



Associated factors to perinatal mortality in area health in rural citenge kasai oriental/Rd Congo

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Abstract

Introduction: Reports 2011,2012,2013 benefits of the health zone and 2014 showed that perinatal mortality is a fact in the rural health zone of 0.75% with Citenge cases exceeds the objectives set by the province Kasai Oriental through its reproductive health program, which must be less than 0.5% until the end of 2015.

Method: This study is cross referred to analytical. It seeks to identify the factors of perinatal mortality in the rural health zone of Citenge. The data is collected and transversely collected using a questionnaire oriented exchange between interviewer and interviewee, the study was conducted on the extent of the rural health zone of Citenge. For a survey, a questionnaire was administered to pregnant women in 2014 and those who have given birth in the same year the number of 321.

Results: The most incriminating factors are those related to the child include: the reduced number of visits CPN women that is to say EIC<4 prematurity and low birth weight and complications of childbirth (bleeding of issue and obstructed labor) are factors that increased the risk of this phenomenon "perinatal mortality".

Conclusion: Reproductive health (RH) is a fundamental right of every human being. Our vision is to have a Congolese nation where every child born is a wanted child and who should not die from preventable causes; a nation where every woman has a good maternal health and should not lose or have their lives threatened by preventable diseases and morbid conditions related to pregnancy or childbirth, and finally a nation where men, women and young people enjoy a good sexual health immune to STIs and HIV / AIDS as well as safe from harmful and discriminatory practices related to sex or gender.

Keywords: mortality, perinatal, newborn

1. Introduction

The birth of a living child is cause for pride and celebration for members of several human societies. It is also the result of marital equilibrium when desired and source of conflict if it is not desired. Although this event is à source of joy and happiness but can also turn into tragedy in our community.

Reproductive health (RH) is a fundamental right of every human being. Our vision is to have a Congolese nation where every child born is a wanted child and who should not die from preventable causes; a nation where every woman has a good maternal health and should not lose or have their lives threatened by preventable diseases and morbid conditions related to pregnancy or childbirth and finally a nation where men, women and youth enjoy sexual health good immune to STIs and HIV / AIDS as well as safe from harmful and discriminatory practices related to sex or gender. ^[1]. High maternal mortality is not just a "women's issue". The poor health of mothers and inevitable corollary that of infants and children has consequences for all. Women are the pillars of the family, those who educate children, provide health care, care for the young and older, cultivate the land, do business and are often the main if not the only purveyors of income. A private company in the contribution of women is a society which will see its economic and social decline, its culture become poorer and its development potential is seriously limited. ^[2]. Statistics on certain countries on infant mortality show that in 2008,2009, 2011,2013

and 2014 the DRC presented 83.11%, respectively, 81.21%, 78.43%, 74.8% and 73 13%. (MICS 2010). ^[3]. For the years 2010, 2011 and 2012, coordinating the reproductive health of Kasai Oriental has recorded 5997 deaths 2% respectively, 8470 and 6667 is 3.1% or 2.7%. ^[4]. Perinatal mortality for Citenge 2010,2011 years 2013 shows a calculated average rate of 0.75% which is higher than the targets set by the Kasai Oriental province through its reproductive health program less than 0.5% 2015 (CPNSR). This rate attracted us to identify factors responsible for this mortality in this health area.

2. Methodology

This study is cross referred to analytical. It seeks to identify the sociocultural, socioeconomic, individual (related to mother and child) and organizational determinant of perinatal mortality in the rural health zone of Citenge.

The data is collected and transversely collected using a questionnaire oriented exchange between interviewer and interviewee, the study was conducted on the extent of the rural health zone of Citenge.

2.1 Target population

Pregnant women of 2014 and the birth of that year constitute the population of this study.

2.1.1 Selection criteria

To be admitted or excluded from the study, the respondent must meet the following criteria

- a. Inclusion criteria
 - Having childbearing age and pregnant was in 2014;
 - Having inhabited the territory of the health zone for at least six months;
 - Being this the data collection day;
 - Have agreed to participate in the interview with the investigator.
- b. Exclusion criteria

Excluded from this study, all women do not meet the criteria above-ups resumed.

2.1.2. Measuring tool

The questionnaire submitted to women in households were served to collect and record information relating to perinatal

3. Results

mortality. This questionnaire provides the same opportunity to all women surveyed to respond freely.

2.2. Plan analysis and data processing

By using the software Excel 2007 and Epi Info version7, the collected data is recorded and codified on the basis of variables to study in depth the factors and are subjected to analysis after cleaning the recording file.

Entering these data is performed directly on the Excel 2007 software and exported Epi Info version7 to conduct the actual analysis of the variables.

Relationships, interactions and linkages between different factors affecting perinatal mortality were subjected to the test statistic that is the square of Pearson chi (chi-squared).

The results of the study are estimated at a confidence interval (CI) of 95% with the risk of error α (Alpha) be 5% ($p = 0.75$). These results are presented in tables and comments.

Table 1: Characteristics of mothers socio demographic with known cases of perinatal mortality

Characteristics	Categories	Effective n = 321	%
Age	17 -20	90	28.03
	21-24	81	25.23
	25-28	69	21.50
	29-32	48	15.00
	33-36	22	6.86
	37-40	7	2.18
marital status	42-44	4	1.2
	Married	282	87.85
	Divorcee	16	4.98
	Widow	5	1.56
Level of education	Single	18	5.61
	without level	158	46.7
	Primary	101	31.5
	Secondary	42	13.1
Occupation	University	28	8.7
	Housework	116	36.13
	Sale	133	41.43
	Agriculture	60	18.69
	Public and private enterprise	11	3.42
	Liberal and Student Jobs	3	0.93

Twenty eight percent of the women surveyed had the age between 17 to 20 years followed by 21 to 23 years. The extreme bottom is at 17 and the top end is 44 years. 87.8% of respondents were married and 46.7% of mothers had no education. 41.43% of mothers had occupancy for sale.

Table 2: Factors associated with perinatal mortality

Characteristics	Categories	Effective n = 321	%
1. Factors related to obstetric history			
Number of pregnancies conceived	≤5	41	12.77
	> 5	280	87.23
Pregnancies accomplished childbirth	1-3	231	75.00
	4-6	60	19.48
	7 and more	17	5.52
Number of accomplished pregnancy abortion	an abortion	57	17.75
	two abortions	4	1.25
	three abortions	1	0.31

	no abortion	259	80.69
Antecedent premature births	Yes	13	4.05
	No	308	95.95
History of deaths of newborns less than a week	Yes	16	4.98
	No	305	95.02
2. Factors related to pregnancy care			
Attendance of prenatal consultation by mothers.	Yes	247	76.95
	No	74	23.05
The number of visits to the prenatal consultation	1-2	110	45.83
	3-4	127	50.12
	5 and more	10	4.05
3. Process Factors childbirth			
Known complications during childbirth	Yes	72	22.86
	No	243	77.14
The types of complications	Hemorrhage delivery	54	75.00
	labor blocked	18	25.00
The mode of delivery	Vaginally	288	91.43
	cesarean	27	8.57
The birthing grounds home	Distance with health service	9	13.24
	Lack of means	27	39.71
	experienced	5	7.35
	Partner prohibition	11	16.18
	Prohibition by church	9	13.24
	No reason	7	10.28

Eighty-seven percent of mothers had designed more than 5 pregnancies and in 75% of cases, 3-4 pregnancies had resulted in a delivery against 80.69% of mothers who had not experienced abortion. Mothers with a history of premature births accounted for 4.05% and 4.98% had experienced a death of newborn history of less than a week.

23.05% of the mothers had not attended the prenatal consultation and the 50.12% mothers had achieved only 3-4 visits, 22.8% of mothers

had known the known complications during childbirth, 8, 57% of mothers had had a caesarean section and 39.71% had accouchés home for lack of means.

Table 3: Relationship between perinatal mortality (death <7 days) and the number of EIC followed

Death <7d	Number of Visits EIC			X ²	OR (95%)	P	S
	1-1-2-	3-5-5	Total				
Yes	10	6	16	7.2939	7.5 (1.63 to 34.55)	0.00692	**
No	62	243	305				
TOTAL	72	249	321				

This table shows that there is a significant association between the

Death <7Days and the number of ANC visits. P = (0.00692) and chi-square = 7.2939.

Table 4: Relationship between perinatal mortality (death <7 days) and type Complications during childbirth

Death <7 Days	with complication	Un complicated	Total	Chi-Square	OR (95% CI)	P	S
Yes	10	6	16	13.2104	6.5 (2,29-18,66)	0.00008	***
No	62	243	305				
Total	72	249	321				

It appears that there is a significant association between the death <7days and complications. P = 0.00008 and chi-square = 13.2104.

4. Discussion

4.1 Demographic characteristics of respondents socio

Twenty eight percent of the women surveyed had the age between 17 to 20 years followed by 21 to 23 years. The extreme bottom is at 17 and the top end is 44 years. 87.8% of respondents were married and 46.7% of mothers had no education. 41.43% of mothers had occupancy for sale. These results differ from those presented in a study conducted in 1986 in Kinshasa Mamie

Ngunga (2005) which showed that 53% of fatal cases occur in women aged <20 years and also those found in a study conducted in Yaoundé by Chelo D. *et al* [6] who confirmed that 75.9% of mothers affected by perinatal mortality were age between 20-35 years and also those found in another study by Bouvier Col Péquignot F *et al* (2001) [7] during which he said that young mothers have not reached biological maturity ie the reproductive system of women is not adequately prepared for pregnancy.

4.2. Associated with perinatal mortality factors

Eighty-seven percent of mothers had designed more than 5 pregnancies and in 75% of cases, 3-4 pregnancies had resulted in

a delivery against 80.69% of mothers who had not experienced abortion. Mothers with a history of premature births accounted for 4.05% and 4.98% had experienced a death of newborn history of less than a week. 23.05% of the mothers had not attended the prenatal consultation and the 50.12% mothers had achieved only 3-4 visits, 22.8% of mothers had known the known complications during childbirth, 8, 57% of mothers had had a caesarean section and 39.71% had accouchés home for lack of means. These results differ from those DHS-RDC II [8] which has 26.6% of home birth in Kasai Oriental and 19% in rural countries.

In this study, the perinatal mortality rate was 13.7%. That is to say, 43 deaths (extra-uterine deaths and 27 cases less than 7 days 16 cases) against the rate in DR Congo from 76.8 per thousand live births [9].

To meet our specific objective that speaks to determine the relationship between perinatal mortality and the most incriminating factors, the three analytical tables show that there is significance in the relationship between perinatal mortality (early neonatal) and factors:

- Number of CPN < 4 with an odds ratio = 7.5, chi-square = 7.2939 puis P = 0.00692; These results align themselves with those of a study conducted by Madagascar Rakotoseheno H in 2008 [10] who said that for every pregnant woman, four are recommended EIC. However, these recommendations are often overlooked or ignored by pregnant women and their families.
- Causes of death (28 infections with 43 cases, 4 cases of prematurity with 43...) with Odds Ratio = 4.03, chi-square = 5.6334 and P = 0.01762. In a publication of the Pan-African newspaper published 2012 au Cameroun, the causes of death were neonatal asphyxia (75%) prolonged rupture of the membranes over 12 hours (OR = 4.96; 95% CI (1.17 to 20.98); P < 0.05).

The three main direct causes of neonatal mortality in Africa by size, prematurity, neonatal infection, and neonatal asphyxia [11]. Neonatal asphyxia is the leading cause of death among newborns. The types of complications (bleeding of issue and Labor blocked) with Odds Ratio = 6.5, chi-square = 13.2104 and P = 0.00008 statistically justified by the chi-square > to the table value and the value of P < the chi-square observed. These results are similar to those published in Cameroon in the 2012 Pan-African newspaper that has obstructed childbirth (OR = 1.99; 95% CI (1.47 to 2.69), p < 0.0001).

Conclusion

Perinatal mortality in the rural health zone of Citenge is a public health problem and effective measures can be put in place to reduce this risk.

Our study was designed to:

- Identify socio-economic, socio-cultural, individual and organizational cause of perinatal mortality;
- Identify links between perinatal mortality and socio-economic, cultural and demographic most decisive.

To do this, a household survey was conducted in the health areas in which at least 21 households were visited in targeted villages. To build the sample, the study makes use of probability sampling technique to several degrees.

Indeed, 321 pregnant women in 2014 in households that meet the inclusion and exclusion criteria established, were surveyed during the period targeted by the investigation,

After the analysis, we found that the factors determining the perinatal mortality in Citenge rural health zone are manifold, including those related to the woman as the primary level of dominance to study 68.54% of the women surveyed; biological age < 20 years 28.03% of interviewees by some popular literature evidenced by our research.

To these factors that are internal to the woman associate other external to the woman but with influence on maternal and child health as the prohibition of male partners with 16.18% of the women surveyed and churches with 13.24% of the women surveyed who are also significant barriers to accessing health services available.

The offer care of poor quality and incomplete 44.45% women attended 2 times the EIC services and 24.70% of women attended 4 times ANC services; 31.15% of the women surveyed received 2 TT doses; 47.35% of women received postnatal consultation to have received no response; not only faulty but also offers no communication with users of health services of mother and child. The poverty level of households has 38.03% and 36% of women surveyed are unemployed.

Factors related to the child are not minimized with 35.24% of deaths are born 1st.

A deep analysis, some specific factors showed significance in our study and are based on their Chi-square and P-rated as the most critical. It is:

- Number of EIC with chi-square = 7.2939 puis P = 0.00692;
- Causes of death with chi-square = 5.6334 and P = 0.01762;
- The types of complications with chi-square = 13.2104 and P = 0.00008 statistically justified by the chi-square > to the table value and the value of P < the chi-square observed.

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