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## Comparative Analysis of Professionalism of 1<sup>st</sup> And 2<sup>nd</sup> Years of the Doctor's Professional Study Program at the Faculty of Medicine Swadaya Gunung Jati University

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KEYWORDS	ABSTRACT
<i>Professionalism, Empathy and Humanity, Responsibility, Faculty of Medicine</i>	<i>Professionalism is the reliability and expertise in carrying out tasks so that they can be carried out very well, on time, carefully, and with procedures that are easy to understand and follow by customers. Professionalism is also a reflection of a person's ability, including having knowledge, skills, and being able to do something based on experience. This study aims to analyze the comparative professionalism of students in the 1st and 2nd years of medical profession study programs at the Faculty of Medicine, Swadaya Gunung Jati University. This study is a descriptive analytical study with a cross-sectional design. The sample of the study was 38 students of the 1st year of the medical profession study [A1] program and 38 students of the 2nd year of the medical profession study program, which was divided into a total of 38 men and 38 women. A normality test was conducted with the Kolmogorov-Smirnov test. The distribution test used an unpaired t-test if normally distributed, and the Mann-Whitney test if not normally distributed. The analysis results showed no significant difference between the professionalism of 1st and 2nd year students (<math>p = 0.665</math>), with a <math>p</math>-value of 0.665 and a <math>t</math>-value of -0.435. This means that there was no significant difference between the professionalism of 1st year and 2nd year medical profession study program students at the Faculty of Medicine Swadaya Gunung Jati University Cirebon. There is no significant difference between the professionalism of students in the 1st and 2nd years of medical profession study programs.</i>

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### INTRODUCTION

Professionalism refers to the ability to perform tasks effectively, timely, and accurately, in a manner that is easily understood and followed by clients or patients. It also reflects individual capabilities, including knowledge, skills, and the ability to perform tasks based on experience. In medicine, professionalism is defined as a set of values, behaviors, and attitudes that promote trustworthy physician–patient relationships, public trust, competence, ethical integrity, and patient safety (Guraya & Guraya, 2023; Bhardwaj et al., 2022). Medicine as a profession demands mastery of clinical knowledge and skills, adherence to standards of practice, and proper conduct, including effective communication, compassion, accountability, and ethical decision-making (Desai et al., 2022; Mueller et al., 2015). Therefore, doctors are expected to demonstrate professional behavior that aligns with competency standards and uphold patient safety as a primary responsibility, demonstrating responsibilities toward patients, the public, other health professionals, and themselves (Al Faris et al., 2023).

Before becoming a doctor, medical students undergo a clinical clerkship program, a crucial part of medical practice. This program implements the theories learned during pre-clinical practice. The clerkship program is conducted in hospitals or community health centers, and prospective doctors undergoing this program are usually referred to as "KOAS"

("koasisten"). In Indonesia, medical education is structured in two phases: a pre-clinical phase lasting approximately 3.5 to 4 years, followed by a clinical phase (clinical clerkship) of around 1.5 to 2 years, during which students rotate through various specialties in teaching hospitals or community health centers (Educating Medical Students for Practice..., 2020; Experience of Indonesian Medical Students..., 2021). During this clerkship, students are actively involved in diagnosis, treatment, and patient management under supervision, and upon completion they must pass the national licensing examination before being awarded the title *Dokter* and entering internship or practice (The Odyssey of Medical Education in Indonesia, 2024; Factors on Medical Clerkship Students' Quality of Life, 2023).

A physician must conduct himself professionally, particularly in making ethical clinical decisions. A physician must be responsible for his moral judgments, with the aim of maintaining patient safety and preventing injury caused by errors in action or failure to take appropriate action (Bhardwaj et al., 2022; Varkey et al., 2020). Professionalism is the maintenance of competencies essential for practice, development, and advancement of science, ethics, and compassionate care in serving patients and the public (Desai et al., 2022; AlFaris et al., 2023). Professionalism is demonstrated through a foundation of clinical competence, effective communication skills—including clarity, empathy, and transparency—and an understanding of ethics and law, all built to implement the principles of professionalism (Lee & Sulmasy, 2020; Alnasser et al., 2025).

Physician professionalism is a crucial component to prioritize because it positively impacts patient satisfaction. A physician is deemed to have committed a professional error if their duties do not comply with professional standards, including medical service standards and standard operating procedures, lack of competence, knowledge, experience, or violations of the medical code of ethics.

Therefore, physician professionalism is crucial. Professional behavior is a mandatory competency for every physician. Efforts to develop professionalism are best initiated early. Medical educational institutions need to assess student behavior from the beginning of their studies, particularly during the medical professional program. This is when medical students encounter patients and are required to behave professionally to prevent harm to patients. This ensures that upon graduation and as doctors working directly in the community, they will be able to practice the expected professional behavior.

Previous studies have explored medical students' professionalism and its determinants during clinical education. For instance, Alkaissi et al. (2020) examined the impact of clinical exposure on medical students' professional behavior, finding that direct patient interaction improves communication and ethical decision-making, but their study did not comprehensively measure the influence of hospital environment and supervision on professionalism. Similarly, Monrouxe et al. (2015) investigated how reflective practices enhance medical professionalism, showing positive effects on ethical judgment and accountability, yet the study was limited to self-reported reflections without comparative analysis of students at different clinical stages.

The description above states that students' attitudes toward a doctor's professionalism are crucial, particularly for students pursuing a professional medical program or clinical clerkship, as they interact directly with patients. Therefore, the study aims to examine students'

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professionalism during their professional study program, as they are already dealing directly with patients. The study was conducted at *Waled* Regional General Hospital, *Cirebon* Regency, as it is one of the teaching hospitals most frequently used by students from the Faculty of Medicine, *Swadaya Gunung Jati* University, for their professional medical program.

## **METHOD**

This study employed a descriptive analytical research design with a cross-sectional approach to examine professionalism among professional medical students at the Faculty of Medicine, *Muhammadiyah* University of North *Sumatra*, specifically the Class of 2017 and 2018. The research incorporated a descriptive qualitative component to capture students' perceptions and experiences regarding professional behavior. Data were collected using a validated questionnaire, the Pakistani *LAMPS*, which had undergone a pilot study to ensure both reliability and validity. Participants were selected through a non-probability purposive sampling technique, targeting students who were actively participating in the professional program and had direct clinical exposure. For data analysis, Chi-square tests were applied to examine associations between student characteristics, such as year of study and gender, and their professionalism scores. All statistical analyses were performed using *SPSS* version 21. The results were interpreted to identify patterns and differences in professionalism across student groups, providing both quantitative and qualitative insights into factors influencing professional behavior during the clinical clerkship period.

## **RESULT AND DISCUSSION**

### **Overview of the Research Site**

This research was conducted at the *Waled* Regional General Hospital, a teaching hospital of the Faculty of Medicine, *Universitas Swadaya Gunung Jati Cirebon*, located at *Jalan Prabu Kiansantang No. 4, Waled, Cirebon Regency*. This quantitative study employed a descriptive-analytical approach and utilized primary data in the form of questionnaires administered to *UGJ* Faculty of Medicine students pursuing their Level 1 and Level 2 medical professional study programs. The results were obtained in the form of questionnaire scores from 76 students, with 38 students at each Level, divided into 19 males and 19 females at Level 1 and 38 students at Level 2, divided into 19 males and 19 females at Level 2. The samples were collected using quota sampling techniques and the Slovin formula.

### **Presentation and Univariate Analysis**

Data collected from respondents were based on a professionalism questionnaire, which included descriptions of professionalism based on Level, gender, and professional attributes.

### ***Sample Characteristics***

Because no samples dropped out of the questionnaire, the sample size was 76. The following are the research data results based on Levels 1 and 2 for students in the professional study program at the Faculty of Medicine, *Swadaya Gunung Jati University, Cirebon*, in frequency form.

**Table 1. Sample Frequency Distribution**

Tiers	Frequency	Frequency
Level 1	38 People	50 %
Level 2	38 People	50 %
Total	76 People	100 %

Based on the data above, the sample taken at Level 1 consisted of 38 individuals, with a distribution of 19 males and 19 females. At Level 2, the sample consisted of 38 individuals, with a distribution of 19 males and 19 females. Normality was then tested using the Kolmogorov-Smirnov test, which found the samples to be normally distributed.

***Overview of Professionalism Based on Gender***

After obtaining the questionnaire results from each respondent, a professionalism analysis was conducted to determine whether there were differences in the description of professionalism based on gender.

**Results and Bivariate Analysis**

The following are the results of a bivariate analysis comparing the professionalism of students in the Level 1 and 2 medical profession study programs at the Faculty of Medicine, Swadaya Gunung Jati University.

***Comparison of Professionalism by Level***

The differences in student professionalism were tested using the Kolmogorov-Smirnov normality test. The results showed an Asymp. Sig. (2-tailed) value of 0.20 for both Level 1 and Level 2 normality tests, indicating a value >0.05. Therefore, it can be concluded that the data are normally distributed. Because the data are normally distributed, an unpaired t-test will be used to determine whether there are differences in professionalism by level. The comparison will then be examined.

**Table 2. Differences in Professionalism Based on Level**

Tiers	Score	Std.deviation	P	t
Level 1	96,87	7	P = 0,665	t = -0,435
Level 2	97,6	7,8		

Based on the table above, professionalism at Level 2 was obtained with an average score of 97.6, higher than professionalism at Level 1 with an average score of 96.87. From the results of the sample analysis using SPSS, the results obtained (t = -0.435; p = 0.665) or >0.05, then the comparison results obtained there is no significant difference between professionalism at Level 1 and Level 2, but based on the average score value of Level 2 is higher than Level 1.

***Overview of Professionalism Based on Gender***

A study conducted using the Professionalism Assessment Scale (PAS) questionnaire, completed by 76 respondents, with 38 male and 38 female respondents, found that female students scored 97.97 on professionalism, higher than male students' score of 96.5.

Another study examining professionalism based on gender also found that, on average, female students scored higher on professionalism than males. Brain scans of both men and women showed stronger amygdala activity in women, which is responsible for empathetic affective responses. These results suggest that women naturally find it easier to empathize with patients because they possess greater sensitivity than men.

### ***Overview of Professionalism by Level***

Research conducted using the Professionalism Assessment Scale (PAS) questionnaire, completed by 76 respondents from Level 1 and Level 2 professional study program students, found that Level 2 students scored 97.6 higher than Level 1 students, with a score of 96.87. This is because Level 2 students may be more familiar with medical professionalism due to their longer experience in the medical environment, particularly during their professional study program.

Previous research examining differences in accounting students' academic ethics sensitivity based on genetic factors and semester level also found that higher-level students were more ethical than lower-level students. This suggests that the higher a student's educational level, the higher their level of ethical professionalism. From the results of previous research also regarding the empathy of medical students' professionalism, empathy from Level 1 students to Level 3 students was found that Level 3 students had higher empathy scores, but in Level 4 students there was a decrease in empathy, which was concluded that the decrease occurred due to the loss of idealism, increased academic burden, and the loss of needed role models.

The results of the study showed that there was no significant difference between the professionalism scores of the first and second levels. However, there was a difference, indicating lower scores at the lower levels compared to the higher levels. Factors contributing to low professionalism attributes, particularly empathy, include a loss of idealism, an increased academic burden, and a lack of needed role models. Medical students may emulate doctors with low empathy as role models during their clinical years. The presence of role models is crucial because the final year of education represents a transition from classroom teaching methods (preclinical) to clinical stages, involving interactions with patients in clinics and hospitals, reflecting real-life situations. Other factors can include stress, academic burden, new learning environments, and learning experiences. This is because new learning environments cause stress and a higher academic burden, which can trigger a decline in student professionalism. Learning experiences are also factors that influence students' professionalism.

### ***Overview of Professionalism Based on Attributes***

The study used a Professionalism Assessment Scale (PAS) questionnaire completed by 76 respondents from Level 1 and Level 2 professional study program students, with 38 respondents at each level. Based on the results of the sample analysis using SPSS, the attributes of empathy and humanism, as well as the attributes of professionalism and development at Level 2, were higher than at Level 1, except for the attribute of responsibility, where the score at Level 1 was higher than at Level 2.

Meanwhile, the results of a comparison of professionalism attributes by gender were conducted using a Professionalism Assessment Scale (PAS) questionnaire completed by 76 respondents, with 38 male respondents and 38 female respondents. Female students scored higher on all professionalism attributes than male students.

### ***Overview of Professionalism: Empathy and Humanity***

The research results show that the empathy and humanity attributes of Level 2 students achieved an average total score of 45.03, significantly higher than Level 1 students, who only achieved an average total score of 44.63. Furthermore, comparing the empathy and humanity attributes by gender, female students achieved a higher average total score (45.42) than male students (44.24).

Previous research on professionalism based on gender also found that, on average, professionalism is higher in women than in men. Brain scans of both men and women showed stronger activation of the amygdala, which is responsible for empathetic affective responses, in women than in men. These results suggest that female students are naturally more likely to empathize with patients, as women are said to have greater sensitivity than men when dealing with patients.

In a study on the development of education in medical students, it was found that the values of empathy and humanism in professors or doctors were higher than in medical students. This is because the application of empathy and humanism values for a doctor is a necessity because they are already in a work environment dealing directly with patients, have greater experience, are often practiced habits, and better understand the meaning of these values. This is different from students who only receive theoretical instruction without practice or direct examples in the field. Therefore, it can be concluded that the higher a person's level of experience, the higher that person's value in something.

### ***Overview of Professionalism in Professional Relationships and Development Attributes***

The research results show that Level 2 students achieved an average total score of 35.45 for the attributes of professional relationships and development, exceeding Level 1 students' average score of 34.79. Furthermore, comparing professional relationships and development by gender, female students achieved a higher average total score (35.24) than male students (35).

Other research explains the factors influencing medical students' professionalism, such as work experience as healthcare professionals, knowledge, and cognitive flexibility. Work experience can be assessed by the longer a student's education, the greater the experience gained. A person's high level of knowledge leads to better understanding and attention, which can lead to effective professional actions. The level of knowledge influences a person's professionalism. Cognitive flexibility is the ability to adapt patterns and ways of thinking to respond, understand, and solve existing problems, as well as provide solutions to those problems.

A study comparing professional perspectives between nurses and nursing students found a significant difference in the average total scores of professional values between nurses and

nursing students. Nursing students' professional values scores were significantly higher than those of nurses, as values learned in nursing education programs can change after graduation or in the workplace. These changes can result from stressful demands, lack of motivation, work pressure, the values of colleagues, inadequate education, and lack of opportunities to participate in professional associations and nursing research activities. These values are innate and flexible, so they may change over time depending on daily events that influence thoughts and behavior.

### ***Overview of Professionalism in the Responsibility Attribute***

The research results show that the responsibility attribute for Level 1 students achieved an average total score of 17.45, significantly higher than Level 2 students, who only achieved an average total score of 17.13. Meanwhile, comparing the responsibility attribute by gender, female students achieved a higher average total score (17.34) than male students (17.26).

Another study, which examined professionalism across each cohort, found a decline in responsibility among upper-level students. This is because the higher the level, the greater the pressure or demands from the surrounding environment. Stress from busy study hours can also affect this attribute. Furthermore, lower-level students tend to be more compliant with existing rules, striving to do their best in a new environment and striving to minimize mistakes.

The conclusion drawn from the results of the research conducted and several previous studies on professionalism. There are several factors that cause some attributes to be scored higher at higher levels than at lower levels, some attribute values can be higher at the upper level due to factors of experience, habits, adjustment to the work environment, and demands required by the work environment. Meanwhile, there are also several professionalism attributes that are scored lower at the upper level, which is caused by work pressure and stress, lack of support from the surrounding environment.

### ***Comparison of Professionalism by Level***

A study conducted using the Professionalism Assessment Scale (PAS) questionnaire, completed by 76 respondents from Level 1 and Level 2 professional study program students, found that Level 2 students scored 97.6 higher than Level 1 students, with a score of 96.87, with 38 respondents at each level. Based on the results of the sample analysis using SPSS, a p-value of 0.665 ( $>0.05$ ) was obtained, indicating no significant difference between the professionalism of Level 1 and Level 2 students.

Previous research on the influence of education level on professional identity, particularly on perceptions of the importance of being part of the medical profession, indicated that students in the general medical study program at Unissula already possessed a strong professional identity, so overall, no differences were found based on education level. This research still needs to be followed up with similar research that connects the pandemic conditions to students, examines other factors that influence the identity of students in the general medical education study program at Unissula, and requires an assessment of professional identity between preclinical and clinical students.

## CONCLUSION

Based on the results of this study, it can be concluded that the depiction of professionalism among professional medical students shows variation across gender and level of study. Female students demonstrated a higher average professionalism score (97.97) compared to male students (96.5), indicating a trend of stronger professional behavior among females. Similarly, Level 2 students exhibited a higher average score (97.6) than Level 1 students (96.87), suggesting that increased clinical exposure and experience may enhance professional development. Analysis of specific professional attributes showed that Level 2 students scored higher in most attributes except for responsibility, where Level 1 students scored slightly higher. Across genders, female students consistently scored higher in all professional attributes. Although differences between Level 1 and Level 2 were observed, they were not statistically significant, highlighting that while experience may influence professional growth, other factors such as mentorship, personal motivation, and institutional culture may also play critical roles. Future research is suggested to include larger sample sizes, longitudinal designs, and the exploration of qualitative factors influencing professionalism to provide a more comprehensive understanding of how professional attitudes develop during clinical training.

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