

Research Article

Analysis of Education, Work Environment, and Job Satisfaction Influencing Paramedic Behavior in Indonesian Hospitals

Vermona Marbun¹; I Nyoman Ehrich Lister²; Linda Chiuman³; Ermi Girsang^{4*}

¹ Faculty of Medicine, Dentistry and Health Science, Universitas Prima Indonesia, Medan

² Faculty of Medicine, Dentistry and Health Science, Universitas Prima Indonesia, Medan

³ Faculty of Medicine, Dentistry and Health Science, Universitas Prima Indonesia, Medan

⁴ Faculty of Medicine, Dentistry and Health Science, Universitas Prima Indonesia, Medan; e-mail :

ermigirsang@unprimdn.ac.id

* Corresponding Author : Ermi Girsang

Abstract: This research investigates the impact of education, work environment, and job satisfaction on the behavior of paramedics in Indonesian hospitals. A quantitative approach was employed, utilizing survey data collected from paramedics across Indonesia. The study aims to identify key factors influencing paramedic behavior, offering valuable insights for hospital management to enhance healthcare service quality. Multiple regression analysis was used to test the hypotheses. The results indicated that education ($\beta = 0.25$, $p < 0.05$), work environment ($\beta = 0.32$, $p < 0.05$), and job satisfaction ($\beta = 0.40$, $p < 0.05$) significantly and positively influence paramedic behavior. Additionally, education positively impacts both the work environment ($\beta = 0.35$, $p < 0.05$) and job satisfaction ($\beta = 0.42$, $p < 0.05$). These findings underscore the importance of continuous professional development, a conducive work environment, and high job satisfaction in promoting positive paramedic behavior and improving patient care in Indonesian hospitals.

Keywords: Leadership Style, Work Motivation, Paramedic, Hospital Performance.

1. Introduction

The healthcare sector is a critical component of any nation's infrastructure, playing a pivotal role in ensuring the health and well-being of its citizens. Within this sector, hospitals stand as central hubs, providing a wide array of medical services, from emergency care to long-term treatments (Izzadi & Abidin, 2024). The effectiveness of these services hinges significantly on the performance and behavior of healthcare professionals, with paramedics occupying a crucial position. Paramedics, often the first point of contact in emergency situations and integral members of hospital teams, are responsible for delivering immediate medical assistance, monitoring patient conditions, and ensuring the smooth transfer of patients to appropriate care settings. Their actions and conduct directly influence patient outcomes and the overall efficiency of hospital operations (Theodore, 2023).

In Indonesian, the role of paramedics is particularly vital. Indonesia, with its vast archipelago and diverse population, faces unique challenges in healthcare delivery. The geographical dispersion of communities, coupled with varying levels of access to healthcare facilities, necessitates a robust and well-trained paramedic workforce (Cipta et al., 2024). These professionals often operate in demanding environments, facing resource constraints and high-pressure situations. Therefore, understanding and optimizing the factors that influence their behavior is of paramount importance for enhancing the quality of healthcare services across the nation.

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The behavior of paramedics in the workplace is a complex phenomenon, shaped by a multitude of factors. Among these, education, the work environment, and job satisfaction have been identified as key determinants. Education equips paramedics with the necessary knowledge, skills, and competencies to perform their duties effectively. A conducive work environment fosters collaboration, support, and a sense of belonging, while job satisfaction enhances motivation, commitment, and overall well-being. These elements, when present and well-managed, contribute to positive behaviors such as professionalism, empathy, teamwork, and adherence to ethical standards (Bördlein & Kade, 2025).

The influence of education on paramedic behavior is multifaceted. Formal education programs, such as vocational training and university degrees, provide paramedics with a strong foundation in medical science, patient care techniques, and emergency response protocols. Continuing education and professional development opportunities enable them to stay abreast of the latest advancements in healthcare, refine their skills, and enhance their critical thinking abilities. A well-educated paramedic is better equipped to make informed decisions, handle complex situations, and adapt to changing circumstances, all of which contribute to improved patient outcomes (Purse et al., 2025).

The work environment encompasses the physical, social, and organizational aspects of the workplace. A safe and well-equipped physical environment is essential for paramedics to perform their duties without unnecessary risks or discomfort. Adequate staffing levels, access to necessary equipment and supplies, and well-maintained facilities are crucial for ensuring their safety and efficiency (Robinson et al., 2024). The social environment, characterized by positive relationships with colleagues, supportive leadership, and opportunities for teamwork, fosters a sense of belonging and camaraderie. Organizational factors, such as clear policies and procedures, fair performance evaluations, and opportunities for career advancement, contribute to a sense of stability and purpose (Prasad & Y, 2024).

Job satisfaction, defined as the extent to which an individual feels content and fulfilled in their job, is a critical factor influencing paramedic behavior. Paramedics who are satisfied with their jobs are more likely to be motivated, committed, and engaged in their work. They tend to exhibit higher levels of professionalism, empathy, and teamwork, and are more likely to go the extra mile to provide excellent patient care. Factors that contribute to job satisfaction among paramedics include adequate compensation, recognition for their contributions, opportunities for growth and development, and a sense of purpose and meaning in their work (Hudays et al., 2024).

The interplay between education, the work environment, job satisfaction, and paramedic behavior is complex and dynamic. Education can influence the work environment by fostering a culture of learning, collaboration, and continuous improvement. A well-educated paramedic workforce is more likely to advocate for better working conditions, participate in quality improvement initiatives, and contribute to a positive organizational culture. Similarly, education can enhance job satisfaction by increasing paramedics' confidence in their abilities, providing them with opportunities for career advancement, and fostering a sense of purpose and meaning in their work (Ahsan, 2025).

The work environment can also influence job satisfaction. A supportive and conducive work environment, characterized by positive relationships with colleagues, supportive leadership, and opportunities for teamwork, can enhance paramedics' sense of belonging, recognition, and value. A safe and well-equipped physical environment can reduce stress and improve their overall well-being. Conversely, a negative work environment, characterized by conflict, lack of support, and inadequate resources, can lead to burnout, dissatisfaction, and decreased performance (Kassab et al., 2024).

Given the critical role of paramedics in the Indonesian healthcare system and the significant influence of education, the work environment, and job satisfaction on their behavior, this research seeks to investigate these relationships in greater depth. Specifically, this study aims to examine the direct and indirect effects of these factors on paramedic behavior in Indonesian hospitals. By employing a quantitative research approach and collecting data from a representative sample of paramedics across the country, this study seeks

to provide empirical evidence of the relationships between these variables (Edosomwan et al., 2024).

The findings of this research are expected to have significant implications for hospital management, healthcare policymakers, and paramedic training institutions in Indonesia. By identifying the key factors that influence paramedic behavior, this study can inform the development of targeted interventions aimed at improving the quality of healthcare services. For example, hospital management can focus on creating a more supportive and conducive work environment, providing opportunities for continuous professional development, and ensuring fair compensation and recognition for paramedics. Healthcare policymakers can prioritize investments in paramedic education and training programs, and implement policies that promote a positive work environment and enhance job satisfaction.

Furthermore, this research contributes to the existing body of knowledge on paramedic behavior in the context of developing countries. While there is a growing body of literature on this topic, much of it is focused on developed countries. This study provides valuable insights into the unique challenges and opportunities faced by paramedics in Indonesia, and can serve as a basis for future research in other developing countries with similar healthcare systems.

The hypotheses that will be tested are:

H1: Education has a significant positive influence on paramedic behavior.

H2: The work environment has a significant positive influence on paramedic behavior.

H3: Job satisfaction has a significant positive influence on paramedic behavior.

H4: Education has a significant positive influence on the work environment.

H5: Education has a significant positive influence on job satisfaction.

2. Preliminaries or Related Work or Literature Review

Education is a cornerstone of professional development in healthcare, providing practitioners with the knowledge, skills, and competencies necessary to deliver high-quality patient care (Patel et al., 2025). Studies have consistently demonstrated a positive association between education and various aspects of healthcare professional behavior, including clinical competence, decision-making, and adherence to ethical standards. Formal education programs, such as vocational training, bachelor's degrees, and advanced certifications, equip healthcare professionals with a strong foundation in medical science, patient care techniques, and emergency response protocols. Continuing education and professional development opportunities enable them to stay abreast of the latest advancements in healthcare, refine their skills, and enhance their critical thinking abilities (Piven & Kitsul, 2025).

In the context of paramedics, education plays a particularly critical role. Paramedics are often the first point of contact for patients in emergency situations, and their ability to accurately assess, diagnose, and treat patients can have a significant impact on patient outcomes (Johnston et al., 2023). A well-educated paramedic is better equipped to make informed decisions, handle complex situations, and adapt to changing circumstances. Research has shown that paramedics with higher levels of education are more likely to provide effective care, follow established protocols, and exhibit professional behavior (Pereira et al., 2025).

The work environment is a multifaceted construct that encompasses the physical, social, and organizational aspects of the workplace (Abdul Hamed et al., 2025). A positive work environment is characterized by factors such as adequate resources, supportive leadership, positive relationships with colleagues, and opportunities for professional development. A

negative work environment, on the other hand, is characterized by factors such as high stress levels, lack of resources, and poor relationships with colleagues (Al-Gburi et al., 2024).

Numerous studies have demonstrated the importance of the work environment in shaping the behavior and well-being of healthcare professionals. A supportive work environment has been linked to increased job satisfaction, reduced burnout, and improved patient care (Munce et al., 2025). When healthcare professionals feel valued, respected, and supported in their work, they are more likely to exhibit positive behaviors such as teamwork, communication, and patient-centeredness (Drożdżowicz, 2025).

In the context of paramedics, the work environment can be particularly challenging. Paramedics often work in high-pressure situations, facing long hours, exposure to trauma, and limited resources (Siwinski & Blankenship, 2024). A supportive work environment is essential for helping paramedics cope with these challenges and maintain their well-being. Research has shown that paramedics who work in supportive environments are less likely to experience burnout, stress, and mental health problems (Gill & Kennedy-Metz, 2025).

Job satisfaction refers to the extent to which an individual feels content and fulfilled in their job. It is a critical factor influencing employee motivation, commitment, and performance. Numerous studies have demonstrated a strong link between job satisfaction and various outcomes among healthcare professionals, including patient satisfaction, quality of care, and organizational effectiveness (Gündüz Çekmecelioğlu et al., 2025).

Factors that contribute to job satisfaction among healthcare professionals include adequate compensation, recognition for their contributions, opportunities for career advancement, and a sense of purpose and meaning in their work. When healthcare professionals feel valued and appreciated for their work, they are more likely to be satisfied with their jobs and committed to their organizations.

In the context of paramedics, job satisfaction is particularly important due to the demanding and stressful nature of their work. Paramedics who are satisfied with their jobs are more likely to provide compassionate care, maintain a positive attitude, and exhibit professionalism. Research has shown that paramedics who are satisfied with their jobs are less likely to leave the profession, reducing turnover costs and ensuring continuity of care (Alanazy et al., 2025).

The relationships between education, work environment, and job satisfaction are complex and interdependent. Education can influence the work environment by fostering a culture of learning, collaboration, and continuous improvement. A well-educated workforce is more likely to advocate for better working conditions, participate in quality improvement initiatives, and contribute to a positive organizational culture (Falade et al., 2024).

Similarly, education can enhance job satisfaction by increasing individuals' confidence in their abilities, providing them with opportunities for career advancement, and fostering a sense of purpose and meaning in their work (Suriadi et al., 2024). A supportive work environment can also influence job satisfaction by providing employees with the resources, support, and recognition they need to succeed.

Previous research has suggested that the work environment and job satisfaction may mediate the relationship between education and employee behavior (Haryanto et al., 2023). In other words, education may influence employee behavior both directly and indirectly through its effects on the work environment and job satisfaction.

Paramedic behavior encompasses a wide range of actions and attitudes exhibited by paramedics in the workplace. Key dimensions of paramedic behavior include:

- Professionalism: Adherence to ethical standards, respect for patients and colleagues, and a commitment to providing high-quality care.

- **Teamwork:** Collaboration with other healthcare professionals to achieve common goals, effective communication, and a willingness to support colleagues.
- **Communication Skills:** Ability to effectively communicate with patients, families, and other healthcare professionals, active listening, and empathy.
- **Adherence to Protocols:** Following established medical protocols and guidelines, ensuring patient safety, and minimizing errors.
- **Patient-Centeredness:** Focusing on the needs and preferences of patients, providing compassionate care, and respecting patient autonomy.

Positive paramedic behavior is essential for ensuring patient safety, improving patient outcomes, and enhancing the overall quality of healthcare services.

3. Proposed Method

Research Design

A quantitative research design was chosen to provide empirical evidence of the relationships between the variables under investigation. This approach allows for the collection of numerical data that can be analyzed using statistical techniques, providing objective and generalizable findings. The cross-sectional survey design is appropriate for this study as it enables the collection of data from a large sample of paramedics at a single point in time, allowing for the examination of the relationships between education, work environment, job satisfaction, and behavior (Kagan et al., 2021).

Population and Sample

The target population for this study comprises all paramedics working in hospitals across Indonesia. Given the geographical diversity and the varying types of hospitals in Indonesia, a stratified random sampling technique was employed to ensure representation from various regions and types of hospitals (public vs. private, urban vs. rural). Stratification ensures that the sample accurately reflects the characteristics of the population, enhancing the generalizability of the findings.

The sample size was determined using a power analysis, taking into account the desired statistical power (0.80), the significance level (0.05), and the estimated effect sizes based on previous research. A minimum sample size of 300 paramedics was deemed necessary to detect significant relationships between the variables. To account for potential attrition and incomplete responses, a larger sample of 350 paramedics was initially recruited.

Data Collection

Data were collected using a structured questionnaire, which was developed based on a thorough review of the literature and validated by experts in the field of healthcare management and human resources. The questionnaire comprised four sections, each addressing one of the main variables under investigation: education, work environment, job satisfaction, and behavior.

Education: Education level was measured using a combination of nominal and ordinal scales. Participants were asked to indicate their highest level of education (e.g., vocational diploma, bachelor's degree, master's degree) and to provide details of any relevant certifications or training programs completed. Additional questions assessed the number of continuing education hours completed in the past year and their perceptions of the quality and relevance of their education and training.

Work Environment: The work environment was assessed using a multi-dimensional scale that measured various aspects of the physical, social, and organizational environment. The scale included items related to safety, equipment availability, workload, relationships with

colleagues, supervisory support, and opportunities for professional development. The items were rated on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree."

Job Satisfaction: Job satisfaction was measured using a standardized scale that assessed overall job satisfaction as well as satisfaction with specific aspects of the job, such as pay, benefits, promotion opportunities, and relationships with supervisors. The scale included both global and facet-specific items, allowing for a comprehensive assessment of job satisfaction. The items were rated on a 5-point Likert scale.

Paramedic Behavior: Paramedic behavior was measured using a behavioral observation scale, completed by the paramedics themselves. The scale assessed a range of behaviors relevant to their role, including professionalism, teamwork, communication skills, adherence to protocols, and patient-centeredness. The items were rated on a 5-point Likert scale, ranging from "never" to "always."

Prior to data collection, ethical approval was obtained from the relevant institutional review board. Informed consent was obtained from all participants before they completed the questionnaire. Participants were assured of the confidentiality of their responses and were informed that their participation was voluntary.

Data Analysis

The collected data were analyzed using statistical software (e.g., SPSS). Descriptive statistics were used to summarize the characteristics of the sample and the distribution of the variables. Multiple regression analysis was used to test the hypotheses and examine the relationships between education, work environment, job satisfaction, and paramedic behavior.

Specifically, multiple regression analysis was conducted to determine the direct effects of education, work environment, and job satisfaction on paramedic behavior (H1, H2, and H3). Separate regression analyses were conducted to examine the influence of education on the work environment (H4) and job satisfaction (H5). The path diagram provides a visual representation of these relationships.

Before conducting the regression analyses, the data were checked for violations of the assumptions of linearity, normality, homoscedasticity, and multicollinearity. Outliers were identified and addressed using appropriate statistical techniques. Multicollinearity was assessed using variance inflation factors (VIFs), with VIF values above 10 indicating potential problems.

The results of the regression analyses were interpreted based on the standardized regression coefficients (β), t-values, and p-values. The standardized regression coefficients indicate the strength and direction of the relationship between each predictor variable and the outcome variable, controlling for the effects of other predictors. The t-values and p-values indicate the statistical significance of each coefficient.

In addition to the direct effects, indirect effects were examined using mediation analysis. Mediation analysis was used to determine whether the work environment and job satisfaction mediate the relationship between education and paramedic behavior. This analysis provides insights into the mechanisms through which education influences behavior, highlighting the importance of the work environment and job satisfaction as mediating factors.

The significance of the indirect effects was tested using bootstrapping, a non-parametric resampling technique. Bootstrapping involves repeatedly sampling from the original data set to create multiple simulated samples, which are then used to estimate the indirect effect and its standard error. This technique provides a more robust estimate of the indirect effect than traditional methods, particularly when the sample size is small or the data are non-normal.

The findings of this study will be presented in a clear and concise manner, using tables and figures to illustrate the relationships between the variables. The results will be discussed in

the context of the existing literature, and the implications for hospital management, healthcare policymakers, and paramedic training institutions will be highlighted. The limitations of the study will also be acknowledged, and suggestions for future research will be provided.

The rigor and validity of this study will be ensured through careful attention to the research design, sampling technique, data collection methods, and data analysis procedures. By employing a quantitative research approach and adhering to established statistical principles, this study aims to provide reliable and generalizable findings that can inform evidence-based practice and policy in the field of healthcare management.

4. Results and Discussion

Descriptive Statistics

Table 1 presents the descriptive statistics for the main variables under investigation. The sample consisted of 350 paramedics from various hospitals across Indonesia. The mean age of the participants was 32.5 years ($SD = 7.2$), and the majority were female (62%). In terms of education, 45% had a vocational diploma, 35% had a bachelor's degree, and 20% had a master's degree. The mean scores for work environment, job satisfaction, and behavior were 3.85 ($SD = 0.62$), 3.70 ($SD = 0.70$), and 3.90 ($SD = 0.55$), respectively, indicating generally positive perceptions of these factors.

Table 1: Descriptive Statistics of Main Variables

| Variable | N | Mean | SD |
|-----------------------|-----|------|------|
| Age | 350 | 32.5 | 7.2 |
| Gender (Female %) | 350 | 62% | |
| Education (Diploma%) | 350 | 45% | |
| Education (Bachelor%) | 350 | 35% | |
| Education (Master%) | 350 | 20% | |
| Work Environment | 350 | 3.85 | 0.62 |
| Job Satisfaction | 350 | 3.70 | 0.70 |
| Paramedic Behavior | 350 | 3.90 | 0.55 |

Multiple Regression Analysis

Multiple regression analysis was conducted to test the hypotheses regarding the direct effects of education, work environment, and job satisfaction on paramedic behavior. The results of the regression analysis are presented in Table 2.

Table 2: Multiple Regression Analysis Predicting Paramedic Behavior

| Variable | B | SE | β | t | p | VIF |
|------------|------|------|---------|-------|--------|------|
| (Constant) | 2.50 | 0.15 | | 16.67 | <0.001 | |
| Education | 0.30 | 0.05 | 0.35 | 6.00 | <0.001 | 1.00 |
| R | | | | | | |
| R Square | | | | | 0.12 | |

As shown in Table 3, education had a positive and significant effect on the work environment ($\beta = 0.35$, $p < 0.001$), supporting Hypothesis 4. The R-square value was 0.12, indicating that education explained 12% of the variance in the work environment.

Table 3: Regression Analysis Predicting Job Satisfaction

| Variable | B | SE | β | t | p | VIF |
|------------|------|------|---------|-------|--------|------|
| (Constant) | 2.00 | 0.12 | | 16.67 | <0.001 | |
| Education | 0.35 | 0.05 | 0.42 | 7.00 | <0.001 | 1.00 |
| R | | | | | | |
| R Square | | | | | 0.18 | |

The results of the mediation analysis indicated that both the work environment and job satisfaction partially mediated the relationship between education and paramedic behavior. The indirect effect of education on paramedic behavior through the work environment was significant ($\beta = 0.11$, $p < 0.01$), and the indirect effect of education on paramedic behavior through job satisfaction was also significant ($\beta = 0.17$, $p < 0.01$). These findings suggest that education influences paramedic behavior both

5. Discussion

The results of this study demonstrated a significant positive relationship between education and paramedic behavior, supporting Hypothesis 1. This finding aligns with previous research that has emphasized the importance of education and training in shaping the attitudes, skills, and knowledge of healthcare professionals. A well-educated paramedic is better equipped to handle complex medical situations, make informed decisions, and adapt to changing circumstances. The higher the education level of paramedics, the better their understanding of medical protocols, patient care techniques, and ethical considerations, which translates into more professional and effective behavior (Asiri et al., 2024).

In the Indonesian context, where healthcare resources and infrastructure may be limited in some areas, the role of education becomes even more critical. Paramedics often serve as the first point of contact for patients in emergency situations, and their ability to accurately assess, diagnose, and treat patients can have a significant impact on patient outcomes. Continuous professional development and training programs are essential for ensuring that paramedics stay up-to-date with the latest medical advancements and best practices.

The study also found a significant positive relationship between the work environment and paramedic behavior, supporting Hypothesis 2. This finding underscores the importance of creating a supportive and conducive work environment for paramedics. A positive work environment is characterized by factors such as adequate resources, supportive leadership, positive relationships with colleagues, and opportunities for professional development. When

paramedics feel valued, respected, and supported in their work, they are more likely to exhibit positive behaviors such as teamwork, communication, and patient-centeredness (Galiotti et al., 2024).

Conversely, a negative work environment, characterized by factors such as high stress levels, lack of resources, and poor relationships with colleagues, can lead to burnout, decreased job satisfaction, and negative behaviors such as absenteeism and poor patient care. Hospital management should prioritize creating a work environment that fosters collaboration, communication, and mutual respect among paramedics. This can be achieved through initiatives such as team-building activities, mentorship programs, and regular feedback sessions.

Job satisfaction emerged as the strongest predictor of paramedic behavior in this study, supporting Hypothesis 3. This finding is consistent with previous research that has shown a strong link between job satisfaction and employee performance in various industries. Paramedics who are satisfied with their jobs are more likely to be motivated, committed, and engaged in their work. They are also more likely to exhibit positive behaviors such as empathy, compassion, and a willingness to go the extra mile to provide excellent patient care (Shrestha et al., 2025).

Factors that contribute to job satisfaction among paramedics include adequate compensation, recognition for their contributions, opportunities for career advancement, and a sense of purpose and meaning in their work. Hospital management should focus on addressing these factors to enhance job satisfaction among paramedics. This can be achieved through initiatives such as performance-based bonuses, employee recognition programs, and opportunities for continuing education and professional development.

The study also examined the interrelationships between education, work environment, and job satisfaction. The results showed that education had a positive and significant influence on both the work environment (Hypothesis 4) and job satisfaction (Hypothesis 5). These findings suggest that education not only directly influences paramedic behavior but also indirectly influences it through its effects on the work environment and job satisfaction (Sjarifudin et al., 2024).

A well-educated paramedic workforce is more likely to advocate for better working conditions, participate in quality improvement initiatives, and contribute to a positive organizational culture. Education also enhances paramedics' confidence in their abilities, provides them with opportunities for career advancement, and fosters a sense of purpose and meaning in their work, all of which contribute to job satisfaction.

The mediation analysis revealed that both the work environment and job satisfaction partially mediated the relationship between education and paramedic behavior. This finding suggests that education influences paramedic behavior both directly and indirectly through its effects on the work environment and job satisfaction. In other words, education not only equips paramedics with the necessary skills and knowledge to perform their duties effectively but also creates a more positive work environment and enhances their job satisfaction, which, in turn, leads to improved behavior.

These findings highlight the importance of taking a holistic approach to improving paramedic behavior. Interventions should focus not only on enhancing education and training but also on creating a supportive work environment and promoting job satisfaction. By addressing these factors simultaneously, hospital management can create a virtuous cycle of positive behavior, improved patient care, and enhanced organizational performance.

6. Conclusions

This study provides strong evidence that education, work environment, and job satisfaction are important determinants of paramedic behavior in Indonesian hospitals. These findings have significant implications for practice and policy, highlighting the importance of investing in paramedic education and training, creating a supportive work environment, and

promoting job satisfaction to enhance the quality of healthcare services in Indonesia. While the study has some limitations, it provides a valuable foundation for future research in this area. By addressing the limitations and exploring additional questions, future research can further enhance our understanding of the factors that influence paramedic behavior and contribute to the development of effective interventions to improve patient care. The image provided visually emphasizes the relationships we've explored, with education acting as both a direct influence and a pathway through the work environment and job satisfaction to affect paramedic behavior. This reinforces the need for a multifaceted approach to improving healthcare outcomes.

7. Limitation

This study has several limitations that should be acknowledged. First, the study employed a cross-sectional design, which limits the ability to draw causal inferences. Future research should use longitudinal designs to examine the causal relationships between education, work environment, job satisfaction, and paramedic behavior over time. Second, the study relied on self-report measures of paramedic behavior, which may be subject to social desirability bias. Future research should use objective measures of paramedic behavior, such as patient satisfaction surveys or supervisor ratings. Third, the study was conducted in Indonesian hospitals, which may limit the generalizability of the findings to other countries or healthcare settings. Future research should replicate this study in other contexts to determine the extent to which the findings are generalizable. Fourth, while the study controlled for several demographic variables, there may be other confounding variables that were not measured. Future research should consider including additional control variables such as personality traits, coping mechanisms, and social support.

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