

**CULTURAL FACTORS ASSOCIATED WITH
IRON DEFICIENCY ANAEMIA IN
PREGNANCY: A CASE STUDY OF THE
KALUTARA DISTRICT, SRI LANKA**

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Introduction

- ❖ Anaemia is a global public health problem that affects the social and economic development of a country.
- ❖ Based on the haemoglobin cut-off points recommended by the WHO Scientific Group, approximately 5000 million people are anaemic. It is about 30% of the world's population (DeMaeyer, 1989)
- ❖ 50% of the cases of anaemia are due to iron deficiency.
- ❖ In the developing as well as industrialized countries, anemia has become a major problem especially if it occurs during pregnancy (Ayoya et al., 2006).



Research Problem

- ❖ Anaemia in pregnancy has become a fatal condition in Sri Lanka, leading to maternal as well as neonatal morbidities, mortality, still births, low birth weight babies, premature deliveries, spontaneous abortions and postnatal depression.
- ❖ According to the WHO estimates, the prevalence of anaemia during pregnancy in Sri Lanka is 29.3% (Piyasena, 2003).
- ❖ Sri Lanka Demographic and Health Survey (DHS) data in 2007 shows similar results with an overall anaemia prevalence of 34% with 20.7% mild anaemia and 13.3% moderate to severe anaemia (Chaturani et al, 2012)
- ❖ Anemia amongst pregnant women of Sri Lanka has been a long standing problem. Much quantitative research has been done with regard to this problem; however, they have not been able to combat the prevalence of anaemia.



Objective of the study

- ❖ To provide an in-depth analysis of the cultural factors that lead to persistence of iron deficiency anaemia in pregnancy.
- ❖ What strategies could prevent iron deficiency anaemia in pregnancy?



Theoretical basis

- ❖ There are number of different theories that could be linked to iron deficiency anaemia. Each theory has a unique focus but there are many similar elements across them.
- ❖ The most dominant model in understanding the factors that contribute to the persistence of iron deficiency anaemia can be viewed by the UNICEF theory of malnutrition.
- ❖ UNICEF theory of malnutrition along with contributing factors from other theories has been adopted as the main theory in developing the framework.
- ❖ According to theory, prevention could be implemented in two ways, first by reducing the risk factors and the next by enhancing protective factors.



Method

- ❖ This study is largely qualitative and follows the extended case study method.
- ❖ The study utilizes the mixed approach to provide a detailed analysis of empirical data.
- ❖ Purposive sampling has been used as the main sampling technique and quota sampling has been used as a sub sampling technique.
- ❖ The sample size is 90 anaemic pregnant mothers belonging to urban, rural and estate sectors.
- ❖ The sample represents 30 anaemic pregnant mothers from each of the above mentioned sectors while adding up to a total of 90 individuals in total.
- ❖ The research design is longitudinal and the cohorts have been interviewed in depth at the end of their first, second and third trimesters.
- ❖ The study units have been inclusive of mild, moderate and severe anaemic pregnant mothers.
- ❖ The simple Hb test results available with the pregnant mothers have been used as the method to identify anaemic pregnant mothers.



Cultural factors that lead to anaemia in pregnancy

Urban Sector :

- ❖ A pattern of extended families was imminent amongst the Muslim anaemic mothers.
- ❖ Most of them confirmed that they refrain from contraceptives due to religious principles.
- ❖ Most of the Sinhalese and Tamil mothers had the belief that red meat which is high in iron is not good to consume as it is heaty.
- ❖ They also believed that meat is considered as a food that creates a sense of evilness.



Rural Sector : Hindu and Buddhist anaemic mothers from the rural sector did not consume meat due to religious beliefs.

Estate Sector : There was an anaemic mother who was under the impression that anaemia could be eliminated as a result of various traditional spiritual beliefs such as pooja and thovil. Therefore, she did not acknowledge the importance of the iron pill. One of them had a belief that her body has been possessed by a devil and that is the reason for the lack of haemoglobin in her body. Such myths refrained them from taking the iron supplement.

- ❖ Few revealed that they have found it difficult to follow the diet and nutritional guidelines given by the family health mid wife due to their religious beliefs.

Overall, the cultural factors illustrate a connection to the diet which in turn affects anaemia in pregnancy.



Information derived from focus group discussions and key informants

- ❖ Participants at Focus Group Discussions included members from the health sector such as Public Health Midwives (PHMs), Nurses, Doctors and Obstetricians.
- ❖ A group of obstetricians said that maternal anaemia that occurs early in a pregnancy can result in a baby being born with low birth weight following premature delivery.
- ❖ One medical doctor said that spinach includes oxalate which prevents the body from absorbing iron.
- ❖ A group of doctors from the MOH Kalutara said that most obstetricians would opt for a 'C' section if the Hb is below 9 and anything below 7 would even be decided to pre-transfuse.
- ❖ A set of nurses from the Kalutara MOH said that the food rich in Vitamin C, such as orange juice, helps the body to absorb iron in meals. Breastfeeding mothers are also encouraged to supplement on vitamins that contain iron.



Information derived from focus group discussions and key informants

- ❖ A set of PHMs said that the mothers highly dislike the iron supplement due to various side effects such as nausea
- ❖ Key informants included patients, mostly mothers who had endured anaemia at a certain stage in life and some who are still going through the disease.
- ❖ Key informants said that adequate rest and continuous intake of the iron supplement help to combat anaemia.



Strategic Interventions Required

- ❖ An iron pill or vaccine with less side effects should be invented
- ❖ A large proportion of these pregnancies is unplanned and could be prevented by providing contraceptive counselling and services.
- ❖ Effective nutrition education is vital - focus upon food which enhance the absorption or utilization of iron.
- ❖ National level awareness programs, Inter-sectoral collaboration
- ❖ There is a requirement of employing Tamil speaking PHMs.
- ❖ Strengthening the screening and investigations for anaemia
- ❖ Poverty eradication
- ❖ Including more subject matter to the school curriculum
- ❖ Introduction of iron fortified essential food items to Sri Lankan markets



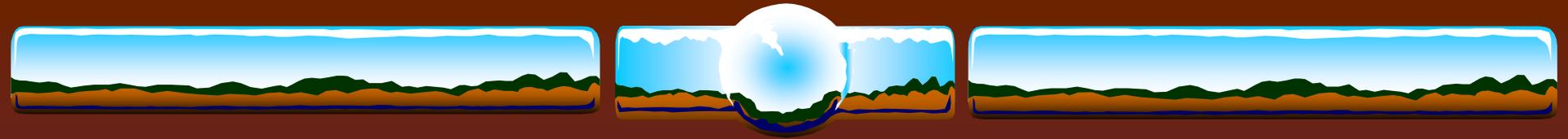
Conclusion

- ❖ The cultural factors illustrate a connection to the diet which in turn affects anaemia in pregnancy.
- ❖ Other factors such as drawbacks of the health sector, obstetric factors, spousal factors and media factors also contribute towards anaemia in pregnancy.
- ❖ The burden of iron deficiency could be eliminated by,
 - ❖ Iron fortification programs
 - ❖ Iron pill or vaccine with less complications
 - ❖ Media awareness
 - ❖ State intervention on improving the life style
 - ❖ Support from the health sector
 - ❖ Allocating more relevant equipment to help them deal with matters of urgency such as an emergency caesarians
 - ❖ Employing Tamil speaking PHMs.



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Thank you!
Any Q's?

