

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Subject

For this final project, the author identified two types of targeted audience. As mentioned, the primary subjects are young adult women. On the other hand, the secondary subjects are adult women and men. Below contains the details regarding both target audiences:

3.1.1 Primary Subject

A. Demographic

1. Gender: Female
2. Age: 18 – 25 years old

PCOS is often found in women of fertile age (WUS). Biologically speaking, this includes the age ranges of 15 – 49 years old (Prasetya, 2022, p. 85). However, women in Indonesia only receive a diagnosis around the age of 20 – 30 years old (Ariani et al., 2022, p.24), which is around the peak of their fertility phase (Solahuddin, 2022). The age range chosen is based off of what is considered as a ‘young adult woman’, which is 18 – 24 years old (Tempo, 2023). However, the author identified 18– 25 as the target age range to capture the central segment of women’s peak fertility period. When it comes to preventing PCOS symptoms, the author believes that it is the perfect age range to discover this information, as it allows the target audience to readjust their lifestyle habits in hopes of reducing the risk of infertility.

3. Education: High school diploma or Bachelor’s degree

B. Geographic

1. Country: Indonesia
2. City: DKI Jakarta and South Tangerang

The author has previously gathered information regarding PCOS awareness amongst the targeted age in both cities. Based on the gathered data, some of the women know and have heard of PCOS. However, they possess limited knowledge regarding the true definition. As such, these are the two main cities that the author focuses on.

3. Language: Bahasa

As this media serves to curate and spread information about PCOS, the author will be using Bahasa as the media's main language.

C. Psychographic

1. Class: Middle-class

Middle class in Indonesia is defined as those who spend from a range of Rp 1,2 – 6 million per month. As such, they are considered to be economically secure (Purwanto, 2024). On average the price for a fertility workup consultation with an OB-GYN doctor ranges from Rp 690.000 – Rp 2.330.000,- (Toko Bocah Indonesia, 2025), depending on what type of consultation is chosen.

2. Behavior:

- a. Young adult women who care for their health
- b. Young adult women that have known, or has heard of hormonal disorders
- c. Young adult women that want to learn more about PCOS
- d. Young adult women who are struggling with irregular periods or have amenorrhea

3.1.2 Secondary Subject

A. Demographic

1. Gender: Female and Male

The secondary subject will include both male and female. Females remain as they are the main audience of this

website. The author believes that increasing awareness of PCOS could support males in understanding their partners more effectively.

2. Age: 26 – 30 years old
3. Education: Bachelor's degree
4. Occupation: Workers

B. Geographic

1. Country: Indonesia
2. City: BoDeBek (Bogor, Depok, Bekasi)

The main goal of this media is to spread complete and accurate information about PCOS to big cities. As the primary subjects are targeted to those living in the DKI Jakarta or Tangerang region, the secondary subjects will be filled with the remaining Jakarta metropolitan cities. The cities referred to are those that are a part of JaBoDeTaBek. As such, it includes Bogor, Depok, and Bekasi.

3. Language: Bahasa

As this media serves to curate and spread information about PCOS, the author will be using Bahasa as the media's main language.

C. Psychographic

1. Class: Middle-class

Middle class in Indonesia is defined as those who spend from a range of Rp 1,2 – 6 million per month. As such, they are considered to be economically secure (Purwanto, 2024). On average the price for a fertility workup consultation with an OB-GYN doctor ranges from Rp 690.000 – Rp 2.330.000,- (Toko Bocah Indonesia, 2025), depending on what type of consultation is chosen.

2. Behavior:
 - a. Adult couples who care for their health

- b. Adult couples that have known, or have heard of hormonal disorders
- c. Adult couples that want to learn more about PCOS
- d. Adults who have partners struggling with irregular periods or have amenorrhea

3.2 Design Methodology and Procedure

Designing a website requires an outline of steps. Based on the research data and problem found, the author will be using the Human Centered Design (HCD) for the design process. According to Interaction Design Foundation (2021), it is the process that focuses on creating a solution based on the target's needs. The detailed steps of this design process are as follows (IDEO, 2015, p. 11):

3.2.1 Inspiration

Inspiration refers to the phase where the author delves into the issue. This phase allows the author to gain insight and perspective as to the user's experience in regards to the problem (IDEO, 2015, p. 11). For this project, the designer decided to do secondary research regarding PCOS research in Indonesia through various journals published by doctors, nurses, and more. The author also surveyed different kinds of media sources regarding PCOS, whether on social media or through other channels. Questionnaires were also done to measure the knowledge and awareness level of the target audience. Additionally, interviews were conducted with health professionals such as an Obstetrics and Gynecology doctor and a dietician who focus on fertility, both of which often make content on social media about PCOS. From this, the author was able to gather many insights that will be used in the website creation process.

3.2.2 Ideation

Once the issue has been identified, the ideation phase involves defining the core issue, while also creating ideas for solutions (IDEO, 2015, p.75). To do this, the author first summarized all points taken from each data

collecting method. After pin-pointing the main issue, the author then decides on what media will fit the user needs, which in this case, is a website. The author looks for references from various web designs in the health industry in order to grasp the look and feel needed. In addition, the author also starts to eliminate alternative outputs that had been brainstormed before by reviewing it against the user's problems. Afterwards, the author created a variety of visual and mood boards to aid in the design process. Pertaining to website design, there are four steps that must be done afterwards, which are: creating wireframes, creating low fidelity, transition to high fidelity, and creating supporting collaterals. Assets involving illustrations such as icons and vector images will be created solely by the author, with the addition of using references as a source of inspiration.

3.2.3 Implementation

The final phase of human-centered design involves determining the next steps, one of which involves testing the finished product to the target demographic. The feedback will not only serve as a benchmark for improvement, but allows inspiration for new features as well (IDEO, 2015, p.135). In addition, it ensures the target audience is always the main focus of the design, and proves whether or not it solves the problem. This includes making sure the conditions remain as accurate as how it was when the author created it in the understanding phase. A few known methods to aid in this process are usability studies, interviews, A/B testing, and more. Apart from knowing the accuracy of the product, the evaluation stage helps determine the next steps that must be taken in order to improve the product.

3.3 Research Techniques and Procedure

In order to support the creation of this media, the author conducted a few research methods. In total the author used three methods: In-depth interview, focus group discussion, and questionnaires. The goal for each method varies, however two of the most common are about PCOS awareness in Indonesia, and PCOS medias that exist in Indonesia.

3.3.1 In-depth Interview

A method of data collection, Anufia and Alhamid (2019) say that in-depth interviews involve two people exchanging information through questions and answers in order to gain insight (Hasan et al., 2022). As such, the author decided to interview three key sources of information. Regarding the topic, the primary source consists of a doctor who specializes in obstetrics and gynecology. Similarly, the secondary is a dietician who specializes in helping pregnant women.

1. OB-GYN Doctor

The author decided to interview an OB-GYN (Obstetrician and Gynecologist) doctor from RSIA Bunda Jakarta and Morula IVF Ciputat by the name of Dr. Ivander R. Utama, F.MAS, Sp.OG., MSc. In addition to his occupation, Dr. Ivander often creates content surrounding PCOS on his Instagram (@ivanderutama), whether it is in social media format, webinars, or live collaboration with others in the PCOS community. The main goal of this interview was not only to dive further about PCOS as a condition, but to know about the level of awareness and media available in Indonesia. The set of questions to be used are as follows:

1. What is PCOS?
2. Why does PCOS happen to women?
3. How many types of PCOS are there?
4. Who is the most affected by this condition, or what age group is most susceptible to PCOS?
5. How does PCOS affect someone in their daily lives?
6. Based on statistics at the doctor's practice, both RSIA Bunda Jakarta and Morula IVF Ciputat, approximately how many patients come with PCOS?
7. In your opinion, how is the level of awareness of PCOS in Indonesia?
8. What types of information media do you know talk about PCOS?

9. Can PCOS be cured? Why?
10. When can PCOS be considered ‘critical’ to the point of having to make changes, either in lifestyle or starting medication (such as birth control pills and metformin)? What should be done first?
11. Are there any tips or messages you would like to convey regarding website media design for PCOS?

In total there are 11 questions. The goal of this interview was to verify accurate information from a reliable resource. Additionally, the author wanted to know the perspective of a professional regarding PCOS media in Indonesia. As such, questions will be adjusted accordingly.

2. Fertility Dietician

For the second source, the author decided to interview Devina Kusnadi B.Sc., MND, APD also known as @fertilitynutrition.id on Instagram. In addition to being a fertility dietician, Devina often creates content surrounding PCOS, mainly regarding diet and lifestyle tips. The main goal of this interview is to know deeper about PCOS prevention, as well as to get more insight on what medias exist in Indonesia regarding PCOS. The set of questions used are as follows:

1. What is PCOS?
2. Why does PCOS happen to women?
3. Based on statistics on women who come to consult with you, what percentage/comparison of these patients are aware that they have PCOS, and what percentage are not?
4. In your opinion, how is the level of awareness of PCOS in Indonesia?
5. What types of information media do you know talk about PCOS?
6. Are there any specific myths about PCOS?
7. Can PCOS be cured? Why?
8. What should be done to reduce the effects of PCOS?

9. When can PCOS be considered 'critical' to the point of having to make changes, either in lifestyle or starting medication (such as birth control pills and metformin)? What should be done first?
10. Are there any tips or messages you would like to convey regarding website media design for PCOS?

In total there are 10 questions. Similar to the interview with the OB-GYN doctor, the goal of this interview was to verify accurate information and gain perspective of a professional regarding PCOS media in Indonesia. However, the main point of this interview was to gain more insight regarding PCOS preventive measures, specifically in lifestyle and dietary habits. As such, questions will be adjusted according to the responses of the interviewee.

3. UI/UX Designer

The third source was chosen to aid in giving tips regarding the website design. As such, the author decided to interview Hendri Siman Santosa, a creative director at After Another, which specializes in website development. This interview was done to gain insight, as well as advice regarding the process of designing a website for PCOS. The set of questions to be used are as follows:

1. What is the usual process for designing a website?
2. In your opinion, what makes a digital media (whether website, app, etc.) interesting?
3. If I wanted to create an interactive information media about hormonal disorders that are less known by others, what kind of media should I use? And why?
4. When creating digital media on the topic of health, what should I pay attention to?
5. When creating digital media on the topic of health, what should I avoid?

6. What impression should be given when a user sees digital media on the topic of health?
7. What kind of website is best used to present information related to women's health topics? Why?
8. What type of page is best used to present information related to women's health topics? Why?
9. Are there any suggestions for choosing the right color palette, especially when it comes to women's health topics? Why?
10. What type of font should be used to present information related to women's health? Why?
11. What form of visual assets should be used to present information related to women's health? Why?
12. Are there any tips or messages you would like to convey regarding website media design for a topic on women's health?

In total there are 12 questions. This interview aims to gain insight on how a website design process works. In addition, it also aims to gain insight as to factors that must be considered when doing research. Additionally, the author wants to gain insight on how a professional UI/UX designer would handle this case. As such, questions will be adjusted accordingly.

3.3.2 Focus Group Discussion

According to Marques et al (2021), focus group discussions are utilized to gather data about a group of people's experience, views, and opinions regarding a certain topic. Generally, one session is joined by 6 – 8 participants that meet together in real life while being recorded via audio. This particular project generally requires participants within the age range of 20 – 30 years old, biologically female, and lives in Indonesia. The common factor shared amongst participants are their knowledge of PCOS. There are two sets of participants for this FGD, ones who are officially diagnosed, and those that feel like they have PCOS and are struggling with irregular periods. This FGD session will be done via online through Zoom Meeting on

Saturday, March 8, 2025 at 19:00. The set of questions to be used are as follows:

- a. How did you first find out about PCOS? Through what channel?
- b. What prompted you to get a diagnosis or check up with a doctor?
(for diagnosed participants)
- c. How is your daily life with the PCOS symptoms you have? (for diagnosed participants)
- d. What made you believe that you have PCOS? (for non-diagnosed participants)
- e. In your opinion, how is the awareness of PCOS in Indonesia?
And how is the information media about PCOS in Indonesia?
- f. Is the source of the information provided by a local or foreign person?
- g. Are there any tips or messages you would like to convey regarding website media design for PCOS?

In total there are seven prompts. Through this FGD session, the author aims to gain insight regarding PCOS media availability and effectiveness in Indonesia. Additionally, the author intends to grasp a deeper understanding regarding the experiences of participants with PCOS, both in real life and the process that led to their diagnosis, whether done professionally or done by self-diagnose. Through this method, the author will gain new perspective regarding what women with PCOS experience in their daily lives. As such, it allows the author to be mindful when creating content for the website. Additional information such as the existence of PCOS information medias in Indonesia can help the author compare in regards to the media's strengths and weaknesses. The author can also gain insight about different kinds of medias used by the participants, which led them to their diagnosis.

3.3.3 Questionnaire

Nasution stated that it is an information-collecting tool that gives out a group of questions that have to be answered in order (Hasan et al., 2022). The

goal of this method is to measure the fact about a topic, whether by quantitative, qualitative, or both. For this, the author distributed to 51 women within the age range of 18 – 25 years old and lives in either DKI Jakarta or South Tangerang. Divided into three sections, the questionnaire inquires about the respondent's identity, knowledge about PCOS, and medias they often use when looking for health information, which are as follows:

1. Identity

The first section collects information regarding the respondents' basic information such as age, domicile, and occupation. The three factors mentioned may affect how the user answers the question, as well as affect how well they know about PCOS. However, the questionnaire does not inquire the participants' names. Below are the utilized set of questions.

Table 3.1 First Section of the Questionnaire

Question	Type	Answer
Age	Open question	Range of 18–25 years old
Occupation	Multiple choice	<ul style="list-style-type: none"> • Worker • Student • College Student • Unemployed
Domicile	Multiple choice	<ul style="list-style-type: none"> • South Tangerang • South Jakarta • North Jakarta • West Jakarta • East Jakarta

In total there are three questions to be used. The first question utilizes an open-ended method. On the other hand, both questions regarding occupation and domicile utilize multiple choice. The age range is based on the target audience of this project. This also applies for the occupation and domicile.

2. PCOS Knowledge

The second section contains seven questions, all of which collect information about the respondents' awareness and knowledge about PCOS. Through this part of the questionnaire, the author wants to measure how many respondents do know about PCOS. If the respondents knew about PCOS, the author also wants to measure the accuracy of their knowledge. As such, the author used multiple choices, open-ended questions, and checkboxes. Below are the questions used for this section:

Table 3.2 Second Section of the Questionnaire

Question	Type	Answer
Have you heard about PCOS?	Multiple Choice	<ul style="list-style-type: none"> • Yes • No
If yes, can you briefly describe your understanding about PCOS? If you are unfamiliar, please write “-”	Open-ended Question	-
What do you think causes PCOS?	Checkboxes	<ul style="list-style-type: none"> • Hormonal imbalance • Poor diet • Lack of exercise • Genetics
What symptoms of PCOS do you know of? If you are unfamiliar, please write “-”	Checkboxes	<ul style="list-style-type: none"> • Irregular periods • Weight gain/obesity • Acne or oily skin • Excessive hair growth • Infertility or

		difficulty getting pregnant <ul style="list-style-type: none"> • Thinning hair on the scalp
How do you think PCOS is diagnosed?	Checkboxes	<ul style="list-style-type: none"> • Through symptoms/ Doctor's diagnosis • Physical Examination • Ultrasound • Blood tests
Do you think PCOS is a curable illness?	Multiple choice	<ul style="list-style-type: none"> • Yes • No
Which methods have you heard on how to 'treat' PCOS? If you are unfamiliar, please write "-"	Checkboxes	<ul style="list-style-type: none"> • Lifestyle changes • Birth control pills • Medication • Surgery • Hormonal Therapy • I don't know

Seven questions will be utilized for this section. A majority of the questions utilize checkboxes with varying answer options depending on each question. To start the section, the author inquires about their awareness regarding the existence of the condition, which uses two multiple choice options: yes or no. Another question that utilizes multiple choice is in regards to respondents' knowledge about PCOS' curability, which also utilized the same answers options. To test this, the author uses an open-ended question to inquire about their understanding.

3. Information Media Frequently Used

The third section collects information about the respondents' habits in regards to searching for health information. This section is comprised of six questions. Additionally, this section also measures the

number of respondents' that have seen PCOS content. Below are the questions used for this section:

Table 3.3 Third Section of the Questionnaire

Question	Type	Answer
In a day, how long do you use your phone for?	Multiple choice	<ul style="list-style-type: none"> • <1 hour • 1–2 hours • 2–3 hours • 4+ hours
Where do you usually get medical information from?	Multiple choice	<ul style="list-style-type: none"> • Social media • Family/ friends • Books/ • Blogs • News • Word-of-mouth • Medical journals • Health apps
Have you ever come across content about PCOS?	Multiple choice	<ul style="list-style-type: none"> • Yes • No
How often do you come across content about PCOS?	Linear scale	1 – Never 4 – Very often
What channel did you use when you encountered content about PCOS?	Checkboxes	<ul style="list-style-type: none"> • Youtube (Shorts/ Video) • Instagram • Facebook • Whatsapp • Tiktok • I haven't encountered content about PCOS
Was most of the information given by a local or foreign influencer?	Multiple choice	<ul style="list-style-type: none"> • Local • Foreign • I haven't encountered content about

		PCOS
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In total there are six questions to inquire their information source. Majority of questions utilize multiple choices, with varying amounts of answers based on the question itself. Other questions involved a linear scale of 1–4 to measure the respondents' frequency of encountering PCOS content. A question also utilized checkboxes to inquire the type of channel they received said content.

3.3.4 Existing Study

While gathering data, the author plans to gain insight from previous works related to PCOS. While they may have different outputs, the goal is to learn the strengths, weaknesses, and elements of the media in order to know deeper about existing information media about PCOS in Indonesia. As such, the author plans to examine three existing media sources. The first is a book published by OB-GYN specialists dr. Gita Pratama and dr. Anton Tanjung. The second is a PCOS-focused book authored by Dr. dr. Muharam, SpOG., dr. Evanti Kusumawardani, dr. Kevin Ardito Prabowo, dr. Juliana Sari Harahap, and dr. Sekar Tiarin Sihandaru. The third source includes local health blogs that have discussed PCOS, such as Alodokter, Halodoc, and *Mitra Keluarga*. All three media sources will be analyzed based on the informational elements they present.

3.3.5 Reference Study

One of the key steps in the design process is gathering references. This process will not only serve as a benchmark for visual and experience designs, but to also know various trends and practices from a variety of published works. Accordingly, the author will use these works as sources of reference and inspiration, integrating them into the design process. There are three mobile websites that the author aims to analyze as reference, which are Okalpa, HelpUp, and Health by Ada. These three websites will be analyzed in accordance with the UI elements used.