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## Attitudes and Interest of YARSI Medical Clerkship Students Toward Family Medicine

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### ABSTRACT

**Background.** Family medicine is a new specialty, so it is necessary to know the interests of students. **Objectives.** To find out the perceptions and interests of clerk students toward family physician careers. **Methods.** This cross-sectional study was conducted at the Faculty of Medicine YARSI using consecutive sampling in the period January to April 2023. Data were collected through online questionnaires. The data analyses included univariate, bivariate, and multivariate analyses with odds ratio (OR) and 95% confidence interval (CI). Results with  $p < 0.05$  were considered significant. **Results.** The sample involved 103 people. Students interested in becoming family physicians amounted to 46 people (44.7%). Individual characteristics were not significantly related. The determinant of student interest was the perception that family physician's practice was attractive ( $p = 0.036$ ; OR = 2.518 (95% CI = 1.060-5.981)). **Conclusions.** Family physicians play an important role in solving health problems in primary care. Intensification of learning about family medicine and primary care is needed to increase student interest.

**Keywords:** attitude; interest; medical students; family medicine

### BACKGROUND

Family physicians in Indonesia are known as Primary Care Family Medicine specialists whose function is to provide services in primary care that are patient-centered, family-focused, and community-oriented. Family physicians are expected to strengthen primary care through prevention, holistic diagnosis, continuum of care, and comprehensive approaches. Accordingly, it is appropriate for family physicians to fill the service gap<sup>1</sup>.

In the undergraduate medical curriculum, family medicine topics have been studied in modules and family medicine clerkships. Students learn the concept of service and holistic care for patients. Furthermore, family physician education is usually conducted over 7 semesters consisting of 3 stages, namely the concept stage, the achievement of basic clinical skills, and the achievement of advanced clinical skills and thesis<sup>1</sup>.

The choice of specialization is determined by career needs, shaped by experience during medical school, student characteristics, and personality. This student tendency can help in predicting the future composition of specialist practice<sup>2</sup>, backgrounds, and medical schools and their intention to enter a family medicine (FM

In one study, it was mentioned that the reasons students choose family medicine are approaches to patients, a

variety of disciplines, and more human contact<sup>3</sup>. The specialty of family medicine is still new in Indonesia, so research needs to be done to find out students' attitudes or interests toward the possibility of a career as a family physician.

### RESEARCH METHODS

The types of research were quantitative and analytical. The design used was cross-sectional. The study population was clerkship students of YARSI medical faculty. The inclusion criteria were Family Medicine clerkship students. The exclusion criteria were students who were not willing to be respondents.

Sampling was carried out by consecutive sampling in the period January to April 2023. The required number of samples was calculated by the following formula.

$$n = \frac{2\sigma^2(z_{1-\alpha/2} + z_{1-\beta})^2}{(\mu_1 - \mu_2)^2}$$

$\delta = 0.29$ ;  $\alpha = 5\%$ ;  $\beta = 20\%$ ;  $\mu_1 = 3.34$ ; and  $\mu_2 = 3.22$ <sup>4</sup>.

The minimum number of samples required was 92 people. The data collected included characteristics (gender, family income, and marital status), perceptions of family medicine, and respondents' interest in a career as a family physician.

The perception variable consisted of 12 points with the answer choices were strongly agree, agree, neutral, disagree, and strongly disagree. The measurement scale was an interval.

Interest to become a family physician was asked with 1 question and the answer choices were Yes/No. The measurement scale is nominal.

Data collection was done through filling out online questionnaires. The data was analyzed using SPSS software version 22 by going through the univariate analysis stage to describe the variables. Furthermore, bivariate analysis was used to assess predictors of career interest as family physicians, namely Chi-Square, Fisher,

and Mann Whitney tests. Variables with a  $p$  value  $< 0.25$  were included in a multivariate analysis that produced a full model. Next the confounding variables were identified by excluding The variables with  $p$  value  $> 0.05$ . If there was a change in the odds ratio (OR) in other variables  $> 10\%$ , it was referred to as confounding and was not excluded from the model (final model).

## RESULTS

Students who were willing to be involved in research were 103 people. The following was a description of the characteristics of the respondents.

**Table 1. Characteristics of respondents (n=103)**

|                        | Distribution | Interested to become a family physician |            | <i>p-value</i> |
|------------------------|--------------|---|------------|----------------|
|                        |              | No (n=57)                               | Yes (n=46) |                |
| <b>Gender</b>          |              |   |            |                |
| Man                    | 35 (34%)     | 20 (19%)                                | 15 (15%)   | 0.956*         |
| Woman                  | 68 (66%)     | 37 (36%)                                | 31 (30%)   |                |
| <b>Income (rupiah)</b> |              |   |            |                |
| <10 million            | 19 (18%)     | 13 (13%)                                | 6 (6%)     | 0.228*         |
| 10-25 million          | 47 (46%)     | 22 (21%)                                | 25 (24%)   |                |
| >25 million            | 37 (36%)     | 22 (21%)                                | 15 (15%)   |                |
| <b>Marital status</b>  |              |   |            |                |
| Unmarried              | 97 (94%)     | 53 (51%)                                | 44 (43%)   | 0.689**        |
| Married                | 6 (6%)       | 4 (4%)                                  | 2 (2%)     |                |
| <b>TOTAL</b>           |              | 57 (55.3%)                              | 46 (44.7%) |                |

Note: \*Chi-square test results; \*\*Fisher test result

**Table 2. Validity and Reliability Test**

| No | Statement <sup>3,4,5,6</sup>   | R value<br>(validity test) | Cronbach alpha<br>(reliability test) |
|----|--|----------------------------|--------------------------------------|
| 1  | Service is better when individuals are seen as part of their family          | 0.702                      | 0.757                                |
| 2  | Knowledge of interactions within the family is necessary in serving patients | 0.545                      | 0.775                                |
| 3  | Family physicians need skills that other specialists don't have              | 0.443                      | 0.784                                |
| 4  | Interesting family physician practices                                       | 0.699                      | 0.758                                |
| 5  | The family physician enjoys his work   | 0.595                      | 0.770                                |
| 6  | Family physicians have sufficient income                                     | 0.486                      | 0.783                                |
| 7  | Patients will not seek the services of a family physician if sick            | 0.349                      | 0.843                                |
| 8  | The need for family physician services is increasing                         | 0.643                      | 0.764                                |
| 9  | Family physicians focus on prevention, not just treatment                    | 0.563                      | 0.774                                |
| 10 | Family physicians build good relationships with patients                     | 0.620                      | 0.769                                |
| 11 | Family physicians spearhead primary care                                     | 0.692                      | 0.758                                |
| 12 | Family physicians play a role in improving Indonesia's health services       | 0.685                      | 0.764                                |

Note: R table= 0.1918

**Table 3. Bivariate Analysis to identify factors related to attractiveness to become a family physician**

| No | Statement  | Mean | Median | Min | Max | <i>p-value*</i> |
|----|--|------|--------|-----|-----|-----------------|
| 1  | Service is better when individuals are seen as part of their family          | 4.26 | 4      | 1   | 5   | 0.002           |
| 2  | Knowledge of interactions within the family is necessary in serving patients | 4.38 | 4      | 3   | 5   | 0.021           |
| 3  | Family physicians need skills that other specialists don't have              | 4.10 | 4      | 2   | 5   | 0.023           |
| 4  | Interesting family physician practices                                       | 3.86 | 4      | 2   | 5   | 0.000           |
| 5  | The family physician enjoys his work   | 4.03 | 4      | 2   | 5   | 0.003           |
| 6  | Family physicians have sufficient income                                     | 3.68 | 4      | 1   | 5   | 0.060           |
| 7  | Patients will not seek the services of a family physician if sick            | 3.41 | 4      | 1   | 5   | 0.897           |
| 8  | The need for family physician services is increasing                         | 3.88 | 4      | 1   | 5   | 0.048           |
| 9  | Family physicians focus on prevention, not just treatment                    | 4.27 | 4      | 2   | 5   | 0.062           |
| 10 | Family physicians build good relationships with patients                     | 4.39 | 4      | 2   | 5   | 0.010           |
| 11 | Family physicians spearhead primary care                                     | 4.15 | 4      | 1   | 5   | 0.011           |
| 12 | Family physicians play a role in improving Indonesia's health services       | 4.30 | 4      | 3   | 5   | 0.005           |

Note: \*Mann Whitney test results

**Table 4. Multivariate Analysis to identify predictors of attractiveness to become a family physician (FULL MODEL\*)**

|  | B     | p-value | Exp(B) | 95% C.I.for EXP(B) |       |
|--|-------|---------|--------|--------------------|-------|
|  |       |         |        | Lower              | Upper |
| Family income  | .074  | .832    | 1.077  | .543               | 2.134 |
| Service is better when individuals are seen as part of their family          | .210  | .629    | 1.233  | .527               | 2.884 |
| Knowledge of interactions within the family is necessary in serving patients | .060  | .915    | 1.061  | .354               | 3.183 |
| Family physicians need skills that other specialists don't have              | .275  | .490    | 1.317  | .603               | 2.875 |
| Interesting family physician practices                                       | .944  | .051    | 2.571  | .997               | 6.626 |
| The family physician enjoys his work   | .366  | .492    | 1.441  | .508               | 4.087 |
| Family physicians have sufficient income                                     | -.007 | .986    | .993   | .460               | 2.146 |
| The need for family physician services is increasing                         | -.259 | .530    | .772   | .344               | 1.731 |
| Family physicians focus on prevention, not just treatment                    | -.085 | .840    | .918   | .400               | 2.107 |
| Family physicians build good relationships with patients                     | .445  | .506    | 1.560  | .420               | 5.794 |
| Family physicians spearhead primary care                                     | .232  | .633    | 1.261  | .487               | 3.268 |
| Family physicians play a role in improving Indonesia's health services       | .153  | .814    | 1.166  | .324               | 4.196 |

Note: \*Logistic regression test result

Table 1 shows that gender, income, and marital status were not significantly associated with students' interest in a career as a family physician.

The validity test results were valid because the r value was calculated above the r table ( $r \text{ count} > 0.1918$ ) while the Cronbach alpha showed a value of  $> 0.6$  so it was classified as reliable (Table 2).

The bivariate test showed that several perceptual variables were significantly related to the dependent variable

( $p < 0.05$ ) (Table 3). Furthermore, variables with  $p$  values  $< 0.25$  were included in the multivariate tests using logistic regression analysis.

From the multivariate test, a full model was obtained (Table 4), which then underwent testing one by one starting with variables with the largest  $p$  value. Variables that were excluded and caused changes in the OR of other variables  $> 10\%$  were not excluded and were referred to as confounding factors. The following was the final model.

**Table 5. Multivariate Analysis to identify predictors of attractiveness to become a family physician (FINAL MODEL\*)**

|   | B    | P value | Exp(B) | 95% C.I.for EXP(B) |       |
|---|------|---------|--------|--------------------|-------|
|   |      |         |        | Lower              | Upper |
| Service is better when individuals are seen as part of their family | .324 | .353    | 1.383  | .698               | 2.740 |
| Interesting family physician practices                              | .923 | .036    | 2.518  | 1.060              | 5.981 |
| The family physician enjoys his work                                | .339 | .477    | 1.403  | .551               | 3.570 |
| Family physicians build good relationships with patients            | .522 | .287    | 1.685  | .645               | 4.400 |

Note: \*Logistic regression test result

Table 5 (final model) shows that perceptions of interesting practices were significantly associated with students' interest in a career as a family physician ( $p = 0.036$ ; OR= 2.518 (95% CI= 1.060-5.981)).

Confounding variables were perceptions of service that see individuals as part of the family, family physicians enjoying work, and good relationships with patients.

## DISCUSSION

Respondents who were interested in becoming family medicine specialists were as much as 44.7%. This result is still higher when compared to medical students in Spain (39.4%)<sup>7</sup>. However, this number is in contrast to a study in Saudi Arabia which found the proportion of top career choices for family physicians was only 2.6%<sup>3,4</sup>.

Spanish students agree that family physicians have an important social role and have a pleasant work environment. The main factors influencing specialty selection are good working conditions and quality of living as well as a close doctor-patient relationship<sup>6,7</sup>.

American researchers found that family physicians can manage portions of work and enjoy their work<sup>8</sup>. It hopefully

increases patient satisfaction. Patient satisfaction with the family physician showed a result of 59.30 (maximum score of 100). Positive predictors to satisfaction included: women, closer distance to family physician practices, and regular visits to family physicians<sup>9</sup>.

The main aspect that makes students and doctors interested in family medicine is continuous care to patients<sup>10</sup>. Another study says that interest in Family Medicine decreases in the first year to the third year but increases significantly in the fourth year<sup>11</sup>. Influencing factors include the development of family medicine and surrounding support such role model and family support<sup>12</sup>.

Factors that cause disinterest such as less known as one specialist and a different salary with other specialists<sup>10</sup>. Demotivated factors are younger age and unmarried. Family medicine is not intellect and not prestige are examples of beliefs that reduce interest<sup>13</sup>. Research in India says that career and academic growth is lacking, and family medicine is not popular<sup>14</sup>.

Some strategies to attract students namely introducing learning topics in primary care, increasing incentives for family physician practice, primary care models that are

in accordance with characteristics doctors and according to community needs<sup>9,10</sup>. Another way is to hold a Family Medicine Interest Club that allows students to explore primary care and family medicine<sup>15</sup>.

The strength of this study is that it has used valid and reliable questionnaires. The weakness of this research is that it was only conducted at one medical faculty, so to confirm and better explain these findings, it is necessary to conduct further research with an increased number of samples and settings.

## CONCLUSIONS

Perceptions of interesting family practices were related to students' interest in careers as family physicians. Efforts are needed to increase student interest by introducing primary care and family medicine topics in medical education and providing students with an understanding of the important role of family medicine.

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