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THE EFFECT OF INTERPROFESSIONAL COLLABORATION AND *TOTAL QUALITY MANAGEMENT* ON THE IMPLEMENTATION OF ELECTRONIC MEDICAL RECORDS IN OUTPATIENT UNITS MEDIATED BY WORK CULTURE

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KEYWORDS

Kolaborasi Interprofesional, Total Quality Management, Budaya Kerja, Rekam Medis Elketronik

ABSTRACT

The enactment of government regulations requires every health service facility to maintain electronic medical records as an effort to improve the quality of health services in Indonesia. There are 13,372 healthcare facilities in Indonesia and only 40% have run EMR. Influencing aspects: human data sources, policies, regulations, infrastructure and costs. There are still differences in aspects and responses of doctors and nurses to the implementation of electronic medical records. The importance of interprofessional collaboration through communication, joint decision making, coordination and cooperation, as well as continuous quality improvement through total quality management strategies and work culture of health workers as an effort to improve the quality of health services. The purpose of the study was to analyze the effect of interprofessional collaboration, total quality management on the implementation of electronic medical records in the mediation of work culture simultaneously and partially. The method uses descriptive statistics, quantitative associative correlations and questionnaires. Sampling using systematic random sampling from respondents of 109 health workers in the outpatient installation of RSUD Kabupaten Tangerang. The results showed that there is an influence of interprofessional collaboration and total quality management on the implementation of electronic medical records mediated by work culture. The coefficient value of the determination of influence on work culture variables and the implementation of electronic medical records of more than 0.75 is included in the medium category. Workshops related to the implementation of electronic edis records and effective communication among interprofessionals need to be conducted and further research can be carried out on the impact and benefits.

INTRODUCTION

With the enactment of the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 which requires every health service facility to hold electronic medical records. This implementation is in accordance with the strategic policy of the Indonesian government for the implementation of 'One Data in the Health Sector' which is expected to improve the quality of health services in Indonesia.

Based on the Statistics Indonesia report, there are 11,874 units of health facilities in Indonesia in 2021. This number increased by 1.27% compared to the previous year which was 11,724 units. The details, 8,905 polyclinic units, 2,617 hospital units throughout Indonesia. West Java is recorded to have the most polyclinics, which are 1,772 units. Followed by East Java and Central Java with 1,263 units and 1,198 units, respectively. The most hospitals in East Java are 424 units. Followed by West Java and Central Java with 321 units and 288 units, respectively. Then, there are 352 maternity housing units in Indonesia. According to the Ministry of

Health of the Republic of Indonesia in LAKIP 2021, health service facilities in Indonesia consist of 2,514 units of General Hospitals, 598 units of Special Hospitals, 4,177 units of Inpatient Health Centers, 6,083 units of Non-Inpatient Health Centers (Director General YanKes Reference, 2022).

The percentage of hospitals that implement integrated Electronic Medical Record (EMR) is 40% (Director General YanKes Referral, (2022);Margret K Amatayakul, (2012)). These factors exist because there are still many doubts in using this system, especially in the aspects of security and confidentiality. The results of the study stated that in one of the referral hospitals and government education in East Java showed data on filling in the completeness of electronic medical records in the section Outpatient less than 27%. (Faida, Supriyanto, Haksama, Markam, & Ali, 2022).

The main purpose of medical records is needed in order to record what the doctor's instructions are for a patient's condition (*Oral* become *Written*). So much information needs to be recorded, it requires a standard and clear structure for recording health information (*Unstructured* become *Structured*). With neater recording, the format of medical record records is digital (*Paper* become *Digital*). Then, the digitization of health information also requires that information can be accessed by various parties (*Chart* become *System*) (Andriyarini, 2022), with the complexity of medical record management, it is time if every modern hospital today replaces conventional medical record management to electronic so as to improve the professionalism and performance of hospital management through three benefits, namely general, operational and organizational benefits (Handiwidjojo, 2015).

Implementation of electronic medical records as a strategy to improve the quality of health services in improving workflow, overcoming clinical documentation constraints in manual medical records that experience many problems and their implementation with challenges and obstacles to EMR implementation, namely in the human resource dimension including user resistance in EMR implementation and lack of knowledge and experience to use EMR. (Yulida, Lazuardi, & Pertiwi, 2021), as a strategy to improve the quality of health services such as improving workflows, overcoming the constraints of manual medical record-based clinical documentation that experiences many problems in the information system in health services and in the application in hospitals and health services covering 4 aspects including: human resources, policies and regulations, infrastructure and costs (Aguirre, Suarez, Fuentes, & Sanchez-Gonzalez, 2019; Seymour, Frantsvog, & Graeber, 2012).

Doctors and nurses differ in a number of aspects and their responses to the use of EMR. The most coherent result: for doctors and nurses, lies in communication. A second, relatively

consistent finding is that support from the Technology and Information (IT) department yielded positive results on EMR implementations. Doctors and nurses have different attitudes in response to these changes. Work culture has some influence as well on the use of EMR (Hasanain, 2010).Implementation *Total Quality Management* (TQM) in the health sector is the fulfillment of customer needs by going through the stages of inspection and control, aiming to obtain high-quality services at reasonable costs, meeting competitive market demands. includes factors such as leadership, culture, and communication. The TQM model serves as a comprehensive framework for effective quality management, emphasizing customer satisfaction and continuous improvement (Oakland, 2014). TQM orientation on service quality, customers, human resources and *Team Work*, for this reason, it is important that there is interprofessional collaboration in care and health care organizations (Körner, Wirtz, Bengel, & Göritz, 2015). Cooperation between health professionals with different educational backgrounds into one team collaborates to improve the quality of effective health services in the form of *Interprofessional Collaboration (IPC)*. This collaboration between professions as an innovative strategy will play an important role in mitigating the global health workforce crisis. Collaborative practices strengthen health systems and improve outcomes in health (WHO, 2010;IPEC, 2016)).

Work culture is designed to realize the goals of the organization, realize the goals of individual workers. Work culture is often considered the most staple activity in organizations. Because through work culture, workers will become more skilled and productive even though these benefits for success require a lot of time and training (Kusumawati, Fauzi, & Amini, 2022).

With the phenomenon of electronic medical record implementation policies in all health services in Indonesia, of course, there will be many impacts arising from the enactment of this regulation which must be held on December 31, 2023 throughout Indonesia. To overcome the impact that occurs as the problems described earlier, the researcher conducted a study that had the aim of analyzing the effect of interprofessional collaboration, *total quality management* on the implementation of EMR mediated by work culture.

To achieve research objectives EMR with previous research, the research hypothesis can be laid off as follows:

H1: There is a positive influence of interprofessional collaboration (IPC) and *total quality management (*TQM) on the achievement of electronic medical record (EMR) implementation in the outpatient unit of RSU Tangerang Regency by mediating work culture.

H2: There is a positive influence of interprofessional collaboration (IPC) on the implementation of electronic medical records in the outpatient unit of RSU Tangerang Regency.

H3: There is a positive influence *of total quality management (*TQM) on the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency.

H4: There is a positive influence of work culture on the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency.

H5: There is a positive influence of interprofessional collaboration (IPC) on work culture in the inpatient unit of RSU Tangerang Regency.

H6: There is a positive influence *of total quality management* (TQM) on work culture in the outpatient unit of RSU Tangerang Regency.

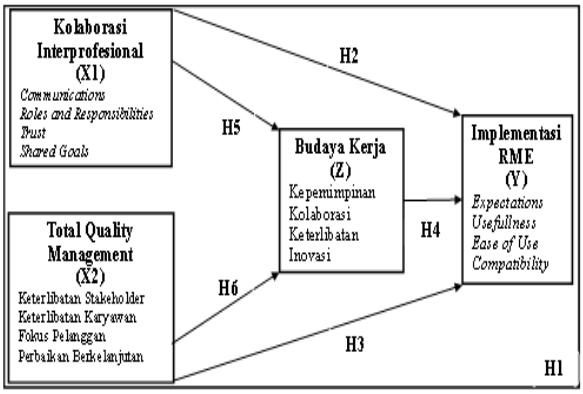

Figure 1. Conceptual Framework

RESEARCH METHODS

This type of research is included in quantitative research because it uses statistical numbers that are useful for measuring the influence between independent variables on being bound. This research approach is included in *cross-sectional studies* because observations are only made one at a specified time with the aim of analyzing the relationship between independent and bound variables.

The population in this study was doctors and nurses in the Outpatient Unit of RSU Tangerang Regency as many as 150 people consisting of 69 doctors and 81 nurses. The sample calculation in this study was carried out using the Slovin formula. Based on the calculation results known to be worth 109, this study determined a sample of 109 respondents with a sampling technique using *stratified random sampling.*

RESULTS AND DISCUSSION

Respondent Profile

The respondents in this study amounted to 109 people who were nurses and doctors at RSU Tangerang Regency who met the inclusion criteria. Most respondents were women (72.48%) with an average age of 46.97 years. Most respondents have taken specialist medical education (39.45%) but respondents are dominated by nurses (54.13%). This is because nurses have different recent education. Respondents are dominated by people who have a working period of more than 12 years.

Data Description

On the variable implementation of electronic medical records has an average score of 97.04. Respondents have high expectations and good acceptance of the use of integrated electronic medical records as support for the work done but are still constrained by its ease of use. "Complex technological barriers can be overcome by reducing the 'difficulty to use'

factor, which can be done by focusing on easy-to-use EMR features" (Singh, Jadhav, & Roopashree, 2020).

On the interprofessional collaboration variable with an average score of 94.71. This shows that respondents' behavior illustrates the importance of communication between each team member involved in patient care and service has gone well but there is still a need for mutual trust and respect for fellow team members involved, Communication between nurses and doctors is very important to maintain patient safety. "Without good communication, patient care coordination is disrupted so that treatment outcomes are not optimal. Skills training. Communication is one of the intervention strategies used to improve communication between nurses and doctors."(Francoet.al.,(2017); Mccallie,(2015)).

On variables *Total Quality Management* With an average score of 93.33 shows that respondents' behavior is committed to taking responsibility for service quality as a result of stakeholder involvement, it means that leaders have carried out their roles well with doctors and nurses so that they can understand their respective roles and responsibilities in improving service quality, but still need continuous improvement in efforts to improve service quality. "By providing services that meet customer expectations through a systematic process structured throughout the organization in planning and improving service quality and empowering teams by taking responsibility for their own work tasks by encouraging continuous coaching, empoweEMRnt and personal responsibility". (Carman et al., 2010) This requires management leaders to create a work culture and commit to continuous improvement, correcting deficiencies or meeting standards.

In the work culture variable with an average score of 95.35, respondents think leadership behavior has an important role in communication to the team and organizational support (hospital) in every change, experimentation and innovation in its implementation. "Leadership can affect the quality of work directly and indirectly, organizations and leaders must know the importance of effective leadership for a better work environment, facilitate the implementation of new modes of nursing, and provide the best service to patients" (Xing, Song, & Yan, 2020).

Outer Model

In the interprofessional collaboration variable, the *outer loading* value ranges from 0.781 – 0.882. In the *total quality management variable,* the outer loading *value* ranges from 0.753 – 0.888. The work culture variable has an *outer loading* range of 0.782 – 0.903. The indicators on the EMR implementation variable have *outer loading values* in the range of 0.709 – 0.898. The *outer loading* value of all indicators on each variable is above 0.60. This shows that in the model all indicators meet convergent validity.The work culture variable has *an average variance extracted (AVE) value of 0.705; implementation of EMR with an average variance extracted (AVE) of 0.644; an interprofessional collaboration* variable with an average variance extracted (AVE) of 0.688; and *a total quality management variable* with *an average variance extracted (*AVE*) of 0.719.* The *average variance extracted (AVE)* value in all variables is above 0.50. This shows that all variables meet convergent validity or it can be said that all variables are valid.All indicators have the highest *cross loading* value on the intended variable. This shows that all indicators in each variable meet the validity of the

discriminant. The work culture variable has the highest AVE root value of 0.988 in the work culture variable. The EMR implementation variable has the highest AVE root value in the EMR implementation, which is 0.977. The interprofessional collaboration variable with the AVE root is 0.972 and the *total quality management* variable with the AVE root is 0.843. The AVE root value of each variable is highest on the intended variable. This indicates that all variables satisfy the discriminant validity or in word all variables are valid.Work culture has *Cronbach's Alpha and* Composite reliability *values of 0.962 and* 0.966, respectively. The interprofessional collaboration variable has *Cronbach's Alpha and* Composite reliability *values of 0.949 and* 0.956, respectively. The EMR implementation variable has *Cronbach's Alpha and* Composite reliability *values of 0.959 and* 0.963 respectively. The interprofessional collaboration variable had *Cronbach's Alpha and* Composite reliability *values of 0.959 and* 0.963, respectively. The total quality management variable with *Cronbach's Alpha and* Composite reliability *values respectively amounted to 0.963 and* 0.967. All variables have *Cronbach's alpha and* composite reliability *values above 0.7 and* 0.5. This shows that all variables meet reliability requirements.

Inner Model

The R squared *adjusted* value for the work resource variable of 0.974 shows that all independent variables, namely interprofessional collaboration and *total quality management*, can affect work support by 97.40%. The remaining 2.60% was influenced by other variables that were not included in the research model.The EMR implementation variable has an R *squared adjusted value* of 0.942. This means that interprofessional collaboration *and total quality management* and work culture can influence the change in EMR implementation by 94.20%. The remaining 5.80% was influenced by other variables outside the model.The predictive value of relevance to the work culture variable was 0.681. While predictive relevance to the EMR implementation variable is 0.595. Both values are more than 0.35. This means that the model has a strong predictive.The value *of the effect size* of the work culture variable on the implementation of EMR is 0.376. This means that the effect of work culture change on EMR implementation change is strong as it is more than 0.35. *The effect size* of interprofessional collaboration on work culture is 2,014. This means that the effect of interprofessional collaboration on work culture is strong as it is more than 0.35. *Effect size* of interprofessional collaboration on EMR implementation variable 0.097. Changes in interprofessional collaboration towards EMR implementation are moderate between 0.15 and 0.35. This shows that the *effect size* value of *total quality management* on work culture is 0.021. The change in *total quality management* to work culture is moderate because between 0.15 and from 0.35. the implementation of EMR is moderate between 0.15 and from 0.35. This shows that the *effect size* value *of total quality management* on the implementation of EMR is 0.365. The change in *total quality management* towards the implementation of EMR is strong because it is more than 0.35.The result of the calculation *of goodness of fit* is 0.81. This value greater than 0.36 indicates that the suitability of the dependent variable in predicting the research model is large.

Test the hypothesis

The results of hypothesis testing are divided into two, namely direct influence and indirect influence. The results of indirect influence testing are presented in table 1.

The coefficient value of the influence of interprofessional collaboration on the implementation of EMR through work culture is 0.818 with *t* values of 3.754 and *p values of* 0.000. The value of t is more than 1.96 and *the p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that professional collaboration has a significant positive influence on the implementation of EMR through work culture as an interveining variable. And on the coefficient value, the influence of *total quality management* on the implementation of EMR through work culture is 0.132 with *t* values of 1.999 and *p values of* 0.043. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that *total quality management* has a significant influence on the implementation of EMR mediated by work culture.

Table 1.
Indirect Influence test results

Hypothesis	Coefficient	*T values*	*P Values*	Information
Interprofessional Collaboration -> Work Culture ->EMR Implementation	0,818	3,754	0,000	Accepted
Toyal Quality Management -> Work Culture ->EMR Implementation	0,132	1,999	0,043	Accepted

Table 2.
Direct Influence Testing

Hypothesi	Coefficient	T value	P Values	Information
Work Culture ->EMR Implementation	0,911	3,813	0,000	Accepted
Interprofessional Collaboration -> Work Culture	0,898	2,434	0,000	Accepted
Interprofessional Collaboration ->EMR Implementation	0,508	2,060	0,040	Accepted
Toyal Quality Management -> Work Culture	0,091	2,424	0,016	Accepted
Toyal Quality Management -> Implementation of EMR	0,574	5,529	0,000	Accepted

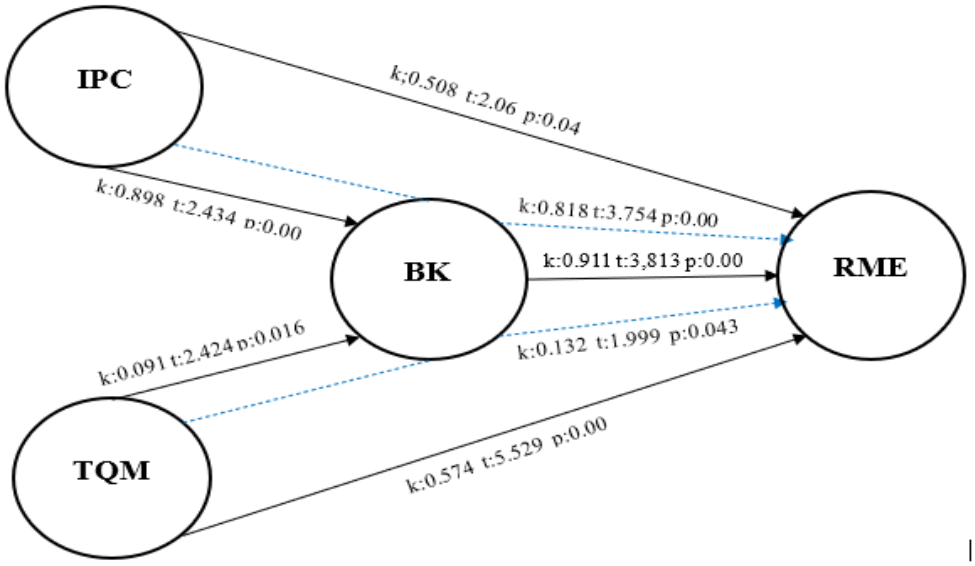

Figure 1. Hypothesis Testing Results

The coefficient value of the influence of interprofessional collaboration on the implementation of EMR is 0.898 with *t* values of 24.348 and *p values* of 0.000. The *t value is* more than 1.96 and *the p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that international collaboration has a significant positive influence on the implementation of EMR.

The coefficient value of the effect *of total quality management* on the implementation of EMR is 0.091 with *t* values of 2.424 and *p values of* 0.016. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that *total quality management* has a significant influence on the implementation of EMR.

The coefficient value of the influence of work culture on the implementation of EMR is 0.991 with *t* values of 3.813 and *p values of* 0.000. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that work culture has a significant influence on the implementation of EMR.

The coefficient value of the effect of interprofessional collaboration on work culture is 0.508 with *t* values of 2.060 and *p values of* 0.040. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that interprofessional collaboration has a significant influence on work culture.The coefficient value of the effect of *total quality management* on work culture is 0.574 with *t* values of 5.429 and *p values* of 0.000. The *t value is* more than 1.96 and *the p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that *total quality management* has a significant influence on work culture.

The influence of IPC and TQM on the achievement of EMR implementation in the outpatient unit of RSU Tangerang Regency with the mediation of Work Culture

The coefficient value of the influence of interprofessional collaboration on the implementation of EMR through work culture is 0.818 with *t* values of 3.754 and *p values of* 0.000. The value *of t value is* more than 1.96 and the value of *p value* is less than 0.05. So

H0 is rejected and H1 is accepted. This shows that international collaboration has a significant positive influence on the implementation of EMR mediated by work culture. So it was concluded that there was a positive influence of interprofessional collaboration (IPC) on the achievement of the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency mediated by work culture.

This practice of interprofessional collaboration has not been optimally carried out by all health workers because there are various obstacles in its implementation including assessment of health professions based on their respective perceptions, inconsistent communication or use of language, knowledge of the roles of other professions, low education, lack of public and doctor trust in nurses, lack of respect, namely mutual respect between professions nurse with other health workers (WHO, 2013)

Lestari et al., (2017) that inhibiting factors in the implementation *Interprofessional Collaboration* It is poor communication between health workers because of poor communication, misunderstandings will occur and will cause poor care for patients so that it can cause adverse impacts on client safety and health. These results are also in line with the study Ellis et al., (2023) that the influence of work culture can reduce the negative effects that enable a smooth transition during hospital organizational change where work culture also affects the attitude and readiness of health workers to change communication through information systems and ultimately reduces barriers to interprofessional collaboration.

In research Mohr et al. (2008) demonstrate that developing and emphasizing a culture of teamwork can overcome barriers that exist between doctors and nurses.

And in the results of the coefficient value, the influence of total quality management on the implementation of EMR through work culture is 0.132 with *t* values of 1.999 and *p values of* 0.043. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that total quality management has a significant influence on the implementation of EMR by mediating work culture. So it can be interpreted that and there is also a positive influence on *total quality quality management (*TQM) on the achievement of the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency mediated by work culture.

Results in line with research Martin et al., (2021) Stating competencies and role responsibilities related to quality management ideas and needs that arise integratively and oriented towards business excellence in addition to leadership commitment and support from the government is essential to achieve common goals has a significant influence on the success rate of EMR ($p<0.05$). These results show that the organization and health workers in this study can be interpreted as *Total Quality Management* has a positive influence on the implementation of EMR and the research carried out Graetz et al., (2015) believes that factors such as the development of training and knowledge of health workers and the role of work culture, involvement *Stakeholder and interprofessional collaboration can improve understanding and communication in the environment* work that affects the quality of EMR implementation in hospitals.

The effect of IPC on the implementation of electronic medical records in the outpatient unit of RSU Tangerang Regency

The coefficient value of the effect of interprofessional collaboration on the implementation of EMR is 0.898 with *t* values of 24.348 and *p values* of 0.000. The *t value is* less than 1.96 and the p value is more than 0.05. So H0 is rejected and H1 is accepted. This shows that international collaboration has a significant positive influence on the implementation of EMR. So it was concluded that there was a positive influence of interprofessional collaboration (IPC) on the achievement of the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency.

Interprofessional collaboration has not been maximally carried out by all health workers because there are various obstacles in its implementation including assessment of health professions based on their respective perceptions, inconsistent communication or use of language, knowledge of the roles of other professions, low education, lack of public and doctor trust in nurses, lack of respect that is mutual respect between the nursing profession and other health workers (Hasibuan, 2019 ; WHO, 2013).

Research conducted by Hardin (2019) explained that limited understanding of the role of each position will affect the implementation of cooperation, including the implementation of cooperation between nurses and doctors often causes misunderstandings, namely there are still many doctors who do not understand the scope of practice. nurses, so the responsibilities of nurses and doctors often overlap, so doctors are less confident in nurses' ability to make decisions about patient care.

E. Lestari et al., (2018) In his research revealed that the main problems of interprofessional collaboration in hospitals are communication skills and conflict resolution. It takes the support and involvement of hospital leaders to help and ensure the formation of a good and positive culture of interprofessional collaboration, so as to improve the quality of service to patient care.Other findings from the study (Janssen, Donnelly, Elder, Pathmanathan, & Shaw, 2021) stated that the obstacle to successful implementation of EMR in addition to the lack of technical support is the perception of health professionals that EMR increases their workload, therefore it is necessary to train health workers in hospitals so that they become familiar with EMR.

The effect of TQM on the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency

The coefficient value of the effect *of total quality management* on the implementation of EMR is 0.0.91 with *t* values of 2.424 and *p values of* 0.016. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that *total quality management* has a significant influence on the implementation of EMR. So it can be concluded that there is a positive influence *of total quality management* on the achievement of the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency.

Results in line with research Ramdani et al (2023) states that all ISSM factors (Technology, HR, Organization, Ease of Use, Usability, and Net Benefit) have a significant influence on the success rate of EMR ($p<0.05$). These results suggest that the organization in

this study can be interpreted as *Total Quality Management* has a positive influence on the implementation of EMR.

The influence of work culture on the implementation of EMR in the outpatient unit of RSU Tangerang Regency

The coefficient value of the influence of work culture on the implementation of EMR is 0.991 with *t* values of 3.813 and *p values* of 0.000. The *t value is* more than 1.96 and *the p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that work culture has a significant influence on the implementation of EMR. So it was concluded that there was a positive influence of work culture on the achievement of the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency.The readiness of electronic medical record implementation is also determined by management support, and the participation of health workers, in the process of implementing electronic medical records requires organizational culture readiness, governance readiness and strong leadership. Staff participation in the implementation planning process has an important role in providing ideas or input (Yoga, Jaka, & Yanti, 2021) The workflow of the electronic medical record process concerns administrative processes including monitoring and reporting, this monitoring and reporting need factor also affects the readiness of the organization to implement electronic medical records (Yanuar Pribadi, Sandra Dewi, 2018). This shows that the work culture in a health institution has a significant role or influence on the successful implementation of the use of EMR.

The influence of IPC on work culture in the inpatient unit of RSU Tangerang Regency

The coefficient value of the effect of interprofessional collaboration on work culture is 0.508 with *t* values of 2.060 and *p values of* 0.040. The t value is more than 1.96 and the *p value* is less than 0.05. So H0 is rejected and H1 is accepted. This shows that interprofessional collaboration has a significant influence on work culture. So it can be concluded that there is a positive influence of interprofessional collaboration on work culture in the outpatient unit of RSU Tangerang Regency.

There were significant differences in the parameters of team function, patient collaboration, team collaboration, communication, conflict management, roles and responsibilities between Inter's pre- and post-intervention *Professional Collaboration:* (Murdiany, et.al , 2021). The results of this study provide support that the application of interprofessional collaboration can improve team function, collaboration with patients, team collaboration, communication, conflict management, roles and responsibilities of health workers. Improvement of team function, collaboration with patients, team collaboration, conflict management communication, roles and responsibilities of health workers can be a reflection of a good work culture. So it can be known that the existence of good interprofessional collaboration will trigger the growth of a good work culture.

The influence of TQM on work culture in the outpatient unit of RSU Tangerang Regency

The coefficient value of the effect of total quality management on work culture is 0.574 with *t values* of 5,429 and value *p values* 0.000. Value *t values* more than 1.96 and rated *p value* less than 0.05. So H0 is rejected and H1 is accepted. This shows that *Total Quality Management* has a significant influence on work culture. So it can be concluded that there is a positive influence *Total Quality Management* towards work culture in the outpatient unit of RSU Tangerang Regency. The results of this study show that *Stakeholders* strives for constant progress by preparing to improve their critical thinking and intelligent talent, quality improvement capabilities, data evaluation and analytical techniques. They must also understand the needs of health workers pushing them through the establishment of appropriate reward schemes and the improvement of their workplaces for the successful implementation of total quality management (Blackburn & Rosen, 1993). This is also in accordance with research Bayot ML,et.al (2022) That it is very important that the work culture is assessed and improved in each hospital because it will have a significant impact on health workers, employees and hospital leaders themselves and more importantly produce satisfactory quality of service.

CONCLUSION

Obtained from the research that has been conducted are: There is an influence of interprofessional collaboration (IPC) and *total quality management (*TQM) on the achievement of the implementation of electronic medical records (EMR) in the outpatient unit of RSU Tangerang Regency mediated by work culture. In addition, findings were found that: There is an effect of interprofessional collaboration (IPC) and *total quality management* (TQM) on the implementation of electronic medical records; There is an influence of work culture on the implementation of electronic medical records (EMR); There is a positive influence of interprofessional collaboration (IPC) and *total quality management* (TQM) on work culture.

Based on the results of the study are: the need for management support to improve effective communication between the professionals involved and the workshop road . In addition, there is a need and increased understanding of each personnel involved such as training or management support for education.

BIBLIOGRAPHY

Aguirre, Roboam R., Suarez, Orlando, Fuentes, Mailenys, & Sanchez-Gonzalez, Marcos A. (2019). Electronic Health Record Implementation: A Review of Resources and Tools. *Cureus*. https://doi.org/10.7759/cureus.5649

Andriyarini, Teylita. (2022). Sama tapi Berbeda: EMR (Electronic Medical Record) vs. EHR (Electronic Health Record).

Bayot ML, Tadi P, Vaqar S. (2022). *Work Culture*. TYreasure Island (FL): StatPearls Publishing.

Blackburn, Richard, & Rosen, Benson. (1993). Total quality and human resources management: lessons learned from Baldrige Award-winning companies. *Academy of*

Management Perspectives, *7*(3), 49–66. https://doi.org/10.5465/ame.1993.9411302347

Carman, James M., Shortell, Stephen M., Foster, Richard W., Hughes, Edward F. X., Boerstler, Heidi, O' Brien, James L., & O'Connor, Edward J. (2010). Keys for successful implementation of total quality management in hospitals. *Health Care Management Review*, *35*(4), 283–293. https://doi.org/10.1097/HMR.0b013e3181f5fc4a

DirJen YanKes Rujukan. (2022). LAKIP 2021 Kemkes RI. *Kementrian Kesehatan RI*, pp. 248–253. Jakarta: Kementrian Kesehatan Republik Indonesia.

Ellis, Louise A., Tran, Yvonne, Pomare, Chiara, Long, Janet C., Churruca, Kate, Saba, Maree, & Braithwaite, Jeffrey. (2023). Hospital organizational change: The importance of teamwork culture, communication, and change readiness. *Frontiers in Public Health*, *11*. https://doi.org/10.3389/fpubh.2023.1089252

Faida, Eka Wilda, Supriyanto, Stefanus, Haksama, Setya, Markam, Hosizah, & Ali, Amir. (2022). The Acceptance and Use of Electronic Medical Records in Developing Countries within the Unified Theory of Acceptance and Use of Technology Framework. *Open Access Macedonian Journal of Medical Sciences*, *10*(E), 326–336. https://doi.org/10.3889/oamjms.2022.8409

Franco, Nanette P., Cordero, Mary Anne W., Munoz, Anahi Penelope, & Nash, Denise. (2017). Collaboration Effort between Physicians and Nurses: A Feedback Tool for the Review of the Hospitals. *International Journal of Nursing*. https://doi.org/10.15640/ijn.v4n1a4

Graetz, Ilana, Huang, Jie, Brand, Richard, Shortell, Stephen M., Rundall, Thomas G., Bellows, Jim, Hsu, John, Jaffe, Marc, & Reed, Mary E. (2015). The impact of electronic health records and teamwork on diabetes care quality. *American Journal of Managed Care*, *21*(12), 878–884.

Handiwidjojo, Wimmie. (2015). Penelitian Hubungan Obesitas dengan DM Type II. *Jurnal Eksplorasi Karya Sistem Informasi Dan Sains*, *2*(1), 36–41.

Hardin. (2019). Faktor-faktor yang berhubungan dengan Praktik Kolaborasi Perawat-Dokter di RSUD Sawerigading Palopo dan RSUD Andi Djemma Masamba. *Jurnal Fenomena Kesehatan*, *02*(01), 155–164.

Hasanain, Rihab Abdulaziz. (2010). *Development of an EMR Implementation Framework for Public Hospitals in Saudi Arabia*.

Hasibuan, Putri Leony. (2019). Faktor Penghambat pelaksanaan IPC di Rumah Sakit. *Medicine and Health Sciences*, 7.

IPEC. (2016). Core Competencies for Interprofessional Collaborative Practice : 2016 Update. In *Interprofessional Education Collaborative*. Washington DC.

Janssen, Anna, Donnelly, Candice, Elder, Elisabeth, Pathmanathan, Nirmala, & Shaw, Tim. (2021). Electronic medical record implementation in tertiary care: factors influencing adoption of an electronic medical record in a cancer centre. *BMC Health Services Research*, *21*(1), 23. https://doi.org/10.1186/s12913-020-06015-6

Körner, Mirjam, Wirtz, Markus A., Bengel, Jürgen, & Göritz, Anja S. (2015). Relationship of organizational culture, teamwork and job satisfaction in interprofessional teams. *BMC Health Services Research*, *15*(1), 243. https://doi.org/10.1186/s12913-015-0888-y

Kusumawati, I., Fauzi, A., & Amini, M. (2022). Pengaruh Motivasi Kerja, Budaya Kerja dan

Disiplin Kerja Dalam Meningkatkan Kinerja Karyawan di Era New Normal Masa Pandemi Covid-19 (Studi Kasus Pada Badan Keuangan dan Aset Daerah Kabupaten Sumbawa). *Jurnal Ekonomi Manajemen Sistem …*, *3*(5), 540–552. https://doi.org/https://doi.org/10.31933/jemsi.v3i5

Lestari, Endang, Stalmeijer, Renee E., Widyandana, Doni, & Scherpbier, Albert. (2018). Understanding attitude of health care professional teachers toward interprofessional health care collaboration and education in a Southeast Asian country. *Journal of Multidisciplinary Healthcare*, *Volume 11*, 557–571. https://doi.org/10.2147/JMDH.S178566

Lestari, Yani, Ariyanti Saleh, Syahrir A., & Pasinringi. (2017). Hubungan Interprofesional Kolaborasi Dengan Pelaksanaan Catatan Perkembangan Pasien Terintegrasi di RSUD. Prof. Dr. H.M. Anwar Makkatutu Kabupaten Bantaeng. *JST Kesehatan*, *7 No.1*, 85–90.

Margret K Amatayakul. (2012). *Electronic Health Records A Practical Guide for Professionals and Organizations* (5th ed.). AHIMA.

Martin, Jason, Elg, Mattias, Gremyr, Ida, & Wallo, Andreas. (2021). Towards a quality management competence framework: exploring needed competencies in quality management. *Total Quality Management & Business Excellence*, *32*(3–4), 359–378. https://doi.org/10.1080/14783363.2019.1576516

Mccallie, Deeanna R. (2015). *Evaluating the Effectiveness of Crucial Conversations® training on Nurses' Self-Efficacy - viewcontent.cgi*.

Mohr, David C., Burgess, James F., & Young, Gary J. (2008). The influence of teamwork culture on physician and nurse resignation rates in hospitals. *Health Services Management Research*, *21*(1), 23–31. https://doi.org/10.1258/hsmr.2007.007011

Murdiany, Noor Anna., Pertiwiwatii, Endang., & Setiawan, Herry. (2021). Hubungan Komunikasi Interprofesional Dengan Kolaborasi Perawat-Dokter Di Irna RSUD H. Damanhuri Barabai. *Journal of Nursing Invention*, *2*(1), 41–48.

Oakland, John S. (2014). Continuous improvement – more advanced, including Taguchi and Six Sigma. In *Total Quality Management and Operational Excellence* (pp. 312–328). https://doi.org/10.4324/9781315815725-26

Ramdani, Ridha, Gilang, Genta, & Sandinirwan, Indra. (2023). Tingkat Kesuksesan Rekam Medis Elektronik Berdasarkan Perspektif Perawat di Rumah Sakit Hermina Sukabumi: Studi Metode Campuran. *Departemen Penelitian Dan Pengembangan RS Hermina*, *4*(5), 1–23.

Seymour, Tom, Frantsvog, Dean, & Graeber, Tod. (2012). Electronic Health Records (EHR). *American Journal of Health Sciences (AJHS)*, *3*(3), 201–210. https://doi.org/10.19030/ajhs.v3i3.7139

Singh, Ankit, Jadhav, Sammita, & Roopashree, MR. (2020). Factors to overcoming barriers affecting electronic medical record usage by physicians. *Indian Journal of Community Medicine*, *45*(2), 168. https://doi.org/10.4103/ijcm.IJCM_478_19

WHO. (2010). *Framework for action on interprofessional education & collaborative practice* (WHO Team, Ed.). New York: World Health Organization.

World Health Organization. (2013). Interprofessional Collaborative Practice in Primary Health Care: Nursing and Midwifery Perspectives Six Case Studies. *Human Resources for*

Health Observers, (13), 1–18.

Xing, Li Yuan, Song, Jing Hui, & Yan, Fan. (2020). How can leadership influence the quality of care in a health-care organization? *Frontiers of Nursing*, *7*(1), 19–22. https://doi.org/10.2478/fon-2020-0003

Yanuar Pribadi, Sandra Dewi, Heru Kusumanto. (2018). Analisis Kesiapan Penerapan Rekam Medis Elektronik Di Kartini Hospital Jakarta. *JURNAL BIDANG ILMU KESEHATAN Univ Respati Indonesia*, *8* no.*2*. https://doi.org/https://doi.org/10.52643/jbik.v8i2.293

Yoga, Vesri, Jaka, Bestari, & Yanti, Mendhel. (2021). Analisis Kesiapan Penerapan Rekam Medis Elektronik (RME) di RSUP dr. M. Djamil Padang. *B-Dent: Jurnal Kedokteran Gigi Universitas Baiturrahmah*, *8*(1), 71–82. https://doi.org/10.33854/jbd.v8i1.598

Yulida, Rina, Lazuardi, Lutfan, & Pertiwi, Ariani Arista Putri. (2021). Tantangan Implementasi Rekam Medis Elektronik Berdasarkan Dimensi Sumber Daya Manusia Di Rsgm Prof. Soedomo Yogyakarta. *PROSIDING DISKUSI ILMIAH" Inovasi Dan Teknologi Informasi Untuk Mendukung Kinerja PMIK Dalam Masa Pandemi Covid 19"*, 102–106.