

# The Relationship Between The Perception of Professional Identity and The Professionalism Level of Medical Students

Luthfianasari<sup>1</sup>, Eti Poncorini Pamungkasari<sup>1\*</sup>, Bulan Kakanita Hermasari<sup>1</sup>

<sup>1</sup>Fakultas Kedokteran, Universitas Sebelas Maret, Surakarta – INDONESIA

Submitted: 11 August 2023, Final Revision: 2 December 2024, Accepted: 3 December 2024

## ABSTRACT

**Background:** Medical education aims to create professional doctors through standardized methods according to the needs of public health services. A doctor must have a professional attitude and ability as a form of professional responsibility. Professionalism is often associated with professional identity, where professionalism is deemed necessary to be supported by professional identity. This study aims to determine the relationship between perceptions of professional identity and medical students' professionalism level.

**Methods:** A cross-sectional study was conducted in a faculty of medicine in Indonesia. The respondents were medical students from 3 cohorts: 2019, 2020, and 2021. The data analysis used the Spearman correlation test.

**Results:** A total of 276 respondents consist of 94 (34.1%) male and 182 (65.9%) female respondents. The mean scores for the professionalism level for batches 2019, 2020, and 2021, respectively, were 160.23, 160.83, and 162.07. The mean scores for the perception of professional identity for batches 2019, 2020, and 2021, respectively, were 86.89, 89.26, and 89.18. The Spearman correlation test results showed there was a relationship between the professionalism level and perceptions of professional identity ( $p < 0.001$ ;  $r = 0,508$ ), but there was no relationship between the professionalism level and study period ( $p = 0.081$ ;  $r = -0.105$ ).

**Conclusion:** There is a relationship between perceptions of professional identity and the professionalism level of medical students.

**Keywords:** Professionalism, Professional Identity, Study Period, Medical Student

## ABSTRAK

**Latar belakang:** Pendidikan kedokteran pada dasarnya bertujuan untuk menciptakan dokter yang profesional melalui metode yang terstandarisasi sesuai kebutuhan pelayanan kesehatan masyarakat. Sikap dan kemampuan profesional perlu dimiliki oleh seorang dokter sebagai bentuk tanggung jawab profesinya. Profesionalisme sering dikaitkan dengan identitas profesional. Penelitian ini bertujuan untuk mengetahui hubungan persepsi identitas profesional dan tingkat profesionalisme mahasiswa kedokteran.

**Metode:** Penelitian cross sectional yang dilakukan di salah satu Fakultas Kedokteran di Indonesia. Sampel penelitian sebanyak 276 responden yang terdiri dari mahasiswa kedokteran angkatan 2019, 2020 dan 2021. Analisis data menggunakan uji korelasi Spearman.

**Hasil:** Sejumlah 276 responden dengan 94 (34,1 %) responden laki-laki dan 182 (65,9%) responden perempuan. Nilai rerata untuk tingkat profesionalisme untuk angkatan 2019, 2020 dan 2021 berturut-turut adalah 160,23, 160,83, dan 162,07. Nilai rerata untuk persepsi identitas profesional angkatan 2019, 2020 dan 2021 berturut-

\*corresponding author, contact: etiponco@staff.uns.ac.id

turut adalah 86,89, 89,26 dan 89,18. Hasil uji korelasi Spearman menunjukkan ada hubungan antara tingkat profesionalisme dengan persepsi identitas profesi ( $p < 0,001$ ;  $r = 0,508$ ), namun tidak ada hubungan antara tingkat profesionalisme dengan lama masa studi ( $p = 0,081$ ;  $r = -0,105$ ).

**Kesimpulan:** Terdapat hubungan antara persepsi identitas profesional dengan tingkat profesionalisme mahasiswa kedokteran.

**Kata kunci:** *Profesionalisme, Identitas Profesional, Lama Masa Studi, Mahasiswa Kedokteran*

### PRACTICE POINTS

- Professional identity development in college influenced medical students' professionalism level.
- The professionalism level of the upper-batch medical students, which was lower than that of the late batch, needs to be evaluated.
- Interaction with role models and peers helps shape professional identity.

### INTRODUCTION

The failure of doctors to practice professionalism towards patients is influenced by the professionalism dilemma experienced by students during the learning process.<sup>1</sup> Professionalism is a philosophy and habits that contain values, attitudes, knowledge, and skills that are practiced daily. This professional attitude and ability need to be owned by a doctor as a form of professional responsibility to provide quality health services.<sup>2</sup> For this reason, medical professionalism must be taught to students formally to convey institutional values and prepare medical students to fulfill social contracts in the future. Professionalism is a reflection of daily practice, so students need to develop an attitude of professionalism during the educational process, even from the beginning of education.<sup>2</sup>

Ethical violations committed by medical students are still common. One of them is disseminating information containing patients' personal information through social media by young doctors, which can cause problems for patients, affect the relationship between patients and practitioners, and reduce the profession's reputation.<sup>3</sup> Zafiroopoulos<sup>4</sup> stated that medical students had

lower professionalism than nursing and chiropractic students. For this reason, professionalism needs to be a concern in medical education.<sup>4</sup>

Medical education aims to produce professional doctors through a standardized process according to the needs of public health services.<sup>5</sup> A doctor's professional attitude can be shown by maintaining patient confidentiality, respecting the relationship between doctors and patients, and showing empathy. In a collaborative relationship, doctors' professional attitude can be shown by mutual respect for differences, being able to work with anyone without discrimination, accepting criticism, giving constructive criticism, and practicing medicine in a multicultural society.<sup>6</sup>

Trede<sup>7</sup> stated that professionalism might need to be supported by a professional identity, where professional identity concerns the things that are fought for; in this case, professionalism is responsible for one's actions. Professional identity is the values and beliefs held as a reference in thinking and acting in the profession.<sup>8</sup> The way students conceptualize and develop professional identities will affect their future professionalism in interacting with colleagues and patients.<sup>9</sup> Research conducted by Mokhtar et al.<sup>10</sup> on

medical students shows that students' perceptions of professional behavior are still low, which is related to low awareness and self-reflection. Violations are still found among UNS Faculty of Medicine students, who often override discipline and cooperation because they are not considered the main topic of medical education.<sup>11</sup> Trede<sup>7</sup> argues that every professional has a professional identity, but it is possible if professionals cannot articulate their professional values and commitments, they cannot describe their identity. A systematic review by Forouzadeh et al.<sup>12</sup> concluded that there is a reciprocal relationship between the formation of the desired professional identity and the development and strengthening of professionalism. Therefore, this study aims to examine the relationship between perceptions of professional identity and the professionalism level of medical students. The research was conducted in a medical faculty with an A (excellent) accreditation. Professionalism learning is explicitly applied in the first year, then in general through clinical skills learning, which gradually increases in complexity until the last year. Professionalism development through the learning process is supported by project-based learning in the community to provide experience in directly applying knowledge as a prospective doctor to the community.

**METHODS**

This research was a cross-sectional study conducted at a Faculty of Medicine in Indonesia. It consisted of 276 medical students from batches 2019 (7th semester), 2020 (5th semester), and 2021 (3rd semester), with the inclusion criteria being registered medical students and the exclusion criteria being students who have taken leave. The researchers distributed 350 questionnaires to respondents and received 305 filled questionnaires (response rate 87.14%). The sampling technique used was proportionate stratified random sampling.

The independent variable of this research is the perception of professional identity. Perception of professional identity is the perception of medical education students towards the professional identity of the medical profession. This variable was measured by the Professional Identity Five Factor Scale (PIFFS) questionnaire. The PIFFS questionnaire has 27

questions, 26 of which are on a Likert scale (1-5). The scale of measurement for this variable is numeric.

The dependent variable of this research is the level of professionalism. The level of professionalism is the level of professionalism of the respondents as medical education students. The professionalism score was measured using the Penn State College of Medicine (PSCOM) professionalism questionnaire.<sup>12</sup> The Penn State College of Medicine Professionalism Questionnaire is a trustworthy and accurate tool that identifies seven distinct aspects of professionalism: altruism, duty, enrichment, equity, honor and integrity, and respect. This tool can help evaluate the current professional curriculum and guide changes. It can also track shifts in attitudes toward professionalism over time, helping to assess the impact of curricular adjustments. The items on the PSCOM questionnaire used a Likert scale (1-5). The scale of measurement for this variable is a numerical scale. Both questionnaires were paper-based and had been translated into Indonesian.

Once collected, the data were processed using the SPSS 25<sup>th</sup> version for Windows. The Spearman correlation test was used to analyze the relationship between the independent variable and the dependent variable. The Health Research Ethics Commission at RSUD, Dr. Moewardi, issued ethical clearance for this study (Number: 1.022/VII/HREC/2022).

**RESULTS AND DISCUSSION**

There were 276 medical students involved in this study, consisting of three batches, namely batches 2019, 2020, and 2021. Batches are determined by the year when they enter the faculty of medicine. In Table 1, it can be seen that the proportion for each batch is more or less the same. The respondents are predominantly female (65.9%).

**Table 1. Distribution of Respondent Data**

Aspect		Frequency
Batch (study period)	2019 (7th semester)	90 (32,6 %)
	2020 (5th semester)	99 (35,9 %)
	2021 (3rd semester)	87 (31,5 %)
Gender	Male	94 (34,1 %)
	Female	182 (65,9 %)

Table 2 illustrates the differences between professionalism and professional identity scores based on gender and student batches. The significance value of the study period was 0.081 ( $p > 0.05$ ). So, it can be concluded that the study period was not related to the professionalism level. The correlation coefficient value is -0.105, indicating that the study period and the professionalism level had a negative relationship. Despite the study period and the level of professionalism, this study did not have a significant relationship. Nonetheless, based on the results of the data analysis, the direction of the relationship between the two is negative. The direction of the negative correlation between the length of study and the level of professionalism means that the shorter the student's study period, the higher the level of professionalism. This is in line with Nafisa's study<sup>17</sup>, which showed a negative correlation between the level of professionalism and the length of the study period. This was because the longer the study period, the more altruism and humanism would decrease, which caused empathy also to decrease.<sup>17</sup> There is a shift in the motivation of medical students during their study period from achievement-oriented motivation to a need for self-satisfaction.<sup>18</sup> In his journal, Kusurkar et al.<sup>18</sup> stated that first-year students had a higher achievement orientation than students after the

third year. Motivation had a positive relationship with professionalism.<sup>19</sup> The more extended the study period, someone's motivation will decrease, which affects the decrease in the professionalism level.<sup>17</sup>

However, this is not by Bandura's cognitive social theory<sup>17</sup>, which states that the longer a person's study period, the more frequent and more professional learning will be obtained so that the professionalism level will be higher. The results of the mean differential test between batches showed insignificant results on the score of the professionalism level and the score on the perception of professional identity. This indicates that the length of the study period wasn't related to the level of professionalism and perceptions of professional identity.

However, the results of the analysis of this study showed that the study period and the professionalism level were not related. However, the direction of the negative correlation between the two needs to be considered. This can also be seen from the mean score of the professionalism level for each batch, where the higher batch and the more extended study period had lower mean scores for the professionalism level. The lowest score sequence is for batch 2019, which has a score of 160.23, then batch 2020, which has a score of 160.83, and the highest score order is batch 2021, which has a score of 162.07.

**Table 2. Professionalism and Perceptions of Professional Identity Scores, and Mean Different Test based on Gender and Batches**

			Mean ± Standard Deviation	Minimum Score	Maximum Score	P
Professionalism	Total		161,03 ±13,66	115	180	
	Gender	Male	161,24 ±13,44	127	180	0,238
		Female	160,91 ±13,81	115	180	
	Batch	2019	160,23 ±13,22	127	180	0,662
		2020	160,83 ±14,28	115	180	
		2021	162,07 ±13,49	124	180	
Perceptions of Professional Identity	Total		88,46 ±8,67	66	110	
	Gender	Male	89,07 ±8,75	70	110	0,420
		Female	88,15 ±8,63	66	110	
	Batch	2019	86,89 ±8,76	67	110	0,110
		2020	89,26 ±8,43	73	108	
		2021	89,18 ±8,72	66	110	

It should also be noted that batch 2019 and 2020 had time to do online learning due to the impact of the COVID-19 pandemic. This is also considered the factor that caused the professionalism level of batch 2021 to be the highest score. According to a study that Goldie<sup>17</sup> conducted, some factors that influence professionalism's development that are often seen as a result of environmental interactions are social phenomena, learning experiences, and norms. Students who did online learning had limited learning experience and ecological interaction. This also means there was a lack of direct interaction between students and lecturers during learning, in which the lecturer/teacher also has a vital role as a role model. The learning experience in the form of practice, such as skills lab, field lab, and practicum, will be significant if it can be done directly in the presence of lecturers and colleagues. In addition to gaining knowledge in the form of theory, students also gain skill, knowledge, and experience by doing and seeing live how role models do this. Interaction with colleagues is also considered necessary for training cooperation, creating a learning environment, and becoming a partner for development. Peer-to-peer relationships between students can also strengthen professional identity, where involvement and relationships with like-minded colleagues will contribute to student confidence and commitment.<sup>20</sup>

Gender differences also did not have a significant influence on this study. Male and female respondents had insignificantly different test results at the level of professionalism and perception of professional identity. Kovalainen and Osterberg-Hogstedt<sup>21</sup> stated that empirically, it could be understood that those with solid professions (doctors, medical doctors, and lawyers) find the essence of their capacity to exist and remain the same regardless of the work contract

offered, compared to professions that are considered "naturally gendered." However, this study found that male respondents had a higher average score than female respondents for the level of professionalism and perception of professional identity. Where was the mean score of the professionalism level of male respondents was 161.24, and for females, it was 160.91. For the perception of professional identity, the mean score of male respondents was 89.07, and that of women was 88.15.

Table 3 shows the result of the Spearman correlation test between professional identity and the level of professionalism. The results of the test showed a significant relationship between professional identity and the level of professionalism, with a moderate correlation strength ( $r=0,508$ ;  $p<0,01$ ). This result was in accordance with what was stated by Forouzadeh et al<sup>12</sup>, which states that there is a reciprocal relationship between professional identity and professionalism. The formation of professional identity is a process with the domains of professionalism, personal (psychosocial) development, and cultural identity. The better perception of the professional identity of medical students was a better professionalism level. Both variables had a strong correlation degree relationship. Professionalism has an essential influence on the development of a student's professional identity. The development of a professional identity is the process by which an ordinary individual becomes a doctor.<sup>12</sup>

Professionalism is one of the competencies that medical graduates must have.<sup>13</sup> Doctor's professionalism is a contract between society and the medical profession. Noviani<sup>14</sup> identifies three sub-themes of professionalism: fulfilling professional qualifications, having expertise, and applying theory to practice. These things can

**Table 3. Results of the Spearman Correlation Test between Professionalism Level and Perceptions of Professional Identity and Study Period**

	Professionalism Level	
	Correlation coefficient	p
Perception of Professional Identity	0,508	<0,001*
Study Period	-0,105	0,081

\*: significant

be achieved with medical education. Therefore, professional learning needs to be carried out from college to 15 years of age, as well as professional identity. Identity implies values and goals, which will also determine motivation.<sup>16</sup> Identity is formed from competence, and<sup>14</sup> formal education is part of the formation of professional identity.<sup>13</sup> Professional identity is a direction in the process of becoming a professional, and professionalism is a value that emerges, develops, and is the goal of the process, which describes a person's performance in carrying out his profession.

This study's limitation is that the method used was cross-sectional, and the design is not strong enough to prove the relationship between variables. In addition, there are differences in learning methods between generations; some were taking online learning due to the COVID-19 pandemic.

## CONCLUSION

In conclusion, this study revealed that a moderate, positive correlation was found between professional identity and professionalism, reinforcing the idea that a stronger professional identity fosters higher professionalism, which is crucial for medical students' development. In addition, the study period and level of professionalism were not significantly related, showing a negative correlation between the two. Longer study durations may reduce altruism and motivation, consequently decreasing professionalism. However, cognitive social theory suggests that prolonged study should enhance professionalism through increased learning opportunities.

## RECOMMENDATIONS

Future researchers are expected to carry out research using other methods to determine how much influence the variables tested have on each other and their cause-and-effect relationships. Longitudinal studies could provide deeper insights into how professionalism evolves and identify specific interventions that might sustain or enhance professionalism in students with longer study durations. Future research is also expected to be able to carry out more profound studies to determine the effect of online versus

in-person learning environments on the level of student professionalism and perceptions of student professional identity. Educational institutions need to facilitate professional identity development. Hence, student professionalism increases.

## ACKNOWLEDGEMENT

The authors appreciate all parties involved directly or indirectly in this research, especially all medical student respondents. This publication was funded by Universitas Sebelas Maret under UNS Research Group B Category Scheme Grant (HGR-UNS), contract number 194.2/UN27.22/PT/01.03/2024.

## DECLARATION OF INTEREST

The authors declare that there is no conflict of interest regarding the study of this manuscript.

## LIST OF ABBREVIATIONS

PIFFS : *Professional Identity Five Factor Scale*

PSCOM : Penn State College of Medicine

RSUD : Rumah Sakit Umum Daerah

SPSS : *Statistical Package for the Social Sciences*

## KONTRIBUSI PENULIS

**Luthfianasari** – as the main author, prepares research proposals, collects data, analyzes data, and publishes texts.

**Eti Poncorini Pamungkasari** – co-author, compiling research proposals, data analysis, and publication texts.

**Bulan Kakanita Hermasari** – as a co-author, compiling research proposals, data analysis, and publication texts.

## REFERENCES

1. Monrouxe LV, Rees CE. "It's just a clash of cultures": emotional talk within medical students' narratives of professionalism dilemmas. *Advances in Health Sciences Education* 2012; 17(5): 671-701.
2. Kusumawati W. Profesionalisme dan Professional Behavior Mahasiswa Program Studi Pendidikan Dokter Fakultas Kedokteran dan

- Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta. *Mutiara Medika: Jurnal Kedokteran dan Kesehatan* 2011; 11(1): 37-45.
3. MacDonald J, Sohn S, Ellis P. Privacy, professionalism and Facebook: a dilemma for young doctors. *Medical education* 2010; 44(8): 805-813.
  4. Zafropoulos G. Definition of Professionalism by Different Groups of Health Care Students. *Academic Journals* 2017; 12(7): 380-386.
  5. Konsil Kedokteran Indonesia. *Standar Pendidikan Profesi Dokter Indonesia*. Jakarta: 2012.
  6. Fitri AD. Penerapan Multi-Source Feedback (MSF) dalam Penilaian Perilaku Profesional Mahasiswa Kedokteran. 2015.
  7. Trede F. Role of work-integrated learning in developing professionalism and professional identity. *International Journal of Work-Integrated Learning* 2012; 13(3): 159.
  8. Hoeve YT, Jansen G, Roodbol P. The nursing profession: Public image, self-concept and professional identity. A discussion paper. *Journal of Advanced Nursing* 2013; 70(2): 295-309.
  9. Susani YP, Rahayu GR, Sanusi R, Prabandari YS, Harsono H. Eksplorasi Sumber Imajinasi Mahasiswa tentang Profesi Dokter. *Jurnal Pendidikan Kedokteran Indonesia: The Indonesian Journal of Medical Education* 2015; 4(3): 91-100.
  10. Mokhtar S, Emilia O, Suryadi E. Self-Reflection and Insight pada Mahasiswa Kedokteran dan Hubungannya dengan Persepsi terhadap Perilaku Profesional. *Jurnal Pendidikan Kedokteran Indonesia: The Indonesian Journal of Medical Education* 2015; 2(3): 188-201.
  11. Wisnumurti MZ. Studi kualitatif: persepsi mahasiswa kedokteran tentang atribut identitas profesional di Fakultas Kedokteran Universitas Sebelas Maret. 2019.
  12. Forouzadeh M, Kiani M, Bazmi S. Professionalism and its role in the formation of medical professional identity. *Medical Journal of the Islamic Republic of Iran* 2018; 32(130).
  13. Wasityastuti W, Retno G, Prabandari YS. Hubungan Motivasi Akademik dengan Identitas Profesional pada Mahasiswa Pendidikan Dokter Fakultas Kedokteran Universitas Gadjah Mada. 2015.
  14. Noviani W, Rosa EM. Discover the Meaning of Professionalism: Nursing Alumni Experience on Professional Identity: a Phenomenology Study. *Bali Medical Journal* 2021; 10 (3).
  15. Sari MI, Oktaria D, Oktafany. Hubungan Efikasi Diri dan Identitas Profesional Mahasiswa Fakultas Kedokteran Universitas Lampung. *Jurnal Kedokteran UNILA* 2019; 3 (2).
  16. Lane S. Professionalism and Professional Identity: What are they and what are they to you?. *Australian Medical Student Journal* 2018.
  17. Nafisa F. Hubungan Lama Masa Studi dan Tingkat Gangguan Kepribadian Antisosial Terhadap Tingkat Profesionalisme Mahasiswa Profesi Dokter. 2018.
  18. Kusurkar RA, Cate ThJT, Asperen MV, Croiset G. Motivation as an independent and dependent variable in medical education: A review of the literature. *Medical Teacher* 2011; 33(5): 242-262.
  19. Rahmawati IF. Hubungan Antara Motivasi Kerja Dengan Profesionalisme Guru [Doctoral dissertation]. Surakarta: Universitas Muhammadiyah Surakarta; 2012.
  20. Simmonds AH, Dicks AP. Mentoring and professional identity formation for teaching stream faculty: A case study of a university Peer-to-Peer mentorship program. *International Journal of Mentoring and Coaching in Education*. 2018; 7(4): 282-295.
  21. Kovalainen A, Österberg-Högstedt J. Entrepreneurship within social and health care: A question of identity, gender and professionalism. *International Journal of Gender and Entrepreneurship* 2013.