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EFFICACY OF ACUPRESSURE ON MORNING SICKNESS AMONG ANTENATAL MOTHERS AT SELECTED HOSPITALS IN KERALA: A TRUE EXPERIMENTAL STUDY

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Introduction

Pregnancy is a highly stimulating period in a woman's life. If you have aspirations of becoming a mother, it is crucial to familiarise yourself with the actions you may take throughout pregnancy to ensure the birth of a healthy baby and provide them with a strong foundation for life. Commence your journey into motherhood at this location.

Pregnancy is a profoundly significant period in a woman's life. Pregnancy is a period of nine months during which many physiological and psychological transformations occur, alongside alterations in one's way of life. Every alteration presents a difficulty that can be effectively overcome when the woman communicates her maternal emotions and experiences to a spouse or other supportive individual, as well as to medical professionals like as physicians, midwives, nurses, and childbirth educators. The significance of healthcare throughout pregnancy is underscored, as it enhances the probability of a successful pregnancy, a robust infant, and contented parents.

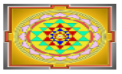
Maternal physiological changes during pregnancy refer to the typical adjustments that a woman's body goes through to better support the developing embryo or foetus. Throughout pregnancy, women experience several physiological changes that are completely normal. These changes encompass cardiovascular, hematologic, metabolic, renal, and respiratory systems, and their significance becomes particularly crucial in the presence of problems. The body undergoes physiological and homeostatic adaptations throughout pregnancy to ensure the well-being of the foetus. Progesterone and oestrogen levels steadily increase throughout pregnancy, which inhibits the hypothalamus axis and consequently halts the menstrual cycle. Both the mother and the placenta secrete several hormones.

Vomiting is a prevalent occurrence in the initial stages of pregnancy. It is characterised by repeated or continuous feelings of nausea and vomiting, resulting in a decrease in body weight, loss of appetite, overall weakness, and a sense of discomfort. Approximately 70 percent of women experience mild to moderate symptoms during the initial three months (first trimester) of pregnancy. Approximately 75% of pregnant women experience this syndrome in the initial trimester. Approximately 50% of pregnant women have both nausea and vomiting, whereas 25% just experience nausea, and another 25% do not experience any symptoms. Typically, the feeling of sickness commences at approximately six weeks into pregnancy, however it may commence as early as four weeks. The condition typically deteriorates in the following month or so. Approximately 50% of pregnant women experiencing nausea achieve total alleviation by around the 14th week.

The precise aetiology of nausea and vomiting in pregnancy remains uncertain. The majority of evidence indicates abrupt fluctuations in hormone levels. The variability in these patterns of muscular contraction and relaxation in the stomach and intestines can result in feelings of nausea and the act of vomiting. The key hormones involved in this process include Human Chorionic Gonadotropin (HCG), oestrogen, and progesterone. Women experiencing acute vomiting have been found to exhibit abnormal levels of thyroid hormones, however the exact cause-and-effect relationship is still uncertain. Several studies have indicated that the sensation of nausea is heightened when the level of glucose in your bloodstream is reduced. Several studies have indicated that women who experience nausea as a side effect of birth control drugs, suffer from migraines, or are prone to motion sickness are more susceptible to experiencing nausea and vomiting during pregnancy. Children with a familial predisposition to experiencing nausea and vomiting during pregnancy are more prone to developing the same illness. Progesterone, whether used alone or in conjunction with oestrogen, is considered to play a significant role in the occurrence of nausea and vomiting during pregnancy. Progesterone reduces the activity of smooth muscles, which can lead to a longer time for the stomach to empty and may cause feelings of nausea and vomiting. The highest amounts of progesterone occur during the first trimester of pregnancy, which may be associated with the highest occurrence of nausea and vomiting. Nausea and vomiting during pregnancy are not linked to other hormones such as adrenocortical-stimulating hormone, cortisol, luteinizing hormone, follicle-stimulating hormone, Thyroid-Stimulating Hormone (TSH), growth hormone, and prolactin.

There is no discernible disparity in behaviour and mental condition between women experiencing severe nausea during the first trimester of pregnancy and those who do not.

There was no substantial disparity in birth weight between infants carried by women who experienced vomiting and those who did not. The study revealed a higher occurrence of foetal loss among women experiencing vomiting (86 out of 1000 births) compared to those who did not (49 out of 1000 births), resulting in a Relative Risk of 1.83. Women experiencing moderate to severe nausea and vomiting had a lower incidence of spontaneous abortions compared to those with asymptomatic or mild symptoms. There was no disparity in the occurrence rate of vomiting between women with intentional versus unintentional pregnancies. Human studies indicate that a daily consumption of one gramme of ginger may be both safe and efficacious in alleviating nausea and vomiting related with pregnancy, as long as it is administered for a limited duration not exceeding four days. Until recently, the cause of nausea and vomiting during pregnancy was unknown. However, the Vedas provide insight into this phenomenon. During pregnancy, the expulsion of air from the womb is forcefully directed towards the throat, potentially affecting the brain and leading to feelings of nausea and vomiting. The presence of air in the uterus during pregnancy is referred to as GarbhaVaayu in Vedic literature. If we



are able to expel the air through belching, it would prevent the occurrence of nausea and vomiting.

If symptoms are not severe, the healthcare professional may recommend attempting home care treatment, such as consuming small portions of food, avoiding spicy and fatty foods, consuming simple carbohydrates like crackers, and drinking liquids between meals. If the vomiting persists, the healthcare professional may recommend medical hypnosis, herbal therapies such as ginger at a dosage of 250mg three times a day, pyridoxine supplements at a dosage of 25 to 50mg every eight hours, and acupressure stimulation of the pericardium (P6) point on the wrist. If the severity of vomiting is pronounced, the healthcare professional may recommend ample fluid intake to replenish crucial electrolytes like potassium. Additionally, they may administer intravenous injections of thiamine (vitamin B1) or antiemetic medications such as ondansetron, promethazine, metoclopramide, prochlorperazine, or trimethobenzamide. Acupressure alleviates tension and has additional beneficial effects. It also enhances overall health and strengthens the body's resistance to illness.

Acupressure harnesses the capacity to heal through the application of pressure on certain points, utilising energy. Acupressure has demonstrated efficacy in treating several conditions such as nausea, headache, vomiting, muscle tension, pain, morning sickness, and other distressing sensations. The Pericardium (P6) point, located in the wrist, serves to reduce the occurrence of nausea and vomiting. Stimulation of the P6 can be achieved by several techniques, including acupressure or acupuncture. A kind of acupressure involves utilising a bracelet that applies pressure on the P6 point.

Methodology

The chosen research design for the investigation was a true experimental research design. The study was carried out in the antenatal Outpatient unit of Alathur Maternity and Children's Hospital in Alathur, Kerala. The data collecting tool includes demographic factors such as Age, gestational weeks, gravida, education status, employment pattern, type of the family, and location of dwelling. A rating system was employed to evaluate the severity of morning sickness. The pilot study was carried out in Military hospitals located in Alathur, Kerala. The results indicated that the instrument used was both feasible and dependable, making it suitable for conducting the major study. The instrument underwent validation by a panel of five experts, and its reliability was confirmed using the inter-rater reliability approach. The primary investigation was carried out in Alathur Maternity and Children's Hospital in Alathur, Kerala.

Out of the 600 pregnant moms who met the specific criteria, 300 were randomly selected to be part of the experimental group and 300 were randomly selected to be part of the control group. The samples were selected and assigned to the experimental and control group based on the inclusive criteria. The severity of morning sickness before the test was evaluated using a rating scale. The mothers in the experimental group received acupressure, while the control group did not receive any intervention. The severity of morning sickness after the test was evaluated using a rating scale. The investigator obtained data on demographic characteristics through interviews. The data was analysed using both inferential and descriptive statistics.

RESULTS

In terms of age distribution, 13 individuals (43.3%) in the experimental group and 14 individuals (46.6%) in the control group fell within the age range of 21-24 years.

The experimental group had a maximum of 19 individuals, which accounted for 63.3% of the total. In comparison, the control group had a maximum of 15 participants, representing 50% of the total. Both groups had participants who were in the gestational age range of 7-9 weeks.

In relation to Ist gravid 17, 56.6% are part of the experimental group and 53.3% are part of the control group.

In terms of education, 10 individuals (33.3%) in the experimental group had completed higher secondary education, while 12 individuals (40%) in the control group had completed graduate education.

In terms of the occupation of the sample, 14 individuals (46.6%) in the experimental group and 12 individuals (40%) in the control group were classified as moderate workers.

In terms of family type, 19 individuals (63.3%) in the experimental group and 20 individuals (66.6%) in the control group were from nuclear families.

In terms of residential location, 18 individuals (60%) in the experimental group and 19 individuals (63.3%) in the control group resided in metropolitan areas.

The experimental group had a pre-test mean value of 2.1, with a standard deviation of 0.64. The control group had a pre-test mean value of 1.9, with a standard deviation of 0.56. The computed 't' value was 1.08 at a significance level of $p<0.05$.

The experimental group had a post-test mean value of 1.53, with a standard deviation of 0.50. In contrast, the control group had a post-test mean value of 1.86, with a standard deviation of 0.63. The computed 't' value was 4.142 at a significance level of $p<0.05$.

The examination of the initial level of morning sickness before any intervention showed that the experimental group consisted of 17 pregnant mothers (56.6%) with moderate morning sickness and 8 mothers (26.6%) with severe morning sickness. 5 individuals, accounting for 16.6% of the total, experienced minor morning sickness.

Regarding the control group, the examination of the pre-intervention level of morning sickness indicated that the majority of pregnant mothers in the control group experienced this condition. Out of the total number of moms, 21 (70%) experienced moderate morning sickness, whereas 5 (16.6%) suffered mild morning sickness. 4 individuals, accounting for 13.3% of the total, experienced minor morning sickness.

The mean value of morning sickness pre-test level in the experimental group was 2.1, with a standard deviation of 0.64. In the control group, the mean value of morning sickness pre-test level was 1.96, with a standard deviation of 0.56. The computed 't' value for the pre-test level of morning sickness in both the experimental and control groups was 1.08.

Therefore, the previously stated research hypothesis, which claimed that there is no notable disparity in the pre-test level of morning sickness between pregnant mothers in the experimental and control groups, was refuted at a significance level of $p<0.05$.

Delaram M (2003) did a study at ShahrKord University on the impact of acupressure utilising sea bands on the intensity of morning sickness during pregnancy. A clinical trial investigation was conducted on 100 primigravida women who were between 4 to 12 weeks pregnant, had a single foetus, and reported experiencing morning sickness. A checklist was completed for each individual, and all participants were provided with questionnaires to document their morning sickness state over a four-day period. The data analysis was conducted using the SPSS software, employing statistical tests such as the Chi-square test, t-test, and Wilcoxon test. The results indicated a notable disparity in the degree of nausea and the frequency of vomiting in the case group both before and after therapy ($P<0.001$). The control group did not exhibit any notable disparity in terms of the reduction of nausea severity and frequency of vomiting. The conclusion states that acupressure is a successful treatment for morning sickness during pregnancy. It recommends the use of Sea Band, a device that is inexpensive, pleasant, readily accessible, and free from side effects, for reducing morning sickness during pregnancy.

The examination of the post-intervention level of the experimental group indicated that the majority of pregnant mothers did not experience severe morning sickness. 16 (53.33%) experienced moderate morning sickness, while 14 (46.66%) had light morning sickness.

Upon analysing the post-intervention level of the control group, it was found that 4 individuals (13.33%) experienced severe morning sickness, 17 individuals (56.66%) experienced moderate morning sickness, and 9 individuals (30%) experienced mild morning sickness.

The mean value of morning sickness post-test level in the experimental group was 1.53, with a standard deviation of 0.50. In the control group, the mean value of morning sickness post-test level was 1.86, with a standard deviation of 0.63. The computed 't' value for the post-test level of morning sickness among pregnant mothers in the control group was 4.142. Therefore, the previously stated research hypothesis, which suggests a notable disparity in the post-test severity of morning sickness between pregnant mothers in the experimental and control groups, has been confirmed at a significance level of $p<0.05$.

The mean value of morning sickness pre-assessment level in the experimental group was 2.1, with a standard deviation of 0.64. The mean value of morning sickness post-assessment level in the experimental group was 1.53, with a standard deviation of 0.50.

The computed 't' value for the before and post-test levels of morning sickness among pregnant mothers in the experimental group was 6.89.

Therefore, the previously stated research hypothesis, which suggests a notable distinction in the levels of morning sickness before and after the test, among pregnant moms in the experimental group, has been confirmed at a significance level of $P<0.05$.

The mean value of morning sickness pre-assessment level in the control group was 1.96, with a standard deviation of 0.56. The mean value of morning sickness in the control group at the post-assessment level was 1.86, with a standard deviation of 0.63. The computed 't' value for the level of morning sickness among pregnant mothers in the control group was 2.460, with a significance level of $p<0.05$.

Therefore, the previously stated research hypothesis, which claimed that there was no significant difference in the levels of morning sickness before and after the test among pregnant mothers in the control group, was rejected at a significance level of $p<0.05$.

The relationship between the level of morning sickness after assessment and demographic characteristics was analysed using a chi-square test. The data findings indicate a statistically significant relationship between the post-assessment level of morning sickness among pregnant mothers in the experimental group and their selected demographic variables, including age, gestational weeks, gravida, educational status, work pattern, type of family, and area of living. This relationship was observed at a significance level of $p<0.05$. Therefore, the previously stated research hypothesis, which claimed that there is no significant correlation between the post-test level of morning sickness among pregnant mothers in the experimental group and their selected demographic factors, was rejected at a significance level of $p<0.05$.

The data findings indicate a statistically significant relationship between the post-assessment level of morning sickness among pregnant mothers in the control group and their selected demographic variables, including gestational weeks, gravida expect age, educational status, work pattern, type of family, and area of living. This relationship was found to be significant at a p-value of less than 0.05. Therefore, the research hypothesis previously stated, which claimed that there is no significant correlation between the post-test level of morning sickness among prenatal moms in the control group and their selected demographic factors, was disproven at a significance level of $p<0.05$.

CONCLUSION

The present investigation examined the efficacy of acupressure in mitigating morning sickness symptoms in expectant mothers. And their level of material well-being. The study's results determined that the application of acupressure to P6 sites yielded significant efficacy in alleviating morning sickness symptoms in pregnant women. Acupressure is a cost-effective and user-friendly technique that does not induce discomfort in expectant moms throughout the prenatal phase. Consequently, it might be readily deployed as a standard intervention. The qualitative findings indicate that morning sickness adversely affects a woman's physical well-being, self-perception, familial dynamics, and interpersonal interactions. Consequently, the investigator concluded that the evaluation of morning sickness, by a rating scale after acupressure intervention, should be considered more significant. It can be used as a non-pharmacological measure to help reduce morning sickness.

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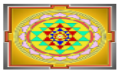

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