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The Influence of Leadership Style and Cognitive Attitudes on Patient Safety Culture With Coordination as a Moderation Variable in Inpatient Nurses at Tzu Chi Hospital

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Abstract. *This research is based on the results of initial observations which indicate that several safety incident problems will occur in the year 2022. The aim of this research is to reveal empirically the influence of leadership style and cognitive attitudes on patient safety culture with coordination as a moderator. This type of research is quantitative with a cross sectional study design. The population used is nurses who work in inpatient installations. The sampling technique is non-probability sampling, with perm = calculation of the number of samples using Slovin's formula with an error rate of 10%, so that a total sample of 64 respondents was found. The data collection technique uses a questionnaire, and the analysis method uses three box method analysis and PLS-SEM with the help of the Smart-PLS program. The results of the analysis prove that leadership style, cognitive attitude and coordination simultaneously and partially influence patient safety culture, and cognitive attitude is the most dominant variable capable of improving patient safety culture. Coordination cannot moderate the influence of leadership style on patient safety culture, but coordination can weaken the influence of cognitive attitudes on patient safety culture.*

Keywords: *Leadership style, cognitive attitude, coordination, patient safety culture, nurses*

1. INTRODUCTION

In relation to article 1, patient safety culture must be used as a basic principle so that services can be delivered safely to prevent patient safety incidents, and the principles of patient safety are clearly regulated in Minister of Health Regulation No. 11 of 2017 that patient safety is a system that makes patient care safer. In article 5 paragraph 1 it is explained that every health service facility must organize patient safety, for this reason in paragraph 2 it is explained that the implementation of patient safety is carried out through the establishment of a quality service system by implementing a patient safety system and patient safety targets. The service system in paragraph 3 consists of safe patient care through risk assessment, patient risk identification and management, incident reporting and analysis, the ability to learn from incidents and follow up, as well as implementing solutions to minimize risks and prevent injuries caused by errors. the result of carrying out an action or not taking an action that should be taken.

In Minister of Health Regulation no. 11 of 2017 article 5 paragraph 4 concerning patient safety standards states that the role of leadership is very important in directing its members to be able to realize patient safety, and specifically Minister of Health Regulation no. 66 of 2016 article 12 paragraph 1 concludes that the K3RS concept aims to minimize safety and health

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risks so that it does not have a bad effect on the safety of hospital human resources and patients, for this reason in paragraph 2 the steps that must be taken by management are stated, or in this concept the leader must prepare the context of activities for which risks will be managed, identify potential hazards, risk analysis, risk evaluation, risk control, communication and consultation, as well as monitoring and review.

Tzu Chi Hospital is a class B private public hospital that provides nursing services in inpatient settings. In practice, in 2022, it experienced several problems related to patient safety incidents. Based on initial information obtained from the nursing quality department in September 2023, it was informed that in 2022 there would be several safety incident problems such as 8 KPC cases, 3 KNC cases, 9 KTC cases and 7 KTD cases. Referring to Minister of Health Regulation no. 11 of 2017, patient safety should be a commitment through a safe patient care system, and several patient safety incidents that occurred in 2022 show conflict with the objectives of Minister of Health Regulation no. 11 of 2017.

There are 80% of nurses who have problems with aspects of continuous improvement, where nurses feel that in their work units they do not care enough about periodically reviewing work processes to determine whether changes are needed to improve patient safety, and in their work units they don't care about evaluating changes to improve patient safety in order to see how well the changes work. There are 70% of nurses who have problems with a reporting culture, where nurses do not care enough to immediately report errors to be corrected before they reach the patient, and before they harm the patient. There are 80% of nurses who have problems with the response aspect to errors, where nurses feel that they are blamed when they make a mistake, and not used as learning in their work unit, and feel that their work unit does not receive enough support to correct errors.

There are 50% of nurses who have problems with the work speed aspect, where nurses feel that the number of nurses in their work unit is not enough to handle the workload, and nurses in their work unit are not fast enough to handle patient care problems. There are 70% of nurses who have problems with leadership support, where nurses assess the lack of seriousness of the head of the room in considering nurses' suggestions to improve patient safety, and the lack of seriousness of the head of the room in taking action to overcome patient safety problems. There are 70% of nurses who have problems with aspects of teamwork, where nurses feel that collaboration in their work unit is less effective, and they don't care enough to help each other when they are busy.

It can be seen from the results of the preliminary survey on patient safety culture, it is predicted that all categories of patient safety incidents that will occur in 2022 will be caused by nurses' lack of consistency in making patient safety culture a principle of quality nursing services, and referring to the survey results on leadership styles, cognitive attitude and coordination, it is predicted that the weak consistency of nurses in adhering to patient safety culture is caused by nurses' problems with leadership style, cognitive attitude and coordination, and this prediction is strengthened by several relevant research results which prove that leadership style, cognitive attitude and coordination influence patient safety culture. However, in these relevant studies, no one has yet united in one complete study the influence of leadership style, cognitive attitude and coordination on patient safety culture, so this research has the novelty of uniting these variables in one complete study, so that it becomes an idea for Research was conducted with the title "The Influence of Leadership Style and Cognitive Attitudes on Patient Safety Culture with Coordination as a Moderating Variable in Inpatient Nurses at Tzu Chi Hospital".

2. THEORETICAL FRAMEWORK

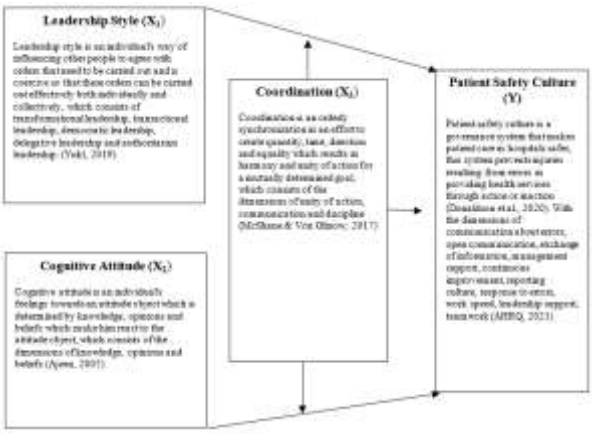

Figure 1. Theoretical Framework

Conceptual Framework

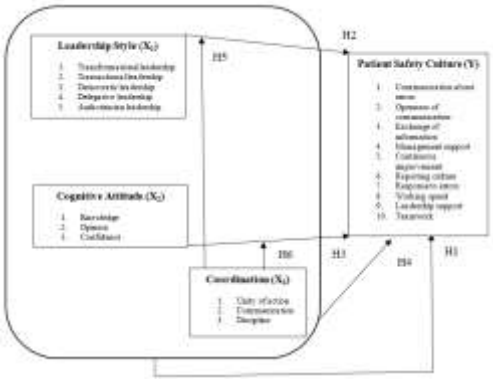

Figure 2. Conceptual Framework

Research Hypothesis

H1: Simultaneously, leadership style, cognitive attitude and coordination influence patient safety culture in the Tzu Chi Hospital inpatient installation.

H2: Leadership style influences patient safety culture in the Tzu Chi Hospital inpatient installation.

H3: Cognitive attitudes influence patient safety culture in the Tzu Chi Hospital inpatient installation.

H4: Coordination influences the patient safety culture at the Tzu Chi Hospital inpatient installation.

H5: Coordination moderates the influence of leadership style on patient safety culture in the Tzu Chi Hospital inpatient installation.

H6: Coordination moderates the influence of cognitive attitudes on patient safety culture in the Tzu Chi Hospital inpatient installation.

In accordance with the hypothesis that has been formulated, the following conceptual framework is described as a research paradigm that connects the relationships between research variables:

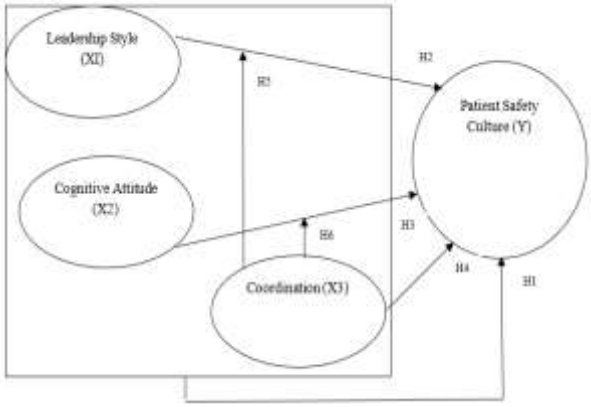

Figure 3. Research Constellation

3. RESEARCH METHODS

Research Design

This research is included in quantitative research with a cross sectional study design which functions to describe the relationship between risk causing variables and the effects produced. Because this study uses a quantitative approach that is statistical, the survey method is carried out by distributing research questionnaires that have been formed in accordance with the theory of measurement of each variable adopted. Scoring using a likert scale of points 1 – 4

Sample

This study involved a population of inpatient installation nurses who are members of a type B private hospital in Pantai Indah Kapuk - Jakarta which totals 64 nurses. The sample technique used non-probability probability sampling and the sample calculation used the slovin formula with an error rate of 10% so that the number of samples was set at 64 respondents.

Instrument

After the questionnaire is formed, the quality test of the research instrument is carried out by conducting a validity and reliability test using the help of the SPSS program.

a. Validity Test

It is a test that tries to ascertain how well the measuring instrument is able to measure what it wants to measure (Ghozali, 2018). The validity test was carried out on 30 respondents outside the research respondents using the product moment correlation technique. The value of the table for N=30 with a significance level of 5% = 0.361. The assumption of decision-making is that if the value of the calculation is > table (0.361), then the instrument is said to be valid, and if the value of the calculation is < table (0.361), then the instrument is said to be invalid (Ghozali, 2018).

b. Reliability Test

This test aims to measure the reliability of each indicator in the questionnaire. As for the assumption of decision-making, if Cronbach's alpha value is > than 0.60, then the instrument is considered reliable (Ghozali, 2018).

Data Analysis Technique

Table 1. Three Box Method Quality Interval

Index	Category	Code
16 – 32	Rendah	R
32,1 – 48	Sedang	S
48,1 – 64	Tinggi	T

Statistical Hypothesis

H_1: $\rho \neq 0$ This means that there is a significant simultaneous influence of leadership style (X1), cognitive attitude (X2) and coordination (X3) on patient safety culture (Y).

H_2: $\rho \neq 0$ This means that there is a significant influence of leadership style (X1) on patient safety culture (Y).

H_3: $\rho \neq 0$ This means that there is a significant influence of cognitive attitude (X3) on patient safety culture (Y).

H_4: $\rho \neq 0$ This means that there is a significant influence of coordination (X3) on patient safety culture (Y).

H_5: $\rho \neq 0$ means that coordination (X3) significantly moderates the influence of leadership style (X1) on patient safety culture (Y).

H_6: $\rho \neq 0$ This means that coordination (X3) significantly moderates the influence of cognitive attitude (X2) on patient safety culture (Y).

4. RESEARCH RESULTS AND DISCUSSION

Research result

Test the Quality of Research Instruments

a. Validity test

Table 2. Leadership Style Instrument Validity Test Results

No	r_{count}	r_{table}	Information
P1	.781**	0,361	Valid
P2	.865**	0,361	Valid
P3	.743**	0,361	Valid
P4	.718**	0,361	Valid
P5	.733**	0,361	Valid
P6	.689**	0,361	Valid
P7	.686**	0,361	Valid
P8	.814**	0,361	Valid
P9	.808**	0,361	Valid
P10	.844**	0,361	Valid

Source: SPSS Process, 2024

From this table it can be seen that all statements have a value of rcount > rtable (0.361), so it can be concluded that the leadership style survey used 10 statement items in the continuation of the survey, because all of them were declared valid.

Table 3. Validity Test Results of the Cognitive Attitude Instrument

No	r_{count}	r_{table}	Information
P1	.771**	0,361	Valid
P2	.877**	0,361	Valid
P3	.941**	0,361	Valid
P4	.941**	0,361	Valid
P5	.907**	0,361	Valid
P6	.863**	0,361	Valid

Source: SPSS Process 2024

From this table it can be seen that all statements have a value of rcount > rtable (0.361), so it can be concluded that the cognitive attitude survey used 6 statement items in the continuation of the survey, because all of them were declared valid.

Table 4. Coordination Instrument Validity Test Results

No	r_{count}	r_{table}	Information
P1	.770**	0,361	Valid
P2	.941**	0,361	Valid
P3	.844**	0,361	Valid
P4	.883**	0,361	Valid
P5	.804**	0,361	Valid
P6	.908**	0,361	Valid

Source: SPSS Process 2024

From this table it can be seen that all statements have a value of rcount > rtable (0.361), so it can be concluded that the coordination survey used 6 statement items in the continuation of the survey, because all of them were declared valid.

Table 5. Validity Test Results of the Patient Safety Culture Instrument

No	r_{count}	r_{table}	Information
P1	.781**	0,361	Valid
P2	.865**	0,361	Valid
P3	.743**	0,361	Valid
P4	.718**	0,361	Valid
P5	.733**	0,361	Valid
P6	.689**	0,361	Valid
P7	.686**	0,361	Valid
P8	.814**	0,361	Valid
P9	.808**	0,361	Valid
P10	.844**	0,361	Valid
P11	.743**	0,361	Valid
P12	.759**	0,361	Valid
P13	.466**	0,361	Valid
P14	.845**	0,361	Valid
P15	.741**	0,361	Valid
P16	.800**	0,361	Valid
P17	.835**	0,361	Valid
P18	.760**	0,361	Valid
P19	.866**	0,361	Valid
P20	.760**	0,361	Valid

Source: SPSS Process 2024

From the table, it can be seen that all statements have a value of rcount > rtable (0.361), so it can be concluded that the patient safety culture survey used 20 statement items in the continuation of the survey, because all of them were declared valid.

b. Reliability Test

Table 6. Summary of Reliability Tests

Variable	N	Cronbach' Alpha	Information
Leadership style	10	0,853	Reliable
Cognitive attitude	6	0,860	Reliable
Coordination	6	0,873	Reliable
Patient Safety Culture	20	0,855	Reliable

Source: SPSS Process 2024

From the table above, it can be seen that all research variables have a Cronbach's alpha value > 0.60, so it can be concluded that the questionnaire for each research variable can be relied on in further research.

Table 7. Research Instrument Analysis Matrix

Variabel	Indeks			Perilaku
	R	S	T	
Leadership style		*		Obedient
Cognitive attitude		*		Responsive
Coordination			*	Harmony
Patient safety culture		*		Commitment

The leadership style variable is at a moderate level, with the highest index in the transactional leadership dimension, based on the opinion that leadership style is an individual's way of influencing others to agree with orders that need to be carried out and is coercive so that the orders can be carried out effectively both individually and collectively (Yukl, 2019),

this situation shows the behavior of nurses who are obedient in carrying out services Nursing is safe for patients, so they are committed to making patient safety culture a working principle.

The cognitive attitude variable is at a moderate level, with the highest index in the belief dimension, based on the opinion that cognitive attitude is an individual's feelings towards the object of attitude determined by knowledge, opinions, and beliefs that make him react to the object of attitude (Ajzen, 2005), this condition shows the behavior of nurses who are responsive in carrying out nursing services that are safe for patients, so they are committed to making a culture patient safety as a working principle.

The coordination variable is at a high level, with the highest index in the dimension of unity of action, based on the opinion that coordination is an orderly synchronization in an effort to create quantity, time, direction, and equality that results in harmony and unity of action for a jointly set goal (McShane & Von Glinow, 2017), the situation shows the behavior of nurses in harmony coordinating with the work team, So they are committed to making patient safety culture a working principle..

The variable of patient safety culture is at a moderate level, with the highest index in the dimension of teamwork, based on the opinion that the patient safety culture is a product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior, behavior and skills, organizational health and safety management (AHRQ, 2021), this state shows the behavior of nurses who are committed to carrying out nursing services that are safe for patients, by trying to carry out effective teamwork..

Table 8. Construct Validity and Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
X1	0.932	0.942	0.621
X2	0.932	0.947	0.749
X3	0.903	0.930	0.729
Y	0.986	0.987	0.840

Source: Smart-PLS Output, 2024

Table 8 shows that all the AVE values of the research variables are > 0.50, and the Cronbach's alpha and composite reliability values are all > 0.70, so it can be concluded that all the indicators contained in the research variables are good constructs in forming latent variables.

Inner Model Analysis

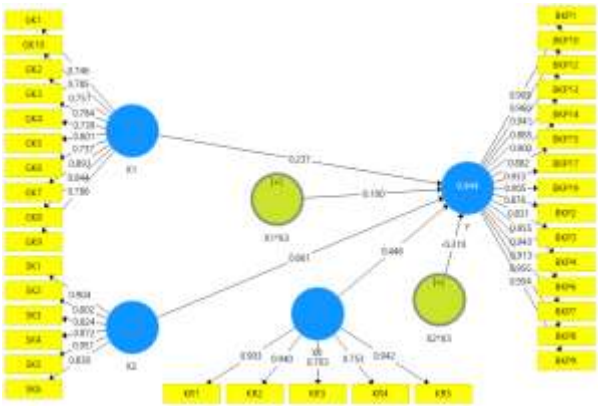

Figure 4.Coefficient Model Path Diagram

Source: Smart-PLS Output, 2024

Table 9. Results of Direct Influence Analysis

Influence	Coefficient
X1→Y	0,237
X2→Y	0,661
X3→Y	0,446

Source: Researcher Process, 2024

Based on table 4.16, it can be explained that the research results link the estimated value of the relationship between variables as follows; The analysis results show that the equation function Y=0.237(X1)+0.661(X2)+0.446(X3) which means that leadership style has an effect of 0.237, cognitive attitude has an effect of 0.661 and coordination has an effect of 0.446 on patient safety culture. So when the leadership style, cognitive attitude and coordination are improved once, the patient safety culture will increase by 23.7% through leadership style, 66.1% through cognitive attitude and 44.6% through coordination.

Hypothesis Testing

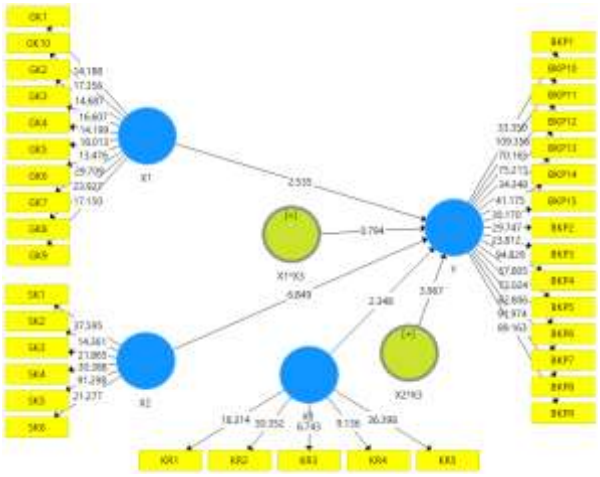

Figure 5. Hypothesis Test Model Path Diagram

Source: Smart-PLS Output, 2024

Based on Figure 4.3, it explains the t-calculated value of the results of testing the influence between research variables, and is summarized as in the table below:

Table 10. Simultaneous Influence Hypothesis Test

Hypothesis	Rsquare	Conclusion
Leadership style, cognitive attitude and coordination →Patient safety culture	0,944	H1 Accepted

Table 11. Partial Influence Hypothesis Testing

Hipotesis	T_{Value}	Kesimpulan
Leadership style→ Patient safety culture	2,535	H2 Accepted
Cognitive Attitudes→ Patient safety culture	6,849	H3 Accepted
Coordination→ Patient safety culture	2,348	H4 Accepted

Table 12. Moderation Effect Hypothesis Test

Hipotesis	T_{Value}	Kesimpulan
Leadership style*Coordination→ Patient safety culture	0,794	H5 Rejected
Cognitive attitudes*Coordination→ Patient safety culture	3.967	H6 Accepted

The simultaneous influence of leadership style, cognitive attitude and coordination on patient safety culture shows an rsquare value of 0.944, which means that simultaneously leadership style, cognitive attitude and coordination have a strong influence on patient safety culture, so it falls into the H1 acceptance category.

The influence of leadership style on patient safety culture shows a comparison of t-values of 2.535 > 1.96. These results conclude that leadership style has a significant influence on patient safety culture so that it falls into the acceptance category of H2.

The influence of cognitive attitudes on patient safety culture shows a comparison of t-values of 6,849 > 1.96. These results conclude that cognitive attitudes have a significant influence on patient safety culture so that they fall into the acceptance category of H3.

The effect of coordination on patient safety culture shows a comparison of t-values of 2.348 > 1.96. These results conclude that coordination has a significant effect on patient safety culture so that it falls into the acceptance category H4.

The influence of leadership style on patient safety culture which is moderated by coordination shows a comparison of t-values of 0.794 < 1.96. These results conclude that coordination is unable to moderate the influence of leadership style on patient safety culture so it falls into the category of rejecting H5.

The influence of cognitive attitudes on patient safety culture which is moderated by coordination shows a comparison of t-values of 3,967 > 1.96, which means that coordination significantly moderates the influence of cognitive attitudes on patient safety culture and is in the acceptance category H6.

Discussion

The Influence of Leadership Style, Cognitive Attitude and Coordination on Patient Safety Culture

The results of the analysis concluded that simultaneously leadership style, cognitive attitude and coordination have a significant effect on patient safety culture, which is evidenced by the determination coefficient value of 0.944 which means that simultaneously leadership style, cognitive attitude and coordination have a strong influence on patient safety culture, so that by improving leadership style, cognitive attitude and coordination, the patient safety culture can increase.

Referring to the three box method analysis, nurses demonstrate committed behavior to always adhere to patient safety culture when carrying out nursing services, especially in terms of teamwork to always work together as an effective team and collaborate between nurses even in busy situations. but patient safety culture problems occur in the aspect of continuous improvement, where they feel that in their work unit there is no effort to review work processes to determine whether changes are needed and there are no evaluation efforts to see how well the changes are successful in improving patient safety, and this happens because nurses do not agree with the professional nursing methods that are applied standardly by the head of the room, lack of knowledge in applying the principles of nursing ethics professionally and nurses lack discipline in making patient safety culture a work principle.

The Influence of Leadership Style on Patient Safety Culture

The results of the analysis show that leadership style has a positive and significant effect on patient safety culture as evidenced by t-values of 2.535 > 1.96, so that with the improvement of a more effective leadership style, nurses will be committed to the patient safety culture in carrying out nursing services.

Based on the results of the three box method analysis, the leadership style that most motivates nurses is transactional leadership, where they like the leadership pattern of the head of the room who always determines service bonuses and gives praise to outstanding nurses, thus motivating them to commit to providing quality nursing services by adhering to the culture. patient safety, especially in carrying out teamwork. However, the problem lies in the authoritarian leadership style applied by the head of the room, where they are less motivated by implementing standard professional nursing methods, and the obligation to make patient safety culture a work principle ordered by the head of the room, so that nurses lack commitment in making continuous improvements, which they should do. efforts to periodically review work processes to determine whether changes are needed, and evaluate changes to improve patient

safety to see how well they work. For this reason, it is necessary to improve the authoritarian leadership style carried out by the head of the room, because the authoritarian leadership style is the leader's effort to fully concentrate all decisions and policies taken, where all division of tasks and responsibilities are held by the leader, while the members only carry out their duties. which has been given, in an authoritarian leadership style, the leader controls all aspects of activities (Yukl, 2019)

The Influence of Cognitive Attitudes on Patient Safety Culture

The results of the analysis showed that cognitive attitudes had a positive and significant effect on patient safety culture, as evidenced by t-values of 6.849 > 1.96, so that by improving cognitive attitudes, nurses will be committed to patient safety culture in carrying out nursing services.

Based on the results of the three box method analysis, nurses show responsive behavior in carrying out quality nursing services, especially in carrying out nursing practices in accordance with applicable laws and carrying out nursing practices based on cultural sensitivity, so that they are committed to carrying out effective teamwork and helping each other. nurses in busy times. However, the cognitive attitude problem is found in the knowledge aspect, where nurses are hampered in knowing how to apply the principles of nursing ethics professionally, and how to administer medication safely and correctly, so that nurses lack commitment in making continuous improvements, which should make efforts to review work processes periodically to determine whether changes are necessary, and evaluate changes to improve patient safety to see how well they work. For this reason, it is necessary to increase nurses' knowledge, because knowledge is the result of knowing, and this occurs after the individual senses a particular object, which is very important for the formation of action (Ajzen, 2005).

The Influence of Coordination on Patient Safety Culture

The results of the analysis show that coordination has a positive and significant effect on the patient safety culture as evidenced by t-values of 2.348 > 1.96, so that by improving the coordination system to be more effective, nurses will be committed to the patient safety culture in carrying out nursing services.

Based on the results of the three box method analysis, nurses show adaptive behavior in carrying out coordination to provide quality and safe services for patients, especially in forming a unit of action by always documenting patient progress periodically and providing patient documentation before handover, so that a commitment is formed to carry out Effective teamwork and mutual assistance between nurses during busy times. However, the problem lies

in the discipline of nurses in carrying out coordination patterns, where they are constrained in carrying out nursing services according to applicable SOPs, and are constrained in making patient safety culture a work principle, so that nurses lack commitment in carrying out continuous improvements, which should make efforts to review work processes regularly. periodically to determine whether changes are needed, and evaluate changes to improve patient safety to see how well they work. For this reason, it is necessary to improve the discipline of nurses to carry out effective coordination patterns, because discipline is related to the individual's awareness and willingness to obey all existing regulations and social norms that apply within the organization, and is an individual attitude that voluntarily obeys. all regulations and of course being aware of their respective duties and responsibilities, as well as showing an attitude and behavior in implementing company regulations, both written and unwritten (McShane & Von Glinow, 2017).

The Role of Coordination Moderates the Influence of Leadership Style on Patient Safety Culture

The results of the analysis show that coordination cannot moderate the influence of leadership style on patient safety culture, as evidenced by t-values of 0.794 < 1.96, which means that coordination cannot strengthen or weaken the influence of leadership style on patient safety culture, so coordination is not a moderating variable on the influence of leadership style on patient safety culture.

If related to the results of the three box method analysis, this situation occurs due to weaknesses in the authoritarian leadership pattern in forcing nurses to always make patient safety culture a work principle, which has an impact on nurses' weak discipline in making patient safety culture a work principle, and weak discipline. This resulted in the leadership style implemented by the head of the room being unable to change the nurses' commitment to adhering to patient safety culture which increased significantly, and remained at the previous level where dominance was only played by the teamwork aspect, and there were still weaknesses in making continuous improvements. For this reason, it is important to be disciplined in implementing the coordination system to strengthen the influence of leadership style on patient safety culture because in principle an effective coordination system shows conditions where nurses are able to combine individual interests into common interests to achieve quality nursing services (Schmidt et al., 2021), so that the coordination system creates a stronger leadership pattern to shape nurses' discipline to adhere to patient safety culture (Kyriacou Georgiou et al., 2021).

The Role of Coordination Moderates the Influence of Cognitive Attitudes on Patient Safety Culture

The results of the analysis show that coordination is able to moderate the influence of cognitive attitudes on patient safety culture as evidenced by t-values of 3.967 > 1.96, the negative values shown by the coefficient conclude that coordination weakens the ability of cognitive attitudes in improving patient safety culture, so that with the current coordination system, it will weaken the role of cognitive attitudes in improving patient safety culture.

The role of coordination in weakening the influence of cognitive attitudes on patient safety culture occurs due to nurses' weak knowledge in applying the principles of nursing ethics professionally, which makes nurses less disciplined in making patient safety culture a work principle, thus causing nurses' cognitive attitudes to reduce their commitment to upholding it. on patient safety culture when the coordination system implemented experiences obstacles, where nurses lack the discipline to make patient safety culture a work principle. For this reason, it is necessary to improve the discipline of nurses to carry out effective coordination patterns, because discipline is related to individual awareness and willingness to obey all existing regulations and social norms that apply within the organization, (McShane & Von Glinow, 2017), so that An effective coordination system will be created, where nurses are able to combine individual interests into common interests to achieve quality nursing services (Schmidt et al., 2021), so that the coordination system will make nurses' cognitive attitudes more professional by making patient safety culture a working principle. keep patients away from low-quality services (Skoogh et al., 2022).

Research Findings

Based on all the results of the analysis and discussion, it is known that simultaneously leadership style, cognitive attitude and coordination have an effect on patient safety culture as evidenced by the determination coefficient value of 0.944 which means that leadership style, cognitive attitude and coordination have a strong influence on patient safety culture. Leadership style has an effect on patient safety culture as evidenced by the comparison of t-values of 2.535 > 1.96. Cognitive attitudes have an effect on patient safety culture as evidenced by the comparison of t-values of 6.849 > 1.96. Coordination has an effect on patient safety culture as evidenced by the comparison of t-values of 2.348 > 1.96. Coordination could not moderate the influence of leadership style on patient safety culture as evidenced by the comparison of t-values of 0.794 < 1.96, but coordination was able to weaken the influence of cognitive attitudes on patient safety culture as evidenced by a coefficient of -0.310 and a comparison of t-values

of 3.967 > 1.96. Cognitive attitude is the most dominant variable that is able to improve patient safety culture because it has a coefficient of 0.661

Research Limitations

This research is limited to only using inpatient nurses as the unit of analysis, and does not include other installations as the unit of analysis.

This study did not assess patient safety culture from the perspective of the head of the room or management who directly supervises inpatient nurses.

This research is limited to using a cross sectional study design, and does not apply a longitudinal design.

5. CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

Conclusion

Simultaneously, leadership style, cognitive attitude and coordination influence patient safety culture, so that by improving leadership style, cognitive attitude and coordination, patient safety culture will increase. Leadership style has a positive and significant effect on patient safety culture, so that by improving leadership style, patient safety culture can improve. Cognitive attitudes have a positive and significant effect on patient safety culture, so that by improving cognitive attitudes, patient safety culture can improve. Coordination has a positive and significant effect on patient safety culture, so that by improving the coordination system, patient safety culture can improve. Coordination is not able to moderate the influence of leadership style on patient safety culture, so coordination is not a moderating variable. Coordination weakens the influence of cognitive attitudes on patient safety culture, so that the current coordination system will weaken the ability of cognitive attitudes to improve patient safety culture.

Theoretical Implications

Leadership style determines the behavior of its members to participate in the successful achievement of organizational goals through work behavior by using a work system as a guide to achieving these goals, and specifically in nursing services, the leadership style of the head of the room is to direct and motivate nurses to achieve quality services , will form nurses' commitment to making patient safety culture a work principle to avoid low-quality nursing services. This situation supports the opinion that leadership style is an individual's way of influencing other people to agree with orders that need to be carried out and is coercive so that these orders can be carried out effectively both individually and collectively (Yukl, 2019), because the way the head of the room applies the pattern leadership aims to create safe work

behavior for nurses, so that they are motivated to deliver quality services and avoid patient safety risks (Harton & Skemp, 2022), apart from that the leadership concept of the head of the room seeks to carry out nursing planning by referring to the principles of patient safety culture (Liukka et al. al., 2021).

Cognitive attitudes are born from an individual's belief in the object of attitude, so that when nurses have the belief that patient safety culture is a work principle that will prevent them from providing low-quality nursing services, then they will be committed to making patient safety culture a work principle. This situation supports the opinion which states that cognitive attitude is an individual's feelings towards an attitude object which is determined by knowledge, opinions and beliefs that make him react to the attitude object (Ajzen, 2005), and cognitive attitude describes nurses who know how to prevent patient safety incidents from occurring. , thus forming their belief in adhering to patient safety culture in carrying out nursing services (Biresaw et al., 2020), and cognitive attitudes influence patient safety culture (Kusumawati et al., 2019).

Coordination is carried out to align an action or behavior that will be carried out in one work unit, so that when the coordination system can run effectively to provide quality services, nurses will be committed to making patient safety culture a working principle in realizing safe services. This situation supports the opinion that coordination is an orderly synchronization in an effort to create quantity, time, direction and equality which results in harmony and unity of action for a jointly determined goal (McShane & Von Glinow, 2017), because an effective coordination system shows conditions where nurses are able to combine individual interests into common interests to achieve quality nursing services (Schmidt et al., 2021), and the coordination system forms an integration of shared interests in preventing patient safety incidents, thus becoming the basis for determining nurses' compliance with patient safety culture in the system nursing (Sten et al., 2021).

Patient safety culture is a system so that services can be delivered in a quality manner, for this reason the commitment of service deliverers is needed to make this system a working principle, and this commitment can be formed through a leadership pattern that will direct and supervise nurses to implement this, and its importance an attitude that is born from the nurse's belief that nursing services must be delivered safely to patients, so that this situation will form the nurse's commitment to adhere to a culture of patient safety. Apart from that, the importance of an effective coordination system will remind each other that nursing services must be delivered safely, so that it will form nurses' commitment to making patient safety culture a work principle. This situation supports the opinion that patient safety culture is a product of

individual and group values, attitudes, perceptions, competencies and behavioral patterns, behavior and skills, organizational health and safety management (AHRQ, 2021).

Managerial Implications

Authoritarian leadership is the weakest aspect of the leadership style variable, so improvements need to be made in nursing leadership, so that room heads can establish standard professional nursing methods, and require nurses to make patient safety culture a work principle.

Knowledge is the weakest aspect of the cognitive attitude variable, so it is necessary to improve the training system by providing material on holistic nursing services, so that nurses know how to apply the principles of nursing ethics professionally, and know how to administer medication safely and correctly.

Discipline is the weakest aspect of the coordination variable, so it is necessary to make improvements to the nursing administration system by setting rewards, so that it will motivate nurses to carry out nursing services according to the applicable SPO, and make patient safety culture a working principle.Continuous improvement is the weakest aspect of the patient safety culture variable, so improvements need to be made to the teamwork system which aims to harmonize nurses' understanding that nursing services must be delivered in a quality manner, so that it will form a commitment from the nursing unit to carry out regular reviews regarding internal work processes. determine whether changes are necessary, and evaluate how well the changes are working.

Suggestions for Hospitals

Management can provide leadership training on the application of professional nursing methods to heads of rooms, so that they can establish standard effective professional nursing methods, and be able to direct nurses to make patient safety culture a work principle.

Management provides opportunities in the form of career development by providing holistic nursing training, so that nurses know how to apply the principles of nursing ethics professionally, know how to take actions to prevent injury to patients, and are able to carry out nursing practices in accordance with applicable laws.

Management can provide guidance to nurses about patient-focused services (Patient center care), so that nurses make patient safety culture a work principle. Management carries out socialization about patient safety goals to be achieved, so that nurses dare to express their opinions to prevent unsafe actions by higher authorities, always discuss important information about patient care during shift changes, review work processes to determine whether changes

are needed to improve safety patients, and evaluate the success of the changes that have been made.

Suggestions for Further Research

It is recommended that further research include other nursing units, so that it can differentiate nurses' commitment to patient safety culture between work units, so that it becomes a consideration for management to make total improvements to nurses' commitment to patient safety culture.

It is recommended that for further research, conducting an assessment of patient safety culture from the perspective of the head of the room or management based on the performance produced between nurses, so that the research results are not biased, and are in accordance with the work performance of each nurse.

It is recommended that future research use a longitudinal design, so that it can observe changes in objects and subjects over several time sessions, which allows for the development of research variables.

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