International Research Journal of Innovations in Engineering and Technology (IRJIET)

ISSN (online): 2581-3048

Volume 3, Issue 11, pp 26-36, November - 2019

Effect of Preterm Birth on Learning Readiness of 3-6 Year Old Children in Nyando Subcounty, Kenya

[1]Millicent Ondiegi, [2]Rose Atieno Opiyo, [3]Mary Kipmerewo

[1,2,3]Masinde Muliro University of Science & Technology, Kenya

***Abstract* - The central theme of this paper was motivated by the fact that when children are born preterm their language, psychomotor and social developments are affected since they have not undergone full growth and development stages. These learning competencies manifests in domains of children's development to which children are prepared for learning readiness based on language, social and psychomotor development. However, this area has been neglected by studies in Kenya especially in Nyando Sub County. The study aimed to; determine the effect of preterm birth on learning readiness of 5-6 year old children. The study adopted comparative case study research study design. The target population was 40 Pre-schools, 72 pre-school children (36 Full term and 36 preterm). A sample of 40 Pre-school teachers, 72 parents and 20 hospital administrators were sampled using purposive sampling technique in the study. The study used questionnaire, interviews, document analysis and observation guide as research instruments. Data was analyzed descriptively using means, standard deviation and frequencies by statistical package of social sciences (SPSS) version 21.0. Results indicated that preterm birth affected learning readiness of preterm children adversely and in the view of the results, the hypotheses were rejected. The study concluded that learning competencies of preterm children is lower compared to full term children.**

Keywords: Preterm birth, full term birth, learning competencies, Nyando Subcounty, Kenya.

I. INTRODUCTION

1.1 Background of the study

Full term birth enables mother and baby to bond immediately after delivery, as the infant does not have to be separated to attain full growth and development thus aids children's development. Tucker (2004) contends that the brains of preterm children are not fully developed because a baby's brain gains 1/3 of its size between 35 weeks and full-term. They do not suck and swallow better as babies born term since their muscles are not more developed. Term children are able to undergo various growth and developmental milestones like movement milestones, language milestones, cognitive milestones and social emotional milestones better than preterm counterparts.

In 2010 an estimated 14·9 million babies were born preterm worldwide, there was also a range of preterm births of about 5% in several European countries to 18% in some African countries. More than 60% of preterm babies were born in South Asia and Sub-Saharan Africa where 52% of the global live births occur. The burden of preterm birth is substantial and is increasing in those regions with reliable data. A report by Culhane (2012) contends that 1 in 10 babies born around the world in 2010 were preterm which translates to an estimated 15 million preterm births.

A report about the global toll of premature birth by March of Dimes Foundation (2012) and the World Health Organization (WHO), provides the first-ever estimates of preterm birth rates by country. This report also found that 15 million babies worldwide are born preterm. The report further ranked the United States 131st in the world in terms of its preterm birth rate. This study conducted by March of Dimes (2019), preterm children also tends to demonstrate more generalized learning problems rather than specific learning readiness (i.e. only a reading problem). This supports the theory that preterm children's learning problems are caused by a global processing deficit rather than difficulties with isolated skills. Once children reach school, greater demands are placed on them with regard to logical reasoning and processing of higher-level visual, spatial, and verbal information which is more evident in term rather than the preterm (Adams,2000).

The prevalence of preterm birth in the United States constitutes a public health problem says Kramer (2012) but unlike many health problems, the rate of preterm birth has increased in the last decade (Olsen.1995). Since 1981, the rate has increased more than 30 percent (from 9.4 percent) (Beck, 2002). The birth of a preterm infant results in significant health consequences to the infant and emotional and economic costs for families and communities (Alexander, 2001). Although advances in perinatal and neonatal care have improved the survival for preterm infants, those infants who

