

that with advancing age the effect on the oocyte is in the same manner that how aging affects other body tissues and it has been identified as one of the main causes for impairment of fertility with increasing age.

### **Conclusion**

As mentioned in the above graph and tables the women who are aged above 35 years are affected more by infertility in Sri Lanka. Early diagnosis and appropriate treatment will prevent the increasing of infertility rate among women. Treatment depends on the cause of infertility, but may include counselling, fertility treatments, which include in vitro fertilization [5]. Proper sex education and awareness in the country will help to overcome the current situation on infertility in near future.

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## **PREVALENCE OF POLYCYSTIC OVARIAN SYNDROME IN YOUNG ADULTS IN SRI LANKA**

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### **Introduction**

Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders in women. It affects a woman's hormone level, higher than the normal level of male hormones. This hormone imbalance causes the body to skip menstrual periods and make it harder to get pregnancy.

PCOS is characterized by hyperandrogenism (which primarily manifests as hirsutism, acne, and, occasionally, virilization), oligoovulation, anovulation, and/or the presence of polycystic ovaries.

Onset of symptoms typically occurs during adolescence. They are menstrual irregularities; primary and secondary amenorrhea, oligomenorrhea, menorrhagia, infertility or difficulty in conceiving insulin resistance and associated conditions; obesity, risk of sleep apnea, non-alcoholic fatty liver diseases. Skin conditions; hirsutism, androgenic alopecia, acne vulgaris, oily skin. associated psychiatric conditions are depression, anxiety disorders [1].

The diagnosis was made by evaluating ovulatory dysfunction and clinical signs of hyperandrogenism, with complete history and physical examinations laboratory tests are performed to confirm biochemical hyperandrogenism and exclude other conditions with a potentially similar clinical picture (e.g., congenital adrenal hyperplasia). Pelvic ultrasound diagnostic may be performed to identify cystic follicles and assess ovarian volume [1, 2, 3].

Management can be lifestyle modifications or specific treatments, according to the reproductive goals of the patient. In women who do not wish to conceive, com-

bined oral contraceptive pills are indicated to regulate menses and treat hyperandrogenism. For women who wish to conceive, treatments are carried out to induce ovulation (e.g. letrozole).

Women with PCOS are most likely to develop metabolic syndrome, which is associated with obesity, insulin resistance, hypercholesterolemia, and an increased risk of endometrial cancer. Therefore, all patients should be screened for comorbidities and receive specific treatments [1, 2].

### **Aim**

The aim of this study is to identify the factors of prevalence of PCOS in medical university students and educate them to manage it.

### **Materials and Methods**

In order to achieve the research goals, we have to identify the key elements of this research area. We decided to collect data from randomly selected 25 university students in the age of 20–25 years. We provided them with a questionnaire which included a checklist that evaluated menstrual history, cutaneous manifestations of PCOS (hirsutism, acne, acanthosis nigricans, temporal balding or androgenic alopecia), and excess weight gain.

A confirmed case of PCOS was defined according to the Rotterdam diagnostic criteria as having two of the following: oligo/amenorrhea, clinical and/or biochemical hyperandrogenism, and polycystic ovaries. Oligo/amenorrhoea was the absence of menstruation for 35 days or more. Clinical hyperandrogenism was defined as a Ferriman and Gallwey (FG) score of 8 or higher, with or without acne and/or androgenic alopecia. Biochemical hyperandrogenism was considered present with a serum testosterone level 2 standard deviations above the mean of normal women of reproductive age in the absence of other causes of hyperandrogenism. Polycystic ovaries on ultrasound scanning was defined as an ovarian volume greater than 10 cm<sup>3</sup> and/or 12 or more 2 to 9 mm follicles in a single plane when ultrasonography was performed within 5 days of the beginning of menstruation. To identify the hirsutism Ferriman and Gallwey score is used; a score of 1–4 is given for nine areas of the body. If the total is less than 8, it's considered as normal. If the score is 8–15 it's mild and more than 15, it's moderate/severe.

From the results we got through the questionnaire we made an analysis and graphs about the prevalence of PCOS using Excel sheets.

### **The results of the research and their discussion**

The results of this study are presented according to the main categories of questions starting from demographic analysis menstruation cycle analysis within each sub-sections of this main result section.

Overall 25 students completed the questionnaire and provided written consent to participate in the study. Table 1 describes the characteristics of the study sample.

Table 1 — Characteristics of weight, skin and menstruation in medical students

Indicators	Number	Percentage
BMI:		
Underweight	2	8 %
Normal	11	44 %
pre-obesed	7	28 %
Obese	5	20 %
Skin manifestation:		
Acne	10	40 %
Hirsutism	4	16 %
None	11	44 %
Menstruation Cycle:		
Regular	15	60 %
Irregular	10	40 %

Majority of the students have overweight (48 %), with 28 % students are in the pre-obesity stage and 20 % are obese. Skin manifestation like acne and hirsutism are absent in many cases, but 16 % of students have hirsutism and 40 % have acne problems. Accordingly, majority of students (60 %) have regular menstrual cycle, but also 40 % of students have irregular menstruation.

Table 2 shows the duration of the menstrual cycle and number of bleeding days and amount of bleeding of students who have irregular menstruation: among them 16 % have been already diagnosed for PCOS and others are not. Students have been diagnosed for PCOS by doctors earlier, some had come with symptoms like oligomenorrhea and some had hyperandrogenism. Doctors have prescribed them to follow special diets or to take contraceptive pills which helps to control menstrual cycle and lower androgen levels.

Table 2 — Menstrual function in interviewed students

<b>Students with irregular menstruation</b>					
Duration of menstrual cycle		No of bleeding days		Amount of bleeding	
>35 days	80 %	<7 days	60 %	30–40ml	60 %
No menstruation for last 3 consecutive months in last 12 months	10 %	7days — 1 month	20 %	40–80ml	30 %
< 9 cycles per year	10 %	>1 month	20 %	>80ml	10 %

### **Conclusion**

Results of the research shows that 16 % have been diagnosed with PCOS, but 84 % are not. But 40 % students, even without a previously PCOS, had a menstrual cycle disorder (oligomenorrhea). And 56 % had a BMI different from normal, 20 % are obese, which could be one of the causes of menstrual dysfunction. Among the people who have still not been diagnosed for PCOS 24 % are having irregular menstrual cycle and some skin manifestations or sexual hormonal imbalance. Those are at risk of having PCOS, so need to direct them to do hormonal tests or ultrasound scans of the ovaries to confirm the diagnosis and provide students with increased BMI with recommendations for lifestyle changes.

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## **AN OVERVIEW OF FAMILY PLANNING IN SRI LANKA AS A DEVELOPING COUNTRY: SATISFACTORY OR NOT?**

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### **Introduction**

Access to safe, voluntary family planning is a human right. Family planning is central to gender equality and women's empowerment, and it is a key factor in re-