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Preconception Counselling: Revisited

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Abstract

Preconception counselling is a promising new approach to improve the health of future children through primary intervention. Preconception counselling is defined as identifying factors (social, familial, obstetric, medical or lifestyle) which affect pregnancy. Male preconception care is also vital. Preconception care is a set of interventions that aim to identify and modify biomedical, behavioural and social risks to a women's health or pregnancy outcome through prevention and management. There are certain windows of opportunity which should be seized. Preconception counselling targeted at the mother, father and family can reduce infant mortality and morbidity. The couple should be encouraged to prepare themselves to achieve optimum health prior to planning a pregnancy.

Keywords: Preconception care; Window of opportunity; Interventions, Risk factors.

INTRODUCTION

The care for pregnant women has changed dramatically over the last century since Williams in the first edition of his textbook of obstetrics wrote: "Ordinarily the services of an obstetrician are engaged some months before the expected date of confinement."[1] Examination of a women before the couple embarks on pregnancy is a very important preventive measure. Preconception counselling is defined as identifying factors (social, familial, obstetric, medical or lifestyle) which affect pregnancy. These factors when appropriately modified can reduce the pregnancy risks and improve both maternal and fetal outcome.[2] Preconception counselling is a promising new approach to improve the health of future children through primary intervention. Antenatal care generally starts after 12th week of pregnancy. This practice does not account for the importance of preconception health of prospective parents and it neglects the first gestational weeks during which key embryonic growth and development occurs, which may be associated with adverse effects on future child. Primary goal is to promote better reproductive outcomes during the window of opportunity, the changes induced by preconception are beneficial to women's health.[3]

Preconception counselling enables obstetrician to determine risks severe enough to advice against pregnancy.

- Complicated aortic coarctation
- Marfan's Syndrome

Preconception counselling is the most appropriate preventive technique for a couple planning pregnancy.

Counselling will include evaluation of

- Medical disorders
- Genetic disorders
- Previous obstetric outcome
- Drugs and vaccination
- Nutrition

Preconception counselling aims at health related behaviors

- Folic acid and iodine supplementation
- Healthy weight
- Nutrition
- Exercise
- Psychological health
- Smoking
- Alcohol
- Illegal drug cessation
- Healthy environment[4]

Medical considerations in preconception counselling includes

- Reproductive life planning
- Assessment of reproductive, medical and genetic history
- Physical wellbeing
- Substance abuse
- Vaccination[4]

The continuity of care and the close physician – patient relationship in primary care offers an opportunity for the physicians to assess the risk factors and to intervene and modify behaviors that increase pregnancy risk. Preconception care must begin at least three months before planning pregnancy.[5]

Advantages of preconception care

- Identifying the optimal time to conceive.
- Explanation of appropriate testing and procedure options including risks, benefits and limitations.
- The dangers of smoking alcohol drug use.
- Discussion of patient's medical problems and management.
- Importance of getting adequate folic acid, iron and other nutrients.
- Accurate family history and genetic history. Identification of risk factors may reduce the incidence of birth defects.
- Updating women's immunization status.
- Assistance in coping with psychosocial issues, education and coordinated patient care is possible.
- Improved outcomes in many conditions (e.g., Diabetes Mellitus, Phenylketonuria, previous pregnancy with a fetus with NTD).

De Weerd et al. have shown that two of the major components of preconception care smoking cessation and folic acid supplementation can lead to significant cost saving balance.

MALE PRECONCEPTION CARE

There is expanding scientific evidence of an association between male associated health issues and pregnancy outcomes. Optimally a couple should attend the preconception visit together and women's partner should be encouraged to be included in preconception counselling and care. Clinician should educate man about risks, review their family history for genetic disorders and screen for STD and refer them to specialist.

Paternal smoking as well as alcohol consumption have been associated with decreased fertility and adverse neonatal outcomes such as low birth weight and increased incidence of fetal malformations. Sperm production take on an average 10-11 weeks. So, to optimize male fertility, men should abstain from alcohol, tobacco and exposure to potentially damaging substances for at least three months prior to conception. Smoking by father and passive smoking by prospective mother can equally have potential negative effect on pregnancy. Sperm production in testis requires a temperature that is lower than core body temperature. To maximize sperm production men should refrain from too long in saunas or hot tubs.

DISCUSSION

Preconception care is a set of interventions that aim to identify and modify biomedical, behavioral and social risks to a women's health or pregnancy outcome through prevention and management.[6]

Preconception visit is the most important wherein the prospective mother is introduced to the concept of antenatal care and assessed for potential complications.

Who Should Do Preconception Planning

Any physician or clinician is well qualified to go through the checklist for health assessment. Use of preformulated questionnaires and protocols ensure that all relevant points are covered. Health professionals working with peripheral health centers should be involved in order to extend this facility to maximum number. This will increase the awareness at the grass root level.[7]

All attempts should be made to optimize the health status of both partners to improve the outcome for any future planned pregnancy.

Thus, the objective of preconception counselling is:

- To assess general health status and maturity of health partners to begin parenting.
- To determine high risk factors and correct the same prior to planning conception.
- To assess physiological, social and financial preparedness of the partners.
- To advise them to avoid high risk behaviors.
- To educate the couple in reproductive health.
- To adopt a healthy diet and lifestyle to achieve optimum health prior to planning pregnancy.[8]

The national policy for health care focuses on increasing the quality and years of healthy life and eliminating inequities in health care among individuals. Providing preconception care is one of the first steps towards achieving these goals. In an era where preventive care has become the focus for attaining "health for all", preconception counselling should be considered for preventing health care in obstetrics.

There are certain windows of opportunity which should be seized

- Women coming and seeking options for birth control.
- Women who have recently delivered a baby.
- Women who thought they were pregnant but had negative pregnancy test.
- Women undergoing treatment for infertility.[9]

Preconception counselling targeted at the mother, father and family can reduce infant morbidity and mortality. Unplanned and unintended pregnancy results in late prenatal care which may lead to adverse events during pregnancy and poor perinatal outcome. Family planning and pregnancy prevention is key to pregnancy readiness. Pregnancy readiness and a planned pregnancy is the optimal goal.[10]

Thus health prior to conception is recognized as a critical window with profound and lasting effects across the reproductive life course, impacting on fertility outcomes during pregnancy as well as short and long term health implications for women and future generations.

Women attempt to gain information regarding supplementation, nutrition and exercise through range of platforms including online and via healthcare providers.

Challenges experienced during preconception period

- Anxiety
- Stress
- Difficulties assessing reliable information online[4]

Preconception counselling ensures that women are healthy prior to conception. This will reduce maternal and fetal complications. Provider should address past medical history, work to optimize chronic medical problems, review medications, discuss nutrition, update immunization and screen for infectious diseases. As half of pregnancies are intended it is vital to include preconception counselling into visits for other reasons for reproductive age women.[11]

LIMITATIONS

Preconception clinics and positive concept is still not yet established in India. The women usually visit their doctors only when pregnancy is well established precluding use of preconception counselling as organogenesis is already complete. Many pregnancies are also unplanned.

CONCLUSION

Primary prevention is the main aim of medicine and preconception counselling exemplifies this concept. T gives an opportunity to the clinician to assess the patient for potential risk factors and allow intervention to prevent complications. The couple should be encouraged to prepare themselves to achieve optimum health prior to planning a pregnancy.

Attention to the causes of not receiving preconception care and modifying them can lead

to an increase in receiving them in possible cases.[12]

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