



Assessment of Health Outcomes Associated with Oral Contraceptive Pill Use Among Rural Women in Pataspur II Block

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Abstract

Oral contraceptives, also known as birth control tablets/pills, are medicines that stop pregnancy. About 75% of married women who use contraception in the research location Pataspur-II block area, (Purba Medinipur district) reported they prefer the combined hormonal pill with estrogen and progesterone. Thirty women were chosen at random to participate in the study. Of the 50% who routinely used contraceptive pills and 50% never used them or occasional-ly did so. Her male partner likely uses a condom when necessary. The hormone progesterone is responsible for preventing conception, whereas the oestrogen component regulates menstrual blood loss. A questionnaire survey is used in one-on-one interviews. Statistics used in the study were descriptive. To examine the data, an unpaired 't' test was employed. It was found that there were no significant ($p > 0.05$) differences in body mass index, systolic pressure, pulse pressure, pulse rate, between Consumer and Non consumer. But it has noticed that waist hip ratio is significantly ($p < 0.05$) higher in rural areas as compare to Non consumer. In order to provide effective contraception using oral contraceptives, this study investigates the adverse effects of oral contraceptive pills. It highlights the significance of better care coordination among occupational therapist. According to this study, one of the most common oral contraceptive regimens decreases women's quality of life while not affecting depressive symptoms. However, ovarian and menstrual issues and increased bone mineral density are very noticeable in women in their forties and significantly impact their behavior. It has been shown that birth control pill side effects can include complications including cystic acne, anxiety or irritability, sore breasts, weight gain, or some trouble conceiving after discontinuing the pill. The study makes predictions about the menstrual flow type, dysmenorrhea, blood pressure, waist-hip ratio, and pattern of contraceptive use. Consuming oral contraceptives is linked to some symptoms, including breast soreness, weight gain, missing periods, vaginal discharge, alterations in vision with contact lenses, and irregular or spotty bleeding.

Keywords: Adult Female; Birth Control; Health Effect; Oral Contraceptive Pill; Purba Medinipur

Introduction

Oral contraceptives, abbreviated OCPs, also known as birth control pills, are medications taken by mouth for the purpose of birth control. The introduction of the birth control pill ("the Pill") in 1960 revolutionized the options for contraception, sparking vibrant discussion in the scientific and social science literature and in the media. Much attention focused on issues of women's rights, including ethics and personal choice. But the Pill also introduced new questions about risk [1]. Birth control pills come in a variety of formulations. The main division is between combined oral contraceptive pills, containing both estrogens and synthetic progestogens (progestins), and progestogen only pills. Combined oral contraceptive pills also come in varying types, including varying doses of estrogen, and whether the dose of estrogen or progestogen changes from week to week [2]. The Combined Oral Contraceptive Pill (COCP) is a contraceptive for women. It is often called birth control pill or simply "the pill." The pills contain hormones that make the women who take them infertile. Women who take the pill will not become pregnant during sexual intercourse. When a woman stops taking the pills, she will usually become fertile again. When taken as prescribed, the pills are one of the safest methods of contraception [3].

In the 1950s, scientists (such as Carl Djerassi, George Rosenkranz and Alejandro Zaffaroni) realized that the hormone progesterone stopped women from making eggs (stopped ovulation). After this discovery, the combined oral contraceptive pill was created [1]. The combined oral contraceptive pill has two female hormones: estrogen and progesterone. Some oral contraceptive pills have only progesterone. These are often called the "minipill". The combined oral contraceptive pill is thought to be safe and usually works well [2]. In the United States, the combined oral contraceptive pill was first given to women in 1960 [3]. It was a revolutionary breakthrough in contraception for two reasons. First, it is very effective at preventing pregnancy if it is used in the right way. Second, it was the first contraceptive to completely separate the act of contraception (in this case the taking of a pill) from sexual intercourse itself. Unlike barrier methods, when a woman is "on the Pill," she and the man are usually not even aware of it during sexual intercourse, which seems and feels very natural. The woman may be on the pill without her partner knowing. The couple can have sex at any time they wish; they don't need to interrupt foreplay to put birth control in place, and they can feel the physical sensations and emotional closeness of intercourse without interference from a male or female condom. Unlike coitus interruptus, when a woman is on the Pill, intercourse usually ends with her man reaching orgasm while inside the vagina, which both the man and woman usually find very pleasurable. It may also make women's menses shorter and with less bleeding, as well as helping her complexion, which most women like. For all of these reasons, the Pill is very popular. In 2005, more than 80 million women across the world used the Pill [4].

Patashpur, Patashpur-II Block area is a rural area having 191.74 SP. Km area and population of 175,056. Cultivation is the main source of income of the people of this area. In this area people with all caste are living. For proper education several primary school, SSK, MSK, Jr. high school, High school, Higher secondary school two General college and B. Ed college are situated here. With the above information it can be assumed that through Patashpur II Block area is situated in rural area but the area is developing very fast. A survey can be made regarding the health status of Oral Contraceptives Female and Normal Female among people of whole Patashpur II Block area.

Objectives

The Ultimate objective is to give proper information about the safe use of oral contraceptive to these people.

- To know the awareness level of oral contraceptive use in the studied area.
- To get knowledge about the effect of oral contraceptives use on these studied group.
- Ultimately to search out the effect of nutritional status on physical parameters of women using oral contraceptives.
- To know the physiological changes of women in use of oral contraceptive pill.
- To get information about the pattern of oral contraceptive use.

Materials and Methods

In order to conduct the surveys satisfactorily, it is essential to have a well-accepted methodology. The present nutritional survey is carried out in the following procedure by using appropriate methods.

The material and methodology adopted for the present study.

Number of subjects: - 30

Study nature: Descriptive, Observational type of study.

Place of study: Location-Chandanpur, Patashpur

Geographical location: District- Purba Medinipur

State: West Bengal

Selection of the subject: The total numbers of Women used Oral contraceptive pill consumer and non-consumer or occasionally consume were 30 respectively, selected from Chandanpur, Patashpur. The ages of the women were within 18-35 years which obtained by interviewing them.

Methods of assessment of nutritional status: Height and weight were measured using steel tape or anthropometric rod and Weight machine respectively. Then the BMI of woman is calculated. All measurements were taken as per guideline of World Health Organization (WHO: 1995). Mean and standard error is also calculated.

Personal history: Back ground information about the respondents include age, education, religions, weight, height, socioeconomic status, fathers and mothers occupation number of total family member, member of earning member of family, dietary habit, physical exercise are asked during this survey.

Anthropometric assessment: Anthropometry is based on the fact the physical state and gross composition of the body and when it is influenced by diet and nutrition then, we can call it Nutritional Anthropometry. Explains that measurements of the variations of the physical dimensions and gross composition of the human body at different age and degree of nutrition is nutritional anthropometry. It should be recommended that other factors, such as illness due to infection or infestation may also affects the growth and physical status of the body.

Anthropometric measurement such as height, weight, skin fold thickness and different circumference of different parts of the body are valuable indicators of nutritional status. Farmer of the circumference of head, chest and mid-upper arm are very important.

Weight (kg): For weight measurement I have used human weighing machine. Subjects stand the platform of the machine with minimum clothes and exerting equal pressure on both feet. I have taken the weight reading from the scale with an accuracy of 0.5 kg.

Height (cm): Vertical distance from the floor to the vertex (maximum bulge of the top of the head) of the body while standing in stretched erect posture, feet together and firmly placed on the ground, weight equally distributed on both feet, looking straight and ahead, palm flat against side of the thigh. A vertical measured rod or a scale fixed to a wall can be used. The height must be measured without shoes to a wall can be used. The must be measured without shoes and the subject must stand on a flat floor by the scale. His feet should be parallel with the heels, buttocks shoulders and back of the head touching the upright portion of the scale. The head should be comfortable held erect. The head piece should be either a metal bar or a wooden touch the hair and make contact with the top of the head.

BMI (kg/m²): BMI is a mathematical formula which correlates with the body fat of an individual. The BMI of each individual is calculated from the formula weight in (kg)/height (m²) by putting the

value of weight in kg and height in meter square.

Other way, I took help from the two nutritional index for assess is cases Physical Measurements, like-Weight (kg)

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)}^2} = \text{kg/m}^2$$

Height (m²)

Classification of adult BMI according to WHO, 1995.

BMI (kg /m ²)	Categories of nutritional status
< 16.0	Grade III thinness
16.0-16.99	Grade II thinness
17.0-18.49	Grade I thinness
18.5-24.99	Normal
25.0-29.99	Grade I over weight
30.0-39.99	Grade II over weight (obesity grade I)
≥40.0	Grade III over weight (obesity grade II)

Waist circumference (cm): Horizontal circumference at the level of the greatest lateral indentation of trunk (i.e. at the level at which the belt is worn); subject stands erect, abdomen relaxed.

Hip circumference (cm): Horizontal circumference at the level of the hip bone (or the level of the Glutens), subject stands erect, heels together.

Waist hip ratio: Anthropometric measurement from the ratio of waist circumference and hip circumference.

Waist hip ratio = Waist circumference (cm)/ Hip circumference (cm)

Blood pressure and pulse rate: The blood pressure measurements were made after the completion of the anthropometric measurements. Left arm blood pressure was taken with a sphygmomanometer and Stethoscope after the Participate has been seated in a relaxed position for 5 minutes. Prior to taking measurements, subjects were instructed to lie on the bed and then the left arm was placed at the inside of the body. Two former measurements were recorded and average for analysis. A 5 minute relaxation period between the two measurements was maintained for all subjects, Systolic Blood Pressure (SBP) and Diastolic Blood Pressure (DBP) were recorded to the nearest mm of Hg as the appearance (Phase I) and disappearance (Phase II) of karat off sounds respectively.

Statistical analysis of data: The calculated data was analyzed by the mean value, standard deviation, Standard error and T- test with the help of computer package.

Mean: Mean is the arithmetic average of the observed scores. The sample mean is represented by the symbol $\bar{X}$, where $\bar{X}$ represents each individual score of samples, $\sum X$ is the sum of all scores and n is the sample size or the total frequency of cases in the sample.

$$\bar{X} = \frac{\sum X}{n}$$

Standard deviation: Standard Deviation (SD) is the positive square root of the mean of squared deviations of all the scores from the mean. It is an absolute measure of deviation and is expressed in the same unit as the original scores. Standard deviation of a sample is denoted by –

$$SD = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

Standard error: Standard Error (SE) of a statistic is a measure of the deviation of that statistic from the corresponding parameter and consequently serves as an index of the sampling error of that statistic. It is the standard deviation of the sampling distribution of the relevant statistics.

$$SE = \frac{SD}{\sqrt{n}}$$

T-test: To test the significant of the different between the means of two small samples that difference is converted to student's t-score which is then interpreted with the reference to the appropriate t-distribution. The t-values are computed as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{n_1 n_2}{n_1 + n_2} / S}}$$

Result and Discussion

There was no significant ($p > 0.05$) difference on BMI (kg/m²) of Consumer and Non consumer (Figure 1). However Maya Laxmi Patel and Raywat Deonandan, (2017) found the increasing BMI of slum dwelling women is most significantly. In that study we hypothesized that no significance is BMI of Consumer and Non consumer. There was no significant ($p > 0.05$) difference on Waist Hip Ratio of Consumer and Non consumer (Figure 2).

There was no significant ($p > 0.05$) difference on systolic blood pressure of Consumer and Non consumer (Figure 3). There was significant ($p < 0.05$) difference on diastolic blood pressure of Consumer and Non consumer (Figure 4).

There was no significant ($p > 0.05$) difference on pulse rate of Consumer and Non consumer (Figure 5). There was no significant ($p > 0.05$) difference on pulse pressure of Consumer and Non consumer (Figure 6-8) (Table 1-3).

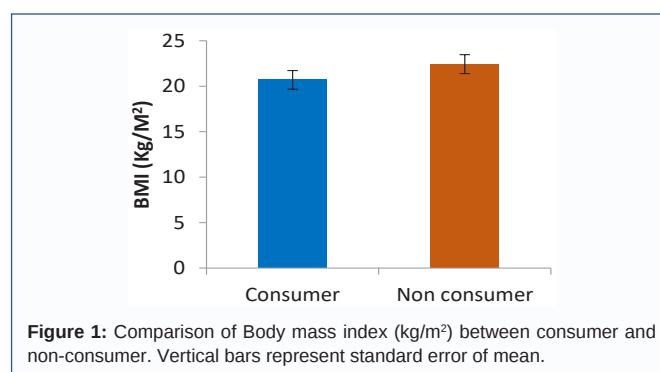


Figure 1: Comparison of Body mass index (kg/m²) between consumer and non-consumer. Vertical bars represent standard error of mean.

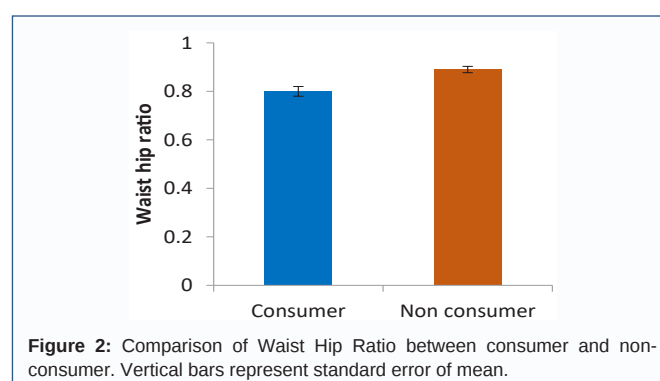


Figure 2: Comparison of Waist Hip Ratio between consumer and non-consumer. Vertical bars represent standard error of mean.

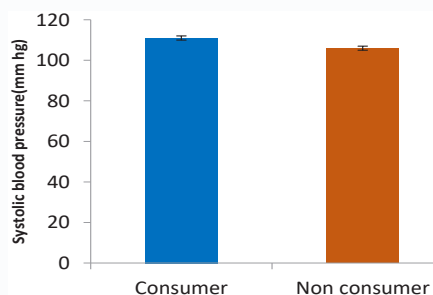


Figure 3: Comparison of Systolic Blood Pressure (mm-Hg) between consumer and non-consumer. Vertical bars represent standard error of mean.

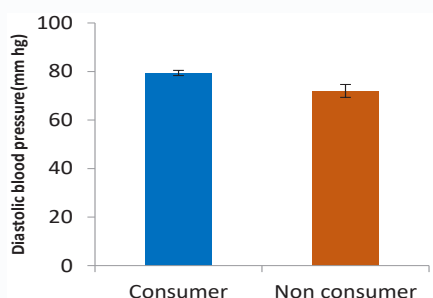


Figure 4: Comparison of Diastolic Blood Pressure (mm-Hg) between consumer and non-consumer. Vertical bars represent standard error of mean.

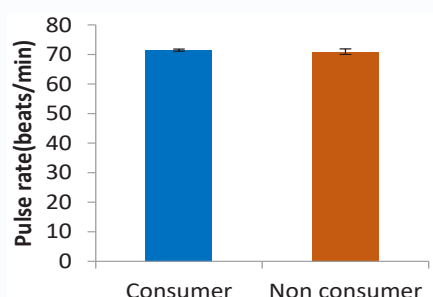


Figure 5: Comparison of Pulse rate (beats/min) between consumer and non-consumer. Vertical bars represent standard error of mean.

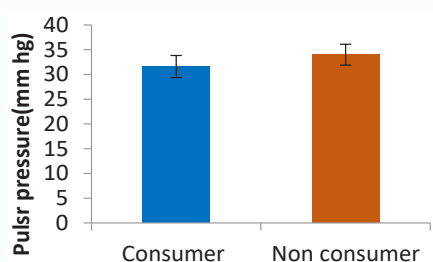


Figure 6: Comparison of Pulse Pressure (mm-Hg) between consumer and non-consumer. Vertical bars represent standard error of mean.

Summary and Conclusion

In this study survey was on made on status of Consumer and Non consumer at Pataspur (Pataspur II Block area).

Summary

1. There was difference of BMI, Pulse pressure, Pulse rate, in

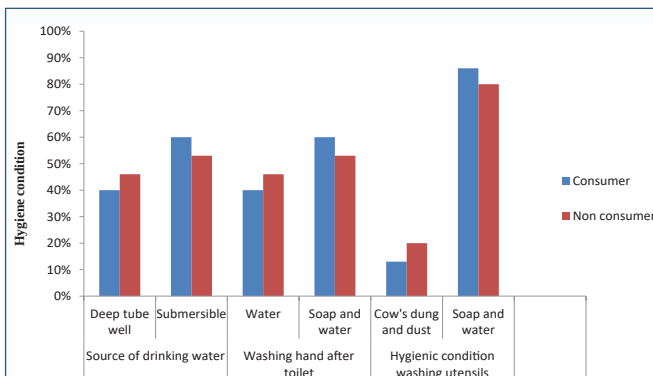


Figure 7: Comparison of source of drinking water, washing hand after toilet, Washing utensils between consumer and non-consumer. Vertical bars represent standard error of mean.

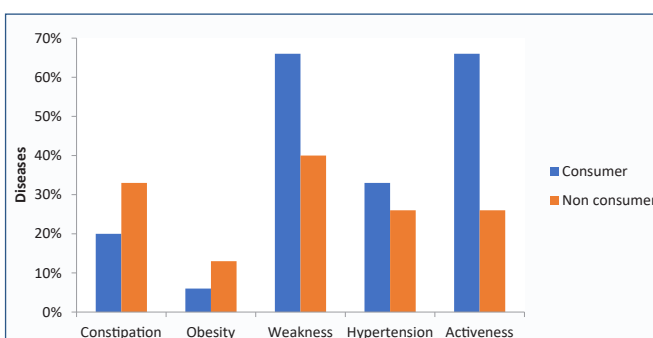


Figure 8: Comparison of diseases between consumer and non-consumer. Vertical bars represent standard error of mean.

Table 1: Anthropometric measurement of Consumer and Non consumer.

Anthropometric indices	Consumer (Mean±SEM)	Non consumer (Mean±SEM)	t value	Significance
BMI (kg/m ²)	20.7±1.022	22.43±1.04	1.22	Not significant
Waist Hip Ratio	0.8±0.020	0.90±0.013	0.23	Not Significant
Pulse Rate (beats/min)	71.5±0.37	70.93±0.933	0.52	Not Significant
Systolic Pressure (mm-Hg)	111.0±2.30	106.0±2.54	1.47	Not Significant
Diastolic Pressure (mmHg)	79.4±1.078	72.0±2.65	2.54	Significant
Pulse Pressure(mm-Hg)	31.6±2.233	34.00±2.111	0.79	Not significant

Table 2: Tabular representation of hygienic condition of consumer and non-consumer.

Hygienic condition	Consumer (%)	Non consumer (%)
Source of drinking water		
1. Deep tube well	40	46
2. Submersible	60	53
Washing of hands after toilet		
1. Water only	40	46
2. Soap and water	60	53
Washing of cooking utensils		
1. Cow dung ash	13	20
2. Soap and water	86	80

Consumer and Non consumer.

2. There was difference of WHR, Systolic pressure, Diastolic pressure in Consumer and Non consumer.
3. Consumer Women's are suffering more in anemia, constipation, Obesity, Hypertension, Weakness, Activeness compare to Non consumer women's.

Table 3: Percentage of consumer and non-consumer suffering in different diseases and symptoms.

Disease	Consumer %	Non-consumer %
Constipation	20	33
Obesity	6	19
Weakness	66	40
Hypertension	33	26
Activeness	66	26

- Both Consumer and Non consumer were suffering from Both anemia, constipation, Obesity, Hypertension, Weakness, Activeness.
- Consumer women’s and Non consumer women’s were more drinking water from submersible compare to deep tube well.
- Consumer women’s were more used of soap and water and less use of water then Non consumer women’s in washing of hands after toilet.
- Consumer women’s were more used of soap and water and less use of Cow dung and dust then Non consumer women’s in washing of cooking utensils.

Conclusion

Many of the women in the rural area are born in to the area and as such, live in an environment where this is all that they know. However, there still remains a high degree of what prevailed traditionally with regards to the cooperation and social unity, even in the face of high degrees of ruralisation. In this paper, the researcher posited the hypothesis that:

“The Indian people are generally of Gemeinschaft nature and, feel most comfortable in this state. As such, they will have a tendency to, either revert back to this state or, try as much to mimic such a state, even in a Gesellschaft environment”.

This study shows that these rural-dwelling women’s diets lack adequate micronutrient-rich foods. Standard of living and education may have an impact on dietary choice and nutrition status, therefore it is important that any interventions aimed at changing women’s dietary behavior are targeted to the setting in which the woman lives and take into account the availability, cost and other factors which may affect whether she is able to consume a particular food.

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