



Daffodil
International
University

Project on

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

[In the partial fulfillment of the requirements for the degree of Bachelor of
Pharmacy]

Submitted To

The Department of Pharmacy,
Faculty of Allied Health Sciences,
Daffodil International University

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November 2022

APPROVAL

This project paper, Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh, submitted to the Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy and approved as to its style and contents.

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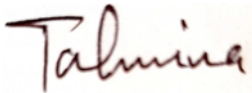
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DECLARATION

I hereby declare that this project report, “Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh”, is done by me under the supervision of, Ms. Tahmina Afroz, Lecturer (senior scale), Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University. I am declaring that this Project is my original work. I also declare that neither this project nor any part thereof has been submitted elsewhere for the award of Bachelor or any degree.

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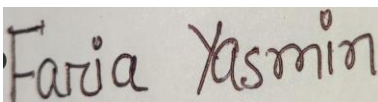
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ACKNOWLEDGEMENT

I might want to communicate my profound applause to the All-powerful Allah who has given me the capacity to finish my undertaking work and the chance to concentrate in this subject.

I'm a lot of thankful to my honorable project supervisor of Ms. Tahmina Afroz, Lecturer (senior scale), Department of Pharmacy, Daffodil International University

for her brilliant direction and steady oversight just as for giving essential data in regards to the task and furthermore for her help in finishing the project.

I would like to express my humble regards to Dr. Muniruddin Ahmed, Professor and Head, Department of Pharmacy, Daffodil International University.

I also wish to offer my respect to all of the teachers of Pharmacy Department, Daffodil International University and thankful to other members for their excellent cooperation with us.

Finally, I would like to express my gratitude towards my parents and other family members for their kind cooperation and encouragement which helped me in completion of this project.



My Parents

The persons who always encourage me in every sphere of my life.

Abstract

Around the world, polycystic ovarian syndrome affects between 5 and 20 percent of women of reproductive age (PCOS). The goal of this survey to determine which factors, contribute to the progression of Polycystic ovarian syndrome (PCOS) & to have a better grasp of the many diagnostic dealings used to diagnose this ailment. The popular (90.7%)responder are people are acknowledged about PCOS and 9.3% responder did not know about it. Polycystic ovarian syndrome PCOS is a common term. Only few people had polycystic ovarian syndrome 19.5%. 76.6% responder's family members are not suffering from PCOS but 23.4 % responder's family members are suffering from PCOS 121 participants think that obesity is the cause of PCOS but 102 participants think that higher level of male hormone are the causes of PCOS. According to this assessment 58.3% of participants are take Metformin for PCOS. 33.3% of participants are take contraceptive pill for PCOS. 17.9% of participants are take clomiphene citrate for PCOS. The majority of participants—64.6%—believe that losing weight is the effective therapy for PCOS, while 55.7% believe that diet is the best course of action and 54.2% believe that medication is the best course of action. 12.3% of the individuals are unaware of it. The majority of respondents (88.9%) believe that PCOS also causes ovarian cancer. 26.1% of participants believe that hypertension is a complication of PCOS. Of the participants, 22.6% believe that PCOs will eventually develop diabetes. 10.6% of respondents believe that cardiovascular illness is a complication of PCOS. Lastly, my research has shown that PCOS is bad for women. Diet, exercise, and the use of an oral contraceptive can all help prevent PCOS. I want to interact with PCOS a lot.

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Chapter one

Introduction

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

1. Introduction

One of the most prevalent hormonal abnormalities is polycystic ovary dysfunction, which occurs when prolonged hypogonadism and hyperandrogenism coexist. There has been substantial discussion about whether this condition reflects a single sickness or a number of disorders due to the diverse clinical and biochemical markers. In latest days, it has emerged clear that the polycystic ovarian syndrome is not only the most common cause of anovulation and hirsutism, but is also linked to a distinctive metabolic disorder (insulin resistance) that may have significant long-term health repercussions. [1] The avoidance, detection, assessment, and treatment of ailments specific to women are all aspects of women's health. The much more common endocrinopathy in women of reproductive age is undoubtedly polycystic ovarian disorder (PCOS), which is exceedingly common. Primary-care physicians frequently are not aware of the severe morbidity associated with the illness, both in terms of reproductive and nonreproductive events. [2] A woman's quality of life through her fertile years may be greatly impacted by the condition, which also raises her risk of morbidity and mortality by the menopause. By the time they reached menopause, a cohort of PCOS-afflicted women who had had wedge resection (1) and had been monitored for many years had produced numerous significant discoveries. They suffered a longer menopause, an increased chance of hysterectomy, and their PCOS indicators lingered over this period. The rates of diabetes (16%) and hypertension were particularly high. [3]

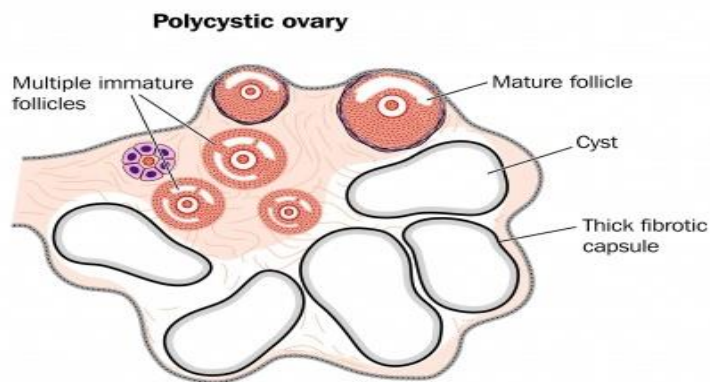


Figure 1: Polycystic Ovary [4]

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1.1 Prevalence of Polycystic ovarian syndrome

Few researchers have continued to evaluate the incidence of the polycystic ovary syndrome in women who have these characteristics, despite the fact that it has long been understood that it is a significant contributor to oligomenorrhea and hirsutism. In a study of 175 infertility women who visited a biological endocrinology clinic one after the other, 30% of the amenorrheic women and 75% of the oligomenorrheic women had polycystic ovaries as shown by ultrasonography. [5] Ninety percent of these women exhibited increased serum levels of luteinizing hormone or androgens, and more than 60 percent of them were hirsute (or both). These conclusions are corroborated by a research in which the diagnosis of polycystic ovarian syndrome was made using clinical and biochemical criteria rather than ultrasound ones. In a group of women receiving care at a local reproductive clinic in southwest England, polycystic ovary syndrome was discovered in 37% of those with amenorrhea and 90% of those with oligomenorrhea (representing a total of 73% of the instances of anovulatory infertility). [6] The results of the ultrasonography were then linked with clinical and biochemical markers of the illness, and a strong agreement between both the outcomes was seen. Unexpectedly, polycystic ovaries were found by ultrasonography in 40 of 46 women (87%) who presented with hirsutism but frequent menstrual cycles (i.e., "idiopathic hirsutism"). This evidence is significant because it shows that polycystic ovaries can be found in women who have frequent menstrual cycles. First of all, it refutes the notion that the polycystic shape simply denotes an ovary's generic response to persistent hypogonadism. Second, the fact that this group of women exhibits the same biochemical traits as anovulatory women with polycystic ovaries and a similar morphology indicates that the former group is a particular manifestation of the same underlying medical condition. Thirdly, it limits those few women with hyperandrogenism alone who are diagnosed with idiopathic hormonal problems. It is debatable whether patients with polycystic ovarian syndrome, hyperandrogenism, and regular menses should be considered to have the polycystic ovary syndrome. They do not fit the description of the illness, which includes hypogonadism, but there is evidently significant involvement of the ovaries. [7] For instance, it is commonly known that women with oligomenorrhea and polycystic ovarian dysfunction can experience autonomous ovulatory cycles. My collaborators and I

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looked at the incidence of ultrasonographic characteristics suggestive of polycystic ovary syndrome in the general population because of the frequent occurrence of polycystic ovaries in individuals with symptoms of hyperandrogenism or oligomenorrhea. Of the 257 volunteers, we detected ultrasonographic confirmation of polycystic ovaries in 23% of them; none of them had felt the need to seek medical care for gynecologic problems. However, there was a startling relationship among clinical (and biochemical) characteristics and ultrasonographic expression even among this "normal" cohort. Only one of the 115 women with normal ovaries experienced unpredictable cycles, compared to 75% of the women with polycystic ovaries. [8]

1.2 Pathogenesis of PCOS

The range of anomalies in polycystic ovary syndrome cannot be entirely explained by a single causative etiology. The ovarian theca cell produces male hormones in response to luteinizing hormone excitation (Figure 2). Cytochrome P-450c17, an enzyme having the 17-hydroxylase and 17,20-lyase activity necessary to produce androstenedione, mediates androgen production. The androgenic steroid is then transformed to testosterone through 17-hydroxysteroid dehydrogenase (17-HSD) or to estrone through aromatase (cytochrome P-450arom). Studies both in vivo and in vitro (in cultured theca cells) continue to indicate that interstitial cells in the ovary of affected women seem to be more effective than normal theca cells at transferring androgenic precursors to testosterone. [9] Follicle-stimulating hormone controls the aromatase function of granulosa cells, which determines that however much estrogen is made from androgenic antecedents, although luteinizing hormone controls the androgenic synthesis of theca cells. The ovaries predominantly produce androgen when luteinizing hormone concentration is increased relative to follicle-stimulating hormone concentration. The relationship between the amount of luteinizing hormone and follicle-stimulating hormone generated within the gonadotrope is determined, in part, by the periodicity of the activation of hypothalamic gonadotropin-releasing hormone (GnRH) (Figure 2). Increased cardiac output intensity of the hypothalamic GnRH favors expression of the β -subunit of luteinizing hormone over the α -subunit of follicle-stimulating hormone; in contrast, reduced pulse frequency of the GnRH prefers transcription of the α -subunit of follicle-stimulating hormone, which lowers the ratio of

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luteinizing hormone to follicle-stimulating hormone. [12] Women with polycystic ovary It is unclear whether any of the comparatively low amounts of progesterone brought on by rare ovulation induction events or an underlying defect in the GnRH pulse producer is to blame for this increased pulse amplitude. Low circulating progestin concentrations in women with polycystic ovary syndrome may cause an amplification in the pulsatility of GnRH, 19 higher levels of luteinizing hormone, and overproduction of ovarian androgen because progestins delay the GnRH pulse generator. Insulin contributes to the pathophysiology of hyperandrogenemia in polycystic ovarian syndrome in both direct and indirect ways (Figure 2). Luteinizing hormone and insulin work together synergistically to increase theca cells' synthesis of androgen. Additionally, insulin reduces the production of the primary circulated protein that binds to testosterone, sex hormone-binding globulin, in the liver. As a result, levels and improves the amount of testosterone that flows in the unattached, biologically accessible, or free, state. [13]

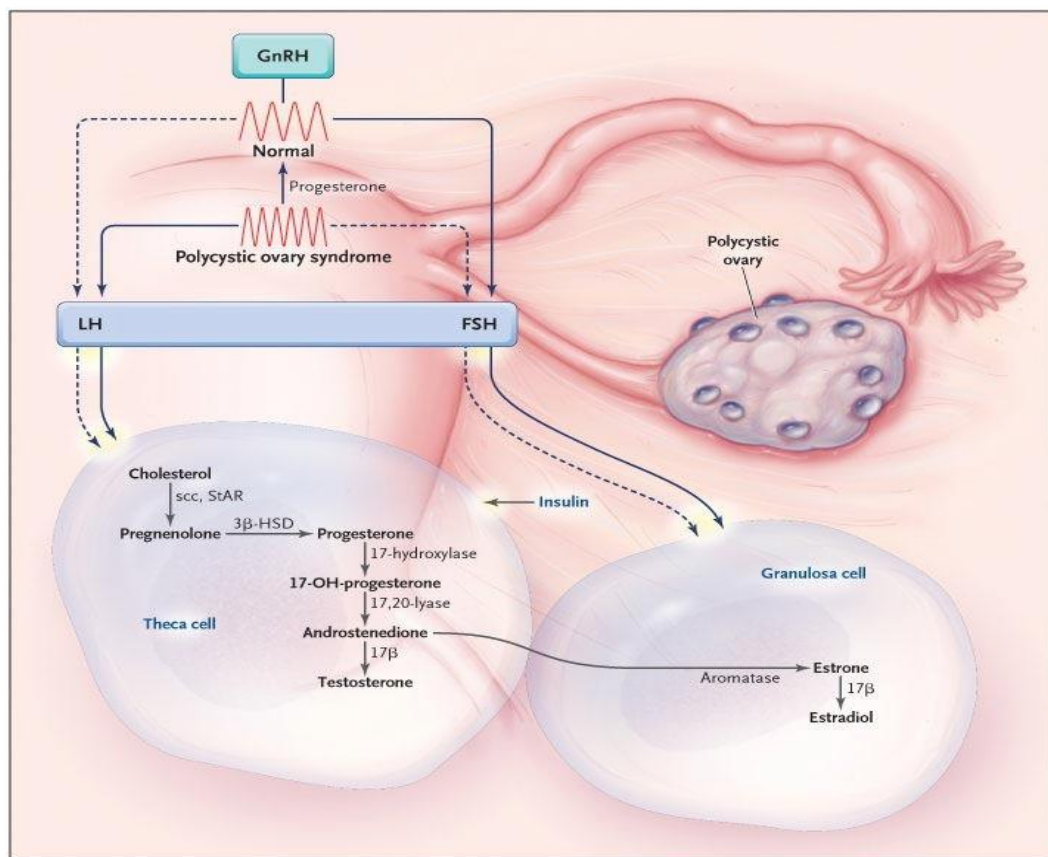


Figure 2: Pathogenesis of PCOS [15]

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1.3 Diagnosis and Differential Diagnosis

Typically, a variety of clinical, ultrasonographic, and biochemical variables are used to make the identification of polycystic ovarian syndrome. If a woman with oligomenorrhea has one or most of the following three characteristics—polycystic ovaries on ultrasonography, hirsutism, and hyperandrogenemia—she is probably to have the polycystic ovary syndrome. Despite normal serum concentrations of luteinizing hormone do not necessarily exclude out the diagnosis, several women with the condition experience luteinizing hormone hypersecretion. Regardless of how the expression "polycystic ovary syndrome" has been used, the assessment of polycystic ovary syndrome in a woman displaying with hirsutism and frequent cycles is much more debatable. However, the discovery of polycystic ovaries on ultrasonography in connection with reasonable hyperandrogenemia (i.e., serum testosterone concentrations of 85 to 150 ng per deciliter [3 to 5 nmol per liter]) Patients with monthly irregularities and hirsutism whose principal diagnoses are pituitary or adrenal illnesses, such as hyperprolactinemia, acromegaly, and classic or nonclassic congenital adrenal hyperplasia, are included in the diagnostic process of polycystic ovary syndrome. Several distinct clinical and biochemical features can help diagnose these "polycystic-ovary-like" disorders. The therapeutic setting and the outcomes of the initial assessment tests should be used to decide whether further biochemical or radiologic examinations are necessary. [16] By measuring the 17-hydroxyprogesterone response to corticotropin, the polycystic ovary syndrome can be distinguished from late-onset (nonclassic) congenital adrenal hyperplasia caused by a 21-hydroxylase deficiency. However, it is debatable whether such a test must be regularly carried out in populations where congenital adrenal hyperplasia is uncommon or in women whose serum testosterone concentration level are less than 150 ng per deciliter. [17] Tumors of the ovary or adrenal gland that secrete androgen are included in the evaluation of patients of hirsutism. While uncommon, it's crucial to take patients with a recent history of hirsutism, those with significant hirsutism, and those whose serum testosterone concentrations are more than 200 ng per deciliter into consideration when making a diagnosis (7 nmol per liter). A valuable clinical marker is the occurrence of acanthosis nigricans in a patient with significant

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virilization because this implies polycystic ovarian syndrome and is not a characteristic of tumors that secrete testosterone. [18]

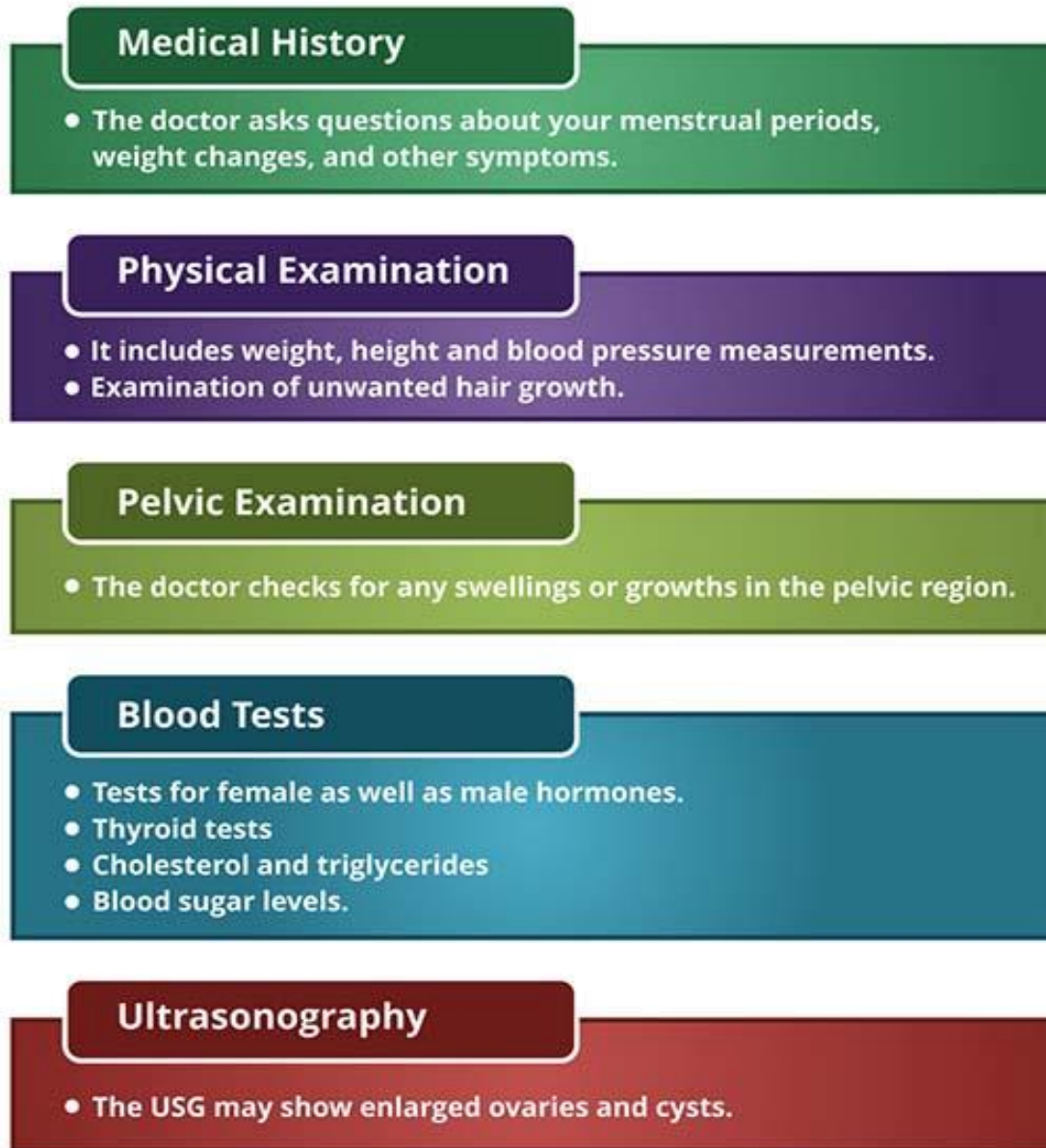


Figure 3: Diagnosis and Differential Diagnosis for PCOS [19]

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1.4 Etiology

As an oligogenic condition, PCOS is characterized by a diverse, clinical, and biochemical phenotype that is determined by the combination of numerous genetic and external variables. A family history of PCOS is rather frequent, but it is unclear if this is related to the condition's genetic origin. [20] A formal segmentation study cannot be performed since there is insufficient phenotypic data. But according to the most recent research, PCOS tends to cluster in families in a manner similar to an autosomal dominant pattern. Poor food habits and inactivity can increase environmental factors linked to PCOS (such as obesity), and pollutants and infectious diseases may also have an impact. With dietary changes including weight loss and fitness, the reproductive and metabolic symptoms of PCOS can occasionally be reversed. [21]

1.5 Treatments

- **Nonpharmacological Approaches**

The indications of PCOS are treated since the underlying cause is unclear. There aren't many treatments that address every part of the illness, and the woman can decide against getting therapy while having symptoms because she wants to become pregnant. 16 Correcting anovulation, preventing androgens from acting on specific tissues, and lowering insulin resistance should all be intervention objectives. For PCOS individuals who are obese, losing weight has several advantages. Reduced insulin, testosterone, and luteinizing hormone (LH) levels are benefits of weight loss. Additionally, it aids in regulating ovulation, increasing the likelihood of getting pregnant. Several incisions are made on the ovarian surface and stroma during laparoscopic ovarian drilling, an outpatient surgical procedure. This treatment is believed to damage androgen-producing tissue, which should result in lower levels of androgen. Despite raising the likelihood of fertility problems, it has been demonstrated to be just as successful as medical procedures. [22]

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- **Pharmacological Approaches**
- **Anovulation**

Clomiphene

Clomiphene citrate (Clomid, Sanofi) is the medication of preference for causing ovulation in PCOS, while its exact manner of action is uncertain. First, a dose of 50 mg/day for five days is administered. If ovulation takes place but there is no pregnancy, 50 mg/day for 5 days is kept up for the following cycles. Furthermore, the dosage could be increased to 100 mg daily for 5 days if ovulation does not happen after the first cycle, at least 30 days after the prior round of therapy. After three sessions of therapy, additional treatment is typically not advised; sometimes, up to six cycles may be tried before additional therapy is explored. [23]

- **Antidiabetic medications**

Clomiphene may be combined with other drugs to increase the likelihood of ovulation. Anti-diabetic medications can increase fertility, lessen insulin resistance, and lower levels of testosterone in the blood. For the treatment of PCOS, metformin (Glucophage, Bristol-Myers Squibb) has more evidence collected than thiazolidinediones. In a research with 320 women, the effectiveness of metformin in treating infertility associated with PCOS was contrasted with placebo. 20 An suitable infertility medication could be added to either group's protocol following three months of treatment if there had been no subsequent pregnancies. [24]

Gonadotropins

If clomiphene and/or metformin medication are unsuccessful, human menopausal gonadotropin (HMG) and FSH can also be used to stimulate ovulation. In a research including 302 women, 132 were given low-dose FSH (50 units subcutaneously) on cycle day 4 with weekly increments of 25 units, while 123 patients were given clomiphene (50 mg) for 5 days beginning on day 4 with the dose being titrated up to 150 mg/day. 25 There were more live births with FSH (52% vs. 39%, respectively; $P = 0.04$) and greater pregnancy rates with FSH compared to clomiphene (58% vs. 44%, which is between). While gonadotropins may be more efficient than clomiphene for triggering ovulation,

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clomiphene's comparable affordability and ease of administration made it the preferred first-line medication for PCOS fertility. [25]

- **Anti-aromatase drugs**

The aromatase antagonist letrozole (Femara, Novartis) is approved for use in women with hormone-responsive breast cancer, but it has also been investigated for use in PCOS to induce ovulation. Letrozole and anastrozole were compared for its effectiveness in inducing ovulation; the difference in pregnancy rates was not deemed statistically relevant. Anastrozole (Arimidex, AstraZeneca) was shown to be more effective than letrozole. A 5-day protocol of varied anastrozole dosages was compared with clomiphene 50 mg/day in a phase 2 dose-finding study. Contrary to all three dosages of anastrozole, clomiphene led to increased ovulation rates. Due to the danger of congenital defects connected with this class of drugs, aromatase blockers may be explored for patients with clomiphene resistance or for women who are not eligible for clomiphene or gonadotropins. [26]

- **Antiandrogens**

Antiandrogens include spiro lactone (Aldactone, Pfizer), flutamide (Eulexin, Schering/Merck), and finasteride (Propecia, Merck) reduce androgen levels in PCOS, which lessens the symptoms of hirsutism and acne. These antiandrogens might also lower lipid levels, which are sometimes high in PCOS patients. 40 hirsute women were treated with spironolactone 100 mg, flutamide 250 mg, and finasteride 5 mg daily for six months. Despite the absence of discernible differences among the groups, all three medications were determined to be effective. The most widely used antiandrogen is spiro lactone, which can be taken in doses ranging from 25 to 100 mg twice daily due to its safety, availability, and affordability. [27]

- **Oral birth control**

If a woman has PCOS but doesn't want to get pregnant, she may want to think about oral contraception (OCs). OCs primarily control menstrual cycles as its mode of action in the treatment of PCOS. Acne, androgen, and hirsutism are also decreased by these medications. The main OCs used this to treat the hirsutism and acne linked to PCOS are estrogen and progestin combos. Despite the lack of little information, several newer OCs,

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

such Bayer's drospirenone (Yaz) and dienogest, include anti-androgenic progestins (e.g., Natazia). Apparently, as compared to previous formulations, these medications are more successful at managing androgenic indications. [28]

- **Other Therapies**

Acetate of medroxyprogesterone Medroxyprogesterone acetate (MPA) can be utilized to relieve amenorrhea or irregular menstrual bleeding in PCOS patients who do not want to get pregnant and are not at risk for conception. The recommended dosage range for MPA is 5 to 10 mg/day for 10 to 14 days each month. Although it does not stop ovarian androgen production, monthly progestin medication prevents aberrant endometrial growth. In PCOS individuals, MPA may potentially enhance lipid profiles and insulin sensitivity. 34–36\§Statins. Because of their capacity to lower testosterone levels, low-density lipoprotein cholesterol (LDL-C), triglycerides, and total cholesterol, statins are thought to have a position in the management of PCOS. [29]

Chapter two

Purpose of the study

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

2.1 Purpose of the study

- The goals of this project are to get a thorough understanding of the medical problem being researched.
- To determine which factors, contribute to the progression of Polycystic ovarian syndrome (PCOS)
- To have a better grasp of the many diagnostic dealings used to diagnose this ailment.
- To gain a thorough understanding of the disease, including its cause, signs and symptoms, consequences, and medical and nursing treatment choices.
- My knowledge and experience can aid friends, juniors, and seniors.
- The purpose of this investigation was to understand more about the situation of (PCOS) in Bangladesh.

Chapter three

Methodology

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

3.1 Methodology

- **Introduction:**

Online learning is used to direct the assessment. 15 questions were asked in the poll, which had a total of 207 participants. The replies were created by several undergraduate and graduate students from public and private universities in Bangladesh.

- **Research Design:**

This exploration was planned using a Google context that had 15 questions. The first five questions were set up to acquire about the members' names, ages, and sexual alignment.

- **Study Population:**

The exam is given in a relaxed environment. Facebook has a significant impact on how many people participate in this assessment and how it turns out. There are 207 participants in all, most of whom are understudies. Men make up 10.7% of the population, while women make up 89.3% of it.

- **Data Collection Procedure:**

Members of Google Infrastructure were able to interact with Google Framework via web-based media including Facebook, WhatsApp, and Messenger, and Google Infrastructure obtained the data for this study. The ideal institution for obtaining member feedback is Facebook, though.

- **Research Instrument**

A collection of well-organized polls was developed and placed in a Google structure.

- **Method of Data Analysis**

All surveys were checked after the data was collected for accuracy and internal reliability to rule out any missing or contradictory information, and those were removed. The investigation was conducted using Microsoft's most popular updated version.

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

- Survey form

Survey on polycystic ovarian syndrome

Please help me by completing the google form for my B.Pharm project. It will take only 1-2 minutes. Thank you for your valuable time.

আপনার উন্নতি সেভ করার জন্য Google-এ সাইন-ইন করুন। আরও জানুন

**প্রয়োজনীয়*

How old are you?

18-22

22-26

26-30

Above 30

Have you ever heard the term PCOS (Polycystic ovarian syndrome)?

Yes

No

Did you suffer from pcos? *

Yes

No

Did any of your family members ever suffered from PCOS?

Yes

No

What are the causes of PCOS?

Obesity

Higher level of male hormone

Higher level of female hormone

Others

What are the symptoms of PCOS?

Obesity

Irregular periods

Facial hair

Infertility

Others

Do you take any medicine for PCOS?

No

Yes

What do you think what is the recommended treatment for PCOS patients?

Weight reduction

Diet

Medicine

Therapy

I Don't know

Do you think PCOS causes further disease? *

Yes

No

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

What is your gender?

Male

Female

What is your occupation?

Student

Teacher

Other

Where do you live in?

Urban area

Rural area

If yes what are they?

Clomiphene citrate

Metformin

Contraceptive pills

Others

Do you know what are the investigation for PCOS?

Ultrasonogram

Hormone level check

Laparoscopy

Others

Do you think PCOS causes further disease? *

Yes

No

If yes what are they?

Diabetes

Ovarian cancer

Hypertension

Cardiovascular disease

Chapter four

Literature Review

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

4.1 Polycystic Ovary Syndrome (PCOS): Arguably the Most Common Endocrinopathy Is Associated with Significant Morbidity in Women

The management, detection, assessment, and treatment of ailments specific to women are all aspects of women's health. The most common endocrinopathy in women of reproductive age is undoubtedly polycystic ovarian syndrome (PCOS), which is exceedingly common. Primary care physicians frequently are not aware of the severe morbidity associated with the syndrome, both in terms of reproductive and nonreproductive events. A woman's quality of life throughout her reproductive years may be greatly impacted by the condition, which also raises her risk of morbidity and mortality by the menopause. By the time they reached menopause, a cohort of PCOS-afflicted women who had had wedge ablation (1) and had been monitored for very many years had produced numerous significant discoveries. They suffered a longer menopause, a greater risk of hysterectomy, and overall PCOS symptoms lingered over this period. The rates of diabetes (16%) and hypertension (40%) were very high.

4.2 Polycystic ovary syndrome (PCOS), an inflammatory, systemic, lifestyle endocrinopathy

Females of reproductive age are affected by the endocrine condition polycystic ovary syndrome. Infertility, insulin resistance, obesity, and cardiovascular disorders are just a few of the health concerns brought on by this disorder. PCOS is a polygenic, multifactorial, autoimmune, inflammatory, and dysregulated steroid state condition that primarily manifests as a result of poor lifestyle choices. PCOS in the affected females can now be identified thanks to the development of biochemical tests and ultrasound imaging. Therefore, a great deal of knowledge about PCOS has been gained recently. To avoid or treat the adverse effects of PCOS, interventions such as oral contraceptives, metformin, and hormone therapy have been developed. The most effective treatment for PCOS, it seems, is altering one's lifestyle to stop abnormal autoimmune response and reduce the exposure to inflammatory substances.

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

4.3 Polycystic ovary syndrome

Around the world, 5-20% of women of reproductive age suffer with polycystic ovarian syndrome (PCOS). Hyperandrogenism, ovulatory disruption, and polycystic ovarian morphology (PCOM) are the main characteristics of the disorder. Excessive androgen production by the ovaries is a significant characteristic of PCOS. In the greater part of people who were affected, metabolic dysregulation shown as insulin resistance and compensatory hyperinsulinemia is present. Endometrial cancer, venous thromboembolism, cerebrovascular and cardiovascular events, type 2 diabetes mellitus, gestational diabetes, and other pregnancy-related problems are all made more likely by PCOS. Based primarily on the presence of hyperandrogenism, ovulatory disruption, and PCOM, PCOS is a diagnosis of exclusion. Therapies should be individualized based on the patient's objections and requires, and it should focus pathological changes through lifestyle and dietary modifications, meds, and possibly surgery, as well as androgen inhibition and/or blockade, endometrial safeguards, breeding therapy, and the identification and treatment of psychological aspects. The present level of understanding regarding the epidemiology, mechanisms, and pathophysiology, as well as the diagnosis, screening, and prevention, therapy, and possible trends of the disorder's inquiry are summarized in this overview.

Chapter five

Results & Discussion

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

5.1 Age

a) Results

How old are you?

215 responses

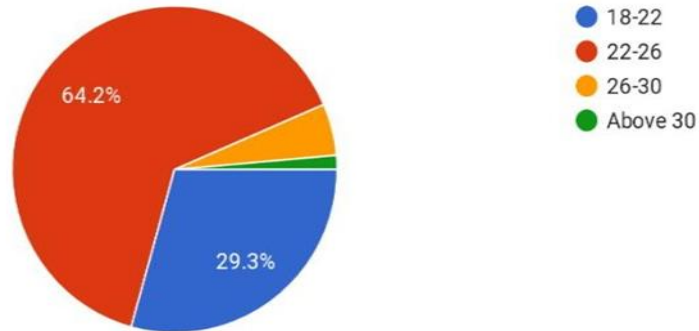


Figure 4: Age

b) Discussion

64.2% of people are 22-26 years old and 29.3% people are 18-22 years old in this survey.

5.2 Gender

a) Results

What is your gender?

214 responses

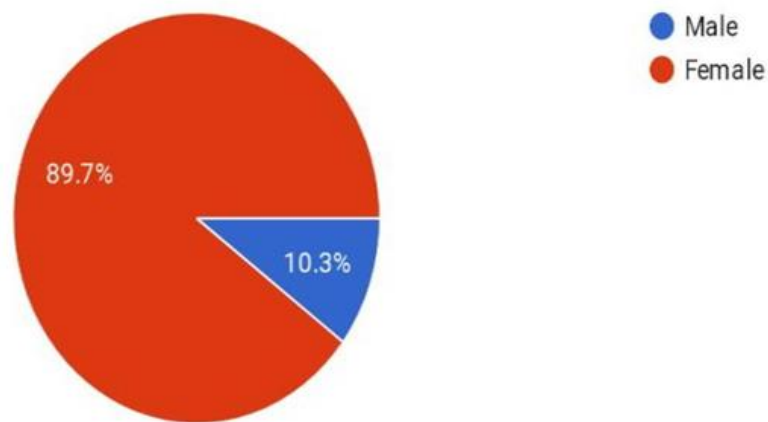


Figure 5: Gender

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

b) Discussion

A whole of 207 individuals accomplished the online survey. There were 207 people who responded to the question about their salutation, with 89.7 percent of them being female and 10.3 percent being male.

5.3 Occupation

a) Results

What is your occupation?

215 responses

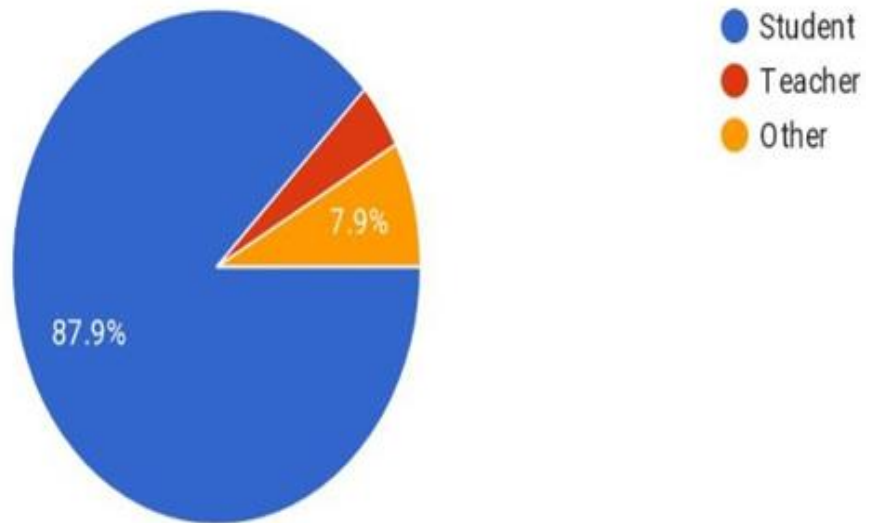


Figure 6: Occupation

b) Discussion

In this investigation most of the people are student 87.9%.

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

5.4 Location

a) Results

Where do you live in?

213 responses

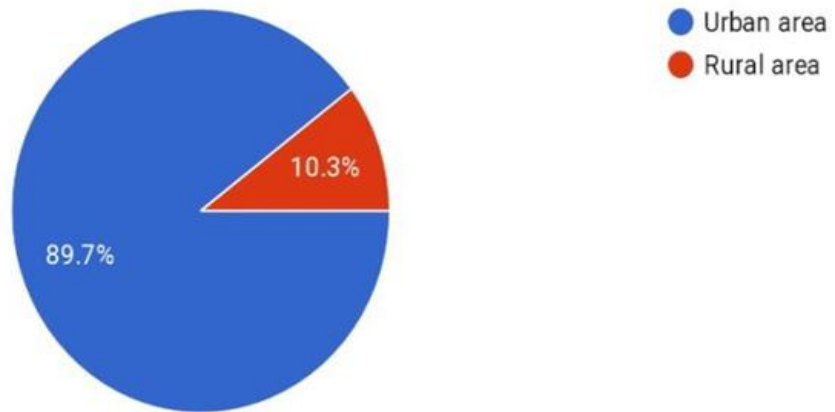


Figure 7: Location

b) Discussion

The majority of respondents (89.7%) lived in urban areas, followed by rural areas (10.3%).

5.5 Heard of PCOS

a) Results

Have you ever heard the term PCOS (Polycystic ovarian syndrome)?

215 responses

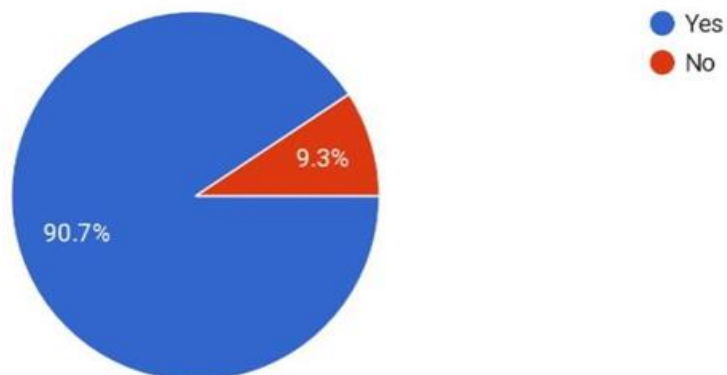


Figure 8: Heard of PCOS

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b) Discussion

The popular (90.7%) responder are people are acknowledged about PCOS and 9.3% responder did not know about it.

5.6 Suffered from PCOS

a) Results

Did you suffer from pcos?

215 responses

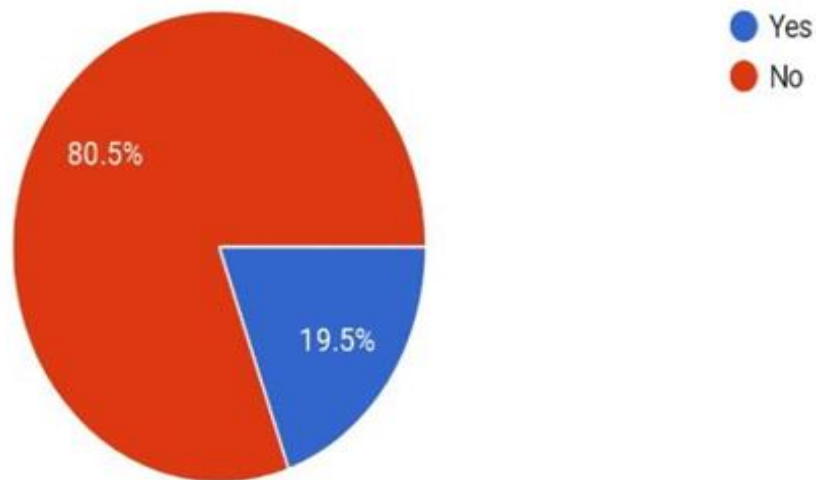


Figure 9: Suffered from PCOS

b) Discussion

Polycystic ovarian syndrome PCOS is a common term. Only few people had polycystic ovarian syndrome 19.5%.

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5.7 Infected with PCOS in family member

a) Results

Did any of your family members ever suffered from PCOS?

214 responses

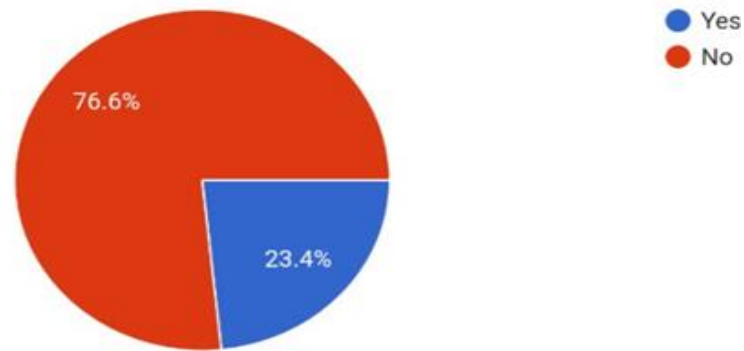


Figure 10: Infected with PCOS in family member

b) Discussion

76.6% responder's family members are not suffering from PCOS but 23.4 % responder's family members are suffering from PCOS

5.8 Causes of PCOS

a) Results

What are the causes of PCOS?

210 responses

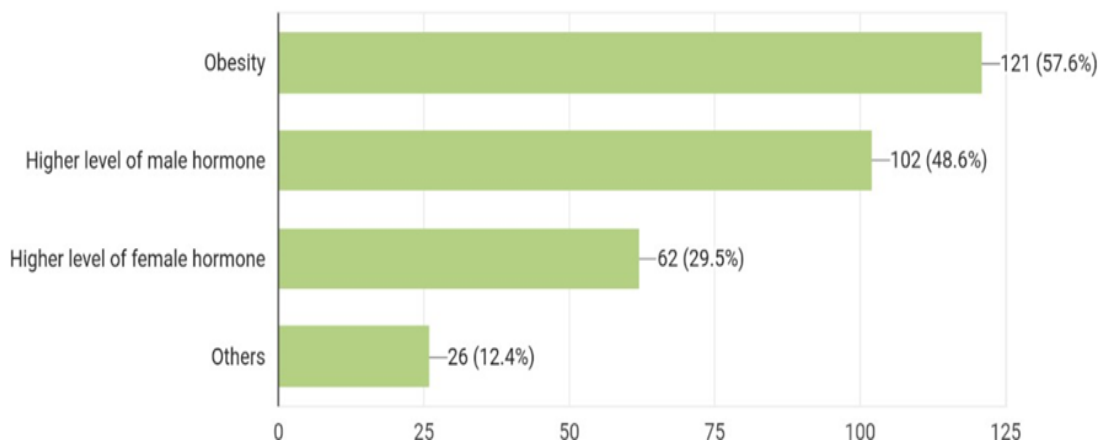


Figure 11: Causes of PCOS

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b) Discussion

121 participants think that obesity is the cause of PCOS but 102 participants think that higher level of male hormone are the causes of PCOS.

5.9 Symptoms of PCOS

a) Results

What are the symptoms of PCOS?

211 responses

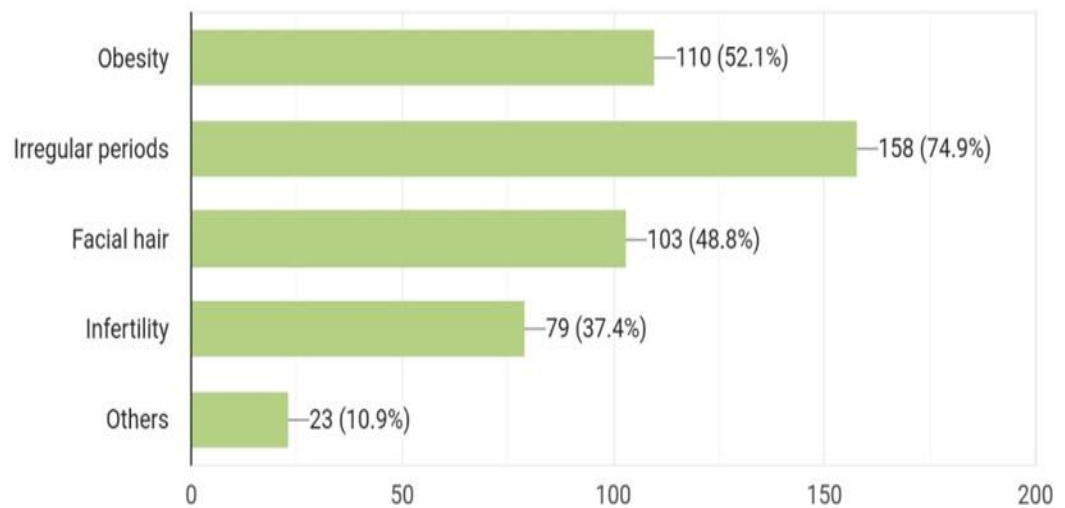


Figure 12: Symptoms of PCOS

b) Discussion

74.9% of participants are think that irregular period are the symptoms of PCOS. Half of the participants think that obesity is the symptoms and 37.4% participants are think that infertility is the symptoms of PCOS.

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5.10 Taken medicine

a) Results

Do you take any medicine for PCOS?

212 responses

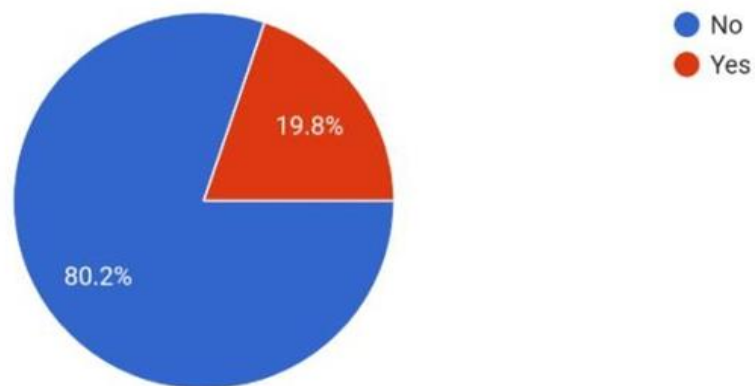


Figure 13: Taken medicine

b) Discussion

80.2% contributors are not take medicine for PCOS but 19.8% contributors are take medicine for PCOS.

5.11 Initially taken medicine

a) Results

If yes what are they?

156 responses

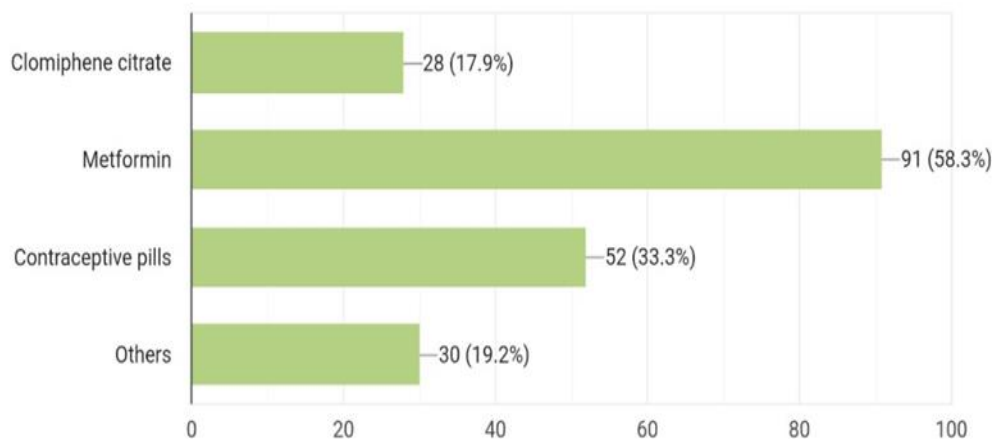


Figure 14: Initially taken medicine

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

b) Discussion

According to this assessment 58.3% of participants are take Metformin for PCOS. 33.3% of participants are take contraceptive pill for PCOS. 17.9% of participants are take clomiphene citrate for PCOS.

5.12 Investigation for PCOS

a) Results

Do you know what are the investigation for PCOS?

212 responses

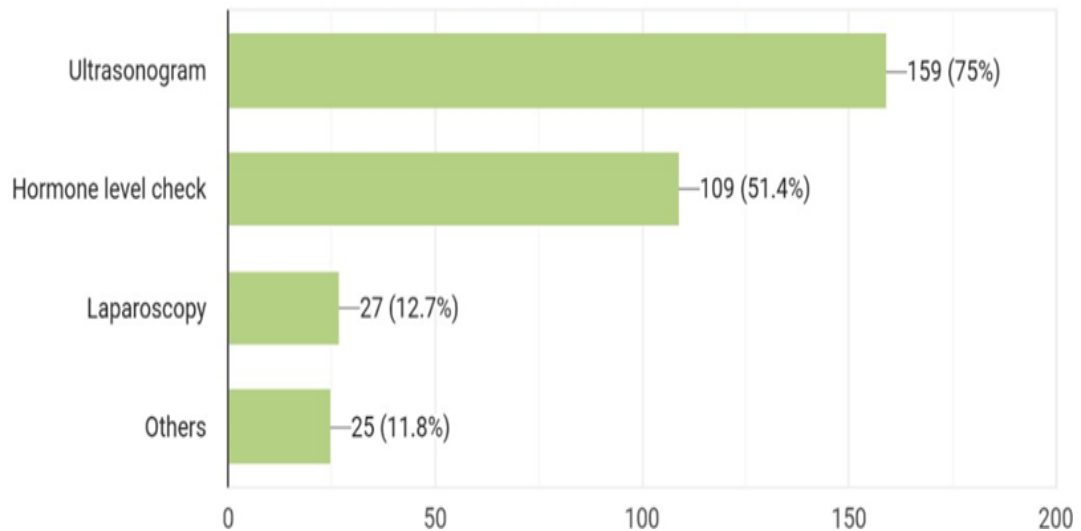


Figure 15: Investigation for PCOS

b) Discussion

The vast majority of participants (75%) are aware that PCOS is investigated employing ultrasonography. 51.4% of participants are aware that the investigation of PCOS involves hormone levels, and 12.7% are aware that the exploration of PCOS involves laparoscopy.

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5.13 Recommended treatments for PCOS

a) Results

What do you think what is the recommended treatment for PCOS patients?

212 responses

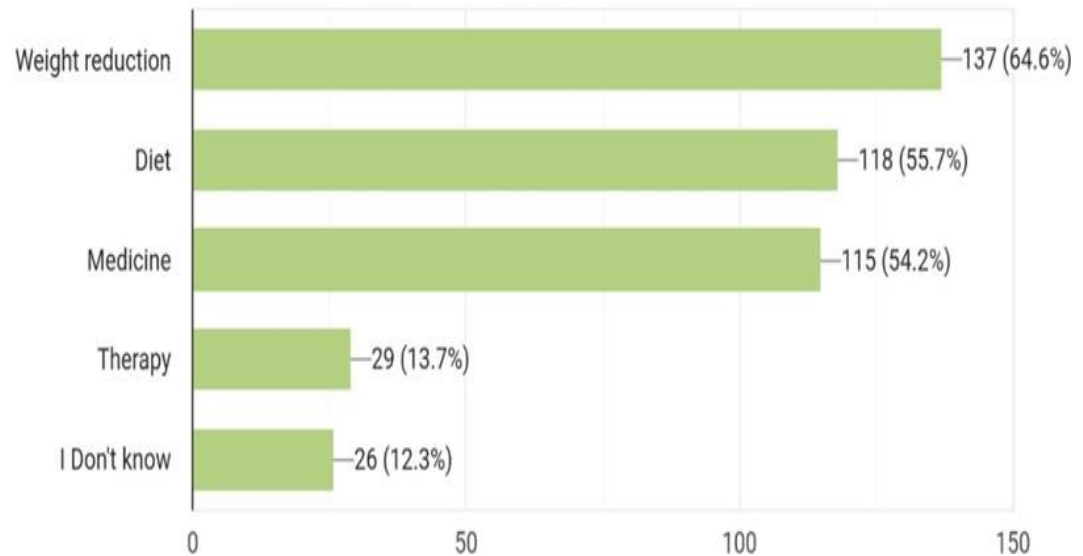


Figure 16: Recommended treatments for PCOS

b) Discussion

The majority of participants—64.6%—believe that losing weight is the effective therapy for PCOS, while 55.7% believe that diet is the best course of action and 54.2% believe that medication is the best course of action. 12.3% of the individuals are unaware of it.

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5.14 Thinking of PCOS that causes further disease

a) Results

Do you think PCOS causes further disease?

215 responses

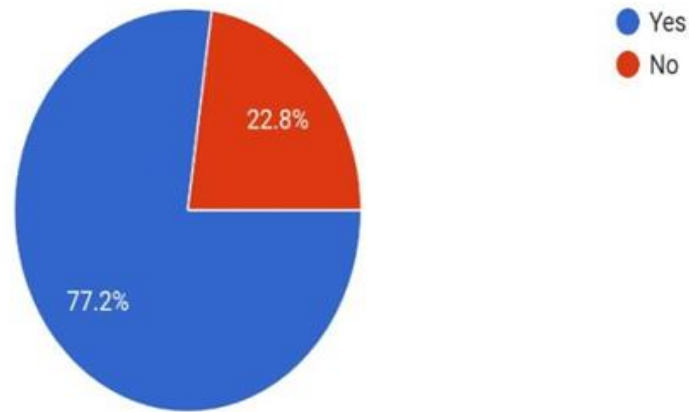


Figure 17: Thinking of PCOS that causes further disease

b) Discussion

Majority (77.2%) of participants think PCOS causes further disease. 22.8% of participants think PCOS cannot causes further disease.

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5.15 If yes what are they?

a) Results

If yes what are they?

199 responses

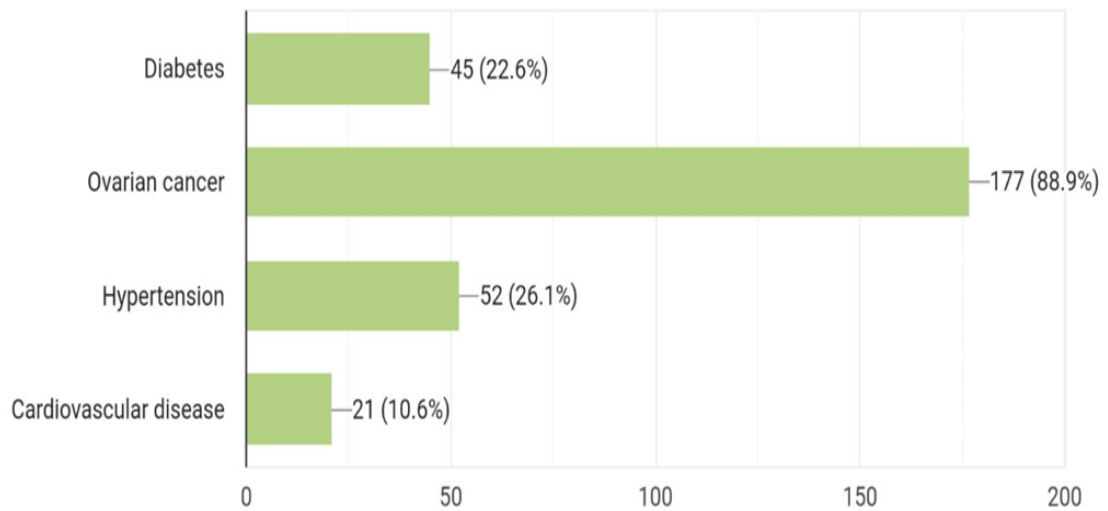


Figure 18: If yes what are they?

b) Discussion

The majority of respondents (88.9%) believe that PCOS also causes ovarian cancer. 26.1% of participants believe that hypertension is a complication of PCOS. Of the participants, 22.6% believe that PCOs will eventually develop diabetes. 10.6% of respondents believe that cardiovascular illness is a complication of PCOS.

Chapter six

Conclusion

Survey on Polycystic ovarian syndrome (PCOS) in Bangladesh

6.1 Conclusion

A prevalent female syndrome called PCOS is linked to considerable reproductive and no reproductive morbidity. Women's health care is focused on both how they view it and preventative drugs. The popular (90.7%)responder are people are acknowledged about PCOS and 9.3% responder did not know about it. Polycystic ovarian syndrome PCOS is a common term. Only few people had polycystic ovarian syndrome 19.5%. 76.6% responder's family members are not suffering from PCOS but 23.4 % responder's family members are suffering from PCOS 121 participants think that obesity is the cause of PCOS but 102 participants think that higher level of male hormone are the causes of PCOS. According to this assessment 58.3% of participants are take Metformin for PCOS. The foundation of care for women with PCOS should have been screening for hypertension, abnormal lipid profiles, insulin resistance, and reproductive diseases like cancer. Lastly, my research has shown that PCOS is bad for women. Diet, exercise, and the use of an oral contraceptive can all help prevent PCOS. I want to interact with PCOS a lot.

Chapter seven

Reference

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