



Knowledge and Attitudes of Non-Medical Faculty Students Batch 2020 about Polycystic Ovarian Syndrom (PCOS) at Tarumanagara University

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<p>Track Record Article</p> <p>Accepted: 19 February 2023 Revised: 17 March 2023 Published: 27 March 2023</p> <p>How to cite: Fortuna, Edelin, M., & Herdiman, J. (2023). Knowledge and Attitudes of Non-Medical Faculty Students Batch 2020 about Polycystic Ovarian Syndrom (PCOS) at Tarumanagara University. <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i>, 5(1), 79–86.</p>	<p style="text-align: center;">Abstract</p> <p><i>Polycystic Ovarian Syndrome (PCOS) is one of the most common hormonal disorders in women of childbearing age (WUS). Signs and symptoms experienced by PCOS patients are obesity, menstrual cycle ≤ 21 days or ≤ 35 days, hirsutism, excessive acne, acanthosis nigricans, skin tags, and alopecia. This study aims to determine the knowledge and attitudes in the Faculty of Non-medical students at Tarumanagara University related to PCOS. This research is a qualitative research with descriptive research design conducted at Tarumanagara University. Samples were taken between January and May 2022 among Non-medical Faculty Students batch 2020. Questionnaires were filled out and analyzed using a computer device. The knowledge levels of Non-medical Students at Tarumanagara University are categorized as "Good" 47%, "Sufficient" 42 %, and "Bad" 11%. The categories of attitudes obtained 95% as "Good" and 5% as "Sufficient". Those suspected of suffering PCOS as many as 17%, while the rest did not seem to suffer PCOS. Level of knowledge and attitude of Non-medical Faculty Students on PCOS is mostly "good" category. Only 17% were suspected of suffering PCOS.</i></p> <p>Keyword: Attitude, Knowledge, PCOS</p>
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INTRODUCTION

Polycystic Ovary Syndrome or Polycystic Ovarian Syndrome (PCOS) is one of the hormonal disorders in childbearing age women (WUS) that is often found (Keevil, 2019; Witchel et al., 2019). Based on data from the Central Bureau of Statistics (BPS) in Indonesia, the prevalence of PCOS suffered by women aged 15-40 years as much as 5,5-16%. (Liu et al., 2018; Muharam et al., 2020; Puttabyatappa & Padmanabhan, 2018; Toosy et al., 2018)

The PCOS patients have excessive androgen hormone disorders and cause irregular period/menstrual cycles. There are 77,8% of women experience menstrual disorders with menstrual cycles ≥ 35 days. (Sahmin, 2017) Besides the androgen hormone disorders, physical examination of the patient can be found obesity, hirsutism, acanthosis nigricans, thinning of the hair, excessive acne, skin tags, few or less menstrual blood, or even does not experience menstruation at all. (Al-Mosawi, 2021; Ding et al., 2017; Haq et al., 2017) An examination can be found anovulation, enlarged ovaries, and sometimes there are many small cysts. (Muharam et al., 2020).

The causes of PCOS disorder among them are abnormalities in the hypothalamus that cause excessive production of androgen hormones (Douglas et al., 2022; Rodriguez-Paris et al., 2019; Thannickal et al., 2020). There is abnormalities in the formation of the hormone testosterone in the ovaries, high insulin levels, thereby increasing hormone production of luteinizing hormone (LH) and causes more androgen hormones to be produced, a genetic factor of the older sister and mother.(American College of Obstetricians and Gynecologists, 2015) From the disorder, the PCOS patients can experience infertility, endometrial cancer, even cardiovascular disease because it is associated with insulin resistance and obesity (Muharam et al., 2020; Shi et al., 2018).

Diagnosis of PCOS can be done using the Rotterdam criteria. A woman is stated to have PCOS disorder if at least 2 of the 3 criteria are found, which include irregular menstruation, seldom, or not at all. Then, the symptoms of hyperandrogenism, which is characterized by hirsutism (hair or excess body hair), excessive acne, or based on the results of laboratory examinations, the last picture of polycystic ovaries on ultrasound examination (Ezzat et al., 2021; Harris et al., 2019; Shandley et al., 2018). Management of PCOS includes regular physical activity, muscle strength training, body flexibility training, as well as a balanced diet with ideal body weight targets. In infertility cases, the patient may also be given metformin, clomiphene citrate, aromatase inhibitors, and or laparoscopic surgery of the ovaries.(Keevil, 2019; Muharam et al., 2020; Núñez Troconis, 2021)

Knowledge is the result of curiosity through sensory processes, especially in the eyes and ears of certain objects. It is an important domain in the formation of open behavior. While attitude is a reaction or response that is still closed from a person to a stimulus or object. The formation of attitudes is inseparable from various religions and influencing factors, among others, personal experience, culture, the influence of others who are considered important, mass media or books, institutions or educational institutions, religious institutions and emotional factors of individuals (Sari et al., 2022).

Since the symptoms are quite common, PCOS is often not realized and is considered an ordinary problem. In fact, PCOS is one of the most ovulatory abnormalities that can cause infertility in couples who are planning a pregnancy. This became the basis of the author's desire to conduct this research. Good knowledge and attitude about PCOS can be the appropriate step to early detect and have a treatment as soon as possible. Early detection and prompt treatment are essential in reducing complications and maintaining fertility in *PCOS* patients who are under 35 years old. So, it can open up opportunities for couples who want to get baby.

Based on the background of the study results, *PCOS* is quite disturbing the women quality of life and is a case that occurs quite a lot. In line with the title above, the author wants to know the description of the level of knowledge and attitudes by Non-Medical Faculty students at Tarumangara University related to *PCOS* disorder

METHODS

This research is descriptive research with quantitative research design (Sugiyono, 2019). The research was conducted on students of the Non-Faculty of Medicine, Tarumanagara University with the research subjects were a Non-Faculty of Medicine female student's batch 2020 at Tarumanagara University during the period of January 2022 to June 2022. Knowledge and attitude level variables were measured using online questioner. The data in this research is primary data. Primary data was obtained directly from the respondents through filling out online questionnaires using the stratified random sampling method. Total respondents obtained 696 respondents of each Non-faculty of Medicine and data were processed using Microsoft Excel with SPSS Statistic 22.0. Data analysis was done descriptively (Yusup, 2018).

RESULTS

This study used 696 samples obtained from 7 Non-Faculty of Medicine, Tarumanagara University class of 2020. The results to be obtained from this study are an overview of the level of knowledge and attitudes of female students of the Non-Faculty of Medicine, Tarumanagara University regarding PCOS.

Table 1 Characteristics of Respondents

Characteristics	Amount (n)	Percentage (%)
Age		
<18 years old	0	0
18-21 years old	624	90
>21 years old	72	10
Origin of Faculty		
Faculty of Arts and Design	109	16
Faculty of Engineering	103	15
Faculty of Communication Sciences	100	14
Faculty of Law	98	14
Faculty of Information Technology	98	14
Faculty of Economics and Business	95	14
Faculty of Psychology	95	14
Place of Residence		
Urban Areas	696	100
Not in Urban Areas	0	0
Economic Status		
Lower Class Families	53	8

Middle-Class Families	587	84
Upper Class Family	57	8
Never or not heard about PCOS		
Yes	412	59
No	284	41
Source of PCOS Information		
Mass Media	312	45
Friends	150	41
Health Team	127	18
Family	107	15

This study obtained respondents from 7 faculties with a total of 696 people. Respondents were divided into three age groups, namely > 18 years, 18-21 years, and < 21 years. All respondents lived in urban areas. The majority of respondents have the economic status of middle-class families (84%). The majority of respondents (59%) have heard of PCOS diseases through the health team (18%), mass media (45%), family (15%), and friends (22%).

Table 2 Overview of the knowledge level of respondents about PCOS

Categories	Amount (n)	Percentage (%)
Good	327	47
Sufficient	292	42
Less	77	11

In this study, the knowledge level of respondents who came from 7 faculties' batch 2020 had a 'good' knowledge level of 273 people. 'Sufficient' level amounted to 391 people, and 'Less' amounted to 32 people.

Table 3 Overview of Respondents' Attitudes about PCOS

Attitude	Amount (n)	Percentage (%)
Good	658	95
Less	38	5

Faculty of Medicine Class batch 2020, the majority had Good attitudes 658 people (95%) compared to the number of less attitudes than 38 people (5%).

Table 4 Prevalence of Female Students by Probability of PCOS

Possibility of PCOS	Amount (n)	Percentage (%)
Yes	117	17
No	579	83

In this study obtained from 696 female students, there is a majority of Non-students of the Faculty of Medicine, University of Tarumanagara 'Not ' showed the possibility of PCOS as many as 579 people (83%) and as many as 117 people (17%) showed the possibility PCOS disorder.

DISCUSSION

In this study, the knowledge level of respondents who came from 7 faculties' batch 2020 had a 'Sufficient' level amounted to 391 people. Related to one of the factors that can affect the knowledge of education, the respondents in this study are non-medical students at Tarumanagara University, Faculty of Medicine who are undergoing education and can be considered to have sufficient knowledge about PCOS. Another factor that influence is information, the more information received, the more knowledge it has.

This study is the same as the results of other studies that the age, number of questions, and the form of questions given to respondents were almost the same as the research conducted by Ul Haq *et. al* In 2016, from 781 respondents, the majority knew PCOS disorder as much 407 people (52%) and not 375 people (48%) (Haq et al., 2017). Based on Sunanda's research in 2015, it was found that 20 people (13,3%) had 'Sufficient' knowledge and 114 people (76) had 'Good' knowledge.(Sunanda & Nayak, 2016) While in research conducted by Santhi in 2016 using the non-probability convenient sampling technique obtained 1 person (2,27%) 'Good' knowledge, 37 people (84,09%) 'Sufficient', and 6 people (13,63%) 'Less'.(Santhi, 2019) Based on Lin's research *et. al*, 2017 the majority of respondents as much as 96% knew about PCOS (Lin et al., 2017)

In this study, respondents' attitudes are distinguished from good and bad attitudes. Of the number of respondents 696 non-medical female students at the Tarumanagara University For people who rarely hear about PCOS disease, they have a less attitude towards the signs and symptoms that may already be suffered. So, it will be too late to do treatment. This study is not in line with research conducted by Judith in 2021 which showed the majority of female students at the University of North Sumatra have a 'Less ' attitude towards PCOS disorder with a total of 46 people (60,53%) and 'Good' subanal 30 people (39,47%). The reason that this study is

not in line because the number of questions given to respondents is too small compared to the number of questions given by Judith 2021.(Nathaniel, 2021)

This research is in line with research conducted by Judith in 2021 because the questions given to respondents were almost the same as obesity, menstrual cycle, hirsutism, excess acne, acanthosis nigricans, and alopecia. The results showed that 76 respondents who filled out the majority questionnaire did not suffer PCOS.(Nathaniel, 2021)

CONCLUSIONS

The knowledge and attitudes of Non-Faculty of Medicine students at Tarumanagara University are quite 'good'. There is a prevalence of female students who may suffer from PCOS. It is hoped that female students can apply this knowledge in everyday life so that they are likely to suffer from PCOS and can seek treatment as soon as possible.

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