MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCIES



SCHOOL OF PHARMACY

PROJECT REPORT

TITLE: ASSESSMENT OF PREVALENCE OF NAUSEA AMONG PREGNANT WOMEN IN DAR ES SALAAM

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ABBREVIATIONS

ANC – Antenatal Care

MUHAS – Muhimbili University of Health and Allied Sciences

NVP – Nausea and Vomiting in Pregnancy

Hcg- Human Chorionic Gonadotrophin

DEFINITION OF TERMS

Pregnancy;

- ✖The period from conception to birth.
- ✖State in which woman carries a fertilized egg inside her body.

Nausea;

- ✖A presence of wave like sensation in the throat, epigastrium, or throughout the abdomen alerting one that vomiting is imminent.

INTRODUCTION AND LITERATURE REVIEW.

Nausea is a common problem among pregnant women; it is also called morning sickness. The prevalence in the first trimester is up to 80% of pregnancies[1] (Flaxman & Sherman 2000).

Symptoms range from mild nausea (often accompanied by aversions to certain foods) to frequent vomiting and hyper emesis[2] (Furneaux et al. 2001). Until recently, NVP was thought to be simply an unfortunate by-product of dramatic hormonal changes during early pregnancy[3] (Masson et al. 1985; Lagiou et al. 2003), with potentially negative consequences on offspring intrauterine growth and health in later life through resulting undernutrition .

The aetiology of nausea and vomiting of pregnancy (NVP) is not known. Studies suggesting placental hormonal effects have not been conclusive[4]. (Kauppila A, Huhtaniemi I, Ylikorkala O. Raised serum human chorionic gonadotrophin concentrations in hyperemesis gravidarum. Br Med J 1979;1:1670-1.)

Some studies have suggested rapid rising of hormonal levels like, human chorionic gonadotrophin (hCG)[5], (Masson GM, Anthony F, Chau E. Serum chorionic gonadotrophin (hCG), schwangerschaftsprotein 1 (SP1), progesterone and oestradiol levels in patients with nausea and vomiting in early pregnancy. Br J Obstet Gynaecol 1985;92:211-5.),estrogen and chronic infection with helicobacter pylori[6] (Hayakawa S, Nakajima N, Karasaki-Suzuki M, Yoshinaga H, Arakawa Y, Satoh K, et al. Frequent presence of *Helicobacter pylori* genome in the saliva of patients with hyperemesis gravidarum. Am J Perinatol 2000;17:243-7.), during early pregnancy as possible cause. Nausea tend to peak around the same time as levels of hCG. Estrogen is another hormone that rises rapidly in early pregnancy.

PROBLEM STATEMENT AND RATIONALE.

Nausea presents as a common problem in pregnancy.Of the 193 women in Cohort A, 130 (67.4%) reported experiencing nausea or vomiting, or both; 87 (45.1%) experienced only nausea (Table 1). Of the 43 women (22.3% of the cohort) who experienced vomiting, 18 (9.3% of the cohort) reported weight loss.(*Svetlana Emelianova, MD, ET AL* Published in Clin Invest Med 1999;22(3):106-10. CANADA)

Prevalence of nausea in pregnant women is still high, and most of the pregnant women are complaining about this problem. Since there is no recent study of this kind have been done to estimate the magnitude of the problem and come up with suggestions on how to resolve this problem, this necessitate the conduction of this study.

Furthermore, the study is meant for the award of Bachelor degree in Pharmacy, at MUHAS.

OBJECTIVES;

BROAD OBJECTIVE;

- To investigate the occurrence of nausea as a problem among pregnant women and in Dar-es-salaam region

SPECIFIC OBJECTIVE;

- To determine the prevalence of nausea among pregnant women in Dar es salaam.
- To determine the type of food most associated with nausea among pregnant women.
- To determine the perception of pregnant women to nausea as a problem in pregnancy.
- To investigate different methods adopted for management of nausea and its complication.

Research questions.

- What is the prevalence of nausea in pregnancy in Dar es Salaam?
- What are the possible causes of nausea in pregnancy?
- What are measures taken by pregnant women to manage nausea during pregnancy?

Research hypothesis .

- There is no association between pregnancy and nausea.
- There is no association between food and nausea.

METHODOLOGY.

Study design.

This was a descriptive cross sectional survey.

Study area

The study was conducted in Dar-es-salaam region, involving three health centers in three manicipals, Buguruni-Ilala, Temeke-Temeke, and Magomeni in Kinondoni.

Study population

The study targeted pregnant women attending antenatal clinic at Buguruni, Temeke, and Magomeni health centers

Sampling technique

One health center was selected from each municipal by using The Stat Treks random number generator computer program.

Sample size

The sample size was determined by the formulae;

$$n = \frac{z^2 \times p(1-p)}{\varepsilon^2}$$

Where;

n – Minimum sample size

z – Standard normal deviation at 95% confidence interval,

p – Proportional of the population with nausea experience

ε – Maximum estimated error.

Data collection;

Data was collected by using assisted semi structured questionnaire to pregnant women attended the ANC.

Criterion for participation - all pregnant women who was willing to participate

Exclusion criterion - all non-willing

Data analysis;

Questionnaires will be coded and data analyzed by the use EPI-info V.6 statistical computer program.

Ethical clearance;

The permission to conduct the study was sought from Muhimbili University of Health and Allied Sciences, MUHAS, and in respective municipal health office

To each sampled health center, permission to conduct the study was sought and individual consent asked to all participants through a clear explanation of the study and the assurance of confidentiality. To ensure confidentiality, no name of any participant, was jotted on the questionnaires.

RESULTS.

Table 1; Distribution of age among interviewed pregnant woman.

Age	Frequency	Percent	Cum Percent
20-25	156	52.0%	52.0%
26-31	66	22.0%	74.0%
32-37	78	26.0%	100.0%
Total	300	100.0%	100.0%

Table 2. Distribution of body weight among the interviewed pregnant woman.

Weight	Frequency	Percent	Cum Percent
40-50	54	18.0%	18.0%
51-61	138	46.0%	64.0%
62-72	96	32.0%	96.0%
73-83	12	4.0%	100.0%
Total	300	100.0%	100.0%

Figure 1. Prevalence of nausea among pregnant woman.

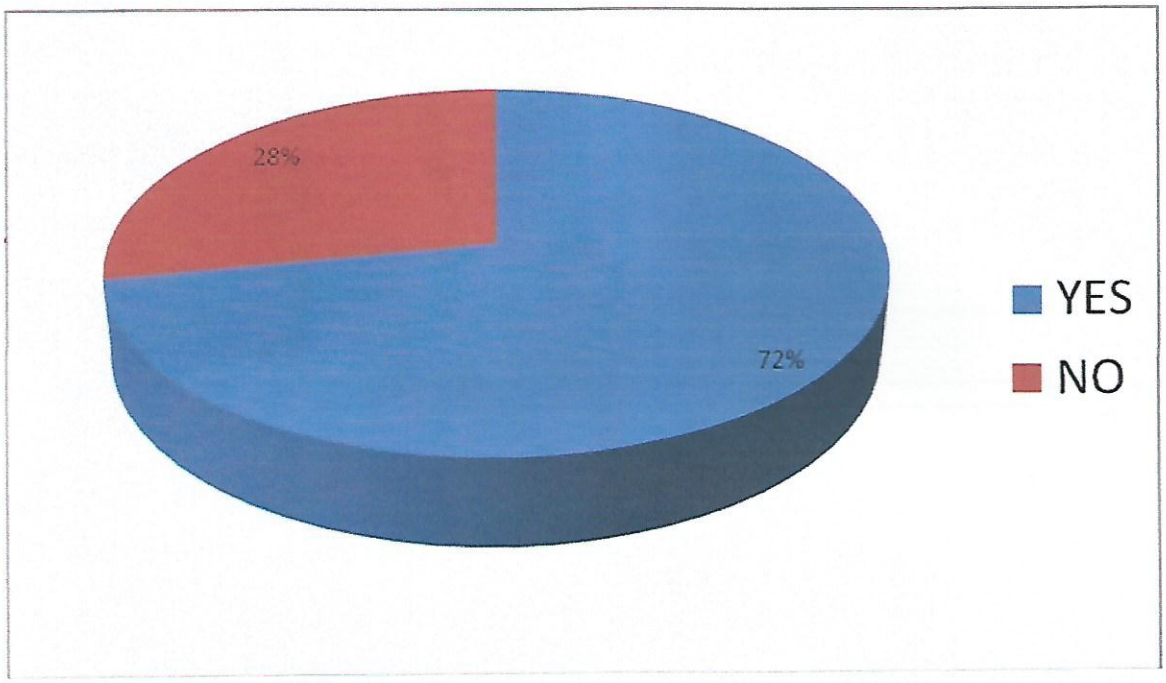


Figure 2.Most common food types that is associated with nausea in pregnancy.

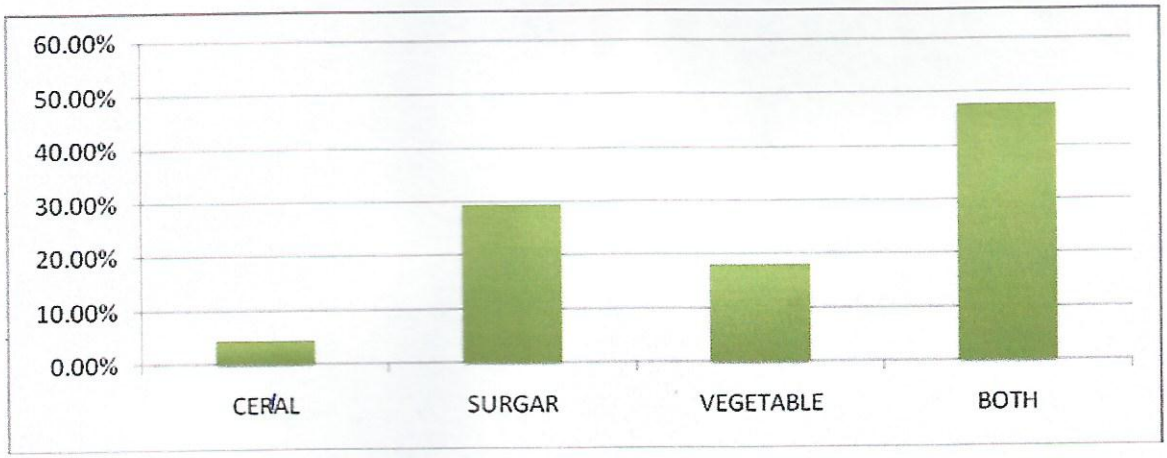


Figure3. **Perception of pregnant woman to nausea.**

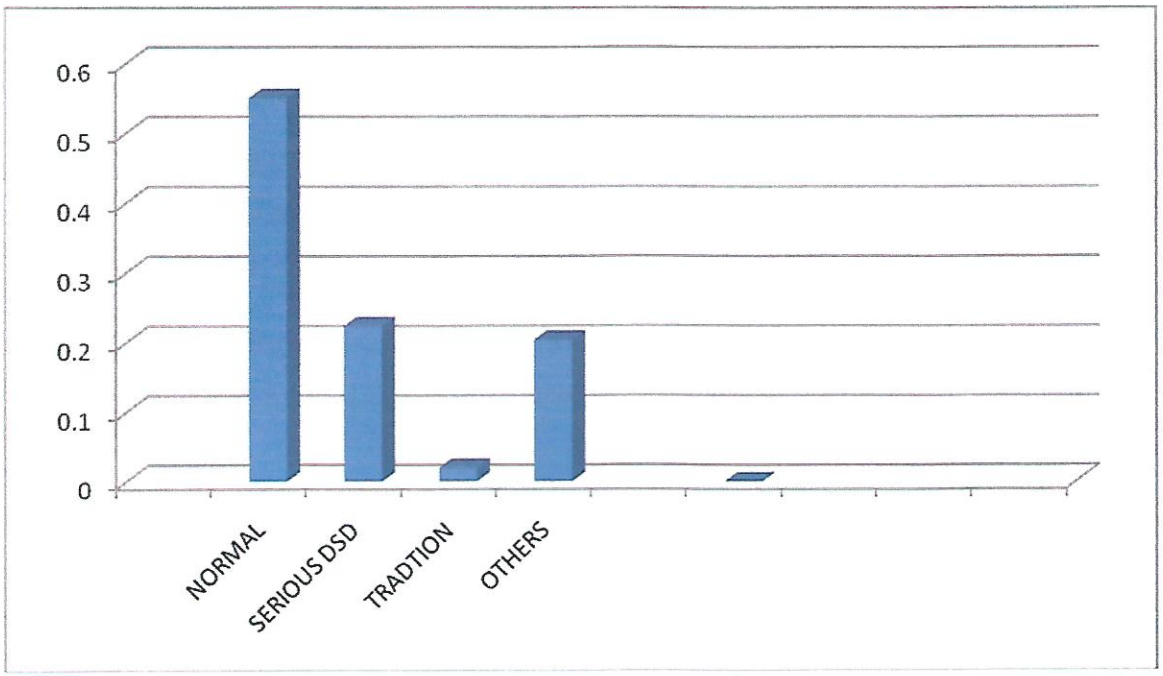
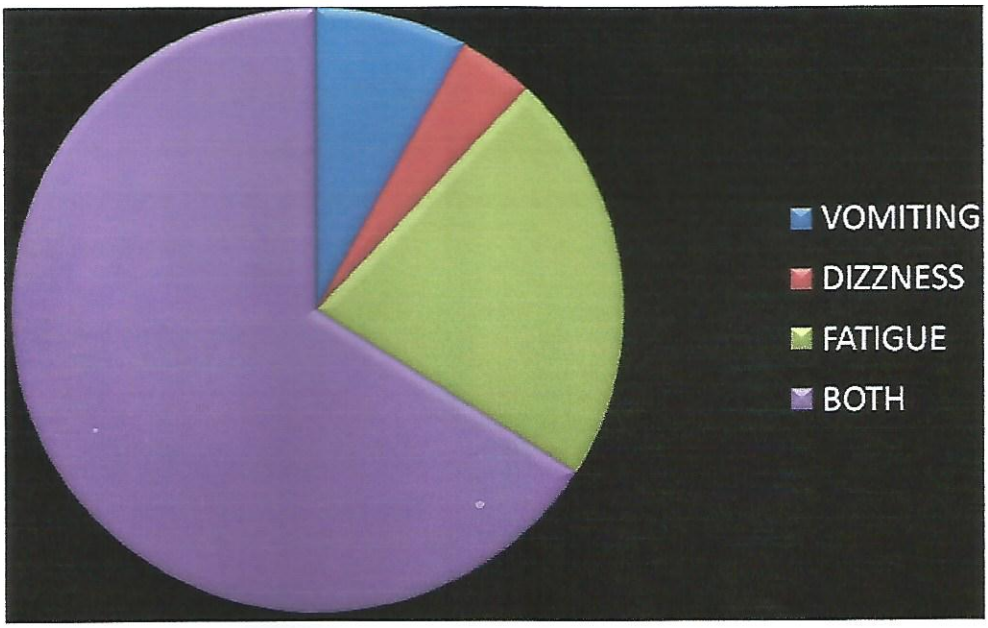


Figure 4. common complications associated with nausea.



The figure above shows that large number of pregnant woman experience all nausea, dizziness and fatigue.

DISCUSSION.

Majority of pregnant woman (72%) in DAR experience nausea, coinciding with a previous study that showed that 67.2% of pregnant women experience nausea or vomiting or both.

About (47.7%) of pregnant women attributed nausea with sugars and sweeteners – containing food, which is in agreement with studies conducted in Europe and North America.

Results reveal an association between diet and NVP prevalence across population.

The specific significance of sugars and sweeteners are perhaps less easy to explain and suggest avenues for further research.

Nausea is seems to be aggravated by intake of some kind of food stuffs such as, meat, eggs and oil crops (47.7%).

High percent of pregnant woman in Dar es Salaam (55.1%) they perceive nausea as a normal pregnant disease which does not need to go to hospital.

About 46% of pregnant women they do nothing when they feel nausea where as 23% they either go to hospital or use traditional medicine this may be due to the reason that majority (55%) of women think that nausea is normal in pregnancy as revealed by this study.

CONCLUSION.

The prevalence of nausea among the respondents was high, which was associated with sugars and sweeteners – containing food stuffs.

Majority of the interviewees regard nausea as a normal physiological condition.

About a half of the respondents did nothing towards alleviating nauseas, while 25% used traditional means

RECOMMENDATION.

Further studies need to be done in order to investigate the role of sugar and sweeteners on nausea.

Pregnant woman should be advised to go to hospital in case they experience some complications caused by nausea.

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REFERENCES.

1. Flaxman & Sherman 2000. The prevalence of nausea in the first trimester.
2. Furneaux et al. 2001; Vomiting and hyper emesis gravidarum.
3. Masson et al. 1985; Lagiou et al. 2003. Dramatic hormonal changes during early pregnancy, and its association with nausea in pregnancy.
4. Kauppila A, Huhtaniemi I, Ylikorkala O. The etiology of nausea and vomiting of pregnancy (NVP) is not known.
5. Br Med J 1979;1:1670-1. Raised serum human chorionic gonadotrophin concentrations in hyper emesis gravidarum.
6. Hayakawa S, Nakajima N, Karasaki-Suzuki M, Yoshinaga H, Arakawa Y, Satoh K, et al, Br J Obstet Gynaecol 1985;92:211-5,Estrogen and chronic infection with helicobacter pylori.
7. Am J Perinatol 2000;17:243-7 .Frequent presence of *Helicobacter pylori* genome in the saliva of patients with hyper emesis gravidarum.