

A Study to Assess the Effectiveness of Antenatal Diet and Exercise on Mode of Delivery among Antenatal Women in selected Community areas - A NARRATIVE REVIEW

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ABSTRACT

Introduction: Pregnancy is one of the most profound times in a woman's life. It is marked by a variety of physical changes, as well as by thoughts and feelings that sometimes overwhelm the mother-to-be. Though pregnancy is generally a time of joy and well-being, complications can occur that cloud the experience and put the patient and her unborn child at risk. Fortunately, with early identification and treatment of complications, patients and their children have a greater chance of survival and the potential to thrive after delivery. **Aim:** The aim of this narrative review is to find effectiveness of antenatal diet and exercise on mode of delivery among antenatal women in selected areas of Greater Noida. **Methodology:** Intervention-assessing diet and exercise of antenatal women. Types of studies- Quantitative research approach, experimental research design, purposive sampling technique. Types of participants- pregnant women between 32- 36 week of gestation. **Outcome-** This narrative review result has appeared that the women have knowledge deficit regarding antenatal diet and exercise.

Keywords: Anti natal diet, exercise, antenatal women.

INTRODUCTION

It is the state of carrying fetus inside the uterus by a woman from conception to birth. Antenatal period is a time of physical and psychologic preparation for birth and parenthood. Antenatal diet and exercise essential for ensuring the overall health of newborns and their mothers is a major strategy for helping to reduce the number of low birth weight babies born yearly.

The mother's diet during pregnancy has a direct influence on fetal growth and hence, the size and health of new born. Mothers eating inadequate food during pregnancy will give birth to Low Birth Weight babies which is the main cause of infant death rate in India. A large number of such babies are premature and rest suffer from Intra Uterine Growth Retardation. Inadequate diet during pregnancy also affects the health of the baby during early pregnancy and they develop nutritional deficiency diseases like anemia, rickets etc. Nutrition is the major intrauterine environmental factor that alters expression of the fetal genome and may have lifelong consequences.

Pregnancy is a highly demanding period nutritionally. This period takes care of the mother and fetus both, where extra food required to take care of baby's weight followed by lactation, where once again extra nutrition is required for the production of milk. A healthy body tissue depends directly on essential nutrients in food. This is especially true during pregnancy because a whole new body is being formed. The diet of a woman before and during pregnancy has immense influence on the course of pregnancy and health of a child- both after its delivery and in the future. Lack of dietary knowledge and the knowledge about consequence of malnutrition among mother may result in lot of dietary indiscretion, which in turn can cause deficiency or exercise of energy and particular nutrition, as well as abnormal course of pregnancy. Hence, for keeping a proper diet during pregnancy a woman must not only know the healthy eating guidelines, but also realize how a diet influence the course of pregnancy and child health.

This study was conducted by Langley-Evans SC1, Pearce J et al in June 2017 to investigate women's physical activity levels, diet and gestational weight gain, and their experiences and motivations of behavior change. This study was conducted among 193 women ≤27 weeks gestation and aged 18 years or over. Measurements included weight and height, the Dietary Instrument for Nutrition Education, the International Physical Activity Questionnaire and open questions of perceptions of behaviour change. Early pregnancy is a period of significant and heterogeneous behaviour change, influenced by perceptions of risk and women's lived experience. Behaviour was influenced not only by perceptions of immediate risk to the fetus, but also by the women's lived experience of being pregnant.

A study conducted by Department of Anatomy, Kansas City University of Medicine and Biosciences; in the year of 2010 on Aerobic exercise during pregnancy influences fetal cardiac autonomic control of heart rate and heart rate variability. This study tested the hypothesis that regular maternal exercise throughout gestation influences fetal cardiac autonomic control of Heart Rate and heart rate variability (HRV) when compared to fetuses of non-exercising women. Results indicate that regular maternal exercise throughout gestation results in significantly lower fetal Heart Rate and increased HRV.

This study was conducted by Zhen Han, SohailMulla, Joseph Beyene, Grace Liao and Sarah D McDonald (2010) The objective of the study was to determine the relationship between maternal underweight and preterm birth (PTB) and low birth weight (LBW) in singleton pregnancies in developing and developed countries. They included studies that assessed the effect of maternal underweight compared with normal weight according to body mass index in singleton gestations and two primary outcomes: pre-term birth (<37 weeks) and low birth weight (<2500 g). A total of 78 studies were included involving 1025794 women. The overall risk of pre-term birth was increased in the cohort studies of underweight women, as were the risks of spontaneous pre-term birth and induced pre-term birth. Underweight women had an increased risk of an low birth weight infant. In developed countries, underweight women had an increased risk of pre-term birth. In both developed and developing countries, underweight women were at increased risk of having low birth weight infant. In this systematic review and meta-analyses, they concluded that singletons born to underweight women have higher risks of pre-term birth and low birth weight than those born to women with normal weight.

Nahla A Kishk (2009) conducted a comparative study to assess the Knowledge and Practices towards ANC between rural and urban women in Alexandria a cross sectional, community – based house to house survey was conducted in Alexandria using cluster – sampling technique 30 clusters from urban areas and 30 cluster from rural areas. Concerning maternal practices the current study revealed rural/ urban disparities as significantly higher proportions of urban women had proper practices during antenatal period in their last pregnancy as regards utilization earlier initiation and frequent visits of antenatal care.

Padam Singh, R.J.Yadav (2009) conducted a study to assess the status of antenatal care among pregnant women in India. In that study 89% of the pregnant women availed antenatal visits of which 62% had received three or more ANC visits. Those receiving the second dose of TT or booster dose were about 78%. About 73% of the pregnant women received IFA tablets during their pregnancy. About 53% of the pregnant women had full package proportion of pregnant women who availed full ANC package was lower in rural as compared to urban areas, lowest for ST followed by SC higher for literate women as compared to illiterate women. The population of Institutional deliveries managed by hospitals and health centers was about 41% , it being higher among literate women and in urban areas. The study revealed that the literacy of women is the key to improve antenatal care of pregnant women. Hence efforts should be made to have information, Education and Communication (IEC) activities targeted to educate the mothers especially in rural areas.

C.S.Metgud, S. M.Katti, M. D.Mallapur and A.S.Wantamutte (2009) conducted a study of Utilization Patterns of Antenatal care among Pregnant women all women (n=130) village in Tanzania who were pregnant at the start of the study and who became pregnant during the study. Most of the pregnant women (92.31%) were registered for antenatal care, but only 30.00% of them were registered in the 1st trimester of pregnancy. As regards to TT immunisation 70.77% of the pregnant women as received two doses or one booster dose iron and folic acid supplementation was taken by 59.68% of the pregnant women. Nearly 39.52% of the pregnant women were provided with full antenatal care. The main antenatal care provided for the pregnant women was doctor (64.52%). The study shows early and wide spread of the antenatal care, but it also reveals that the antenatal visits of occur late in pregnancy.

Susila. C (2008) performed a study to assess the level of self motivation of primigravida mothers towards antenatal care at Sree Ramachandra Hospital and Research institute Chennai, among 100 mothers only 8% of the mothers were with high level of self motivation towards receiving or following the antenatal care and she finds that there is a responsibility for the nurses to increase the level self motivation among antenatal mothers. beliefs and influences regarding exercise during pregnancy. The study objective was to sample women's exercise habits and beliefs regarding exercise during pregnancy. The study method was a 28-item questionnaire was completed by 211 patients at a private obstetrics and gynecology group practice during a 4-week study period. The result of the study was Ninety-five percent of the women believed that participating in prenatal exercise was helpful. The study concluded that a majority of women studied believed that exercise will have a positive impact on their pregnancy, are deciding to exercise during their pregnancy.

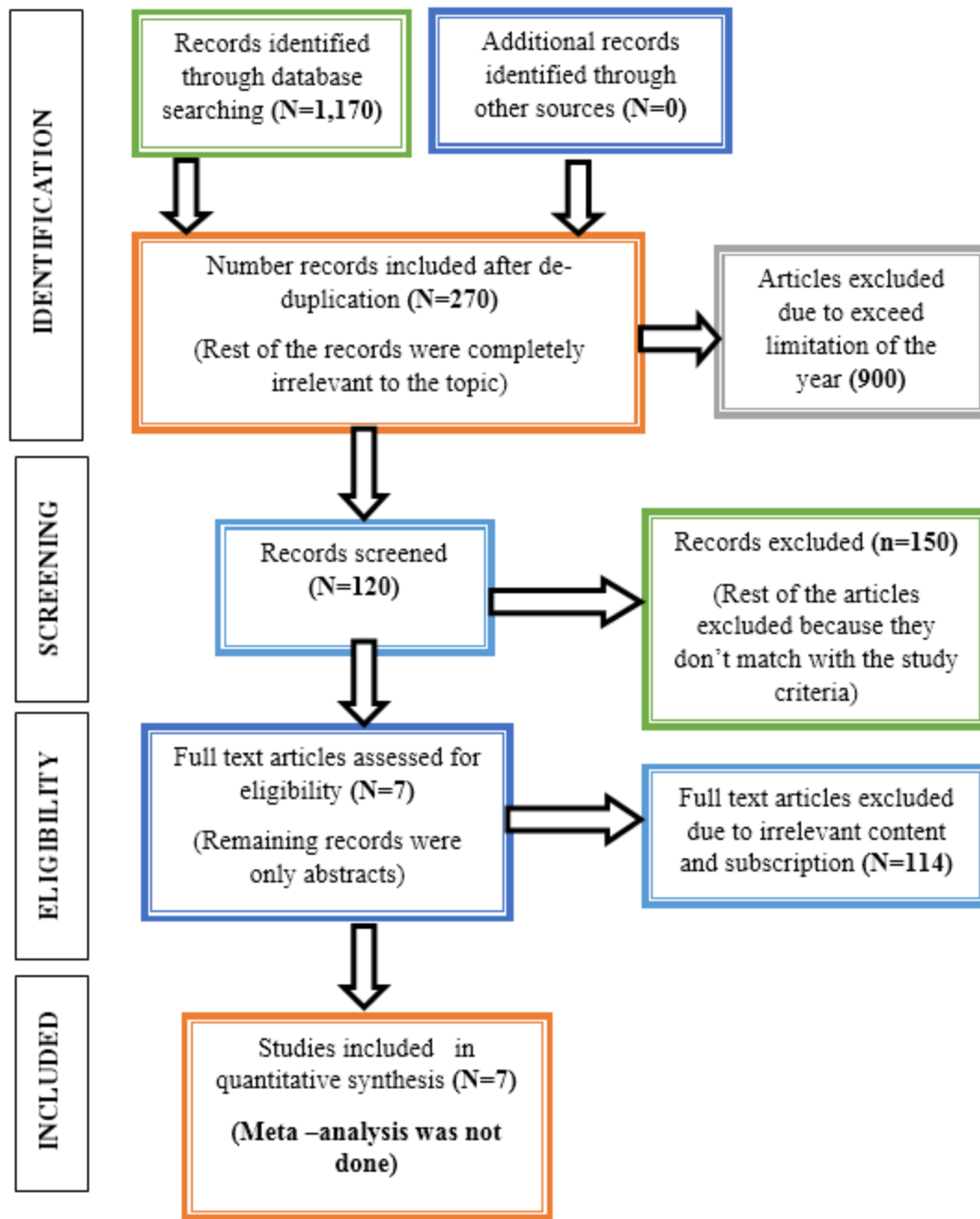
MATERIAL AND METHOD:

Figure 1: Prisma flow diagram of narrative review

FINDINGS

The systematic search was conducted by formulating the terms separately and in integration with all synonyms, also according to the database. Likewise, a manual Google scholar search was undertaken using the keywords and search synonyms from already articles. An addition of 6 articles was found in the database. Initial search recovers 1170 articles over which 270 articles were selected manually. 150 articles were rejected as a result of replication in the database. Replication was removed and reviewed 120 articles for acceptability. 114 more studies were rejected because of unreachable of the full text. Hence 7 articles were screened which includes quantitative study.

DISCUSSION

A study was conducted in United States of America regarding Pregnant women's beliefs and influences regarding exercise during pregnancy. The study objective was to sample women's exercise habits and beliefs regarding exercise during pregnancy. The study method was a 28-item questionnaire was completed by 211 patients at a private obstetrics and gynecology group practice during a 4-week study period. The result of the study was Ninety-five percent of the women believed that participating in prenatal exercise

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CONCLUSION

Knowledge of antenatal diet and exercise was limited among antenatal women at selected organization and the level of knowledge is significantly associated with factors like age and occupation. Which itself specifies the Risk Status of delivery among antenatal women is high. Though it is not a common cause of mortality but it plays a significant role in contributing high morbidity among pregnant Women. Also literacy does not make much difference in the risk of pregnant women.

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CONFLICT OF INTEREST: NO

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