actors and non-actors and Anderson, J., Michel, J & Silverberg, J (2001) Ready for action: A popular theatre/popular education manual, encouraging a warm up before a lesson begins so as ready the learners for learning.

[2] Facial expressions are an essential survival emotional skill, especially during the first years of life, through which the child is able to elicit the caregiver's help and attention. Children also have a predisposition to attend and respond to facial expressions from their primary caregivers, hence the mother's face serves as the child's learning interface in this case.

[3] Also known as the Joe Egg

[4] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

Q&A

Q: Why are we doing this exercise?
A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low or when learners seem tired or attention seems to be wandering to bring their focus back to the lesson at hand.*

A Game about Sanitation

Kalambe a Bonga[c5]

Facilitator:

- Here four circles will be drawn on the ground. These four circles should be placed at four corners that will act as safety zones (Clean water, Healthy food, Use pit latrine and Hospital).
- One person will be chosen using picki na piki doli[6] exercise and that person will be it (the germ). [It is at this point that the aspect of tag is introduced].[7]
- The tagger stays at the centre of the circles. She can only tag someone if that person is out of the circle (safety zones)
- The (for each person) mission is to run from one circle to the next without being tagged. If you are tagged (touched) then you are it, and the game starts again and so on.

Questions to ask after game:
How do you feel? What do you think this game is trying to tell us?

Remember that*: when one person is affected it is likely that all may become affected. Therefore, it is important that we take the issue of water, sanitation and hygiene seriously.*

[5] Known as tag or touch and rounder's in English. I merged these two games as I felt it could be more effective in that form to teach about the ills of poor sanitation and positive aspects about good sanitation. This idea was further expanded on and some of the kinks practically worked out as we tried to play it, by Erricah, Lydia and Susan [CHWs key players in the participatory component of this curriculum].

[6] Game used to pick the one who will be last e.g. 'there's a pie in the bedroom.' Any suitable game of chance can be used to be who gets to be the germ.

[7] The person who is it plays the role of the tagger (as in tag/touch) or the ball in rounders

INFORMATION BANK: WATER SAFETY, SANITATION AND HYGIENE

Facilitator:

- Ask participants, what are some of the problems related to water safety, sanitation and hygiene we see in our communities?[8]
- Give them time to respond
- So now, before we begin to talk about why having clean water, good hygiene and good sanitation are important, let us go through the following definitions:[de]

Water safety *refers to ways of having or getting access to clean water supply.*

Sanitation *refers to ways that promote proper disposal of human and animal wastes, proper use of toilet and avoiding open space defecation.*

Hygiene *refers to bodily cleanliness [personal grooming] issues such as bathing, brushing teeth etc.*

Why should this be important to us?[f]

The absence of clean **water, hygiene and sanitation** has negative effects on the nutrition status of children especially when they are very young. Access to clean water and adequate sanitation are important in reducing child mortality therefore increasing chances of survival, especially given the prevalence of diarrhoea and waterborne diseases. Learning about water,

hygiene and sanitation is important because it will helps use know or increase our knowledge on good sanitary health practices in preventative and sustainable responses.

Water supply and sanitation improvement, together with improvements in people's behaviours can have very positive effects on the people and their health through reduction of diseases such as diarrhoeal diseases, intestinal (usually worm related) infections and skin diseases. Therefore, creating clean environments for children averts threats to their health and supports the best chance at a prosperous life by reducing disease and child mortality.

What is the Link between water safety, sanitation and hygiene to stunting?[g]

Poor water, sanitation, and hygiene slow the growth of children. Poor growth (stunting) that occurs in about one quarter to one third of children below 5 years is as a result of intestinal infections most of which are as a result poor sanitation and hygiene. This intestinal infections and diarrhoea diseases lead to loss or inability to absorb much needed nutrients thus the child becomes malnourished.

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[8] In this context of study issues included: poor use of pit latrines, poor hand washing practice, children not bathed frequently left in dirty nappies, mattresses not aired especially when bed has been wetted, open defaecation, poor water sources, and many more.

Questions: *What should be done about this? What can we do? How can we change these behaviours?*

More about Cleanliness: the Sanitation Game[9]

Facilitator:

- Here you are going to draw a maze (lines that will form a box or square) on the ground, make sure there is a lot of space.
- It should look squared, and there should be a starting point and a finishing point. The goal for each mother is to get to the end (the finishing line) where it will show that your family has grown well, due to good sanitation.
- *Y*ou will ask questions and each mother has to give an answer, for them to move forward. [You can ask all, the same question if participants are many and you have few questions. They can then whisper the answer.][10] Or each mother can be asked a different

question if you have enough questions, this can also shorten the games' duration.

- If the answer is correct she and her child will move forward to the next corner, if not they are to stay stagnant.
- **A variation can be added**, whereby if the answer is way off the mark [according to your scale] or a leakage ["cheating"] is given, the mother-child pair has to go back by a step.

NOTE: *This game has no winners or losers, to say, therefore it only finishes when all have managed to reach the finishing line. The target is so that each participant reaches the inner box of good health. It is helpful in getting the group to think on the ultimate course goal.*

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9 The levels in this game was inspired by the snakes and ladders game, in that an individual moves from one step to the next after overcoming a hurdle. However, in this context, it seemed too complex an activity for both the mother and child to do; hence the simple maze was adopted. The child can easily follow the mother's steps.

10 This can be done although it is advisable to source as many statements as possible on the target topic.

Statements for the Game [True or false][h]

a. **Open defaecation is not good; therefore people should not do it. Answer: True**

This is because excreta left in the open often finds its way into sources of drinking water and food and may lead to disease such as typhoid, cholera, diarrhoea and dysentery. Flies are main spreaders of this.

b. The latrine must be used always for urinating and defaecation. Answer: True

To prevent the spread of excreta related diseases.

c. I should drink water from safe sources only.

Answer: True

To prevent diseases like worms, cholera, diarrhoea, typhoid and to remain healthy. Protected springs and boreholes, treated pipe water and protected hand dug wells are good sources of safe water.

d. It is not possible to make water safe to drink.

Answer: False

By boiling it or adding chlorine (solid or liquid) water can be treated and made safe to drink.

e. We must live in a clean and healthy environment. Answer: True

To prevent hygiene and sanitation related diseases and enjoy good health for us and our children.

f. It is not possible to make our environment a clean and healthy place. Answer: False

If we all get involved, by taking individual and collective actions such as sweeping, cleaning, proper disposal of human and animal wastes, proper use of toilet and avoiding open space defecation we can take a step towards make our environment clean and healthy. A mother protects her child, and her community.

g. Good Hygiene means keeping yourself and your surroundings clean. Answer: True

Hygiene is the practice of keeping yourself and your surroundings clean, especially to avoid illness or the spread of preventable diseases.

h. **I should wash**

my hands

regularly.

Answer: True

Your hands can carry seen and unseen dirt that cause diseases. Always wash hands with soap or ash and water to prevent infections.

i. **It is not important for me to wash my hands many times;**

that is wasting water. Answer: False

It is important to wash hands as often as possible, especially after:

- *After going to the toilet and after changing baby's nappies*
- *Before handling and eating food*
- *After blowing or cleaning nose*

Good hand washing helps prevent a lot of diseases

j. **I only need to use soap when washing my hands for**

them to be truly clean. Answer: False

You can use ash for hand washing if soap is not available because ash helps kill germs and bacteria. You can even use it for washing your plates and pots.

k. **I should take bath**

everyday if possible.

Answer: True

To prevent skin diseases and bad body odour

l. **I should**

clean my

teeth daily.

Answer:

True

To prevent tooth decay and mouth odour. You can chew the end of a mulberry stick and use that as your toothbrush, if you don't have one.

m. **Children can**

participate in these

activities. Answer: True

Children can be encouraged to develop knowledge, attitudes and skills that support the adoption of good hygiene behaviours and healthy living.

Children can be agents of change to their peers, families and their communities and promote the importance of drinking safe water, good hygiene practice and use of safe sanitation facilities.

n. **Only fathers should be responsible for hygiene and**

sanitation in the family. Answer: False

Every member of the family has responsibility for Hygiene and sanitation.

Questions [to ask after the game]:

How did this exercise make you feel? What did you think about? Was is helpful?

NOTE: *when this game is done feel free to read out the statements again, but this time accompanied by the answer and additional explanations.*

As you discuss the game, remind mothers about these Questions: What should be done? What can we do? How can we change these behaviours?

You can also add, "mothers help me solve this problem: If my child wets the bed what can I do clean up? What should I do for the child?"

Discussion: The Sanitation problem

Facilitator, say:

- **Let's have a discussion!** I know that there are many issues that affect us when it comes to the topic of water safety, sanitation and hygiene; none of which can be addressed without your involvement. You are the ones who know what happens in your community.
- Therefore, let's take this time to look at them in detail.

Questions:

What are the issues truly affecting us in our communities? What things have you seen other people do that you know need to be addressed? What can we [you and me] do to solve this issue?

NOTE: *Feel free to add more questions to help mothers bring out the real issues at hand.*

- I'm sure all of you still remember Luano: she or he is the child that did not grow well because of poor care; poor feeding and now we have just found out, today after visiting her home, that poor water safety, hygiene and sanitation were also a contributing problem.
- ***Now, let's make a short play!*** You are going to make a play about the poor sanitation practices in Luano's home which lead to her sickness, her family's sickness and finally the whole village.

NOTE: Refer to the play_ the life of Luano in lesson 2. *Create another forum as conducted in lesson 2.*

Joe Egg:[11i] Whose Problem is it?

Facilitator:

- You are going to lead an exercise that helps answer the above question.
- Here a mother goes to the centre, closes their eyes while the other mothers stand behind her, as she falls backwards.
- The other mothers, are going to catch her as she falls and then propel her gently back towards the centre, where she doesn't come to rest, because she starts to fall in another direction, and thus it goes on.
- It is very important that there are always at least three people at any given moment taking care of the person in the middle.
- At the end, if you want, you can roll the person around the circle, instead of immediately standing her up in the middle again.
- The goal is not only for the remaining mothers to catch her as she falls, but that she should have trust enough to know that they will catch her when she falls.

Questions:

What did you feel? What do you think is being said to us in this activity? Did you learn anything from this exercise? Does it have any connection to the above question?

NOTE*: you are doing this exercise to show that all should take part in resolving issues in our communities. We should all take responsibility in creating the change we want to see in our environment.*

[11] Also known as the trust circle in Boal's (2005) arsenal of theatre of the oppressed. Used to build trust in the group, in this case it is used to encourage community support and involvement in resolving issues such as sanitation

Suggested home activity for clean water

Natural water purifier[12j]

Materials: two buckets, sticks, sieve (the one used to when making mealie meal), a clean cloth, river sand and charcoal.

Instructions:

- Make holes in one bucket, then place sticks at the bottom of the bucket so that the all meet at the centre;
- then place a sieve [like the one used for sieving mealiemeal] on top of sticks, and place clean cloth on top of sieve.
- Place the river sand and charcoal on top of the cloth.
- Get a second bucket (without holes) and place sticks on top of that bucket so that they extend outward. These sticks must be strong and firm, enough to sit the punctured bucket.
- Then pour water into the top bucket, and clean safe to drink water will filter into bucket below.
- Now you have germ free, clean water!

Homework: the village of dreams[13]

NOTE*: Use this game as a means of giving homework. It is meant to make having an extra task to do a fun process.*
Also keep a written record of the task each mother chooses to do

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).
- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.

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[12] During the participatory workshop, a question on alternative methods of water purification was paused. After brainstorming, Susan [CHW] brought to light that during one of her training endeavors they taught under 'Peacecorps' how to purify water as described above. We all reached a consensus to try this method, as at now during a focus group discussion with mothers from the Saving brains study, it was said that this alternative was very useful and helped mothers have water that had no aftertaste.

[13] I created this game as I was looking for a way to make homework fun and also have a process delegation of tasks that was left to chance. No one can accuse another of giving them a difficult task or favouring another because selection is personal. It also encourages mother to truly think about their personal goals, their goals for their child and provides an emotional support system for the mother. Although it was not assessed, it is my hope that this activity (through hut 3) will help reduce maternal depression.

- For huts 1 and 2, the tasks are highly subjective in that the mother bears all control on whether the task will be done or not. There is also no exact way of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done.
- *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

Sharing Knowledge: 15 minutes of fame[14]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:
-Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][k]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then Mary will return the favour, by saying her name is Jane and…...

NOTE: *this allows mothers to leave group with positive feelings about themselves and each other.*

Have a lovely, germ free Day…

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[14] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

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[b] Boal, A (2005) Games for actors and non-actors, second edition. Taylor and Francis online publication. [Only the first part of this activity was used as the second part was deemed too complex at this stage.]

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[k] Boal, A (2005). Games for actors and non-actors, second edition. Taylor and Francis online publication.

Lesson 6: Physical Development.

Activating your whole body

Objectives:

By the end of the session participants should:

- Recall that exercise is important for the child's physical growth
- Reflect on the role that physical development has in a child's growth.
- Know that this growth is obtained through play.

Materials needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], a clay village (village of dreams), activity list and a dice.

***Remember*:** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:
Always remember to:

- Greet the mothers and their children as they walk in.
- always be friendly and welcoming
- Encourage all to sit in circle, as you continue this "village meeting."
- Beat the drum to signal that the meeting has begun.
- Thank mothers for coming to today's session

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help or have suggestions.*

Game: the Action game

Facilitator:

- Ask all to stand, maintaining the circle, and do a stretch exercise: stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck. Encourage mothers to encourage children to

  stretch as well!

  [This exercise transitions into the action game]

***The Action Game*[1]**

Facilitator:

o Ask each mother (one at a time) to simply go into the middle and act

out or imitate an animal or something they like.

- Then tell everyone else to imitate what was done [like in the name game only this time it is just actions]. Encourage mothers to try to get their child to imitate their action at this point.
- As mothers imitate the animal they like, they is free to make animal sounds (e.g. oink, oink), not forgetting the all important funny faces.

Q & A

Q: Why did we do this game?

A: It is always important to stretch and get ready to learn. In terms of child development, facial expressions help teach the child how to express emotions, sounds help the child with language and the physical activities create a basis for child to develop their muscles (physical development).

Sing-Along Time!

Facilitator, say:

- "Does anyone know a traditional song that talks about or helps with physical development?"

- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up? Feel free!

Always encourage use of local songs and creativity[2].

Circle of trust exercise[3a]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[4]
- Then make a big circle once more.

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[1] This game is inspired by Boal's (2005) circle of rhythms of Toronto and Anderson, J., Michel, J & Silverberg, J's (2001) Who are you?/ What are you doing improvisation exercises. However, I eliminated the circle of rhythm 'pairs' and the who are you?/ What are you doing?, verbal interlude to suit the overall theme of the physical activation of the body in this lesson.
[2] Creating their own songs may help increase their sense of ownership of the programme at hand.
[3] Only the first part of this activity, the elastic circle is used.
[4] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

Q&A

Q: Why are we doing this exercise?
A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low.*

Village of dreams: pass the ball activity[5]

Materials: a ball or soft cloth

Facilitator:

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth.
- Ask everyone to reflect on the "village of dreams" activity that we chose. Say: "Which activity did you commit to do by yourself or with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."
- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you propose new activities or alternative ways of doing them.
- Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, stir this cibwantu for me).

[5]The 'passing' game from Barton's (2009) Acting: Onstage and off, serves as the base for this task. I created this activity so as to create a stress free environment for reflection on homework tasks. As the mother passes the ball and responds to facilitator's questions and the discussion proceeds, the mother is disarmed and appears less likely to worry about reflection activity at hand. She is free to play with the ball (e.g. squeeze or throw in air) before passing it on.

INFORMATION BANK: PHYSICAL DEVELOPMENT

Physical development[b]

This refers to the development of muscles and motor (gross and fine) skills as a child grows.

Importance of Physical Development[c]

Physical development is important because it provides children with the abilities they need to explore and interact with the world around them. It involves activities such as running around outside, jumping on the bed, holding a cup or spoon, parent's finger or using a stick to drawing in the sand or colour in a book if possible.

Physical development makes play possible, which is essential for the child's entire development through stimulation. Don't forget that play is the work of childhood.[d]

Developmental Milestones: knowing what my child should be able to do[e]

Knowing the developmental milestones helps a mother know whether her child is growing at a typical rate. Since our children are two years old we know that physically they should be able to:

- ✓ Run, jump, hop and walk well. May also be able to kick ball, though not that well.
- ✓ Able to catch (upper body) and throw ball.
- ✓ Hold spoons, container, cups and can stack a tower of plates or cups (at least 6 or 7 plus).[6] Moulding nshima during a real meal or pretend clay meal (fine motor skills). This so as by this stage they have gained control of hands and fingers.
- ✓ Can climb chicken ladders (no stairs in our homes).[7] But most two year olds are able to or will be able to climb chicken keep stairs (not high) by this age and later on can climb into the maize shelter which also has a ladder (stairs).

***NOTE**: children grow at individual rates with some being faster or slower than others. Therefore encourage mothers not to be quick to worry (as long a diverse balanced diet, clean environment and stimulation is available).*

6 Adapted to suit this context as towers are not available in this context

7 It was noted that climbing stairs is not an applicable milestone in this context. However, during the participatory workshop the CHWs advised that chicken steps be the alternative as these are quite common the this rural setup and that most children are able to climb these steps by age two.

Physical developmental benefits of play[f]

- Positive emotions increase the efficiency of immune, endocrine, and cardiovascular systems.
- Decreases stress, fatigue, injury, and depression due to deprivation in children.
- Increases range of motion, agility, coordination, balance, flexibility, and fine and gross motor exploration

NOTE: *Advise parents [mothers in this case] that this does not mean that a mother should leave child to play all day. Simply, that a mother can allocate a specific amount of time for the child to play with peers on a regular basis. A parent should also take the time to play with her child.*

Games for Physical Development

Facilitator, say:

- We are now going to play a few games that help enhance physical development.
- Let's begin:

The Duck tag[8g]

- Here, each mother is going stick their knees tight together with feet facing sideways so that they waddle like a duck. The arms will also be squeezed against the body with hands sticking out like flippers.
- Everyone is "it" all will waddle like ducks and try to tag each other.
- In this game, you tag others by waddling over and tagging them lightly with your flippers.
- The goal here is for each one to try to tag others without moving arms away from your body.

- The game continues until all have managed to tag each other.

This game is not only useful for stress relief and interaction but improves reflexes and running skills (especially in children) as well as control.[h] *Encourage children to imitate these actions. It's also fun!*

The Crazy walk[9]

Facilitator:

- Ask group members to take a breath and stretch a bit.
- Then tell them to spread out.
- Then ask all to walk around the space slowly while walking the way they usually walk on a daily basis.

[8] Renamed this game from Penguin tag to Duck tag as the penguin is a foreign bird in this context and none seemed to know what it is.

[9] The Crazy walk is combination of 'as you like it', 'imitating others', 'the demon' , 'dissociate coordinated movements' and 'mirror sequence' exercises from Boal's (2005) arsenal of theatre of the oppressed.

- Each one should make sure that no two legs are on the ground at the same time. For example, if the left leg is down then the right leg should be up and vice-versa.
- Participants can then observe how others are walking and select one person to imitate. One can follow behind the selected person so that she appears like shadow or face the selected person so that she acts as her reflection (like a mirror).These imitations can be accompanied by sounds and facial expressions.
- Then participants can increase speed to walk at a normal pace, and the pace can alternate between fast and slow movements. Hand and body movements should be present and visible.
- Now ask participants to show a happy walk, an angry walk, a bored walk, a lazy walk, a sad walk.
- Then ask them to walk as if they are crazy or how a crazy person walks. For instance, walk in zig-zag motion, never straight, throw hands in all directions, and make crazy looking faces and animal noises. These can be slow or fast or normally paced.
- *If you want, variations can also be made to imitate how a chicken, duck, dog or monkey, etc walks as well as the sounds they make.*

- Afterwards, mothers can stretch to relax and form the circle of knots in conclusion.

Questions

How did you feel? What do you think about these exercise games? Why did we do them?

After getting responses re-emphasise the aspect physical development and its importance For instance, in these games: we exercised our gross motor skills, self control, thinking skills, pretend play abilities and so many other aspects of development which are essential in child growth.

NOTE*: Always make sure that there is enough space so that no one hurts the other, especially during the crazy walk.*

Homework: the village of dreams[10]

NOTE*: Use this game as a means of giving homework. It is meant to make having an extra task to do a fun process.*
Also keep a written record of the task each mother chooses to do

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).
- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.
- For huts 1 and 2, the tasks are highly subjective in that the mother bears all control on whether the task will be done or not. There is also no exact way of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done. *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

Sharing Knowledge: 15 minutes of fame[11]

[10] I created this game as I was looking for a way to make homework fun and also have a process delegation of tasks that was left to chance. No one can accuse another of giving them a difficult task or favouring another because selection is personal. It also encourages mother to truly think about their personal goals, their goals for their child and provides an emotional support system for the mother. Although it was not assessed, it is my hope that this activity (through hut 3) will help reduce maternal depression.

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:
-Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][i]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then Mary will return the favour, by saying her name is Jane and…....

NOTE: this allows mothers to leave the group with positive feelings about themselves and each other.

Have a lovely day…

[11] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

[a] Boal, A (2005) Games for actors and non-actors, second edition. Taylor and Francis online publication. [Only the first part of this activity was used as the second part was deemed too complex at this stage.]

[b] Brotherson, S. (2006) Understanding physical development in young children. North Dakota State University Extension Service

[c] Brotherson, S. (2006) Understanding physical development in young children. North Dakota State University Extension Service

[d] The power of play: learning through play from birth to three years. Retrieved from: http://www.zerotothree.org

[e] The Early Childhood Direction Centre (2012) Developmental checklists birth to five. Retrieved from: http://ecdc.syr.edu/wp-content/uploads/2013/01/Developmental_checklists_Updated2012.pdf

[f] Whitebread, D., Basilio, M., Kuvalja, M. & Verma, M. (2012) The importance of play: A report on the value of children's play with a series of policy recommendations. Retrieved from: http://www.importanceofplay.eu/IMG/pdf/dr_david_whitebread_-_the_importance_of_play.pdf

[g] Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual. Retrieved from: http://wwwpirg.org

[h] Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual. Retrieved from: http://wwwpirg.org

[i] Boal, A (2005). Games for actors and non-actors, second edition. Taylor & Francis online publication.

Lesson 7: Diverse Diets for the Growing Child

How and what a child eats

Objectives:

By the end of this session, participants should:

- Recall that a balanced diet is important for the child's healthy growth
- Recall that diverse diets will help prevent stunting
- Know that children model the parent's eating behaviours as well.
- Be able make a balanced meal using locally available foods

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], piece of sack string, 10 pieces of paper (cut out), pencil or charcoal, glue, a clay village (village of dreams), activity list and a dice.

Remember*: *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.

Introduction

Facilitator:
Always remember to:

- Greet the participants and their children. Ask about their day, week, etc.

- Introduce yourself and briefly talk about what the meeting is about.
- Encourage co-learners to sit in a circle, imitative of a village meeting. If possible the facilitator can have a drum[1] (old pots or buckets can serve as alternatives) present to begin the session.
- Thank participants for attending this meeting and telling them you are happy to be meeting with them.

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[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture, I felt it would be an effective means for signaling to the participants that the session has began as well as getting everyone involved through sound and movement.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able*

Relaxation and trust building exercises

Facilitator:

- Ask all to stand, maintaining the circle, and do a stretch exercise: stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck. Encourage mothers to encourage children to stretch as well!

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

Remember facial expressions[2] help teach the child how to express emotions.[a]

***Remember**: We are doing this to relieve tension and relax so that the mother is to be stress free (in a good, balanced mood/ state) so that she can pay better attention to her child.*

Sing-Along Time

Facilitator, say:

- "Does anyone know an action song that talks about healthy foods/ local foods? Or maybe a song that talks about the good outcomes of good care/ feeding?"
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

Always encourage use of local songs along with mother-child interaction.

Circle of knots exercise[3b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands):
  stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[4]
- Then make a big circle once more.

---

[2] Facial expressions are an essential survival emotional skill, especially during the first years of life, through which the child is able to elicit the caregiver's help and attention. Children also have a predisposition to attend and respond to facial expressions from their primary caregivers, hence the mother's face serves as the child's learning interface in this case.

[3] Only the first part of this activity, the elastic circle is used.

[4] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

Q&A

Q: Why are we doing this exercise?
A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low or when learners seem tired or attention seems to be wandering to bring their focus back to the lesson at hand.*

A child of hope
The Name Game
Facilitator:

- By now, we all know this game. Many of us have added or made a few changes and that is okay.
- Today, each one of us will say our child's names instead. We are going to pretend that we are our children.
- For example, one of us will enter the circle say our child's name, then shout or act out what we want our children to be, and the rest will follow once asked: "who is she?"
- The group will then repeat the "child's" name with action. [This helps mother view the child as something more than a dependent but someone with a bright future and a place in this our world].

- Now let us all seat down. [In the absence of chairs use vitenges or mats.] Don't forget to maintain the circle.

Village of dreams: pass the ball activity[6]

Materials: a ball or soft cloth

Facilitator:

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth.
- Ask everyone to reflect on the "village of dreams" activity that we chose. Say: "Which activity did you commit to do by yourself or with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."
- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you propose new activities or alternative ways of doing them.
- Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, stir this cibwantu for me).

INFORMATION BANK: NUTRITION AND FEEDING

Facilitator, begin:

- *Everybody eats! In order to survive we all need food, this includes our*

children as well. We know that at this stage [age 2 years] most of our children cannot only attempt to feed themselves, but they eat what the family eats as well. Feeding and play are important for our children's proper growth and development[d].

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[6]The passing game from Barton's (2009) Acting: Onstage and off book, serves as the base for this task. I created this activity so as to create a stress free environment for reflection on homework tasks. As the mother passes the ball and responds to facilitator's questions and the discussion proceeds, the mother is disarmed and appears less likely to worry about reflection activity at hand. She is free to play with the ball (e.g. squeeze or throw in air) before passing it on.

Importance of feeding

Feeding is a primary event in the infant or young child's life.[e] Growing children, therefore, need plenty of energy (calories) and nutrients (protein, fat, carbohydrate, vitamins and minerals) to ensure they grow and develop well.[f] They also need to eat a good variety of foods, including lots of fruits and vegetables, to make sure they get all the other important dietary components they need.[g] In the previous curriculum, we established that there are three food categories: i) body building, ii) energy giving foods and iii) protective foods.[7] Therefore, when preparing a meal a mother must try to include all of them to make a healthy diet. A good appetite will usually ensure that children get enough energy from the food they eat.

Note that the nutritional status of the child also has an impact on the child's relationship with the primary caregiver and is predictive or indicative of an unhealthy relationship with the caregiver.[h] *This is so as how a mother feeds the child and her behaviour during feeding time teach the child how they are to react. If you're shouting at the child or saying mean things because they aren't eating the food or he or she is taking their time it will likely create a negative impact in the child.*

Feeding behaviours

A person's eating habits are established as young as 2 to 3 years old.[i] This means a child who eats a diet rich in vegetables at a young age is more likely to eat vegetables as an adult. To help children develop patterns of healthy eating from an early age, it is important that the food and eating patterns to which children are exposed – both at home and outside the home – are those which promote positive attitudes and enjoyment of healthy food.[j]

The teacher in this case is the parent. **Remember, our responsive feeding exercise in lesson 4.** The feeding experience provides not only sustenance but also an

opportunity for learning for both the mother and her child.[8k] It affects not only children's physical growth and health but also their psychosocial and emotional development. Responsive feeding therefore, helps the child learn to speak and also teaches the child good eating behaviours. Parents are who they learn from.

Feeding times and portions

Question: How many meals should a two year old child eat a day? Answer: 5 meals (that is 3 full meals and 2 snacks).[l]

Our children are at least over two years old, hence, they should have the above stated number of meals. We can use the feeding bowl for age appropriate feeding portions.[9] *In the absence of these you can start with giving the child a small portion and tell her that if she is still hungry you will give her some more.* Variety is as important as quantity.

[7]This is referring to the curriculum used in the first phase of the Saving Brains study.

[8] The mother learns to read her child's hungry or satiety cues. She also learns to read her child's discomfort levels and attitudes towards certain foods, while the child learns her mother's facial expressions (social cues) and language expressions.

[9] During the previous curriculum mothers were given feeding bowls that helped them know what portions a child should have per meal according to age. In this phase we had no access to such materials, thus half the levelled adult meal was opted for, in line with Serrano and Powell's (2014) recommendations.

To ensure a child has appetite, the best thing would be to allow them to play as much as possible so that they are hungry at meal time.[m] Remember, play is children's work. Active children tend to be able to get all the nutrients necessary if availed by the mother. Use smaller plates, spoons, and cups for children, to prevent overeating.[n]

***NOTE**: Review the feeding card & mat used in the CSH Nutrition Promoter guide for further clarification on feeding portions and meals.*

Link of diets to stunting

Stunting and other forms of undernutrition are clearly a major contributing factor to child mortality, disease and disability. For example, a severely stunted child faces a four times higher risk of dying, and a severely wasted child is at least a nine times higher risk.[o] Undernutrition early in life clearly has major consequences for

future educational, income and productivity outcomes. Stunting is associated with poor school achievement and poor school performance.p This means that focus on the child's diet is very important as well. A balanced diet along with physical activity (attained through play) will help in the child be healthy.

Creating a balanced diet

There are many local fruits and vegetables that can be used as snacks instead of processed foods. Children must be discouraged from eating non-nutritious foods (e.g. soft drinks, jiggies, sweets, etc.). Instead, you can give your child fruits[10] (e.g. ½ a banana, a cup of Mbula, Masau, a mango etc.). You can even make Mubuyu (baobab), Mbula, or cibwantu drink not only for baby but the entire house hold as well. The mother's nutrition and the entire household's are important too.

Questions to ask:

What do think about this information? Does it make sense to you? If not, where are you not clear? What other local foods can be used as snacks for our children?

A Play of Sorts: Luano versus Luyando's Mother

Facilitator, say:

- We are now going to make a play about an unhealthy child, Luano. Luano was not well fed, resulting in malnutrition.
- When the play ends. As we have done other times, anyone [not part of the play] is free point out what was wrong. Then the play will be acted again, but this time with the correction.

A Twist in the tale….

- Then, we are going to pick the two [or more] mothers, who acted as Luano and Luyando's mothers and interview them in their characters.

[10] Used Serrano, E. & Powell, A.'s (2014) article as a guide for snack measurements.

- Remember, the stop, walk, justify game. This is almost the same. Only here, the actresses [Luano and Luyando's mothers] will have to explain why they did what they did in the play.

NOTE: *the idea is to create a safe target of discussion without pointing directly at real life individuals. The hope is that as this discussion progresses mothers will always want to associate with the good mother while distancing themselves from the bad one, not only in word but in practice as well. It is also a good way of promoting self-reflection through external observation.*

Discussion: Examples of healthy foods.[11]

Facilitator, say:

- Now we are going to take the time to talk about local foods that are important when creating a healthy a diet.

NOTE: *This discussion though guided by the facilitator is left to the participants. The goal here is see what they know about the contents of a balanced meal. You can theme each round, for example you can say: let's talk about body building foods, or energy or protective foods. Or let's say the snacks that are good for our children. If you want, you can vary it and say we are going to talk about unhealthy foods instead.*

The ball of remembrance[12q]

Facilitator, say:

- Here, we will talk about what we know or remember about healthy foods. I will ask a question, then throw the ball to one of you.

Some questions to ask:
What do you know about good nutrition? Or what do you think good nutrition means? How many food groups are there? What makes a balanced diet? And so on. Feel free to include more.

- Then that person has to mention a food that is good or healthy for eating.
- After answer is given, I will ask all to either agree or disagree with that answer. Then we will continue with the game.
- Now that we recall, the importance of a healthy diet, in the next lesson we are going to prepare a meal.

[11] This discussion is one by the participants for the participants. No information is shared unless participants completely have no idea what healthy or unhealthy foods are.

[12] This activity is named for the passing technique used in acting during character development or learning script (Barton, 2009). In this case, I felt it would work well in gauging how much the participants knew on child development.

Note: This game can be accompanied by a song and person with the ball when song ends says something.

General Homework

Facilitator:

- Delegate and ask mothers to come with the ingredients: kaplanga (moringa), mundyoli (pumpkin leaves pounded groundnuts), and mealiemeal.[13] For example, each mother can bring a cup of mealiemeal; while some can bring a cup of pounded groundnuts, some pumpkin leaves, 2 tomatoes & onions, quarter a cup of cooking oil, a bowl of moringa leaves and so on, depending on what is available that season.

NOTE: *the facilitator should find a place to do the cooking demonstration from, e.g. their home before the set dates for that session.*

Homework: the village of dreams[14]

NOTE*: Use this game as a means of giving homework. It is meant to make having an extra task to do a fun process.*
Also keep a written record of the task each mother chooses to do

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).
- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.
- For huts 1 and 2, the tasks are highly subjective in that the mother bears all control on whether the task will be done or not. There is also no exact way

of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done. *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

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[13] This menu was created around what was available that season. The main participatory group and mother heads (leaders of the mother groups in the Saving Brains) agreed upon these ingredients.

[14] I created this game so the delegation of tasks was left to chance. No one can accuse another of giving them a difficult task or favouring another because selection is personal. It also encourages mother to truly think about their personal goals, their goals for their child and provides an emotional support system for the mother. Although it was not assessed, it is my hope that this activity (through hut 3) will help reduce maternal depression.

Sharing Knowledge: 15 minutes of fame[15]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:

-Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][r]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then May will return the favour, by saying her name is Jane and…...

Note*: this allows mothers to leave group with positive feelings about themselves and each other.*

Have a lovely day....

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[15] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

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[b] Boal, A (2005) Games for actors and non-actors, second edition. Taylor and Francis online publication. [Only the first part of this activity was used as the second part was deemed too complex at this stage.]

[c] Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual. Retrieved from: http://wwwwpirg.org

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Lesson 8:

Diverse

Diets

Creating a

balanced

meal

Objectives

:

By the end of this session, participants should:

- be able to make a balanced meal using what they have in the community

- Be able to observe that children observe parent's eating behaviours.

Materials needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], two spoons, a piece of string (or bark or tape), pots, pans, plates, cups and ingredients for meal

> ***Remember*:** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:
Always remember to:

- Greet the mothers and their children as they walk in.
- always be friendly and welcoming
- Encourage all to sit in circle, as you continue this "village meeting."
- Beat the drum to signal that the meeting has begun.
- Thank mothers for coming to today's session

> **NOTE**: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

The Mother Hen Activity [1a] Again!
Facilitator:

- Ask all to stand in two lines (queues) then face each other.

- Then tell them that the person they are facing is now their mother in this exercise. This mother must take care of her "young child" and make sure no harm comes to them, for instance bumping into someone, or a stone or tree or wall. The chick is supposed to follow the mother's voice and trust that the mother hen will keep her safe.

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[1] This activity is originally known as Noises in Boal's Games for actors and Non-actors, second edition. However, I renamed it, after observing a hen and its chicks, and added to the rules to suit the goals of this course. In this case this activity

proved very effective in explaining what a mother's role is in her child's life. The mothers and community health workers also felt it was a very relatable concept.

- Ask the mother hens, to make chicken sounds (clucking) and approach their chicks (who have to close their eyes), then begin to walk. Mother must make sure that their child is following, able to hear her clearly. The chick must follow the sounds of their mother hen.

- The mother hen make three sounds: a quiet, calm noise for the child to follow, one loud noise to warn of danger so that the chick can stop when faced with "danger"(please note that is no actual danger, do not cause harm or encourage it) and then a humming sound to act as a pretend feeding break.

- The goal is for the mother hen to guide, and protect their chicks without touching them with her hands. Do not force, guide.

- Once this is done (duration, 5-7 minutes), the facilitator can ask the following questions per pair:

Questions
How did you (the 'chick') feel as you were being led? How did you (the 'mother hen') feel as you led your chick? What did you fear? At what point where you really worried? What did you think or do, in that instance?

- And then the one who was the mother hen can now play the role of the young chick and the one who was the chick at first can now become the mother hen.

- Repeat the questions after the switch and exercise is done.

NOTE: *Remember that as a facilitator, you act as a guide through this process. You will decide when to start and when it's feeding time. You will also explain the game to other participants as it begins. However, perceived danger will be determined by the" mother hen" who will lead the chick. Only the chick closes its eyes, the mother hen needs her eyes to remain open so that she can see where they (mother and chick) are going.* ***If children are present the mother hen also takes responsibility for the children as well. She must encourage them to take part in the movements as well.***

Additional questions [ask after this exercise is done]: Did you learn anything from this exercise? Is this similar to the relationship between a mother and her child? If yes; why? If not, why? What is a parent's role in the child's development?

You have already looked at guide and protect, in this case you are now looking at the practical aspect of feeding.

Sing-Along Time!

Facilitator, say:

- "Does anyone know an action song that talks about healthy foods/ local foods? Or maybe a song that talks about the good outcomes of good care/ feeding?"
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

  Always encourage use of local songs along with mother-child interaction.

Circle of knots exercise[2b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[3]
- Then make a big circle once more.

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. Once done, move on to the cooking demonstration.*

Let's COOK: Aatu jiike[4]

Please note: all present must wash their hands with soap or ash before you begin preparing the meal. Also wash the vegetables and/ or fruits thoroughly before cutting them.

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[2] Only the first part of this activity, the elastic circle is used.

[3] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

[4] The menu template was downloaded from: http://www.nourishinteractive.com/nutrition-education-printables/category/16-printable-kids-healthy- menu-plans-daily-meal-planner-childrens-healthy-food-groups-balanced-meals

MENU OUTLOOK

[menu designed for study according to seasonal availability of foods included]

Mulyo Day

Kaplanga
Moringa leaves cooked in oil, with onion and tomato

Mundyoli
Dried pumpkin leaves with groundnuts

Nshima
fMealiemeal boiled in water until it hardens

Munkoyo
Unfermented drink made out of maize seed and ftunkoyo roots

Mbula/Masau
Traditional fruits, currently in season
Water

TIME	FOOD & GROUP	INGREDIENTS	PREPARATION
20 min.	Mundyoli (body building)	Pumpkin leaves(dry) & groundnuts (pounded), ½ onion	Boil water till hot, then add pumpkin leaves and groundnuts, until cooked, then add onion and salt… allow to simmer
20 min.	Nshima (energy giving)	Roller meal* (best) & water	Boil water, pour mealiemeal and stir until ready
7 min.	Moringa (protective)	2- 3 cups fresh Moringa, 1 tomato, 1 onion, 2 tablespoons of oil	Put oil on hot pan, add 1 tomato & ½ onion fry, and then add moringa leaves. Fry till ready.
	Fruits & drink (protective)	Mbula/Masau Drink: cibwantu/ water	Wash fruits & serve in bowl Cibwantu, will be ready made if available

* Roller meal is rich in protein, carbohydrates, fat and fibre. It also contains iron, zinc & B-vitamins (thiamine & folate)[c]

Facilitator, say:

- *You have done this activity before at home.*
- *Now we are going to eat with our children, feeding them the way we have practised. It's your time.*

Responsive feeding exercise[5d]

Responsive Feeding Exercise

Materials: two spoons and tree bark or sack string

Facilitator, say:

- In lesson 2, 4 & 7 we learnt that responsive feeding helps in the prevention of stunting (especially with relation to underfeeding), develop language & teaches the child good feeding behaviours. The mother is also better able to monitor what her child eats and the amount.
- **Our task is to**: Talk to our child (or children) as we feed them.
- You can pretend that the spoon is a train trying to deliver goods (the food) into a special destination (the child's mouth). Be excited and happy.

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[5] Suggested home activity in lesson 4.

- You can tie two spoons tightly together by their handles, so that when the child eats the mother can also use the other end to feed herself. *This will encourage the child to eat as mummy is doing it too. It will also help you be able to monitor what your child is eating, and how much.*

NOTE*: there will be no homework review in this session. Neither will any home tasks be given using the village of dreams. Notify mothers that they can practice the task they chose in lesson 7.*

Sharing Knowledge: 15 minutes of fame[6]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say: Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as

the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][e]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then Mary will return the favour, by saying her name is Jane and…....

NOTE: this allows mothers to leave the group with positive feelings about themselves and each other.

Have a lovely day…

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[6] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

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Lesson 9: Socio-emotional Development.

A family affair

Objectives:

By the end of this session, participants should:

- Recall the importance of taking care of oneself.
- Know that the home environment is critical for good socio-emotional development in the child.
- Know that maternal well-being will influence child's well being

- Be able to relate to others, self and child without being forceful.

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum], a clay village (village of dreams), activity list and a dice.

***Remember*:** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:

Always remember to begin a session by:

- Greeting the participants and their children. Ask about their day, week, etc.
- Introduce yourself and briefly talk about what the meeting is about.
- Encouraging co-learners to sit in a circle, imitative of a village meeting. If possible the facilitator can have a drum[1] [old pots or buckets can serve as alternatives] present to begin the session.
- Thanking participants for attending this meeting and telling them you are happy to be meeting with them.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

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[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture, I felt it would be an effective means for signaling to the participants that the session has began as well as getting everyone involved through sound and movement.

Face-Off: Pass the face into the trust circle

Facilitator:

- Ask all to stand, maintaining the circle, and do a stretch exercise: stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck. Encourage mothers to encourage children to stretch as well!

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

Remember facial expressions[2] help teach the child how to express emotions.[a]

Pass the face[3b]

Then say:

- Now, we are going to play a game called pass the face. Here, one person at a time, going clockwise around the circle, will make a face. It can be of any emotion (happiness, sadness, anger, a frown, etc) or a silly face.
- The person to the immediate left of the face-maker must mimic that face; then make a new face to pass on to the mother on their left. Everyone should make at least one face. *[**Variations** centred on sound can be made instead of facial expressions, or both can be done.]*

The trust pillars[4]

- "Now close your eyes and move around carefully. Then I am going to shout out numbers (e.g. 1 or 2 or 3) and each one is supposed to find a partner (with eyes closed). Then I am going to tell you to open your eyes, to see if you've made it. Please, do not rush take your time."
- Let's all now be in threes, two people on each side (two facing each other and one in the middle_ can face any direction).
- The middle person must close eyes and the other two will push her from side to side (feet must not move from the centre). Then you can switch.
- Let's make a circle again; this circle must be very tight. One of us will go on the centre, and we will push person from one side to the next (feet must remain on the centre).

Q & A

Q: Why are we doing this?

A: The faces or sounds teach children affect (how to show emotion) and also teach one to communicate non-verbally with others. The blind walk, teaches us to sense others. While the trust pairs, teach us to trust and rely on each other, and that we must also support and be there for each other as well.

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[2] Facial expressions are an essential survival emotional skill, especially during the first years of life, through which the child is able to elicit the caregiver's help and attention. Children also have a predisposition to attend and respond to facial expressions from their primary caregivers, hence the mother's face serves as the child's learning interface in this case.

[3] This game helps develop as well as enhance facial movement skills in acting. In this context it simply serves as an opportunity for the child to learn about different emotions and other facial expressions all important for social emotional growth.

[4] This is a variation of the Joe egg. In this instance, I felt it could be used to put across the message of mothers needing a support system through family in raising the child.

Village of dreams: pass the ball

activity[5] Materials needed: a ball or soft cloth *Facilitator:*

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth
- Ask everyone to reflect on the "village of dreams" activity that we chose. Say: "Which activity did you commit to do by yourself or with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."
- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you propose new activities or alternative ways of doing them.
- Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, put this plate in that dish for me)."

Circle of knots exercise[6c]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[7]
- Then make a big circle once more.

Q&A

Q: Why are we doing this exercise?
A: We are doing this so as to bring our focus onto the lesson at hand and remember that team spirit and effort are important.

[7] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

Sing-Along Time!

Facilitator, say:

- "Does anyone know a song or game that talks about happiness? Or maybe a song that talks about how to live well with others?"
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

INFORMATION BANK: SOCIAL-EMOTIONAL DEVELOPMENT

Social emotional development

Social emotional development refers to the child's expressions and management of emotions and the ability to establish positive and rewarding relationships with others[d] in their day to day experience.

Importance of social emotional development

Social emotional development influences how competent the child is in that society as it determines the child's ability to identify and understand feelings, to correctly read and understand emotional states in others, to manage strong emotions and their expression in a constructive manner, to regulate one's own behaviour, to develop empathy for others, and to establish and maintain relationships.[e]

Infants experience, express, and perceive emotions before they fully understand them.[f] In learning to recognize, label, manage, and communicate their emotions and to perceive and attempt to understand the emotions of others, children build skills that connect them with family, peers, teachers, and the community.[g] These growing capacities help young children to become competent in negotiating increasingly complex social interactions, to participate effectively in relationships and group activities, and to reap the benefits of social

support crucial to healthy human development and functioning.[h]

Healthy social-emotional development for infants and toddlers unfolds in an interpersonal context, namely that of positive ongoing relationships with familiar, nurturing adults.[i] Young children are particularly attuned to social and emotional stimulation. Even newborns appear to attend more to objects that resemble faces.[j] They also prefer their mothers' voices to the voices of other women.[k] Through nurturance, mothers support the infants' earliest experiences of emotion regulation.[l]

Factors influencing social emotional development

During the village of dreams exercise we encouraged each mother to think on what she wants her child to be when he or she grows up and also for the mother to have good thoughts towards herself. This is to encourage sensitivity (responsiveness) and warmth towards the child's needs. This is also because we have learnt that for healthy social emotional development to occur, ***a child needs a healthy environment (stimulatory and responsive parenting) and a healthy mother.*** *A healthy mother has good thoughts towards herself and her child, and is able to nourish and create a good environment for her child. She also uses good parenting practices to manage her child's behaviour; thus encouraging good behaviours in the child and discouraging bad ones. A mother must be sensitive and warm.*

We have already established that if a mother is not well. For instance, if she is sick or unhappy most of the time then she won't be able to respond to her child properly, leading to neglect or harshness. Therefore, it is important to ask for help in such situations.

Note: If you need help it is best to seek it as soon as possible. Talk to your friends, or elders or go to the hospital, if you are feeling unwell.

Parental warmth and sensitive responsiveness are important in creating a socially competent child.[m] For instance, answering nicely when your child calls, talking to your child or playing with your child enhance your child's social emotional development. This is not limited to the mother but other adults and older children who interact with the child especially regularly_ **family**.

Parenting Styles:

In lesson 1 we talked about how a mother's role is to guide. **Parenting styles are ways we use for guiding our children.** These refer to how we discipline or communicate information to our children.[n] They are important in building healthy social emotional development which leads to social competence in that child. There are four types:

Diagram not included for purposes of publication

Questions: Which of these do you think is best to encourage healthy social emotional development in your child? Why? *[Allow mothers to respond before giving the answer.]*

Answer: See the diagram below[o]

***NOTE**: Explain content the diagrams*

As shown, **the parenting style a mother uses determines the child's well being**. A mother therefore must be responsive, not harsh or permissive.

The mother's well being and competence

Now you know that you should take care of yourself and your child. What will you do to ensure that your child has healthy social emotional development? How best can we help each other be better parents to our children?

Remember, that how you raise your child is the way they will raise their children as well.

Games for Socio-emotional development

Lengu-Lengu[p]

Facilitator, say:

- Let's all rise in a circle, all-bending forward patting on our thighs or clapping ours hand singing the song "Lengu- Lengu".
- This game proceeds with mothers 1 and 3 slightly peeping over participant number 2 and looking at each other. 2 and 4 then do the same, 3 and 5, 4 and 6, 5 and 7, etc

(only two mothers stretch at once. While the rest remain bending while singing until their turn).

- If one of us fails to rise we start again.

Questions:

What do we learn from a game like Lengu?

NOTE: *This game is good for encouraging cooperation and alertness in that for the cycle to continue players have to be in tune with each other. Here we see both physical, cognitive and social development/ integration are encouraged."*

Lean on me (or count on me) [8q]

Facilitator, say:

- Let's all pair up (in twos) with our backs towards each other.
- We will start with leaning on each other while sitting, and then we will try to stand up. Don't touch the ground or use your hands, just your backs.
- You can bend forwards or backwards or sideways and go up or downwards as long as you don't lose contact.
- Now, let's face each other, seated on the floor, legs apart and slightly stretched, knees bent, soles of the feet flat on the floor and close to your partner's feet; mothers take one another by the arms (not just by the hands, which is much more difficult) and brace each other feet to feet.
- First one partner rises, pulled by the other, and then, as she goes down, the second one begins to rise, in such a way that at a given moment, both will be halfway up – just like two children playing on a real see-saw.

Q & A

Q: Why are we doing this?
A: This exercise is about using all one's strength not to win but to support each other. Mothers, not only are we the support system for our children but we are each other's support system. Let's help each other, listen to each other and encourage each other as we try to raise our children well. Remember, how we behave towards each other is how our children will behave towards others.

General Homework

Facilitator, say:

- **Let's all think about whom we want our children to be and how we think we can help them achieve this.**
- **Questions to ask yourself include: Who is my child? What plans do I have for my child?**
- **We can share this information when we**

meet next time Sharing Knowledge: 15 minutes of

fame[9]

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[8] This activity is made out of a series of pushing against each other exercises from Boal's arsenal of theatre of the oppressed known as 'back to back and the see-saw.

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:

-Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][r]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then May will return the favour, by saying her name is Jane and…...

***Note**: this allows mothers to leave group with positive feelings about themselves and each other.*

Have a lovely day....

Love your family

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[9] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

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Lesson 10: Social emotional Development

Raising the healthy child

Objectives:

By the end of this session, participants should:

- Recall that a mother must play with their child
- Recall that each child is unique
- Know that a good relationship with the mother must exist for child to grow well.

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum]

***Remember*:** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:
Always remember to:

- Greet the participants and their children. Ask about their day, week, etc.
- Introduce yourself and briefly talk about what the meeting is about.
- Encourage co-learners to sit in a circle, imitative of a village meeting. If possible the facilitator can have a drum[1] [old pots or buckets can serve as alternatives] present to begin the session.
- Thank participants for attending this meeting and telling them you are happy to be meeting with them.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture, I felt it would be an effective means for signaling to the participants that the session has began as well as getting everyone involved through sound and movement.

GAME: Recognize the Aaah!

Facilitator:

- Ask all to stand, maintaining the circle, and do a stretch exercise: stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck. Encourage mothers to encourage children to stretch as well!

Recognize the Aaah[2a]

Facilitator, say:

- Let's all close our eyes, and start walking around through the room.
- As we do so, I am going to touch one of you on the shoulder and who ever I touch must vocalise a sigh: 'aaah!'
- Then the rest of us must identify who uttered the 'aaah!'
- We will continue until all of us have been touched and been identified.

Q & A

***Q**:* Why are we doing this?
A: this exercise shows that the way we now know each other, is the way our children should know us. Our eyes were closed but we were able to tell who some (or all) of were.

Village of dreams: pass the ball

activity[3] Materials needed: a ball or soft cloth *Facilitator:*

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth
- Ask everyone to reflect on the "village of dreams" activity that we chose. Say: "Which activity did you commit to do by yourself or with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."

---

2 This game was easy to apply in this context [as the target focus was only mothers. Please note that in a multiple gender group, the blind series handshake would be optimal. Also take into consideration religious beliefs before attempting activities that require body contact.

3The passing game from Barton's (2009) Acting: Onstage and off book, serves as the base for this task. I created this activity so as to create a stress free environment for reflection on homework tasks. As the mother passes the ball and responds to facilitator's questions and the discussion proceeds, the mother is disarmed and appears less likely to worry about reflection activity at hand. She is free to play with the ball (e.g. squeeze or throw in air) before passing it on.

- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you

propose new activities or alternative ways of doing them.

- Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, put this plate in that dish for me)."

Circle of knots exercise[4b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[5]
- Then make a big circle once more.

Q&A

Q: Why are we doing this exercise?
A: We are doing this so as to bring our focus onto the lesson at hand and remember that team spirit and effort are important.

Sing-Along Time!

Facilitator, say:

- "Does anyone know a song or game that talks about happiness? Or maybe a song that talks about how to live well with others?"
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up?

---

[4] Only the first part of this activity, the elastic circle is used.

[5] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with This should be done during the lesson or meeting. This should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors..

A Twist in the Tale[6]

NOTE: read this before hand and tell it as a story.

After the search for knowledge came to an end, the chief called for a village meeting where the emissaries would share what they had found out in front of the whole village. Some emissaries confirmed that what the chief had dreamt was true. They talked about how the villages that considered children had very wise and educated people in them. They said that these villages were well developed and there no were no unnecessary illnesses or starvation, so all were healthy.

However, a few emissaries denied this claim. They said, "Oh, great and might chief, we have searched the entire world and we have seen that paying attention to children's well being is not worthwhile. It is a total waste of time; children are not the key to a great future. For greatness, we must increase the amount of time we spend planting and harvesting, have more children and wives so they can spend all day in the fields and we will be rich." And now there was confusion in the village....

Then one of the wise women rose up and said: "Wise one, Oh Chief of our hearts let us call the mothers in the groups in those villages were children were considered to matter. Let them come and show and tell us firsthand the real truth before we come to a decision."

Facilitator, say:

- "Now a letter has arrived, and we are part of the team that has been invited to share this knowledge. So now what are we going to do to show/ tell them what we know?
- Remember whatever, we do or say will determine what that village will do...
- We have decided to do a play, to show how life was before we made children a priority and after.

A play of sorts[7]

Facilitator, say:

- We are now going to make a play about an unhealthy and badly treated child. In this skit, let us include all that we know can result in the poor growth of the child. When the play ends, as we have done other times, anyone can point out what was wrong and it can be acted again, but this time with the correction.

[6] This is a fun way to get learners to recall everything they have learnt and confidently share without feeling like they are being tested.

[7] Forum theatre

-

The Interview[8]

Main characters: the interviewer, mothers [Luano versus Luyando's parents] and the unbelieving messengers [doubting Thomas]

- Then we are going to pick the two (or more) mothers, who acted as Luano and Luyando's mothers [also known as the "bad" and "good" mother] and interview them in their characters. Remember, the stop, walk, justify game. This is almost the same. Only here, the actors will have to explain why they did what they did in the play.
- After this phase let Luano's mother go, and continue with Luyando's mother.
- Now as Luyando's mother explains their reasons, the **unbelieving emissaries** can say: "I don't believe you."

Questions[to ask the 'actors']:

Is what happened true? How did you know what to do? What benefits are there for the children now? What proof do you have? Is that so? So what would be your advice?

NOTE*: the goal is not to attack individuals. No bad comments, only allowed the one phrase.*

- The core idea here is to provide a convincing case for early childhood care services or theme of choice.
- Make sure no personal attacks arise; it is your goal to maintain peace at all times. Only constructive arguments are allowed and all, including emissaries must stay in character until the interview or discussion is done.
- If this becomes too tense, you can pause the discussion. Use the ritual as a morale booster, stretch a bit; and then get back to the discussion.

INFORMATION BANK: SOCIAL COMPETENCE

A focus on social emotional development

Social and emotional skills are important for good mental health and wellbeing,

learning, motivation to achieve and cooperate, and the development of values of the child;[c] they also have an impact child's self-concept and wellbeing throughout life.[d] In the previous lesson, we learnt that the parent is the one who creates the environment for the child that will in turn influence his or her behaviours. Therefore, a mother must do her best to be healthy (if possible); 'she must also act as a secure base

[8] This interview is an element of Theatre for Development (TfD) called hot seating used to get the core message across to target audience at a more in- depth level. The characters are to give a convincing argument for what they chose to do. This context also creates a safe monitored environment for discussion which might otherwise been harmful in the real context. It is very important that the facilitator be well trained in the running of a forum before this can be attempted.

and a safe haven for her child.[e] This means that the child must know that mommy will protect me in case of danger and that mom will not hurt me because she loves me.[f] Only through this, circle of security can healthy social emotional development resulting in social competence.[g]

Discussion: What is social competence?[9]

Response: this is one's ability to live well with others in their community.

Who is the socially competent child?[10]

When asked some of you said, this a child who doesn't fight with others, who listens to what adults say (obedience), who shares with others, who respects adults and friends, who is responsible and so on. This of course is all very true.

A socially competent child will show empathy, be able to know when to express specific emotions, interact with other adults and peers, and be kind to others and able to share and so on.

Creating social competence

Our children will show individual differences in temperament, development and personal preferences. Some will be outgoing and sociable.[h] Some will prefer to watch before joining in. Some will be highly independent. It is important to look for and respect these individual differences, while supporting the development of a range of skills in each child. Avoid comparing them. For example, saying: "why can't you be more like your bother?"

To support children's development of social and emotional skills and a positive self-concept:[i]

- ✓ Observe children's verbal and non-verbal signals and get to know them as individuals.
- ✓ Respond in a caring and consistent way to children's physical and emotional needs.
- ✓ Keep expectations appropriate to the child's abilities and stage of development.

- ✓ Provide opportunities for alone time or quiet activity and for play with peers or adults.
- ✓ Give children choices and opportunities for exploration, to learn about their environment and interact with others.
- ✓ Respect and value the personality and individual preferences.
- ✓ Respect and support children's early attempts at connection and communication.
- ✓ Consistently model the behaviour and communication styles you want your children to use.
- ✓ Acknowledge children's achievements and give praise for positive behaviour.
- ✓ Help children to recognise and label their emotions and to express their feelings.
- ✓ Use stories, games or other activities to explore feelings and friendships.
- ✓ Encourage older children to take turns, to share resources and to share adults' attention; and care or play with their younger siblings.
- ✓ Model pro-social skills and praise children for showing empathy and helping others.
- ✓ Help children to solve problems and negotiate with peers when disputes come up.

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[9] This definition is based on the mother's responses during cooperative inquiry.

[10] This description was derived through mother's responses during a cooperative inquiry session.

- ✓ Be aware that children may have difficulty using their skills when they are sick or tired; this may explain their being difficult sometimes therefore show patience and be calm.
- ✓ Recognise that learning new skills requires time, practice and positive feedback.
- ✓ Discipline through guidance; explaining why what they have done is wrong or not good.
- ✓ Discipline (or reprimand) should also take place immediately after deliberate mischief has taken place so as not to confuse the child as to what is wrong.

The Mother-child Relationship[j]

When a child's signals are responded to by an adult within their social interactions and relationships in a reliable, predictable and meaningful way over time, the child and adult become 'in tune' with each other. Being 'in tune' with an adult helps the child to regulate emotions and learn what it is like to be calm. Over time the child becomes skilled at regulating their own emotions, a major developmental task of early childhood. Therefore talk to your child (remember the responsive feeding and makani a ajilo exercises) and play with your child. Guide them, without being too permissive or harsh (or controlling).

Questions:

Is this information useful to us? Are there any additions, to what has been discussed or said? Or what do we think or feel does not apply to us?

Catch me if you can: Sheep-sheep[k]

Facilitator, say:

- Let's draw two lines on the ground. Now one group of mothers (sheep) are going to be on one side of the line and others (lions) on the opposite line (lines should be about 6-10m apart).
- Then the lions, say: sheep-sheep come
    - Sheep: we are afraid,
    - Lion: what are you afraid of?
    - Sheep: we are afraid of the lions.
    - Lions: the lions are not here.
- Then the lions and sheep run towards each other. The lions' goal is to catch the sheep, while the sheep must avoid being caught until they reach the home line (formally the lion's home) on the other end.

NOTE: *This game helps with critical thinking and developing problem solving skills. It has an underlying message of ability to solve problems in the face of obstacles. During this game don't forget to include the children as with all other activities in this course. Also encourage participants to make roaring or baa sounds as they play.*

One last roll: the village of dreams

Materials: a clay dice and three huts

Facilitator:

- Give the mother a dice, and ask her to throw it. Once it falls, whichever side it falls on represents a hut (and type of task).
- Each hut has a specific task representation, that is: 1) hut 1_ blue door or plastic, is the hut of wishes, hopes dreams the mother has for her child; 2) hut 2_ brown door or plastic, is the hut of activities that mother will do with the child at home to stimulate good development, even with a busy schedule, and 3) hut 3_ green door or plastic, is the hut where the mother is asked to do something for herself that will help her be more relaxed and healthy.
- For huts 1 and 2, the tasks are highly subjective in that the mother bears all

control on whether the task will be done or not. There is also no exact way of knowing if it was done or not. However, hut 2 tasks are more objective and it is easier to see if it was done. *Always note, that for hut 2_ what mother can do with the child, refer to the activity list*.

Sharing Knowledge: 15 minutes of fame[11]

Note: this activity could be optional as it depends on the group's willingness to do so. However, it is a good tool for informing the community on what was done during the intervention or programme. It also gives the participants a sense of purpose.

Facilitator, say:

-Now, we have learnt, recalled and even applied some information relating to early child development, it is our duty to share this information just as the chief did. Therefore, let us take this time to plan a final performance to be shared with the community.

Good day exercise [the final act][l]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then May will return the favour, by saying her name is Jane and…....

Note: this allows mothers to leave group with positive feelings about themselves and each other.

Have a lovely season.

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[11] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

[a] Boal, A (2005) Games for actors and non-actors, second edition. Taylor & Francis online publication.

[b] Boal, A (2005) Games for actors and non-actors, second edition. Taylor and Francis online publication. [Only the first part of this activity was used as the second part was deemed too complex at this stage.]

[c] Kids-Matter Early Childhood: A framework for improving children's mental health and wellbeing.

[d] Lucich, M. (2002) Building baby's intelligence: Why infant stimulation is so important. Retrieved from: http://www.responseability.org/ data/assets/pdf_file/0008/4859/Building-

[e] Cassidy, J. & Shaver, R. P. (2008) Handbook of Attachment: theory, research and practical applications, 2nd edition. Guilford Press: New York.

[f] Cassidy, J. & Shaver, R. P. (2008) Handbook of Attachment: theory, research and practical applications, 2nd edition. Guilford Press: New York.

[g] The circle of security. Retrieved from: http://www.brainwave.org.nz/wp-content/uploads/2012/05/Circle-of-security-article

[h] Lucich, M. (2002) Building baby's intelligence: Why infant stimulation is so important. Retrieved from: http://www.responseability.org/_data/assets/pdf_file/0008/4859/Building-

[i] Lucich, M. (2002) Building baby's intelligence: Why infant stimulation is so important. Retrieved from: http://www.responseability.org/_data/assets/pdf_file/0008/4859/Building-

[j] Kids-Matter Early Childhood: A framework for improving children's mental health and wellbeing. Retrieved from: https://www.kidsmatter.edu.au/

[k] Sport In Action (2004) Sport in the development process: Leadership manual. SIA.

[l] Boal, A (2005). Games for actors and non-actors, second edition. Taylor and Francis online publication.

Additional Lessons

Lesson 11: Into the looking glass

What have we learnt so far?

Objectives:

By the end of this session, participants should:

- Recap most of what they learnt during the course of these lessons.
- Be able to clarify content learnt in previous lessons.

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum]

> ***Remember*:** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:

Always remember to:

- Greet the participants and their children. Ask about their day, week, etc.
- Introduce yourself and briefly talk about what the meeting is about.
- Encourage co-learners to sit in a circle, imitative of a village meeting. If possible the facilitator can have a drum[1] (old pots or buckets can serve as alternatives) present to begin the session.
- Thank participants for attending this meeting and telling them you are happy to be meeting with them.

NOTE: *Always be welcoming, smile, be friendly and open (approachable). It is important to be welcoming so that participants can open up and feel free to express themselves, and also be able to approach you when they need help.*

---

[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture; I felt it would be an effective means for signaling to the participants that the session has began as well as getting everyone involved through sound and movement.

Relaxation and trust building exercises

Facilitator:

- Ask all to stand, maintaining a circle, and do a stretch exercise.[2] For instance, stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck.
- Encourage mothers to encourage children to stretch as well.

Always: pair these with breathing exercises (make funny faces and sounds with each stretch).

Facial expressions[3] help teach the child how to express emotions.[a]

***Remember**: We are doing this to relieve tension and relax so that the mother is to be stress free (in a good, balanced mood/ state) so that she can pay better attention to her child.*

Sing-Along Time!

Facilitator, say:

- Does anyone know a song that talks about good care? Or one that talks about the
- If so, can *[insert name of person who assents]* teach it to the rest us? If not, let's make one up? We can also make one that talks about all the lessons we've had. Don't forget the actions!!!

Always encourage use of local songs.

Circle of knots exercise[b]

Facilitator:

- Ask mothers to make a big circle (do not hold hands): stretch out arms until the fingertips are almost touching.
- Then tell mothers to make a small circle or a huddle until no space is left.
- Ask mothers to chant the ritual or group name once the circle is small.[4]
- Then make a big circle once more.

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[2] This exercise was inspired by notes in Boal, A. (2005) Games for actors and non-actors and Anderson, J., Michel, J & Silverberg, J (2001) Ready for action: A popular theatre/popular education manual, encouraging a warm up before a lesson begins so as ready the learners for learning.

[3] Facial expressions are an essential survival emotional skill, especially during the first years of life, through which the child is able to elicit the caregiver's help and attention. Children also have a predisposition to attend and respond to facial expressions from their primary caregivers, hence the mother's face serves as the child's learning interface in this case.

[4] It is important to allow participants to create a group name or ritual (activity or signal) with which they can identify with. This should be done during the lesson or meeting. It should not be confused with the ritual activity (sound, gesture) in Boal, A (2005) Games for actors and non-actors.

Q&A

Q: Why are we doing this exercise?

A: We are doing it to relieve tension, to relax because a mother is supposed to be stress free (be in a good balanced mood) so that she can pay better attention to her child. Don't worry, be happy!

NOTE: *This activity helps boost the morale and reminds learners that these sessions have a positive goal. You can also use this exercise any time the morale is low or when learners seem tired or attention seems to be wandering to bring their focus back to the lesson at hand.*

Village of dreams: pass the ball activity[5] Materials needed: a ball or soft cloth *Facilitator:*

- Say: "this is an activity that we will do every week. Here, we want to reflect on what we have accomplished so far. This will encourage us to commit to the activities that we chose to do during the *'village of dreams game'* with our children or by ourselves."
- Ask all to sit in a circle pass the ball or a soft cloth.
- Ask everyone to reflect on the "village of dreams" activity that we chose.

Say: "Which activity did you commit to do by yourself or with your child last week? Did you do it? If yes, when is your turn to hold the ball arrives, you should say what activity you did and how. If not, you should still say the activity we were supposed to do and activity that we have done with our child."

- Now let's pass the ball.
- Then, talk about how the homework went. What was easy/difficult or fun/not fun? Discuss the challenges faced by the individuals as a group and then allow mothers to give suggestions on how to overcome these challenges before you propose new activities or alternative ways of doing them.

  Say: "One important thing to remember is that we can also do these activities as we work or do chores, especially if we do not have time to spare: for example you can talk to your child about the work at hand, ask child "to help" with chores (for instance, stir this cibwantu for me).

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[5]The passing game from Barton's (2009) Acting: Onstage and off book, serves as the base for this task. I created this activity so as to create a stress free environment for reflection on homework tasks. As the mother passes the ball and responds to facilitator's questions and the discussion proceeds, the mother is disarmed and appears less likely to worry about reflection activity at hand. She is free to play with the ball (e.g. squeeze or throw in air) before passing it on.

Games: Agree/ Disagree[6]

Facilitator:

- Draw a line in the sand. Then read out the statements: If mothers agree, they should run to the right side of the line, if they disagree, they should run to left side.

Statements for Agree or Disagree game

a. **Being stunted or being a dwarf is the same thing**

   Answer: Disagree

   Being stunted is as a result of lack of a balanced healthy diet, while dwarfism has to do with the way a person was born (or is naturally).

b. **Talking to our children has no value;**

it is a waste of time. Answer: Disagree

Talking to our children is important. Conversations with the child help the child's emerging self concept and their understanding of self and others. It also helps them structure their thoughts (memory narratives) in a culturally appropriate way.

c. **We should always find time to play**

with our children. Answer: Agree

Playing with our children helps stimulate their growth in all four areas: cognitive, motor (physical), language and socio-emotional development.

d. **Learning, in children only begins when they reach grade one (at**

five or six years plus). Answer: Disagree

Children begin learning much earlier than that. Although it is important to make sure that what is being taught and how is age appropriate. E.g.: you can't teach a two year old how to cook nshima but you can talk about how you are cooking the nshima)

e. **There are many ways of purifying water.**

Answer: Agree

Boiling, chlorination, sieving, etc

f. **How we treat our children, influences how they behave and**

how they treat others as well.

---

6 Structure for the agree/ disagree game is gotten from the previous curriculum used in phase I of the Saving brains study; although the content varies.

Answer: Agree

Children learn from us (parents, siblings, grandparents and other adults they are in close contact with).

A throw down memory lane [20 min max]

Facilitator, say:

- For the past few months we have been learning about ways in which we can improve our children's well being. We are going to use the ball of remembrance[7c].
- Now let's take the time to say what we remember from our lessons. Feel free to ask or make corrections, etc.

NOTE*: use the guidelines for the ball of rembrance in lesson1. Questions:*

- Why are we focusing on children at this age (2yrs)?
- How many areas of development have we looked at? Name them.
- What do you remember about:
  - Stunting? What causes stunting, in our children?
  - A child's thinking (cognitive development)?
  - Language development?
  - Water, Sanitation and Hygiene?
  - Child nutrition (feeding times, types of foods)?
  - What did you prepare for the cooking lesson?
  - Socio-emotional development (a mother and child's wellbeing)?
- Which lesson was your favourite? What did you like about it?
- Given a chance to do these mother groups again, what would you change?

[7] This activity is named for the passing technique used in acting during character development or learning script (Barton, 2009). In this case, I felt it would work well in gauging how much the participants knew on child development.

True or False: A tale of sorts [25 min. max]

***NOTE**: select two volunteers to act as story tellers. Give them 5 minutes to create the stories, 5 minutes to tell or show them and 15 minutes to discuss these stories.*

Facilitator, say:

- So, we all know that our great chief sent emissaries to investigate issues relating to child development. Let
- Now, we are going to sit quietly and listen to two stories: either talking about what a mother can do to enhance a child's growth or the bad traits that lead to poor child growth/health.
- After the stories are done, we will have to decide which story is **true** and which one is **false.**
- Now, let's discuss the parts or elements of these stories that makes them true or false.

> ***Questions**:*
>
> Why do you think this story is false? What are the true actions that lead to that end?

Health versus Illness: Keeping healthy[8de]

> **NOTE**: *this game is good for uncovering underlying issues, making it ideal when coming towards the end of a learning programme.*

Facilitator, say:

- Let's all walk around and try to use up all the space around us. We have to keep moving during the whole exercise.
- Each person should choose someone in the room, without letting that person know. This person is your illness and so you should try to keep as far away from them as possible.
- then choose another person, who will be your shield (health) and so you should try to keep them between yourself and the illness.
- After a short time, I'll shout 'FREEZE!'
- look around and to see if you are protected from your illness (bomb) by your health (shield).

[8] This game is adapted from the 'One person we fear, one person is our protector' exercise (Boal, 2005) or the bomb and shield exercise (Babbage, 2004). I felt it was the ideal activity to assert of the overall theme was heard.

Questions

How did this exercise make you feel? How do you think it relates to taking care of ourselves and our children? Was there any time you could not keep away from the illness? Etc

HOMEWORK FOR ALL

Facilitator, say:

- **This is our last lesson, for now. However, it does not mean we should stop doing the activities aimed at your child's development. After all, we are doing this for the sake of our children. Remember, they are the key to the future.**

Sharing Knowledge: 15 minutes of fame[9]

Facilitator, say:

- Let's take this time to continue planning what we will do for the final performance.
  What have we done so far?

Pass the Pulse[10f]

Facilitator, say:

- Let's all hold hands in a circle.
- On my signal, a volunteer will start passing the pulse by squeezing the hand of their neighbour on their right. This person then squeezes the hand of the person on their right. This carries on until the pulse returns to the person who started it.
- Make a signal that the circle is complete with a "shout" or "squeak" for example.
- Meanwhile, I will check how long it takes for the pulse to pass round the circle. Then we will do it again_ this time faster. Each round will be faster than the last one.

NOTE*: this activity is aimed at emphasizing what the participants are required to do after learning and practising what has been taught, which is to pass on this information. Feel free to use the 'Good day' exercise as well or replace the' pulse' with it if you feel it may not be as effective in your group.*

Be Happy! Stay energized

[9] Refer to Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, page 30 for guidelines on how to plan a participatory performance.

[10] Adapted from the pass the tap & pass the clap activities (Michael, J., Michel, J. & Silverberg, J, 2001) and the movement comes back exercise (Boal, 2005).

[a] Izard, E. C., Youngstrom, A. E., Fine, E. S., Mostow, J. A., & Trentacosta, J. C. (2006) Emotions and the development of psychopathology in infancy and early childhood. In D. Cichetti and D. J. Cohen (Eds.), *Developmental psychopathology: Theory and method, second edition (Pp 254- 59)*. John Wiley & Sons: New Jersey.
[b] Boal, A (2005) Games for actors and non-actors, second edition. Taylor & Francis online publication.
[c] Barton, R. (2009) Acting: Onstage and Off, Fifth edition. Wadsworth, Cengage learning: Boston.
[d] Boal, A. (2005) Games for actors and non-actors, second edition. Taylor & Francis online publication.
[e] Babbage, F. (2004) Routledge performance practitioners: Augusto Boal. Routledge Taylor & Francis group: London.
[f] Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual. Retrieved from: http://wwwwpirg.org

Lesson 12: Sharing

knowledge *A*

performance for all

***ages* Objectives:**

By the end of this session, participants should:

- Be able to create a well rounded play for the final performance.
- Be able to improvise during performances
- Be able to share what was learnt in the classes with a larger group (their communities).

Materials Needed:

- Drum [old pots or buckets and sticks can be used in the absence of a drum] and a ball of string.

***Remember*:** *Always keep a bucket of clean water, a cup, soap or ash, a clean piece of cotton chitenge and dish for hand washing.*

Introduction

Facilitator:
Always remember to:
- greet the mothers and their children as they walk in.
- always be friendly and welcoming
- encourage all to sit in circle, as you continue this “village meeting.”

- beat the drum[1] (old pots or buckets can serve as alternatives) to signal that the meeting has begun.

Trust Circle Mirrors[2a] into the Mad Chicken[b]
Facilitator:

- Ask all to stand, maintaining the circle, and do a stretch exercise: stretch arms upwards, sideways, back to front, touch your toes, bend your knees, jump and try to touch the sky (reach for the heavens) and move head and neck. Encourage mothers to encourage children to stretch as well!
    - One by one, have mothers choose someone across the circle to watch. This can be done by having the first person point to someone and then put their hand on their head to show they have been taken. The person pointed to does the same thing until everyone has pointed and been pointed to once.
    - Check the pattern by having everyone point to the person they are watching.
    - Ask everyone to stand in a neutral position-feet shoulder width apart; arms down at their side; head straight.
    - Tell the group that they are not to initiate any movement intentionally, but that they should vigilantly mirror the person that they have chosen to watch. Start the game.
    -

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[1] A drum is an aesthetic of popular theatre as a part of this context's oral culture; I felt it would be an effective means for signaling to the participants that the session has began as well as getting everyone involved through sound and movement.
[2] Known as the Colombian hypnosis which is a very good exercise through which to introduce ideas of responsibility while simultaneously providing a gentle yet thorough physical warm up.

Questions:

What happened as you were mirroring your partner? How did this feel? Was there a time you felt you forced your actions?

NOTE: *we are doing this activity to build up our energy, team spirit, encourage creativity especially through improvisation and communication among partners.*

The Mad Chicken[3]
Facilitator, say:

- We are all going to count from 1 to 8 whilst shaking our right hands in the air.
- Let's repeat the count whilst shaking our left hands.
- Then let's count to 8 whilst shaking first the right leg and then the left.
- We will repeat these 4 actions, but this time only count up to 4.
- Repeat, counting to 2.
- Finally count only to 1, repeating this last part twice.

Q & A

Q: Why are we doing this?
A: this is a good exercise because it is quick and helps generate energy. You should encourage everyone (mothers and their children) to take part in this activity.

[3] Adapted from the 'Dissociate coordinated movements' (Boal, 2005).

The Checklist

NOTE: *As you plan your performances, here are some of the topics you can include in your plays, poetry and song acts*

The Checklist (what to include)

- **Stunting**: Make a play that shows the difference between a stunted child and one who is not stunted. Why should we care? What are the benefits?
- **Cognitive development:** how does a healthy child think? Are they able to solve problems or not whether in school or at home?
- **Language development:** language delay or non-delay? For instance, a mother talks to the child another doesn't. One says good things to the child another does not.
- **Physical development/ social**: how can play help with a child's physical development? Is there a difference in motor development between an active and an inactive child?
- **Social emotional growth:** a child living in an abusive/ neglect filled home versus a child living in a happy home, is there a difference?
    - A healthy mother equals a healthy child

NOTE: *All the information included in the performances should be in line with what was learnt. If you are not clear, feel free to consult the Child Development Agent (CDA) in your area.*

PREPARING FOR YOUR PERFORMANCE: REHEARSAL TECHNIQUES.

[4] Theatre of the oppressed term that refers to the audience that's now been converted into 'actors.'

[5] Refer to Barton, R. (2009) Acting: Onstage and off, 5th edition. Wadsworth, Cengage learning: Boston, for more rehearsal techniques. Boal (2005) Games for actors and non-actors, Babbage (2004) Augusto Boal and Michael, J., Michel, J. & Silverberg, J. (2001) Ready for action: A popular theatre/popular education manual, are very helpful sources in this regard [rehearsal for participant preparation and performance development].

Facilitator:

- Use the acting techniques below to prepare your spect-actors[4] for the final show.[5c]

a. ***Talking with numbers/ gibberish press conference***

- Actors substitute dialogue with numbers/ gibberish.
- Mothers we will pair up and take turns speaking in numbers or gibberish.
- *Variation: an interpreter (facilitator can do this or another member) can be availed. Here members of the group can ask questions, which the interpreter will translate into gibberish and vice-versa.*

b. ***Stop and think***

- During the scene, the facilitator shout 'STOP AND THINK'.
- All the mothers then freeze and say their character's thoughts out loud. The facilitator then shouts 'CONTINUE'.
- This exercise helps the actors to understand their motivations for action.
- *Variation: facilitator stops the action and asks 1 particular character 'what are you thinking now?' The actor responds in character and tells the rest of the group what the character is thinking. Then the scene continues.*

c. ***Changing Characters***

- The actors exchange characters with each other and then rehearse the scene (especially those characters who have a relationship e.g. husband and wife, father and son, boss and worker).
- The actors don't have to learn each other's lines, just give a general idea of the character and the action.

d. Speed run/ Slow motion

- Rehearse the scene as quickly and with as much energy as possible. No lines or actions should be cut.
- Rehearse the scene in slow motion without leaving out any dialogue or action.

e. Ask a Silly Question

Facilitator:

- Quickly fire off silly questions and call on participants to answer them as spontaneously as they can.
- For example, "What does a goat wear to bed?" "How do people cook nsima in a tree?" "Why does a rat snore?" "How many eggs can a pig lay?" "How does a cow sing?" etc.
- There are no wrong answers, save not saying something.

NOTE: *The activities above are helpful in developing improvisation skills such as listening and awareness, storytelling, spontaneity, trust, creativity, etc. Though no script is necessary, a story spine (outline and theme) must be present.*

Using the above Rehearsal skills, Lets make our performance.

NOTE: Rehearse final performance from beginning to end

The String[d]

Materials: a ball of string (sack string can be used in this case)

Facilitator, say:

- Let us sit in a circle.
- One mother will give the ball of string to someone in the circle. She will hold onto its end and throw the rest of it across the circle to another mother (or child).
- She will then give a message to the person who catches the string.
- In this case, the message can be a comment about the lessons (something she has liked or disliked), a message for the person to take away from the group, a hope for the future or her hopes for her child, herself, her family or her community…
- The receiver then holds onto the string and throws the ball across the room to another player.
- The process continues until everyone is holding onto the string, which will have made a spider's web pattern.
- At the end of this session, the last person (or facilitator) will cut all the string connections between players.
- Everyone can keep their own piece of string to remind them of the message we received during these meetings.

Good day exercise [the final act][e]

- Greet or hug each other and tell each other something nice for the day. Here, each mother hugs another mother and says positive things about the other. For instance, when Jane greets Mary, she will say, 'Hi my name is Mary and I am very kind.'
- Then May will return the favour, by saying her name is Jane and…...

Have a lovely season!

[a] Boal, A (2005) Games for actors and non-actors, second edition. Taylor & Francis online publication. [b] Boal, A (2005) Games for actors and non-actors, second edition. Taylor & Francis online publication. [c] Barton, R. (2009) Acting: Onstage and Off, Fifth edition. Wadsworth, Cengage learning: Boston.

[d] Moyo, G. (2014/15) Theatre for Development. Lecture notes

[e] Boal, A (2005). Games for actors and non-actors, second edition. Taylor and Francis online publication.

Additional Materials

ACTIVITY LIST: WE START AT TWO[1]

[1] All activtities except those specified where derived from Sturm Niz, E. (n.d.) expert recommended activities that will enhance your 2 year old's development. Retrieved from: http://www.parents.com/toddlers-preschoolers/activities/indoor/activities-for-two-year-olds/.. Please note that almost if not all tasks have been adapted to suit the context of study except 'Simon says'

1. DRESS-UP TIME

Materials needed: old clothes, old shoes, and vitenges.

What to do: Take out a pile of old clothes and let your child play dress-up. You can play with them but it is great to encourage group play with two or three other children their age. Initially the mother can play with the child, then allow the child to attempt this task on their own and later with peers.

Skills learned: Creativity, imagination, language skills, and social development

2. A LITTLE CONVERSATION

Materials needed: Doll

What to do: Hand over the doll, and encourage your child to hold, talk, dress, and take care of it. Talk to the doll the way you would talk a child, and encourage your child to do the same.

Skills learned: Social, language and fine motor skills, creativity and imagination

3. TOY HIDE-AND-SEEK

Materials needed: Toy

What to do: Hide a toy somewhere in the house, and ask your child to find it. Explore with her, using cues like “warmer” and “colder” to guide her.

Variations: Use a torch for the search, or hide several objects at one time.

Skills learned: Listening, problem solving, social skills, and memory

4. SIMON SAYS

What to do: Start out with simple directions-“Simon says, touch your toes”-then graduate to silly, more complex routines (“Simon says, tug on your left ear, then your right ear”). And don't forget to drop “Simon says” every now and then!

Variations: You can also encourage your child to jump, skip, catch

something, and more. Skills learned: Gross motor skills, following

directions and receptive language

5. YOU'VE GOT MAIL

Materials needed: Old box or a bottle even a calabash, junk mail (stones, sticks, leaves, a paper with a drawing on it, clay doll_ or animal)

What to do: Make a mailbox by decorating an old cardboard box and cutting a slit in the top or use a calabash. Fill it with goodies together with your child. Then ask your child to draw out certain goodies. Talk about the pictures, colours, and shapes; help her or him sort it by size, shape or colour; or count the pieces. You can also layer in imaginative play by pretending these are things you bought at the market.

Skills learned: Develops an understanding of basic concepts, fine motor skills

6. ALL ABOARD

Materials needed: Towel or blanket, basket

What to do: Have your toddler sit in the basket on a towel or blanket and gently pull her around the room. Pretend the blanket is a train or a boat and that you are stopping at different places, like the zoo or wherever your imaginations take you.
Here you can also pretend to be a horse, and let your child sit on your back as you crawl around the house. Make sure you are both safe, start slowly.

Skills learned: Balance, pretending

7. BODY TRACING

Materials needed: Large piece of paper, charcoal

What to do: Have your child lie down on a large piece of paper and trace the outline of his body. "Because the child has to lay still to be traced, he learns self-control." You can show him or her where the two eyes, nose, and mouth go, but if your child just wants to color all over it, that's fine. Don't impose anything on him, just let him or her have fun with it."

Variation: If your child doesn't want to lie still, don't force him or her . Start with tracing just his or her hand or foot, or tracing your hand and foot.

Skills learned: Sense of self, self-control, and identifying body parts (cognitive & language skills).

8. STOP! GO!

What to do: Play a game that involves starting and stopping. Use your hands as your child's guide. For example: palm facing upwards and outwards means STOP and palm waving back and forth (sideways) means GO! Try this as many times as possible.

Skills learned: Self-control (socio-emotional development)
Developing self-control will eventually help children negotiate, compromise, and work out conflicts without losing their temper.

9. BUTUME ACTIVITY2 (erranding)

Materials needed: none specific as long object is safe
What to do: First, tell your child to go and sit near an object [child should be free to play with object if he or she choose to. Do not to scold her or him for that. Then, tell the child to bring

2 As directed by primary author, refer to lesson 3 for more details.

the object and give it to her. Ask child: what is it? (Referring to object) What is it used for? Do you want to share it with me? If child says yes, s/he wants to share then caregiver should show positive affect (happy facial expressions) and praise the action. For instance: Oh wow, thank you very much. If not, you can say: Oh that's okay. I see you still want to play with it. Positive facial expressions and gestures should be shown here too. Then ask child to share or take the object to another child or familiar adult. Here you simply observe the interactions that will happen.

NOTE: *Variations in activity can be made but keep the activities simple. Encourage caregivers not to worry if child does not do this task exactly during the first few tries. Remember he or she is only two years old, however, overtime the child will be able to do it. This task is a gate way for erranding and encourages internal verbalisations (thinking or reasoning) in the child as well as socialisation.*

10. MAKANI AJILO[3] (Stories from the Past)

What to do: Talk to your child about two events that happened no longer than 4 weeks ago. For instance, talk about the time grandma came to visit or when you went to the market or visited a relative or when a relative came to visit. you can also talk about events that happened when you were with your child or those that happened when you were not with your child. You can talk about things that happened to you or you can talk about what you saw. Make facial and hand gestures as you talk to your child. You can make funny faces, make sounds (e.g. cow sound or cat's sound, or how daddy sounded). Be in character, pretend to be the person or the cow. Make this conversation as visual as possible. This is how children learn, by looking at your face and connecting with the words.

Skills learned: language use, and social expressions

11. RESPONSIVE FEEDING4

Materials needed: two spoons and tree bark or sack string

What to do: You can tie two spoons tightly together by their handles using a string or tree bark so that when the child eats you can also use the other end to feed herself. You tie two spoons together. As you feed, your child you can pretend that the spoon is a train trying to deliver goods (the food) into a special destination (the child's mouth). Be excited, happy. This task encourages the child to eat as mummy is doing it too.

Skills learned: mother learns to read hunger and satisfied cues of the child, while the child learns how to express themselves facially and later on verbally.

[3] As described in Tulviste et al (2013). Read lesson 4 for more details.
[4] Adapted from Castle, J. (n.d.). Refer to lesson 4 for more details.

Have a Lovely Day...

8.4. Appendix D: Curriculum simplified for Phase II

8.4.1. Control group lessons 1-6

Lesson 1: A Re-introduction to Early Childhood and Development
It Takes a Village to Raise a Child

Objectives:
By the end of this session Participant's will:

- Reduce anxiety and build trust
- Reaffirm hopes for child's growth
- Learn what early child development is
- Discuss the importance of maternal involvement in ECD
- know why it is important to integrate ECD learning with nutrition
- Reaffirm why they are here and developmental benefits

Introduction
Teacher:

- Greet mothers and their children
- Introduce self and purpose of meetings
- Give mothers chance to introduce selves, child and where they are coming from.

Begin lesson:

- Talk about the stages of building and house and liken that to the child's growth.
- Sing a song that talks about child growth or the community's role in a child's development.
- ***Discuss homework. Ask who was able to do it and ask who wasn't and why?***

Discussion Guide: Early Childhood Development
Early childhood development

Early childhood is a critical stage of development (from zero to three years) that forms the foundation for the child's future wellbeing and learning. It is in this phase that children learn the most, and things that they experience in early childhood will shape who they become. This does not mean that development cannot be stimulated after the age of three.

What are the main areas of development?

The areas of development are– cognitive (thinking ability of child), language (talking), physical or motor (walking, hand movements, and other body movements), and social/emotional (talking, playing with others) – which all contribute to the long-term well-being of the child. It is therefore important to take steps to ensure the growth of child development.

Why is it Important?

These early years of life are a window of opportunity to lay a strong foundation for a child's life. Proper health, nutrition, and early stimulation play a critical role for brain development and child well-being. Around the world, poor children under 5 lag behind their more advantaged peers in physical, language, cognitive, and socio-emotional development. Without access to quality ECD, poor children often fall behind their more advantaged peers before they even begin school. As they get older, the gaps widen: they are likely to perform poorly in school, earn less as adults, and engage in risky social behaviors.

Supporting early childhood development improves equity improving the health, nutrition, and education outcomes of children.

Children who participate in quality ECD programs **are more ready to learn** when they begin school and are less likely to repeat grades or drop-out of school, which reduces the overall costs of the education system. When they get older, they are more likely to earn more and less likely to engage in crime.

Why should you be involved?

It has been noted that learning is enhanced when parents/family and the early childhood setting work together. By being involved in your children's early learning, parents can improve their children's motivation to learn and thereby enhance their growth potential.

A Mother's Role

Teacher, ask:

- What is a mother's role?

  This is a point of discussion. Give the mothers a chance to respond.
- Sum up responses to: a mother's role is to guide feed and protect

Question: Is Nutrition important?

- Response: Yes or No [ask participants to give a reason why regardless of the response]

> ***NOTE**: In our case, our argument is for 'Yes'. However, give the participants a chance to air out their views before making this case.*

Why is it important?

Nutrition should be considered when feeding a child. This is because, when a child is not well fed (diverse diets and balanced diets) then the child will not grow properly. **Development is therefore affected if a child is mal- or undernourished.**

Inadequate nutrition before and after birth (in the first years of life) can seriously interfere with brain development and lead to neurological and behavioural disorders such as learning disabilities and mental retardation, stunting and many other negative defects.

The malnourished child's immune system may become weak, making the child more susceptible to illness. The child's physical growth is also affected.

Question: Can a crop (e.g. maize or sweet potatoes) grow properly without the sunlight, water and fertilizer?

Response: No

Add: and this is the same case with children.

> **Additional Question:** What are some of the locally available foods that are good for the child's healthy growth?
>
> ***Always Remember:** Good nutrition and adequate psychosocial stimulation (through playful interactions between mother and child and child's peers and other adults) are necessary for a child to grow well. So feed child well, talk to them, and so on.*

General Homework:

Talk to your child about the day to day activities as you do them. For instance, you can talk about sweeping, why you are doing it, whether he or she would like to learn how to do it?

Thank you!

Lesson 2: Stunting_ A Crisis

Raising a Child is like Building a House

Objectives:

By the end of this session Participant will:

16.0. know what stunting is

17.0. be able differentiate between stunting, dwarfism and wasting

18.0. know the risk factors that cause stunting

19.0. be able to tell if their child is stunted or not

20.0. be able to know the steps to take if child is stunted

Introduction

Teacher:

- Greet mothers and their children
- Introduce self and purpose of meetings
- Give mothers chance to introduce selves, child and where they are coming from.

Begin lesson:

- Talk about the stages of building and house and liken that to the child's growth.
- Sing a song that talks about child growth [e.g. iluyando lupati]
- ***Discuss homework. Ask who was able to do it and ask who wasn't and why?***

Discussion Guide:

What is stunting?

Stunting is when the child is very much shorter than the required or average of the children (0-59 months) in that area (e.g. country) due to long term practice of poor nutritional practices. In Zambia, 40 % of children below the age of 5 years are stunted (Zambia DHS, 2014). This is a

critical issue because stunting is an indicator of malnutrition. It is different for both girls and boys.

For Two year olds:

Boys' height (cm): Average height is 86-87 cm at 2 years, stunted if height is at 81 cm and below.

Girls' height (cm): Average height 85-86 cm at 2 years, stunted if height is at 80 cm and below.

For Three year olds:

Boy's height (cm): Average height is 96 cm at 3 years, stunted if height is at 88 cm and below.

Girl's height (cm): Average height is 95 cm at 3 years, stunted if height is at 87 cm and below.

Source: http://www.who.int/childgrowth/training

Is stunting the same as dwarfism? No.

Dwarfism is a genetic disorder, it cannot be corrected while stunting if noticed early can be corrected and steps can also be taken to prevent it from happening to your child.

Stunting is height deficit resulting from:

- Poor nutrition: unbalanced diets, low diversity of diets, junk foods, etc.
  Must have a balanced meal, high protein diets (goat milk, beans, eggs, etc.) with a variety of colourful fruits and green vegetables.

  Reminder: refer to the child growth reminder card.

- inadequate child stimulation and activity, plus non-responsive feeding
  This is when mother does not talk with the child, or play with them, or guide them through activities. While non- responsive feeding is when the mother can't understand what child is saying with their actions. For instance, can't tell when child is hungry and if she does, cannot tell when child is satisfied. This leads to overfeeding or underfeeding.

Positive Alternative: A mother needs to talk to their child, even if the child can't respond yet. Mother makes a happy face and then can point to an object around the house (or outside_ in the field) and tell the child about that object. For instance, she can begin like: Oh, look at this shiny thing. Do you know what this is? This is a pot, we use it for cooking (Can do the same with trees, maize and other crops, livestock, family pets, etc.). If the child can it important for the mother to allow the child to talk or answer (verbal response) and touch the object (non-verbal response). Mother should have playful interactions with their child as play is the way that children learn (that is their work).

Responsive feeding can be achieved by talking to the child as you feed them and reading the non-verbal cues. It allows baby to regulate his own appetite and eating, which has been associated with a healthy weight status.

- Poor care practices, inadequate sanitation and water supply, food insecurity, low dietary diversity, inappropriate food allocation within the household (for instance, belief that children should eat less because they are small), short birth spacing which may cause mother to stop breastfeeding early because there's another baby.

Is stunting the similar to Wasting? No (Why is stunting bad)

Stunting results from chronic undernourishment, which retards linear growth, whereas wasting results from inadequate nutrition over a shorter period, and underweight encompasses both stunting and wasting. Typically, growth faltering begins at about six months of age, as children transition to solid foods that are often inadequate in quantity and quality, and increased exposure to the environment increases their likelihood of illness.

Source: WHO Global database (1997) and Caulfield et al (2004)

Then you can again all sing a song that talks about love being the key to a child's good growth and a lack of it being a cause for bad growth (please do actions with this song, for example, clapping hands, moving body, etc).

Growth Chart Demonstration
Materials Needed: charts [readymade]

Teacher:

- Tell mothers that this will help them measure their child's growth in height.
- Show them how to measure the height.
- Give them the height tapes [already made] and have them measure their children's heights [no need to report findings.

Note: If your child's height is good, that's awesome but you need to continue giving your child a good diverse nutritional diet and keep on stimulating his or her development in the four areas as we discussed. If it's not good (that is at 79 cm for girls and 81cm for boys) that means you need to go to the clinic so that they can check your child's health. Do not be disheartened as this can be corrected with a good diverse diet and stimulation. Be positive minded and continue to do your part as a mother…

And don't forget that your child's growth has just been delayed and not stopped.

HOMEWORK: Talk to your child, play with your child [may refer to the activity list].

Thank you!

Lesson 3: Cognitive and Language Development

A child's brain is like a field

Objectives:

By the end of this segment participants should:

- Know that a child learns from their environment
- Know that a child's thoughts are cultivated by things they learn from their environment through the mother, family, peer and other interactions.
- That a child's mental development is dependent on playful interactions
- Recall that children learn to speak by being spoken to .
- Know that children think through language.
- Know that children need to be talked to in order for them to grow well.
- That conversation and songs are important for child's memory and thinking.

Introduction
Teacher:

- Greet mothers and their children
- Introduce self and purpose of meetings
- Give mothers chance to introduce selves, child and where they are coming from.

Begin lesson:

- Talk about the stages of building and house and liken that to the child's growth.
- Sing a song that talks about child growth or the community's role in a child's development.
- ***Discuss homework. Ask who was able to do it and ask who wasn't and why?***

True or False Exercise [take note of how many get the answers correct]

True/False Questions and Answers:

i) Children learn through play? True

Play gives the child many opportunities to think and solve problems. Also helps them note what is socially accepted and what is not. To children, play is their work.

ii) Children need store bought toys or games to enjoy playing? False

Children don't need store bought items to enjoy play, home-made ones can be enjoyed just as well. Give examples: Home-made puzzle from Magazine cut outs, drawing in the sand, trace their own hand in a home-made book, etc.

iii) Stunting (chronic energy protein malnutrition) does not affect the child negatively? False

Stunting is an indicator of chronic malnutrition. The presence of stunting therefore means the child is not being well fed, or stimulated. Malnutrition can lead to severe developmental problems, e.g. stunting affects ongoing cognitive processes (attention, working memory, executive functions) during childhood.

iv) Playing with a child is a waste of time? False

It is not a waste of time to take time to play with the child as such interactions serve to teach the child not only about their environment, but how to cope when faced with certain problems and so on.

v) At 2 years, babies can listen and understand what is being said? True

Asking simple questions can help them develop, or improve their language skills.

vi) You should look into your child's eyes and talk to them while feeding? True

A mother needs to talk to her child, even if the child can't respond yet. Responsive feeding helps the mother know when the child is not only hungry but when the child is full by reading his or her facial and body language.

vii) Stunting is the same thing as dwarfism? False

Stunting is when a child is shorter than the average required age in a region, while dwarfism relates to a genetic disorder. Stunting is corrective during early childhood by a change in diet and environmental stimulation while dwarfism is not.

viii) A child will still grow healthy even if they don't have diverse diets? False

Inadequate nutrition before and after birth (in the first years of life) can seriously interfere with brain development and lead to neurological and behavioural disorders such as learning disabilities and mental retardation, stunting and many other negative defects. Child's immune system may become weak, making the child more susceptible illness. The child's physical growth is also affected.

Discussion Guide: cognitive and language development

What is cognitive development?

This is the development of a child's thinking skills. By age two a child knows that things continue to exist even if they cannot see them. They not only listen but understand what is being said to an extent, that's why facial expression and tone are important as they convey a positive affect, attitude to the child thus influencing his or her interest in what is being done.

Why is it important?

It helps the child develop important problem solving skills as well as reasoning ability (from simple to complex form later in life).

What can be done to enhance cognitive development?

Other than good nutrition, playful interactions between mother and child, child and peers or other adults, and child and the environment are key in stimulating cognitive development. It is

important to note the feeding[1] and play are a child's most important events during early childhood.

Language in Children

At age two, children are able to speak. Their vocabulary may range from 2-3 words to 50 words and more. However this vocabulary is only increased or created as a result of verbal interactions with caregivers, peers and other adults (or older children) around them.[2] The more actively interactive a discussion is the more likely the child will remember the words.

All mothers talk to their children; perhaps some do it more than others. *Why?* Because, most see talking to babies as pointless: he or she is a just a baby so what do they know? But that is not true. **Babies learn through being spoken to, this encourages not only thinking (internal verbalization) but language (external verbalization) as well.[3]** In order for language to develop mothers should alternate turn-taking rhythm and rhythmic chorusing and bodily stimulation.[4] This means aside from asking child their names, telling them what it means, talking about their family in positive terms (social roles), and allowing them a turn to talk as well (respond): singing to children with actions is helpful as well.[5]

Importance of language stimulation

Talking to children is crucial for their development. For instance talking about past events helps improve memory: children learn how to structure their memory narratives (recount their memories to other people) in a culturally appropriate way.

Conversations with the child help the child's emerging self concept and their understanding of self and others. Do not forget that stimulation in all areas of development is key in preventing stunting. In this case verbal stimulation must occur in line with non-verbal stimulation (actions) in order to make a more effective impact. For example, singing songs with actions and so on.

A Book Making Activity

Materials: piece of sack string ,a pencil, 5-10 pieces of paper (cut out), pencil or charcoal, glue and old magazines or newspapers.

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[2] Bloom, P. (2001) Precis of how children learn the meaning of words. *Behavioural and brain science*, 24, Pp. 1095-1103

[4] *Same as endnote f*

Demo from Siasikabole, Simakutu

Instruction:

- Cut pieces of paper into small sizes (use your palm as a guide for the size: upright for length and ¾ of your palm sideways for width).
- Then cut small holes on one edge (one long side) through which the sack string can pass, then tie it to bind the book.
- Cut the pictures into smaller pieces if large or shape them.
- You can now stick the pictures in this book with tree glue. Name each picture or write a word that best describes what is in the picture.
- In this book, you can trace parts of your child, e.g. child's hand, foot or toes, etc and encourage the child to name those parts.
-

> **NOTE**: *Always remind the caregiver that it is not only important to talk to the child, but it is also important to describe and name objects or parts (while pointing to them).*

Butume Activity (erranding) [Demonstrate]

Facilitator:

- **You will instruct participants on what to do.**

Instructions:

- First a caregiver, tells child to go and sit near an object [the child should be free to play with object if he or she choose to. Encourage caregiver not to scold her or him for that.]
- Then, the caregiver should tell the child to bring the object and give it to her. Caregiver can ask: what is it? What is it used for? Do you want to share it with me?

- If child says yes, s/he wants to share then caregiver should show positive affect (happy facial expressions) and praise the action. For instance: Oh wow, thank you very much. If not, caregiver can say: Oh that's okay. I see you still want to play with it. Positive facial expressions and gestures should be shown here too
- Then caregiver can ask child to share or take the object to another child or familiar adult. Here you simply observe the interactions that will happen.

NOTE: *Variations in activity can be made but keep the activities simple. Encourage caregivers not to worry if child does not do this task exactly during the first few tries. Remember he or she is only two years old, however, overtime the child will be able to do it. This task is a gate way for erranding and encourages internal verbalisations (thinking or reasoning) in the child as well as socialisation.*

GENERAL HOMEWORK

Facilitator, say:

- Storytelling is important. So next time you are at home you can tell your children a folktale.
- Don't forget to use lots of gestures, facial and vocal expressions. You should also point to objects in the environment that maybe the same as objects or characters in your story.
- If possible, ask the grandmother or grandfather or father to tell the story instead. You can then ask, the children (not only the two year olds) what was the moral? Or what they learnt from the story?
- Then, when we meet for the next lesson each mother can tell us how this exercise went.

LESSON 4: DIVERSE DIETS FOR THE GROWING CHILD

OBJECTIVES:

By the end of this session, mothers will:

21.0. Recall that a balanced diet is important for the child's healthy growth

22.0. Recall that diverse diets will help prevent stunting

23.0. Know that children model the parent's eating behaviours as well.

24.0. Have a glance at the effects of poor hygiene and sanitation

25.0. Be able to know which practices are not hygienic.

26.0. Be able make a balanced meal using locally available foods

Introduction

Teacher:

- Greet mothers and their children
- Introduce self and purpose of meetings
- Give mothers chance to introduce selves, child and where they are coming from.

Begin lesson:

- Talk about the stages of building and house and liken that to the child's growth.
- Sing a song that talks about child growth [e.g. iluyando lupati]
- ***Discuss homework. Ask who was able to do it and ask who wasn't and why?***

Discussion Guide:

Everybody eats. In order to survive we all need food, this includes our children as well. We know that at this stage most of our children cannot only attempt to feed themselves, but they eat what the family eats as well. Feeding and play are important for our children's proper growth and development.

Importance of feeding

Overall, feeding is a primary event in the infant or young child's life[6]. Growing children need plenty of energy (calories) and nutrients (protein, fat, carbohydrate, vitamins and minerals) to ensure they grow and develop well. And they need to eat a good variety of foods, including lots of fruits and vegetables, to make sure they get all the other important dietary components they need. In the last sessions, we established that there are three food categories: i) body building, ii) energy giving foods and iii) protective foods. Therefore, when preparing a meal a mother must try to include all of them to make a healthy diet. A good appetite will usually help make sure that they get enough energy from the food they eat.

The nutritional status of the child also has an impact on the child's relationship with the primary caregiver and is predictive or indicative of an unhealthy relationship with the caregiver[7]. This is so as how a mother feeds the child and her behaviour teach the child how they are to react. If you're shouting at the child or saying mean things because they aren't eating the food or he or she is taking their time it might create a negative impact in the child.

Feeding behaviours

[6] Yi Hui Liu & Stein, M. T. (2013). Feeding Behaviour of Infants and Young Children and Its Impact on Child Psychosocial and Emotional Development

[7] Waters & Valenzuela (1999). Explaining disorganized attachment: Clues from research on mild-to-moderately undernourished children in Chile. In J. Solomon & C. George (Eds). *Attachment Disorganization*. New York: Guilford Press.

A person's eating habits are established as young as 2 to 3 years old, which means a child who eats a diet rich in vegetables at a young age is more likely to eat vegetables as an adult[8]. To help children develop patterns of healthy eating from an early age, it is important that the food and eating patterns to which children are exposed – both at home and outside the home – are those which promote positive attitudes and enjoyment of good food. The teacher in this case is the parent. **Remember, our responsive feeding exercise in lesson 4.** The eating experience provides not only sustenance but also an opportunity for learning. It affects not only children's physical growth and health but also their psychosocial and emotional development. Helps the child learn to speak but also teaches the child good eating behaviours. We as their parents are who they learn from.

Feeding times and portions

A two child eats how many meals a day? **Answer**: 5 meals (that is 3 full meals and 2 snacks). Since, our children are at least over two years old, we can give them half of the adult meal. However, this is not mandatory. To ensure a child has appetite, the best thing would be to allow them to play as much as possible so that they are hungry at meal time. Remember, play is children's work. Active children tend to be able to get all the nutrients necessary if availed by the mother. Use smaller plates, spoons, and cups for children, to prevent overeating. Remember that fatness is not being healthy either. Therefore, you can give the child a small portion and tell him or her that if they are still hungry after finishing the first portion, then you can give them some more. **Our feeding bowls are still very helpful so let us use them.**

Link of diets to stunting

Stunting and other forms of undernutrition are clearly a major contributing factor to child mortality, disease and disability. For example, a severely stunted child faces a four times higher risk of dying, and a severely wasted child is at a nine times higher risk. Undernutrition early in life clearly has major consequences for future educational, income and productivity outcomes. Stunting is associated with poor school achievement and poor school performance. This means that focus on the child's diet is very important as well. A balanced diet together with physical activity (play) lead to a healthy child.

Creating a balanced diet

There are many local fruits and vegetables that can be used as snacks instead of processed foods. Children must be discouraged from eating junk foods (e.g. soft drinks, jiggies, sweets, etc.). Instead, you can give your child fruits (e.g. ½ a banana, a cup of mbula, masau, a mango etc.). You can even make mubuyu, mbula, or cibwantu drink not only for baby but the entire house hold as well. The mother's nutrition and the entire household's is important too.

Questions: What do think about this information? Does it make sense to you? If not, where are you not clear? What other local foods can be used as snacks for our children?

[8] Serrano & Powell (n.d.). Healthy Eating for Children Ages 2 to 5 Years Old: A Guide for Parents and Caregivers. Virginia Tech/State University.

- So now, before we begin to talk about why having clean water, good hygiene and good sanitation are important, let us go through the following definitions:

  Water safety *refers to ways of having or getting access to clean water supply.*

  Sanitation *refers to ways that promote proper disposal of human and animal wastes, proper use of toilet and avoiding open space defecation.*

  Hygiene *refers to bodily cleanliness [personal grooming] issues such as bathing, brushing teeth etc.*

Why should this be important to us?

The absence of clean **water, hygiene and sanitation** has negative effects on the nutrition status of children especially when they are very young. Access to clean water and adequate sanitation are important in reducing child mortality therefore increasing chances of survival, especially given the prevalence of diarrhoea and waterborne diseases. Learning about water, hygiene and sanitation is important because it will helps use know or increase our knowledge on good sanitary health practices in preventative and sustainable responses.

Water supply and sanitation improvement, together with improvements in people's behaviours can have very positive effects on the people and their health through reduction of diseases such as diarrhoeal diseases, intestinal (usually worm related) infections and skin diseases. Therefore, creating clean environments for children averts threats to their health and supports the best chance at a prosperous life by reducing disease and child mortality.

What is the Link between water safety, sanitation and hygiene to stunting?

Poor water, sanitation, and hygiene slow the growth of children. Poor growth (stunting) that occurs in about one quarter to one third of children below 5 years is as a result of intestinal infections most of which are as a result poor sanitation and hygiene. This intestinal infections and diarrhoea diseases lead to loss or inability to absorb much needed nutrients thus the child becomes malnourished.

Questions: *What should be done about this? What can we do? How can we change these behaviours?*

Suggested home activity for clean water

Natural water purifier

Materials: two buckets, sticks, sieve (the one used to when making mealie meal), a clean cloth, river sand and charcoal.

Instructions:

- Make holes in one bucket, then place sticks at the bottom of the bucket so that the all meet at the centre;
- then place a sieve [like the one used for sieving mealiemeal] on top of sticks, and place clean cloth on top of sieve.
- Place the river sand and charcoal on top of the cloth.
- Get a second bucket (without holes) and place sticks on top of that bucket so that they extend outward. These sticks must be strong and firm, enough to sit the punctured bucket.
- Then pour water into the top bucket, and clean safe to drink water will filter into bucket below.
- Now you have germ free, clean water!

More about Cleanliness: Just true or false

Facilitator:

- *Y*ou will ask questions and each mother has to give an answer, for them to move forward. [You can ask all, the same question if participants are many and you have few questions. They can then whisper the answer.][9] Or each mother can be asked a different question if you have enough questions, this can also shorten the games' duration.
- If the answer is correct, you move on to the next person.

Statements for the Game [True or false]

[9] This can be done although it is advisable to source as many statements as possible on the target topic.

a. Open defaecation is not good; therefore people should not do it.

Answer: True

This is because excreta left in the open often finds its way into sources of drinking water and food and may lead to disease such as typhoid, cholera, diarrhoea and dysentery. Flies are main spreaders of this.

b. The latrine must be used always for urinating and defaecation.

Answer: True

To prevent the spread of excreta related diseases.

c. I should drink water from safe sources only.

Answer: True

To prevent diseases like worms, cholera, diarrhoea, typhoid and to remain healthy. Protected springs and boreholes, treated pipe water and protected hand dug wells are good sources of safe water.

d. It is not possible to make water safe to drink.

Answer: False

By boiling it or adding chlorine (solid or liquid) water can be treated and made safe to drink.

e. We must live in a clean and healthy environment.

Answer: True

To prevent hygiene and sanitation related diseases and enjoy good health for us and our children.

f. It is not possible to make our environment a clean and healthy place.

Answer: False

If we all get involved, by taking individual and collective actions such as sweeping, cleaning, proper disposal of human and animal wastes, proper use of toilet and avoiding open space defaecation we can take a step towards make our environment clean and healthy. A mother protects her child, and her community.

g. Good Hygiene means keeping yourself and your surroundings clean.

Answer: True

Hygiene is the practice of keeping yourself and your surroundings clean, especially to avoid illness or the spread of preventable diseases.

h. I should wash my hands regularly.

Answer: True

Your hands can carry seen and unseen dirt that cause diseases. Always wash hands with soap or ash and water to prevent infections.

i. It is not important for me to wash my hands many times; that is wasting water.

Answer: False

It is important to wash hands as often as possible, especially after:

- *After going to the toilet and after changing baby's nappies*
- *Before handling and eating food*
- *After blowing or cleaning nose*

Good hand washing helps prevent a lot of diseases

j. I only need to use soap when washing my hands for them to be truly clean.

Answer: False

You can use ash for hand washing if soap is not available because ash helps kill germs and bacteria. You can even use it for washing your plates and pots.

k. I should take bath everyday if possible.

Answer: True

To prevent skin diseases and bad body odour

l. I should clean my teeth daily.

Answer: True

To prevent tooth decay and mouth odour. You can chew the end of a mulberry stick and use that as your toothbrush, if you don't have one.

m. Children can participate in these activities.

Answer: True

Children can be encouraged to develop knowledge, attitudes and skills that support the adoption of good hygiene behaviours and healthy living.

Children can be agents of change to their peers, families and their communities and promote the importance of drinking safe water, good hygiene practice and use of safe sanitation facilities.

n. **Only fathers should be responsible for hygiene and sanitation in the family.**

Answer: False

Every member of the family has responsibility for Hygiene and sanitation.

Thank you

Lesson 5: Physical Development.

The knowledge of using the body

Objectives:

By the end of the session participants should:

- Recall that exercise is important for the child's physical growth
- Reflect on the role that physical development has in child's growth.
- Know that this growth is obtained through play.

Introduction

Teacher:

- Greet mothers and their children
- Introduce self and purpose of meetings
- Give mothers chance to introduce selves, child and where they are coming from.

Begin lesson:

- Talk about the stages of building and house and liken that to the child's growth.
- Sing a song that talks about child growth [e.g. iluyando lupati]
- ***Discuss homework. Ask who was able to do it and ask who wasn't and why?***

Discussion Guide:

Physical development

This refers to the development of muscles and motor (gross and fine) skills as a child grows.

Importance of Physical Development

Physical development is important because it provides children with the abilities they need to explore and interact with the world around them. It involves activities such as running around outside, jumping on the bed, holding a cup or spoon, parent's finger or using a stick to drawing in the sand or colour in a book if possible.

Physical development makes play possible, which is essential for the child's entire development through stimulation. Don't forget that play is children's work.

Developmental Milestones: knowing what my child should be able to do

Knowing the developmental milestones helps a mother know whether her child is growing at a typical rate. Since our children are two years old we know that physically they should be able to:

- ✓ **Run, jump, hop and walk well. May also be able to kick ball, though not that well.**
- ✓ **Able to catch (upper body) and throw ball**.
- ✓ **Hold spoons, container, cups and can stack a tower of plates or cups (at least 6 or 7 plus). Molding nshima during a real meal or pretend clay dough meal (fine motor skills). This so as by this stage they have gained control of hands and fingers.**
- ✓ **Can climb chicken ladders (no stairs in our homes). But most two year olds are able to or will be able to climb chicken keep stairs (not high) by this age and later on can climb into the maize shelter which also has a ladder (stairs).**

Don't forget that children grow at individual rates with some being faster or slower than others. Therefore don't be quick to worry (as long a diverse diet is available, clean environment and stimulation).

Physical developmental benefits of play

- Positive emotions increase the efficiency of immune, endocrine, and cardiovascular systems.
- Decreases stress, fatigue, injury, and depression due to deprivation in children.
- Increases range of motion, agility, coordination, balance, flexibility, and fine and gross motor exploration

This does not mean that mother should leave child to play all day. No, it does not but mother can allocate a specific time for the child to play with peers on a daily basis. Mother can also play with her child.

Homework: Play with your child [a physical game]

Lesson 6: SOCIO-EMOTIONAL DELEVOPMENT. A FAMILY AFFAIR

Objectives:

By the end of this session, mothers will:

- Recall the importance of taking care of herself.
- Know that the home environment is key for good socio-emotional development in the child.
- Know that maternal wellbeing will influence child's well being
- Be able to relate to others, self and child without being forceful.

Introduction
Teacher:
- Greet mothers and their children
- Introduce self and purpose of meetings
- Give mothers chance to introduce selves, child and where they are coming from.

Begin lesson:
- Talk about the stages of building and house and liken that to the child's growth.
- Sing a song that talks about child growth [e.g. iluyando lupati]

Discuss homework. Ask who was able to do it and ask who wasn't and why?

Discussion Guide:

1. **The mother's wellbeing [A family Affair]**

Social emotional development

Social emotional development refers to the child's expressions and management of emotions and the ability to establish positive and rewarding relationships with others[10] in their day to day experience.

Importance of social emotional development

Social emotional development influences how competent the child is in that society as it determines the child's ability to identify and understand feelings, to correctly read and understand emotional states in others, to manage strong emotions and their expression in a

[10] Cohen, J., and others. (2005) *Helping Young Children Succeed: Strategies to Promote Early Childhood Social and Emotional Development*. Washington, DC: National Conference of State Legislatures and Zero to Three. As cited on the California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

constructive manner, to regulate one's own behaviour, to develop empathy for others, and to establish and maintain relationships.[11]

Infants experience, express, and perceive emotions before they fully understand them.[12] In learning to recognize, label, manage, and communicate their emotions and to perceive and attempt to understand the emotions of others, children build skills that connect them with family, peers, teachers, and the community.[13] These growing capacities help young children to become competent in negotiating increasingly complex social interactions, to participate effectively in relationships and group activities, and to reap the benefits of social support crucial to healthy human development and functioning.[14]

Healthy social-emotional development for infants and toddlers unfolds in an interpersonal context, namely that of positive ongoing relationships with familiar, nurturing adults.[15] Young children are particularly attuned to social and emotional stimulation. Even newborns appear to attend more to objects that resemble faces.[16] They also prefer their mothers' voices to the voices of other women.[17] Through nurturance, mothers support the infants' earliest experiences of emotion regulation.[18]

Factors influencing social emotional development

During the village of dreams exercise we encouraged each mother to think on what she wants her child to be when he or she grows up and also for the mother to have good thoughts towards herself. This is to encourage sensitivity (responsiveness) and warmth towards the child's needs. This is also because we have learnt that for healthy social emotional development to occur, ***a***

[11] National Scientific Council on the Developing Child (2004, p. 2) As cited on the California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

[12] California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp
[13] California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp
[14] California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

[15] Johnson, M., and others (1991). "Newborns' preferential tracking of face-like stimuli and its subsequent decline," *Cognition,* Vol. 40, Nos. 1-2, 1–19. As cited on the California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

[16] Johnson, M., and others (1991). "Newborns' preferential tracking of face-like stimuli and its subsequent decline," *Cognition,* Vol. 40, Nos. 1-2, 1–19. as cited on the California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

[17] DeCasper, A. J. & Fifer, P. W. (1980) Of human bonding: Newborns prefer their mothers' voices, *Science,* 208 (6), pp. 1174–76. as cited on the California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

[18] Thompson, R. A., & Goodvin, R. (2005) "The Individual Child: Temperament, Emotion, Self and Personality," in *Developmental Science: An Advanced Textbook* (Fifth edition). Edited by M. H. Bornstein and M. E. Lamb. Mahwah, NJ: Lawrence Erlbaum Associates.as cited on the California Department of Education article Social-Emotional Development Domain: California Infant/Toddler Learning & Development Foundations. Retrieved from: http://www.cde.ca.gov/sp/cd/re/itf09socemodev.asp

child needs a healthy environment (stimulatory and responsive parenting) and a healthy mother. *A healthy mother has good thoughts towards herself and her child, and is able to nourish and create a good environment for her child. She also uses good parenting practices to manage her child's behaviour; thus encouraging good behaviours in the child and discouraging bad ones. A mother must be sensitive and warm.*

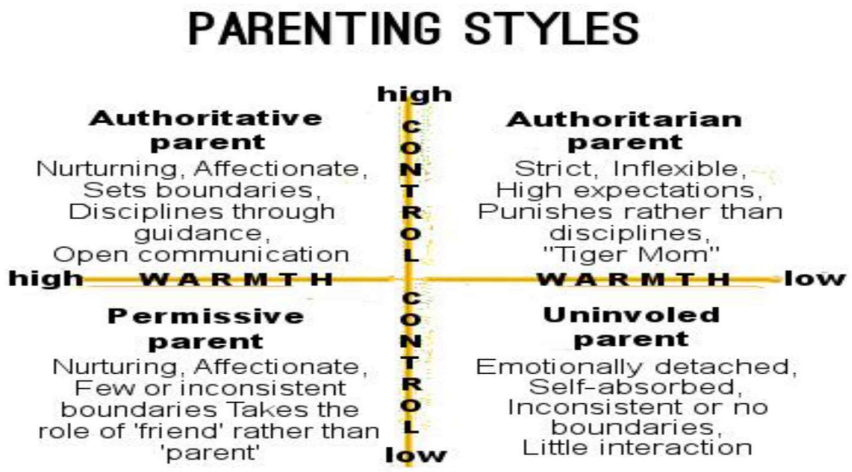
We have already established that if a mother is not well. For instance, if she is sick or unhappy most of the time then she won't be able to respond to her child properly, leading to neglect or harshness. Therefore, it is important to ask for help in such situations.

Note: If you need help it is best to seek it as soon as possible. Talk to your friends, or elders or go to the hospital, if you are feeling unwell.

Parental warmth and sensitive responsiveness are important in creating a socially competent child.[19] For instance, answering nicely when your child calls, talking to your child or playing with your child enhance your child's social emotional development. This is not limited to the mother but other adults and older children who interact with the child especially regularly_ **family**.

Parenting Styles:

In lesson 1 we talked about how a mother's role is to guide. **Parenting styles are ways we use for guiding our children.** These refer to how we discipline or communicate information to our children.[20] They are important in building healthy social emotional development which leads to social competence in that child. There are four types:

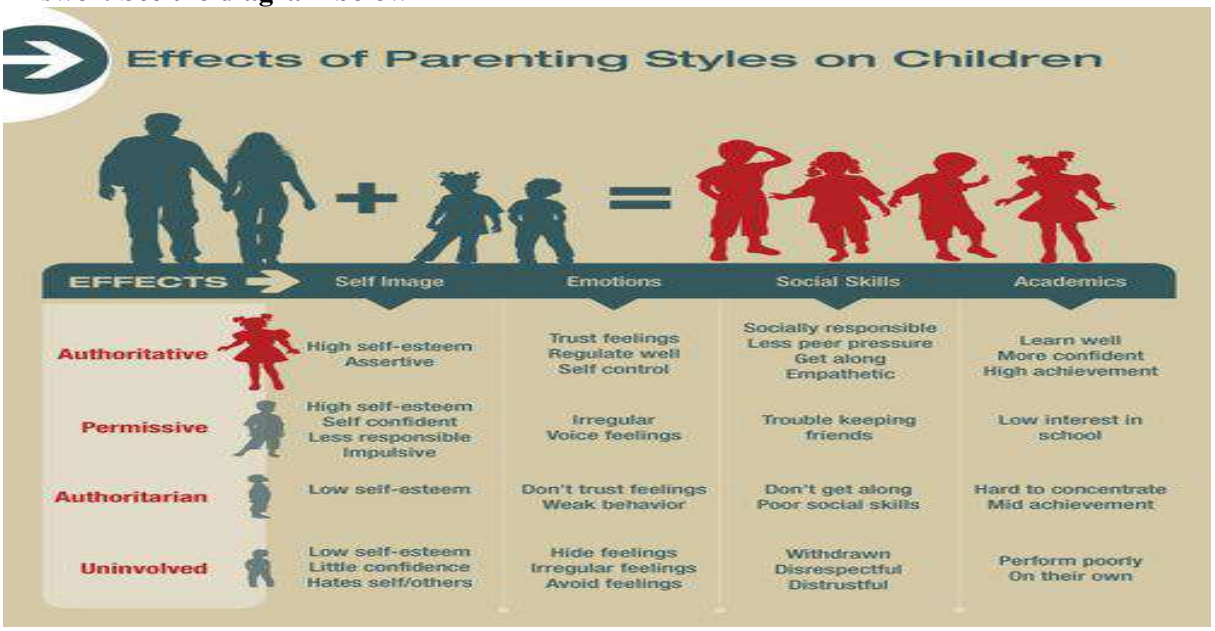


Questions: Which of these do you think is best to encourage healthy social emotional development in your child? Why? *[Allow mothers to respond before giving the answer.]*

[19] Cassidy, J. & Shaver, R. P. (2008) Handbook of Attachment: theory, research and practical applications, 2nd edition. Guilford Press: New York.

[20] Hapunda, G. (2015). Parenting styles and strategies. Lecture notes pdf presentation.

Answer: See the diagram below[21]



***NOTE**: Explain content the diagrams*

As shown, **the parenting style a mother uses determines the child's well being**. A mother t herefore must be responsive, not harsh or permissive.

The mother's well being and competence Now you know that you should take care of yourself and your child. What will you do to ens ure that your child has healthy social emotional development? How best can we help each oth er be better parents to our children? ***Remember, that how you raise your child is the way they will raise their children as well.***

2. the child's wellbeing

A focus on social emotional development

[21] Hapunda, G. (2015). Parenting styles and strategies. Lecture notes pdf presentation.

Social and emotional skills are important for good mental health and wellbeing, learning, motivation to achieve and cooperate, and the development of values of the child;[22] they also have an impact child's self-concept and wellbeing throughout life.[23] In the previous lesson, we learnt that the parent is the one who creates the environment for the child that will in turn influence his or her behaviours. Therefore, a mother must do her best to be healthy (if possible); 'she must also act as a secure base and a safe haven for her child.[24] This means that the child must know that mommy will protect me in case of danger and that mom will not hurt me because she loves me.[25] Only through this, circle of security can healthy social emotional development resulting in social competence.[26]

Discussion: What is social competence?[27]

Response: this is one's ability to live well with others in their community.

Who is the socially competent child?[28]

When asked some of you said, this a child who doesn't fight with others, who listens to what adults say (obedience), who shares with others, who respects adults and friends, who is responsible and so on. This of course is all very true.

A socially competent child will show empathy, be able to know when to express specific emotions, interact with other adults and peers, and be kind to others and able to share and so on.

Creating social competence

Our children will show individual differences in temperament, development and personal preferences. Some will be outgoing and sociable.[29] Some will prefer to watch before joining in. Some will be highly independent. It is important to look for and respect these individual differences, while supporting the development of a range of skills in each child. Avoid comparing them. For example, saying: "why can't you be more like your bother?"

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[22] Kids-Matter Early Childhood: A framework for improving children's mental health and wellbeing.

[23] Lucich, M. (2002) Building baby's intelligence: Why infant stimulation is so important. Retrieved from: http://www.responseability.org/__data/assets/pdf_file/0008/4859/Building-

[24] Cassidy, J. & Shaver, R. P. (2008) Handbook of Attachment: theory, research and practical applications, 2nd edition. Guilford Press: New York.

[25] Cassidy, J. & Shaver, R. P. (2008) Handbook of Attachment: theory, research and practical applications, 2nd edition. Guilford Press: New York.

[26] The circle of security. Retrieved from: http://www.brainwave.org.nz/wp-content/uploads/2012/05/Circle-of-security-article

[27] This definition is based on the mother's responses during cooperative inquiry.

[28] This description was derived through mother's responses during a cooperative inquiry session.

[29] Lucich, M. (2002) Building baby's intelligence: Why infant stimulation is so important. Retrieved from: http://www.responseability.org/__data/assets/pdf_file/0008/4859/Building-

To support children's development of social and emotional skills and a positive self-concept:[30]

- ✓ Observe children's verbal and non-verbal signals and get to know them as individuals.
- ✓ Respond in a caring and consistent way to children's physical and emotional needs.
- ✓ Keep expectations appropriate to the child's abilities and stage of development.
- ✓ Provide opportunities for alone time or quiet activity and for play with peers or adults.
- ✓ Give children choices and opportunities for exploration, to learn about their environment and interact with others.
- ✓ Respect and value the personality and individual preferences.
- ✓ Respect and support children's early attempts at connection and communication.
- ✓ Consistently model the behaviour and communication styles you want your children to use.
- ✓ Acknowledge children's achievements and give praise for positive behaviour.
- ✓ Help children to recognise and label their emotions and to express their feelings.
- ✓ Use stories, games or other activities to explore feelings and friendships.
- ✓ Encourage older children to take turns, to share resources and to share adults' attention; and care or play with their younger siblings.
- ✓ Model pro-social skills and praise children for showing empathy and helping others.
- ✓ Help children to solve problems and negotiate with peers when disputes come up.
- ✓ Be aware that children may have difficulty using their skills when they are sick or tired; this may explain their being difficult sometimes therefore show patience and be calm.
- ✓ Recognise that learning new skills requires time, practice and positive feedback.
- ✓ Discipline through guidance; explaining why what they have done is wrong or not good.
- ✓ Discipline (or reprimand) should also take place immediately after deliberate mischief has taken place so as not to confuse the child as to what is wrong.

The Mother-child Relationship[31]

When a child's signals are responded to by an adult within their social interactions and relationships in a reliable, predictable and meaningful way over time, the child and adult become 'in tune' with each other. Being 'in tune' with an adult helps the child to regulate emotions and learn what it is like to be calm. Over time the child becomes skilled at regulating their own emotions, a major developmental task of early childhood. Therefore talk to your child (remember the responsive feeding and makani a ajilo exercises) and play with your child. Guide them, without being too permissive or harsh (or controlling).

Questions:

Is this information useful to us? Are there any additions, to what has been discussed or said? Or what do we think or feel does not apply to us?

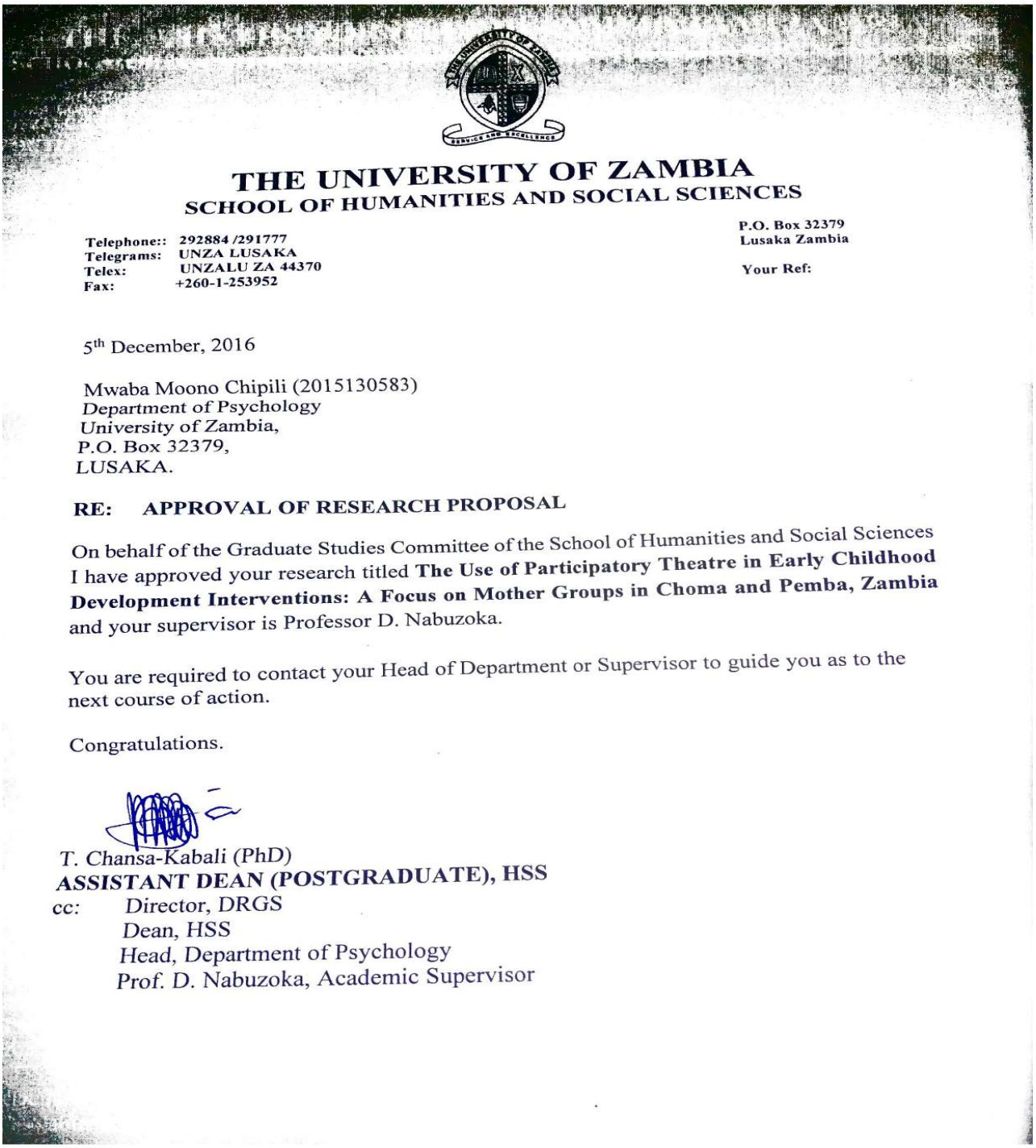
[30] [illegible]
http://www.responseability.org/__data/assets/pdf_file/0008/4859/Building-

[31] Kids-Matter Early Childhood: A framework for improving children's mental health and wellbeing. Retrieved from: https://www.kidsmatter.edu.au/

8.4.2. Experimental Group lessons 1-6 (*see Appendix C*): In this segment lessons developed in Phase I were merged to include theatre and game activities as well.

8.5. Appendix E: Letters of Approval

8.5.1. Research proposal approval by school



THE UNIVERSITY OF ZAMBIA
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Telephone:: 292884 /291777
Telegrams: UNZA LUSAKA
Telex: UNZALU ZA 44370
Fax: +260-1-253952

P.O. Box 32379
Lusaka Zambia

Your Ref:

5th December, 2016

Mwaba Moono Chipili (2015130583)
Department of Psychology
University of Zambia,
P.O. Box 32379,
LUSAKA.

RE: APPROVAL OF RESEARCH PROPOSAL

On behalf of the Graduate Studies Committee of the School of Humanities and Social Sciences I have approved your research titled **The Use of Participatory Theatre in Early Childhood Development Interventions: A Focus on Mother Groups in Choma and Pemba, Zambia** and your supervisor is Professor D. Nabuzoka.

You are required to contact your Head of Department or Supervisor to guide you as to the next course of action.

Congratulations.

T. Chansa-Kabali (PhD)
ASSISTANT DEAN (POSTGRADUATE), HSS
cc: *Director, DRGS*
Dean, HSS
Head, Department of Psychology
Prof. D. Nabuzoka, Academic Supervisor

8.5.2. Ethical approval

THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

APPROVAL OF STUDY

10th March 2017

REF. NO. HSSREC: 2017-MAR-002

Mwaba Moono Chipili
University of Zambia
School of Humanities and Social Sciences
Department of Psychology
P. O. Box 32379
LUSAKA

Dear Ms Chipili,

RE: "THE USE OF PARTICIPATORY THEATRE IN EARLY CHILDHOOD INTERVENTIONS: A FOCUS ON MOTHER GROUPS IN CHOMA AND PEMBA, ZAMBIA"

The University of Zambia Humanities and Social Sciences Research Ethics Committee IRB has approved the study noting that there are no ethical concerns.

On behalf of The University of Zambia Humanities and Social Sciences Research Ethics Committee IRB, we would like to wish you all the success as you carry out your study.

Yours faithfully,

Dr. J. Mwanza
CHAIRPERSON
THE UNIVERSITY OF ZAMBIA HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE IRB

cc: Director Directorate of Research and Graduate Studies
Assistant Director (Research), Directorate of Research and Graduate Studies
Assistant Registrar (Research), Directorate of Research and Graduate Studies
Senior Administrative Officer (Research), Directorate of Research and Graduate Studies

8.5.3. Approval letter from Pemba District Health Office to Choma Provincial health office with clearance stamp.

All Communications to be addressed to the District Medical Officer and not individuals
Email:pembadmo@yahoo.com
Tel: +26031242061
Tel/Fax: +26031242062

In reply please quote

No:

MINISTRY OFHEALTH

OFFICE OF THE DISTRICT HEALTH DIRECTOR

PEMBA DISTRICT HEALTH OFFICE

SOUTHERN PROVINCE
P. O BOX 640200

20th March, 2016

The Provincial Health Officer
Provincial Health Office
Choma

DHD - Pemba.
Ethical clearance has been given, Kindly allow student to go ahead
15 Apr

Dear Madam,

RE: AUTHORITY TO CONDUCT A RESEARCH-MWABA MOONO CHIPILI

Refer to the above subject.

The above stated is a student under the University of Zambia in the School of Humanities and Social sciences pursing her Masters Degree. She would like to conduct a research on " The use Of Participatory Theatre In Early Childhood Development Interventions" in Pemba District. You may wish to know that the aforementioned student once worked with The Saving Brains project (Improving ECD in Zambia) which was conducted in Choma and Pemba Districts and supported by ZCHARD in collaboration with AIR last year, 2016 hence being familiar with some areas in the district.

Find attached documents to support the request.

Your quick response will be highly appreciated.

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
PROVINCIAL HEALTH OFFICE
17 MAR 2017
OFFICE OF THE PROVINCIAL HEALTH DIRECTOR
P.O. BOX 630026, CHOMA.

Dr. B. Habasimbi
District Health Director
PEMBA

CC: File

8.6. Appendix F: NVivo Qualitative Analysis- Codebook and summary report

SB-II- Phase II_ Codebook

Nodes or codes

Name	Description	Files	References
BASELINE		1	1
1. Knowledge_Baseline		1	15
a. Parental role_Baseline		1	4
i. Feeding_ Baseline		1	2
ii. Body care_ Baseline		1	1
iii. Health care_ Baseline		1	3
iv. Discipline_ Baseline		1	1
v. Love for child_ Baseline		1	2
vi. Educate or guide_ Baseline		1	4
b. Childcare_ Baseline		1	5
i. Stimulation_ Baseline		1	1
ii. Feeding_ Baseline		1	3
iii. safetey Baseline		1	1
c. Health_ Baseline		1	3
iii. Sanitation_ Baseline		1	1
d. Discipline_ Baseline		1	2

Name	Description	Files	References
i. Social induction (i.e. erranding behaviours)_ Baseline		1	1
ii. Punishment_ Baseline		1	1
2. Practice_ Baseline		1	6
a. Activities (i.e. reading to child, feeding, fostering intelligent behaviours)_ Baseline		1	2
i. Playing games with the child_ Baseline		1	1
iii. Talking to the child_ Baseline		1	1
v. Counting_ Baseline		1	1
c. learning blocks_ Baseline		1	2
3. Perceptions (i.e. feelings and thoughts)_ Baseline		1	5
a. thoughts about participation_ Baseline		1	1
b. Knowledge in village_ Baseline		1	1
d. Myths_ Baseline		1	1
4. Concerns or requests_ Baseline		1	3
5. Recommendations for ECD theatre projects_ Baseline		1	1
6. Special quotes_ Baseline		1	3

Name	Description	Files	References
ENDLINE		2	2
1. Knowledge_ Endline		2	37
a. Parental role_Endline		2	17
i. Feeding_ Endline		2	3
ii. Body care_ Endline		2	3
iii. Health care_ Endline		2	4
iv. Discipline_ Endline		1	1
v. Love for child_ Endline		2	2
vi. Educate or guide_ Endline		2	3
b. Childcare_ Endline		2	7
i. Stimulation_ Endline		1	1
ii. Feeding_ Endline		2	4
c. Health_ Endline		2	6
ii. Clinic treatment_ Endline		2	2
iii. Sanitation_ Endline		1	1
d. Discipline_ Endline		1	7
i. Social induction (i.e. erranding behaviours)_ Endline		1	2
ii. Punishment_ Endline		1	2
2. Practice_ Endline		2	9

Name	Description	Files	References
a. Activities (i.e. reading to child, feeding, fostering intelligent behaviours)_ Endline		2	3
i. Playing games with the child_ Endline		2	3
vii. Sanitation_ Endline		1	1
vii.1. good sanitation_Endline		1	1
viii. Nutrition_ Endline		1	1
viii.1. good nutrition_Endline		1	1
b. Sharing information_ Endline		2	4
i. Yes shared_ Endline		2	3
ii. Not shared_ Endline		1	1
3. Perceptions (i.e. feelings and thoughts)_ Endline		2	35
a. Towards lessons (positive- relatable or acceptable)_ Endline		2	8
b. Towards lessons (negative-strange)_ Endline		1	3
c. Changes in thoughts or feelings_ Endline		2	6
d. Positive feelings (stress relief)_ Endline		2	4
e. Myths_ Endline		2	2

Name	Description	Files	References
f. thoughts about ability to recall lessons_ Endline		1	2
g. village vs learning group views_ Endline		2	4
i. yes difference ecd		2	3
h. difference between current learning vs previous		1	1
i. yes difference - endline		1	1
ii. no difference - endline		2	3
i. perceived benefits Endline		1	1
4. Concerns or requests_ Endline		2	4
5. Recommendations for ECD theatre projects_ Endline		2	3
6. Special quotes_ Endline		2	13
PRE-BASELINE		1	1
1. Knowledge_Pre-baseline		1	43
a. Parental role_Pre-baseline		1	16
i. Feeding_ Pre-baseline		1	2
ii. Body care_ Pre-baseline		1	4
iii. Health care_ Pre-baseline		1	3

Name	Description	Files	References
iv. Discipline_ Pre-baseline		1	1
vi. Educate or guide_ Pre-baseline		1	2
vii. child safety_ Pre-baseline		1	3
b. Childcare_ Pre-baseline		1	10
i. Stimulation_ Pre-baseline		1	1
ii. Feeding_ Pre-baseline		1	6
c. Health_ Pre-baseline		1	10
i. At home treatment_ Pre-baseline		1	2
ii. Clinic treatment_ Pre-baseline		1	2
iii. Sanitation_ Pre-baseline		1	4
d. Discipline_ Pre-baseline		1	5
i. Social induction (i.e. erranding behaviours)_ Pre-baseline		1	1
ii. Punishment_ Pre-baseline		1	2
2. Practice_ Pre-baseline		1	21
a. Activities (i.e. reading to child, feeding, fostering intelligent behaviours)_ Pre-baseline		1	17

Name	Description	Files	References
i. Playing games with the child_ Pre-baseline		1	4
iii. Talking to the child_ Pre-baseline		1	2
iv. Singing with the child_ Pre-baseline		1	2
v. Counting_ Pre-baseline		1	1
vii. Sanitation_ Pre-baseline		1	1
vii.1. good sanitation_Pre-baseline		1	1
viii. Nutrition_ Pre-baseline		1	2
viii.1. good nutrition_Pre-baseline		1	2
viii.2. bad nutrition_ Pre-baseline		1	2
b. Sharing information_ Pre-baseline		1	1
c. attendance of lessons_ Pre-baseline		1	1
i. yes attended_ Pre-baseline		1	1
3. Perceptions (i.e. feelings and thoughts)_ Pre-baseline		1	4

Name	Description	Files	References
a. Towards lessons (positive- relatable or acceptable)_ Pre-baseline		1	6
b. Towards lessons (negative-strange)_ Pre-baseline		1	1
c. Changes in thoughts or feelings_ Pre-baseline		1	3
d. Positive feelings (stress relief)_ Pre-baseline		1	3
e. Myths_ Pre-baseline		1	1
f. thoughts about ability to recall lessons_ Pre-baseline		1	1
g. difference between phase 1 and 2_ Pre-baseline		1	3
i. yes difference in phase Pre		1	5
ii. no diference in phase Pre		1	4
h. difference between lessons in phase 1 and 2_ Pre-baseline		1	6
i. yes difference in lessons Pre		1	8
ii. no diference in lessons Pre		1	5
4. Concerns or requests_ Pre-baseline		1	3
5. Recommendations for ECD theatre projects_ Pre-baseline		1	3

Name	Description	Files	References
6. Special quotes_ Pre-baseline		1	6

19-Nov-18 21:28

File Summary report

SBIII PROJECT MA MMC

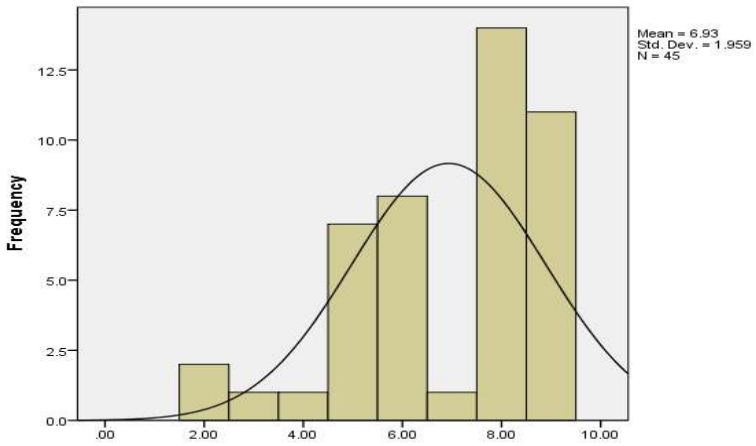
19-Nov-18 21:28

Total Words in File	Total Paragraphs in File	Number of Nodes Coding File	Coded Percentage of File	Number of Text References	Number of Audio Video References	Number of Image References
Document						
Files\\FDG 2- Independent study pre-intervention FGD						
1243	76	31	1.0000	79	0	0
Files\\FGD 1-Parent study						
2713	150	49	1.0000	238	0	0
Files\\FGD3- Control group						
1871	94	32	1.0000	98	0	0
Files\\FGD4- Experimental group						
1507	82	40	1.0000	126	0	0

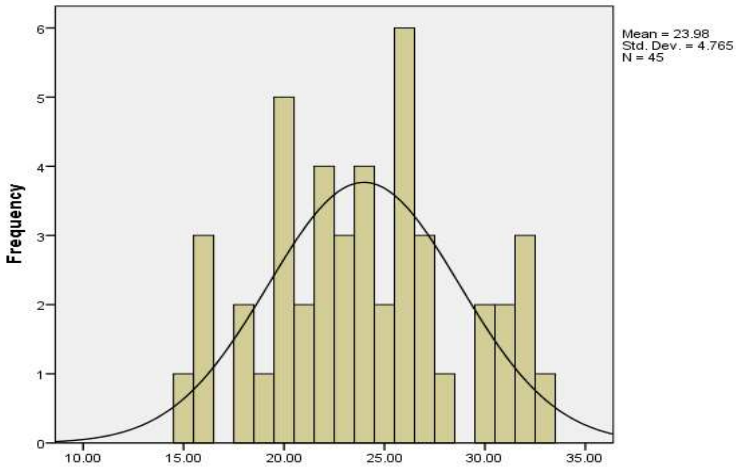
8.7. Appendix G: Quantitative Analysis Results

8.7.1. Distribution of Endline scores for secondary caregivers on childcare

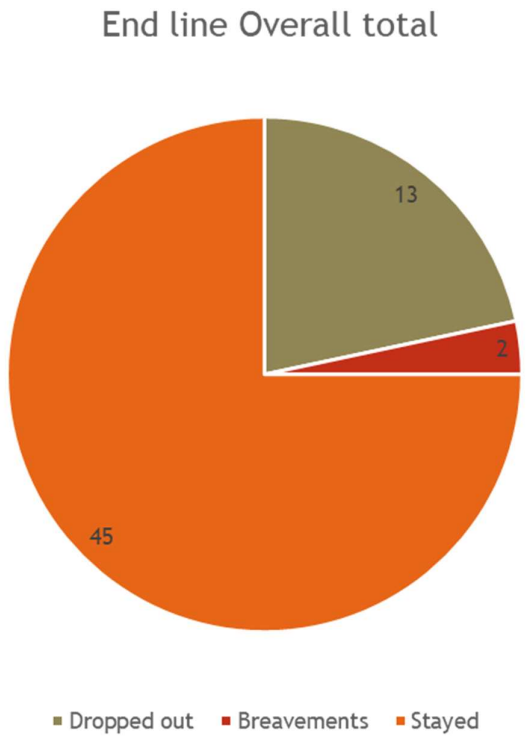
Secondary caregiver CKCDI distribution scores

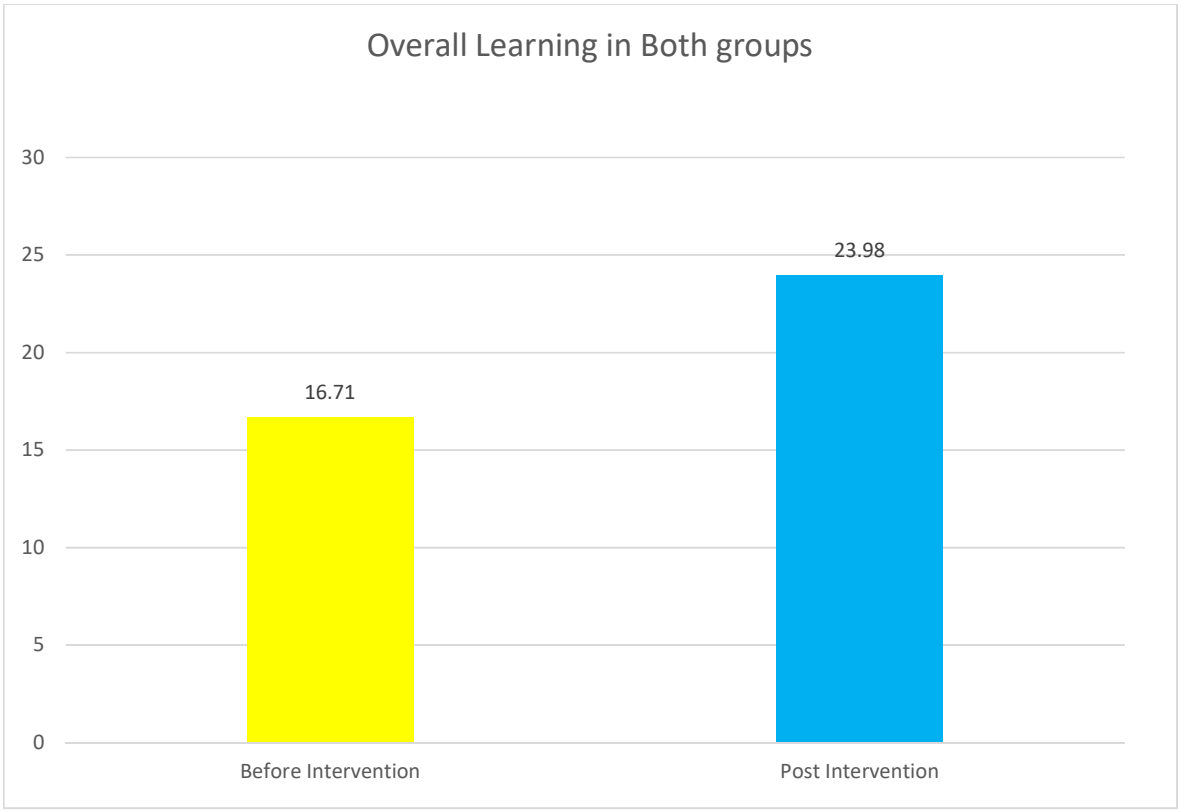


Distribution of Endline CKCDI scores for primary caregivers on childcare
Primary caregiver CKCDI distribution scores



Total number of dyads by end of Phase II


End line Overall total
13
2
45
Dropped out
Breavements
Stayed


Overall Learning in Both groups
30
25
20
15
10
5
0
16.71
23.98
Before Intervention
Post Intervention