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The Effect of Emotional Intelligent on Team Performance: A Case Study of a Government Hospital

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Abstract

Organizational development requires human resources. Professional organizations manage systems and the organizational mechanisms of existing resources to support flexible responses of change. Hospitals are a part of the service industry and have extraordinarily complex business processes, and a large potential for optimization and efficiency improvements. The aim of this study is to explore the relationship between emotional intelligence and team performance during the inter-institutionalized collaboration work process. This study was conducted in the South Sulawesi and Central Sulawesi Province's hospitals. The study lasted for six months in 2017. The sampling was done by using the cluster method and stratified random sampling, which was based on hospital type and the level of health officers. The data analysis approach used in this study was the partial least square (PLS), using WarpPLS software. The results show that emotional intelligence significantly and positively affected team performance with a path coefficient value of 0.138 and a p-value of 0.050. Based on the results of the data analysis, it can be concluded that there is a significant direct influence of emotional intelligence on team performance.

Keywords: Emotional Intelligence, Team Performance, Government Hospital

1. Introduction

Hospitals are a part of the service industry and have overly complex business processes, and a large potential for optimisation and efficiency improvements [1]. The public demands for better health services indirectly requires the hospital to continuously develop [2]. To improve the quality of health services for the customer, the work should be done effectively and efficiently, and it requires continuous improvement with the least amount of resistance that is possible [3]. In the last decade hospitals and technical services for health care in Indonesia rapidly expanded; in 2012, the number of public hospitals was 1.608 and by 2013, the number of hospitals was 1.725.

The progressive development of health care services correlates with a decrease in the readiness of health personnel resources which can affect the quality of health services [4]. It is generally known that the level of knowledge and skills of health service providers can affect the performance of officers in the hospital sector and can directly affect the quality of service to customers, including patients and their families [5]. For this reason, hospital managers must integrate various potential

existing resources to achieve maximum employee performance. Hospital management should implement a series of operational policies and standards that require the cooperation of all departments and divisions [6]. The tools that are arranged and implemented will benefit hospitals that have limited resources if all departments and divisions work together [7].

The quality of collaboration and interdepartmental team performance is expensive for the knowledge sharing function of a collaborative team [8]. Collaboration ability, competence and culture are the backgrounds of team performance in every organization, including hospitals [9]. In addition, variations in knowledge and motives among work team members will also have the potential to cause conflict as a necessity in every organization [10]. Internal conflict within the team at a hospital will have a detrimental effect on the harmonization of interaction and communication [11]. To reduce unwanted conflicts in work teams in government hospitals, the emotional intelligence of each team member is a dominant factor that must be cultivated [12].

2. Materials and methods

This study applies an explanatory approach which is oriented to describe the position of each variable involved in the study [13]. At a further level, the study aims to analyze the relationship between variables using the appropriate unit analysis. Data collection was carried out for six months from May to September in 2017 at two government hospitals located in the provinces of South Sulawesi and Central Sulawesi. Information was obtained through interviews using a structured questionnaire on selected respondents according to the criteria set by the researcher [14]. In addition, additional information is obtained through observing the work atmosphere to obtain the real conditions of the work team at the hospital. Literature studies from various sources were also carried out to obtain secondary data to complement the research analysis [15]. Determination of respondents as the study sample was carried out by applying the cluster method and stratified random sampling [16], which was based on the type of hospital and the level of occupation of a health worker. The decision to use two sampling methods was based on the

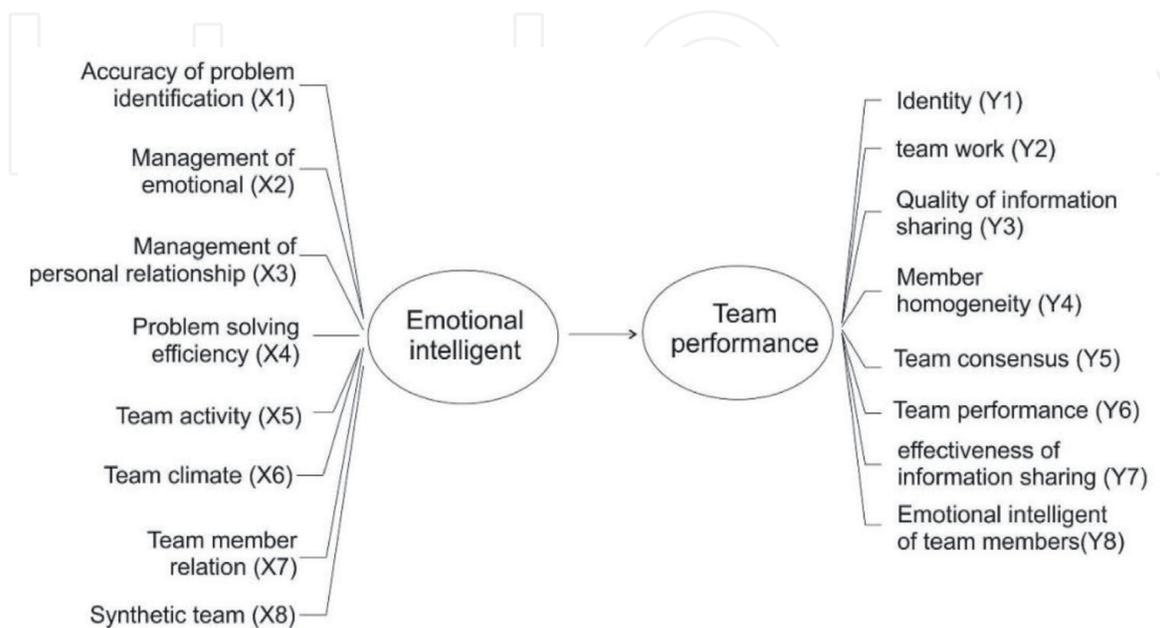


Figure 1.
Data analysis design.

objective of obtaining a very heterogeneous representation of the information [17] through interviews with representatives of health workers. Methods of processing and data analysis using the WarpPLS software with the partial least square (PLS) method [18]. The data analysis design is illustrated in **Figure 1**.

3. Results

3.1 Validity and reliability testing

Data collection uses a questionnaire that has been tested to guarantee its reliability and validity [19]. The perception score was determined using the Likert scale. The Likert scale is a scale applied to assess behavior, attitudes and opinions [20]. This scale is particularly useful for application in survey research because it helps researchers to operationalize personality traits or perceptions. Likert scales usually use 5 or 7 answer items. The answer choices used most often ranged from Strongly Agree to Strongly Disagree. The Likert scale allows survey researchers to obtain a holistic picture of their opinion and level of agreement. Person Correlation Value is used to test the validity of the research instrument [21]. Person Correlation Value (r) is greater than 0.30, indicating that the item is valid and meets the requirements for use at a later stage in the field. Conversely, if the value of Pearson (r) is less than 0.30, it indicates that the item is not valid for use. The reliability test of the data collection instrument used Cronbach's alpha analysis [22]. The Cronbach alpha coefficient value is above 0.60, indicating that the research instrument meets reliability principles; Conversely, if the Cronbach alpha coefficient value is below 0.60, it indicates that the data to be obtained will be biased because the instrument is not reliable. The validity and reliability test scheme is provided in **Table 1** below.

Variables	Indicators	Validity		Reliability	
Emotional Intelligence (X1)	X11	0.421	Valid	0.702	Reliable
	X12	0.423	Valid		
	X13	0.472	Valid		
	X14	0.446	Valid		
	X15	0.422	Valid		
	X16	0.373	Valid		
	X17	0.509	Valid		
	X18	0.375	Valid		
Team Performance (Y3)	Y31	0.626	Valid	0.774	Reliable
	Y32	0.702	Valid		
	Y33	0.664	Valid		
	Y34	0.612	Valid		
	Y35	0.620	Valid		
	Y36	0.597	Valid		
	Y37	0.479	Valid		
	Y38	0.612	Valid		

Table 1.
Validity and Realibility of Indicators.

The results of the analysis show that all indicators for each variable have a value greater than 0.30 which indicates that the research instrument is valid. Likewise, the Cronbach's alpha value is greater than 0.60 on all variables which indicates that the research instrument is declared reliable.

3.2 Goodness of fit test

The goodness-of-fit test uses the predictive-relevance (Q^2) value in statistical hypothesis testing to analyze how well the sample data fits a distribution from a normally distributed population [23]. In addition, the difference between the observed value and the expected value of the normal distribution can be done by applying the Goodness-of-fit test [24]. The analysis showed that the predictive-relevance value reached 0.787 (78.7%); which indicates that the research model or design has a relevant predictive value. The level of prediction relevance at the value of 78.7% indicates that the level of diversity of research data that can be explained by the model is 78.7. Statistical interpretation explains that the information contained in the data can be explained by 78.7% through the model and the remaining 21.3% is interpreted by other variables not explained by the model) and error. The value of $Q^2 > 75\%$ indicates that the research model used is in an exceptionally good category and can be interpreted for further hypothesis testing [25].

3.3 Partial least square analysis results

Partial least squares (PLS) is a statistical method used to build a predictive model when various factors interact and collide [26]. PLS focuses on predicting responses and should not try to understand the underlying relationships between variables [27]. Another terminology of PLS is the inner model testing (structural model) [28] to test the research hypothesis using the t-test (TStatistic) on each of the partial direct influence pathways. The results of statistical analysis (WarpPLS) on the detailed data model are presented in **Table 1**. The **Table 2** presents the results of hypothesis testing.

The results of testing the indirect effect of the emotional intelligence variable on team performance (health workers in the hospital) show that the path coefficient value reaches 0.138 with a p-value of 0.050. The p-value level of 0.05 indicates a significant direct effect of emotional intelligence on team performance (see **Table 2**). In addition, the path coefficient value which is positive indicates that there is a positive relationship between emotional intelligence and the level of performance of health workers. Statistical interpretation states that the higher the emotional intelligence of health workers in the hospital, the more optimal their performance will be.

Relationship	Path Coefficient	p-value	Information
Emotional Intelligence (X1) → Team Performance (Y3)	0.138	0.050	Significant

Table 2.
Inner model result in WarpPLS: Direct effect.

4. Discussion

The results of data analysis indicate that the intelligence variable has an empirically significant effect on team performance in government hospitals in two

provinces. The path coefficient value of 0.138 with a p-value of 0.050 in direct testing indicates a significant direct effect between emotional intelligence and team performance in government hospitals [28]. Given that the path coefficient is positive, this indicates that the relationship is positive. The results of the study found that the emotional intelligence of a leader in a work team in the hospital had an impact on the performance of the staff, the effect of which was to mediate the emotional level and creativity of the team members. The results determined that health care quality correlated positively with emotional regulation. Emotional regulation was also positively correlated with group cohesion. It is surprising that emotional assessment was negatively correlated with the quality of health care provided by the team. This result indicates that EI and, more specifically, the emotional regulation can provide a new, interesting way to improve team cohesion [29].

Transactional leadership models basically work from the idea that managers give employees what they want in return for getting what they want [30]. In the case of the hospital, the staff providing health services are not independently motivated and thus require structure, instruction, and monitoring to complete tasks correctly and on time. The transformative leadership style that has emerged in government hospitals [31], generally displays a managerial leadership style, focusing on the role of supervisory, organization, and group performance [32, 33]. Leaders who adopt this style focus on a specific task and use rewards and punishments to motivate followers [34]. In addition, transactional and transformational leadership styles sending messages have a symbiotic relationship with emotional intelligence in the leadership style domain [35, 36].

The results of research which recommends that transactional/transformational leadership styles act as strong predictors of leadership strength [37] and abilities [38]. Several study have investigated the relationship between emotional intelligence and team performance and found that only emotional understanding and emotional management were positively correlated with multiple measures of team performance [39–41]. However, another fact stated by Hansenne (2008) indicated that emotional intelligence (EI) is assessed using a modified version of the Schutte Emotional Intelligence Scale and the cohesiveness with the Group Cohesiveness Scale [42]. Finally, the performance of the nurse team was measured at four different levels: job satisfaction.

5. Conclusions

Emotional Intelligence Plays an Important Role in Improving Team Performance in an organization including hospitals. Based on the results of data analysis, it can be concluded that there is a direct and significant effect of emotional intelligence on team performance. It is important for leaders to understand, analyzed the emotions of themselves and the team members who work at a hospital. Emotionally intelligent team leaders will have useful insights into how to focus the interests and needs of team members. Including how to use and regulate emotions effectively to achieve maximum team performance. This study found that continuous and comprehensive handling of emotional intelligence for all teams within the hospital area is needed. Knowledge factors, team conflict and structural mechanisms strengthen the influence of Emotional Intelligence on team performance. Application of new ideas and processes, continuous innovation, application of skills, cognition, roles, key ideas, interpersonal relationships, division of labor, hierarchies of authority, rules of rights and obligations, and interpersonal relationships will drive the optimization of team performance. This research contributes to the development of theories of emotional intelligence and team performance. As a recommendation, the organization should

ensure that the indicators are applied in the resource development planning system. The work team must be able to manage their negative emotions through emotional intelligence to reduce conflict, which in turn encourages creativity, facilitates effective communication, exchanges knowledge and is able to solve complex problems.

5.1 Significant statement

This study found that the emotional intelligence of team leaders had an impact on team performance. Emotional intelligence can be a mediating factor between the emotional level of team members and work team creativity. That can be beneficial for the head of the hospital and the ministry of health of the Republic of Indonesia to formulate a strategic policy related to increasing human resources in the Government Hospital. This study will help the researcher to cover the critical areas of the relationship between emotional intelligence on team performance during the inter-institutionalized collaboration work process. Thus, a new theory on the effect of emotional intelligence on team performance is arrived at.

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Conflict of interest

The authors whose names are listed in this article state that they have no affiliation or involvement in any organization or entity with any financial. The author declares that the article is the Authors' original work and has not received prior publication and is not under consideration for publication elsewhere. This research has not been submitted for publication nor has it been published in whole or in other parts.

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References

- [1] Gray, B.; Boshoff, C. The relationships between service quality, customer satisfaction and buying intentions in the private hospital industry.
- [2] Rhyne, D.M. The Impact of Demand Management on Service System Performance. *Serv. Ind. J.* **1988**, *8*, 446-458.
- [3] Ghosh, S.; Sallam, S. Patient satisfaction and postoperative demands on hospital and community services after day surgery. *Br. J. Surg.* **1994**, *81*, 1635-1638.
- [4] Ruiz-Aranda, D.; Extremera, N.; Pineda-Galán, C. Emotional intelligence, life satisfaction and subjective happiness in female student health professionals: the mediating effect of perceived stress. *J. Psychiatr. Ment. Health Nurs.* **2014**, *21*, 106-113.
- [5] Gunkel, M.; Schlaegel, C.; Taras, V. Cultural values, emotional intelligence, and conflict handling styles: A global study. *J. World Bus.* **2016**, *51*, 568-585.
- [6] Eriksen, B.O.; Kristiansen, I.S.; Nord, E.; Pape, J.F.; Almdahl, S.M.; Hensrud, A.; Jaeger, S. The cost of inappropriate admissions: a study of health benefits and resource utilization in a department of internal medicine. *J. Intern. Med.* **1999**, *246*, 379-387.
- [7] Salovey, P.; Grewal, D. The science of emotional intelligence. *Curr. Dir. Psychol. Sci.* **2005**, *14*, 281-285.
- [8] De Luca, L.M.; Atuahene-Gima, K. Market Knowledge Dimensions and Cross-Functional Collaboration: Examining the Different Routes to Product Innovation Performance. *J. Mark.* **2007**, *71*, 95-112.
- [9] Chrisman, N.J. Extending cultural competence through systems change: Academic, hospital, and community partnerships. *J. Transcult. Nurs.* **2007**, *18*.
- [10] Mohammed, S.; Dumville, B.C. Team mental models in a team knowledge framework: Expanding theory and measurement across disciplinary boundaries. *J. Organ. Behav.* **2001**, *22*, 89-106.
- [11] Bresman, H.; Zellmer-Bruhn, M. The structural context of team learning: Effects of organizational and team structure on internal and external learning. *Organ. Sci.* **2013**, *24*, 1120-1139.
- [12] Stanton, J.M.; Julian, A.L. The impact of electronic monitoring on quality and quantity of performance. *Comput. Human Behav.* **2002**, *18*, 85-101.
- [13] Rose, R.; Pilkington, A. *Mixed Methods-Theory and Practice: Sequential, Explanatory Approach*; 2017;
- [14] Rylance, G. Privacy, dignity, and confidentiality: Interview study with structured questionnaire. *Br. Med. J.* **1999**, *318*, 301.
- [15] Snyder, H. Literature review as a research methodology: An overview and guidelines. *J. Bus. Res.* **2019**, *104*, 333-339.
- [16] Aoyama, H. Stratified random sampling with optimum allocation for multivariate population. *Ann. Inst. Stat. Math.* **1962**, *14*, 251-258.
- [17] Holm-Nielsen, J.B.; Dahl, C.K.; Esbensen, K.H. Representative sampling for process analytical characterization of heterogeneous bioslurry systems-a reference study of sampling issues in PAT. *Chemom. Intell. Lab. Syst.* **2006**, *83*, 114-126.
- [18] Abdi, H. *Partial Least Square Regression PLS-Regression*;

- [19] Raczkowski, D.; Kalat, J.W.; Nebes, R. Reliability and validity of some handedness questionnaire items. *Neuropsychologia* **1974**, *12*, 43-47.
- [20] Hussain, Z.; Barua, A. *Methods for Decision-Making In Survey Questionnaires Based on Likert Scale*; 2013; Vol. 3;.
- [21] Rosner, B.; Willett, W.C. Interval estimates for correlation coefficients corrected for within-person variation: Implications for study design and hypothesis testing. *Am. J. Epidemiol.* **1988**, *127*, 377-386.
- [22] Gliem, J.A.; Gliem, R.R. Calculating, Interpreting, And Reporting Cronbach's Alpha Reliability Coefficient For Likert-Type Scales Available online: <https://scholarworks.iupui.edu/handle/1805/344> (accessed on May 19, 2021).
- [23] Hosmer, D.W.; Lemeshow, S. Goodness of fit tests for the multiple logistic regression model. *Commun. Stat. - Theory Methods* **1980**, *9*, 1043-1069.
- [24] Fisher, R.A. The Goodness of Fit of Regression Formulae, and the Distribution of Regression Coefficients. *J. R. Stat. Soc.* **1922**, *85*, 597.
- [25] Andersen, P.K. Testing Goodness of Fit of Cox's Regression and Life Model. *Biometrics* **1982**, *38*, 67.
- [26] Tobias, R.D. *An Introduction to Partial Least Squares Regression*;
- [27] Akter, S.; Ambra, J.D.; Ray, P. *An evaluation of PLS based complex models: the roles of power analysis, An evaluation of PLS based complex models: the roles of power analysis, predictive relevance and GoF index predictive relevance and GoF index*;
- [28] Lee, L.; Petter, S.; Fayard, D.; Robinson, S. On the use of partial least squares path modeling in accounting research. *Int. J. Account. Inf. Syst.* **2011**, *12*, 305-328.
- [29] Islami, X.; Mulolli, E.; Mustafa, N. Using Management by Objectives as a performance appraisal tool for employee satisfaction. *Futur. Bus. J.* **2018**, *4*, 94-108.
- [30] Melita Prati, L.; Douglas, C.; Ferris, G.R.; Ammeter, A.P.; Buckley, M.R. Emotional Intelligence, Leadership Effectiveness, and Team Outcomes. *Int. J. Organ. Anal.* **2003**, *11*, 21-40.
- [31] ALFadhlah, T.; Elamir, H. Exploring leadership styles in government hospitals in Kuwait. *Leadersh. Heal. Serv.* **2019**, *32*, 458-476.
- [32] Waqas, H. Impact of Leadership Style (Transformation Transactional Leadership) On Employee Performance & Mediating Role of Job Satisfaction" Study of Private School (Educator) In Pakistan. *Glob. J. Manag. Bus. Res.* **2012**, *12*.
- [33] N, N.; A, D. Relationship between leadership styles of Nurese managers and nurses' job satisfaction in Jimma University Specialized Hospital. *Ethiop. J. Health Sci.* **2013**.
- [34] Voon, M.L.; Lo, M.C.; Ngui, K.S.; Ayob, N.B. The influence of leadership styles on employees' job satisfaction in public sector organizations in Malaysia. *Int. J. Business, Manag. Soc. Sci.* **2011**, *2*, 24-32.
- [35] Spano-Szekely, L.; Griffin, M.T.Q.; Clavelle, J.; Fitzpatrick, J.J. Emotional intelligence and transformational leadership in nurse managers. *J. Nurs. Adm.* **2016**, *46*, 101-108.
- [36] Brown, C. The Effects of Emotional Intelligence (EI) and Leadership Style on Sales Performance. *Econ. Insights-Trends Challenges* **2014**, *3*, 1-14.

[37] Judge, T.A.; Piccol, R.F.
Transformational and transactional leadership: A meta-analytic test of their relative validity. *J. Appl. Psychol.* **2004**, *89*, 755-768.

[38] Sadeghi, A.; Akmaliah, Z.; Pihie, L.
Transformational Leadership and Its Predictive Effects on Leadership Effectiveness. *Int. J. Bus. Soc. Sci.* **2011**, *3*.

[39] Shooshtarian, Z.; Ameli, F.; Amini Lari, M. The Effect of Labor's Emotional Intelligence on Their Job Satisfaction, Job Performance and Commitment. *Iran. J. Manag. Stud.* **2013**, *6*, 27-43.

[40] Quoidbach, J.; Hansenne, M. The Impact of Trait Emotional Intelligence on Nursing Team Performance and Cohesiveness. *J. Prof. Nurs.* **2009**, *25*, 23-29.

[41] Feyerherm, A.E.; Rice, C.L.
EMOTIONAL INTELLIGENCE AND TEAM PERFORMANCE: THE GOOD, THE BAD AND THE UGLY. *Int. J. Organ. Anal.* **2002**, *10*, 343-362.

[42] Nelis, D.; Quoidbach, J.; Mikolajczak, M.; Hansenne, M.
Increasing emotional intelligence: (How) is it possible? *Pers. Individ. Dif.* **2009**, *47*, 36-41.