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To study on nutritional status in suffering from polycystic ovary syndrome (PCOS)

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Abstract
Polycystic ovary syndrome (PCOS) is a widespread reproductive disorder that encompasses many associated health conditions and has an impact on various metabolic processes. It increases the risk of insulin resistance (IR), type 2 diabetes, obesity, and cardiovascular disease. It seems to be a familial genetic syndrome caused by a combination of environmental and genetic factors. It can be linked with metabolic disorders in first-degree family members. Polycystic ovary syndrome (PCOS) is the causes of up 30% of infertility in couples seeking treatment. Despite the growing incidence of this syndrome, limited research has been done that encompasses the entirety of polycystic ovary syndrome (PCOS) spectrum. Women with PCOS produce higher-than-normal amounts of male hormones. This hormone imbalance causes them to skip menstrual periods and makes it harder for them to get pregnant. PCOS also causes hair growth on the face and body, and baldness**.** A total of 60 respondents were interviewed and were interviewed and were investigated for Polycystic ovary syndrome (PCOS).A predesigned and pretested was used to collect the information about the participants. For the research survey method was used for the collection of data. Results shows that mostly 95 (%) respondents were aware of polycystic ovary syndrome (PCOS) and 5 (%) respondents were not aware of polycystic ovary syndrome (PCOS). In conclusion that studies polycystic ovary syndrome (PCOS).

Keywords: Polycystic ovary syndrome, hormones, metabolic

Introduction
Polycystic ovary syndrome (PCOS) is a condition that affects a woman's hormone levels. Women with PCOS produce higher-than-normal amounts of male hormones. This hormone imbalance causes their body to skip menstrual periods and makes it harder for them to get pregnant. Polycystic Ovary Syndrome (PCOS) is an endocrine system disorder that occurs in women of reproductive age. PCOS is suspected in women who present with enlargement of their ovaries and/or with multiple follicles within each ovary. It is diagnosed via trans-vaginal ultrasound of the ovaries. Polycystic Ovary Syndrome is caused by a dysfunction within the Hypothalamus-Pituitary-Ovarian Axis. The Hypothalamus-Pituitary-Ovarian Axis is the signalling system between the brain and body that regulate hormones and maintain homeostasis. In a healthy functioning body, the hormones produced in the hypothalamus will stimulate the secretion of the various hormones from the pituitary gland. The hormones secreted from the pituitary gland will then act on their specific target organs. In PCOS were are dealing with the hormones that stimulate the ovaries. PCOS is also a leading cause of infertility. Women with PCOS may present with obesity, amenorrhea, oligomenorrhea, infertility, or androgenic features. Those with PCOS are also at increased risk for both diabetes and diabetic complications and cardiovascular disease, with a risk of a myocardial infarction 7 times the normal. We know that if patients with PCOS are screened for these diseases, many long-term complications can be prevented. The prevalence of metabolic syndrome and IR in PCOS has been studied in very few different populations and ethnic groups. Also, there are limited data on differences between various phenotypes with respect to long-term metabolic risk. Causes: Insulin resistance, Low-grade inflammation, Heredity, Excess androgen. Symptoms: Irregular, periods, Too much androgen, Amenorrhoea (missed periods) or irregular periods, Unwanted hair growth, Thinning hair on the head, Acne, Mood changes, Sleep problems, Infertility, Weight gain, Difficulty in conceiving, Depression, Pain in the pelvic area, Fatigue, Heavy bleeding.

Complications
Endometrial cancer, Heart Attack and brain Stoke, Hypertension, Morbid Obesity and Obstructive, Sleep Apnoea, Cancer of Endometrium, Deep Vein Thrombosis. Infertility, Diabetes.
Diagnosis: Pelvic exam, Blood tests, Ultrasound.
Food to eat: Natural, unprocessed foods, High-fiber foods, Whole grains, Whole fruit, Fatty fish, including salmon, tuna, sardines, and mackerel, Kale, spinach, and other dark, leafy greens, Broccoli and cauliflower, Healthful fats, such as olive oil, as well as avocados and coconuts, Nuts, including pine nuts, walnuts, almonds, and pistachios, Dark chocolate in moderation.
Food to avoid: Refined carbohydrates, such as mass-produced pastries and white bread, Fried foods, such as fast food, Sugary beverages, such as sodas and energy drinks, Solid fats, including margarine, shortening, and lard, Excess red meat, such as steaks, hamburgers, and pork, Fried foods, Butter, Cake, White rice, Alcoholic beverages. Scacchi M., *et al.*, (2018) [12] to studied on polycystic ovary syndrome (PCOS), the most common endocrine disorder in women of reproductive age characterised by oligo-anovulatory infertility and cardio metabolic disorder. Hossain Arju., *et al.*, (2022) [13] to study on several metabolic comorbidities like polycystic ovarian syndrome (PCOS), type 2 diabetes (T2D), obesity, and cardiovascular disease (CVD) have been associated with female infertility (FI).

Material and Method

Scientist methodology is necessary for successful study as it directly toward to detail of method and technique device and procedure applied conducting research. "To study on nutritional status of poly cystic ovary syndrome in rural area."

Research design
The area of Sultanpur districts was purposively selected because study has been easily accessible for the researchers for collection data.

Selection of area
Sultanpur district will be selected for primary data collection.

Selection of sample size
Total 60 respondents will be selected for primary data collection.

Method of collection of data:
Survey method will be adopted in order to collection of data from the selection respondent with the help of the survey with questionnaire schedule. The schedule will include aspect which led to the fulfilment of the objective of this study. Schedule will include the following.

Statistical analysis
The data obtained from various parameters will be analysed be appropriate statistical method.

Result and Discussion

Table 1: Distribution of respondent on the basis of their experience affect fertility

Experience affect fertility	Frequency N=60	Percentage (%)
Yes	57	95
No	3	5
Total	60	100

Above shows the table that (95%) respondent were Yes whereas, (5%) respondent were No

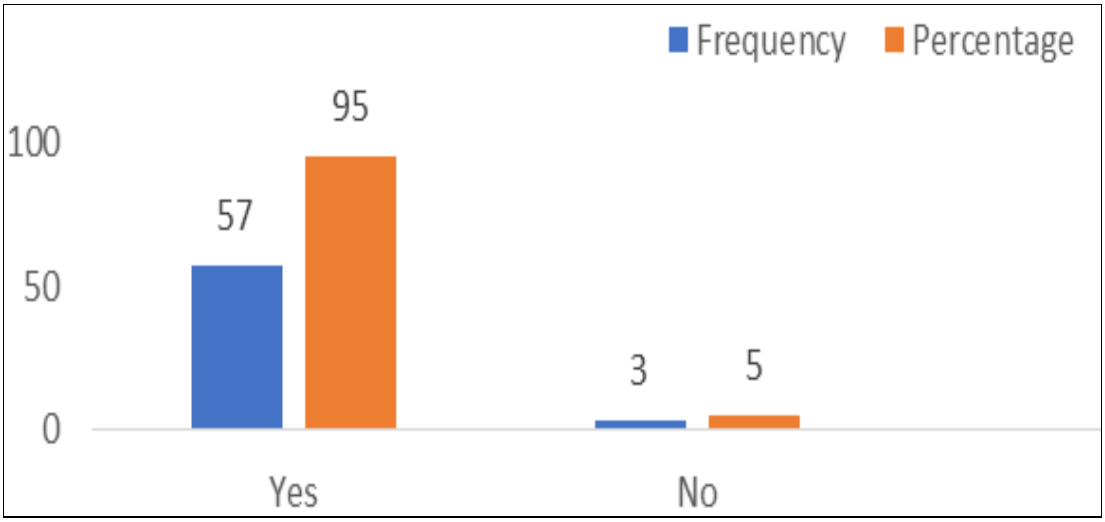

Fig 2: Distribution of respondent on the basis of their experience affect fertility

Table 1: Distribution of respondent on the basis of their sudden gain in your weight

Gain in your weight	Frequency N=60	Percentage (%)
Yes	56	93.3
No	4	6.6
Total	60	100

Above shows the table that (6.6%) respondent were yes whereas, (93.3%) respondent were No.

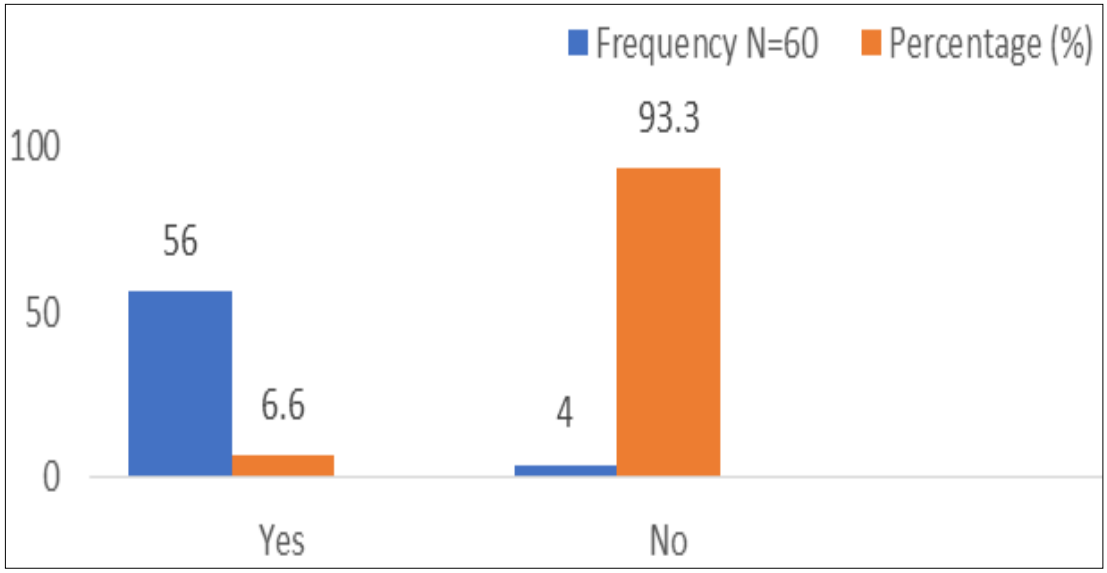

Fig 3: Distribution of respondent on the basis of their sudden unexplained gain in your weight

Conclusion

Polycystic ovarian syndrome is one of the most important endocrine disorder that affects females in the reproductive age and may lead to serious complications. Further studies are needed to determine the exact aetiology of PCOS, methods of prevention and proper management. When compared to matched cohort of healthy stone formers, PCOS patients did not demonstrate significant differences in 24-hour urine and stone composition values. It is possible that the potential relationship between PCOS and kidney stones may not be directly related to hyperandrogenism but rather the obesity, metabolic syndrome, and/or insulin resistance that are frequently associated with this syndrome. Elevated free testosterone in PCOS patients demonstrated a significant association with higher sodium and urine volume, possibly secondary to an increased intraglomerular pressure and a rightward shift in the pressure-natriuretic relationship.

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