

Application of Structural Equation Modeling (SEM) for Analysis of the Effect of Perception on Professionalism, Knowledge and Motivation of Nurses on the Implementation of Patients Safety Programs

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Authors' contributions

This work was carried out in collaboration among all authors. Author SA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors Kholil and AP managed the analyses of the study and managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Patient safety is a priority for implementation of the five important safety issues in hospital, because of patient safety issues related to the quality and image of the hospital it self. Therefore patient safety is the first priority to be implemented and it is related to the issue of the quality and image of the hospital. Objective in this study was to determine the effect of Perception variables about Professionalism, Patients Safety Knowledge and motivation of nurses on the implementation of patient safety programs in the Inpatient Room of RSUD X Regional Hospital Semarang. This research method was quantitative observational analytic a cross sectional research with purposive sampling, and amount of respondent survey are 120 from inpatient room with inclusive criteria

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.Obtain data was processes with SPSS Amos 24 software .The results showed that the perception variable about nursing professionalism (0.377) had the most positive and direct effect on the implementation of patient safety programs compared to the direct influence of patient safety knowledge (0.223) and patient safety motivation (0.266) patient safety implementation programs. This means that the increase in the implementation of patient safety programs is greatly influenced by the role of perception of nursing professionalism.

Keywords: Patient safety; perception professional; patient safety knowledge; motivation; SPSS; AMOS; implementation patient safety.

1. BACKGROUND

Safety has become a global issue, including for hospitals. There are five important aspects related to safety in hospitals, namely patient safety, worker safety or health care, building safety and hospital equipment that can impact on patient and officer safety, environmental safety (green productivity) that have an impact on environmental pollution and hospital business safety related to hospital survival. The five aspects of safety are very important to be implemented in every hospital. However, it must be recognized the activities of hospital institutions can walk if there are patients. Therefore patient safety is a top priority to be implemented and it is related to the issue of the quality and image of the hospital [1].

According to Utarini [2] explained that in Indonesia research conducted on hospitalized patients in 15 hospitals from 4500 medical records, showed the results of adverse event numbers varying from 8% to 98.2% for diagnostic errors and 4.1% to 91.6% for medication errors. Continued development of research on patient safety in various regions in Indonesia, but until now there has been no national study.

Based on patient safety incident reports (IKP) in 2011, the number of patients safety violations was 11.23% committed in the care unit, 6.17% & in the pharmaceutical unit and 4.12% by doctors [3].

Various countries have reported the number of patient safety incident in hospitals, although the reports do not yet describe the whole. The National Patient Safety Agency reports that from April 2016 to March 2017 there were 1,925,281 incidents in the United Kingdom. Ministry of Health Malaysia reported 2,769 incidents occurred in 2016. In Indonesia based on the KKPRS report there were 144 incidents (2009), 103 incidents (2010), and 34 incident reports in the first quarter of 2011 [4].

The patient safety target in accreditation carried out by Indonesian Hospital Accreditation Committee (KARS) refers to JCI and Permenkes No. 11 of 2017 concerning patient safety in hospitals states that patient safety targets consist of six points which include accuracy patient identification, increased effective communication, increased safety of the drug that needs to be watched, certainty in the right location; right procedure; right patient operation, reduction in risk of infection related to health services and reduction in the risk of falls [5].

2. LITERATURE REVIEW

According to Soehardi, [6] explains perception is defined as a process in which individuals give meaning to stimuli from the environment based on the impressions captured by the five sense. Blais [7] argues that professional health workers are health workers who have special abilities and expertise in their fields so that they are able to carry out their duties and functions as health workers to the maximum.

The Indonesian National Nurses Association (2019) defines the practice of professional nursing as an act of providing professional nursing care both independently and in collaboration which is adjusted to the scope of authority and responsibility based on nursing knowledge. There are a number of reasons that a nursing practice is professional, that is, autonomy at work, being responsible and accountable, independent decision making, collaboration with other disciplines, advocating and facilitating client interests.

According to Notoatmodjo [8] knowledge about patient safety is the result of tofu and this happens after people have sensed a certain object. Sensing occurs through the five human senses, namely the sense of sight, hearing, smell, taste and touch. Most of the knowledge about human patient safety is obtained through the eyes and ears. Knowledge of patient safety or cognitive actions of a person knowledge of

patient safety includes memories about things that have been learned and stored in memory. These things are known to be factors that influence the knowledge of patient safety such as educational background, socioeconomic and employment.

Meanwhile, according to Siagian [9], states that the work motivation of nurses is a driving force for someone to contribute as much as possible for the success of the organization to achieve its goals. With the understanding, that the achievement of organizational goals means also achieved the personal goals of the members of the organization concerned.

According to Hariandja [10], said performance is the result of work produced by employees or actual behavior that is displayed in accordance with their role in the organization.

Patient safety is a system where a hospital makes nursing care for patients so patients are safer in undergoing their care which includes risk assessment, identification and management of matters related to patient risk, reporting and analysis of incidents, ability to learn from incidents and follow-up and the implementation of solutions to minimize the risk and to prevent injuries caused by mistakes caused by carrying out an action or not taking the action that should be taken (Permenkes, 2017). Hadian, Kholil, and Syahfirin Abdullah (2019) stated that motivation and involvement of patient have positive impact to safety program.

In the implementation of patient safety in hospitals refer to IPSP (International Patient Safety Goal) which is a target that must be achieved by an hospital that is accredited by the Joint Commission International for international standards of hospital accreditation. IPSP itself has been applied in many Indonesian hospitals through policies listed in Regulation of the Minister of Health No. 11 of 2017 concerning Patient Safety in hospitals. The *patient safety* targets is identifying patients correctly, increasing effective communication, increasing awareness of medications that need to be watched, ensuring procedures, locations and correct surgical patients, reducing the risk of infection due to health care and reducing the risk of injury to patients falling.

3. METHODS

The type of research is quantitative observational analytic cross sectional research with purposive

sampling, and the amount of respondent is 120. The data consists of primary and secondary data. Primary data obtained through observation, questionnaires and interviews, while secondary data obtained through literature study. Data analysis through SEM (Structural Equation Model) method was originally used Covariance Analysis which was developed by Joreskog (1973), Kesling (1972) and Wiley (1973). SEM is a combination of two separate statistical methods namely factor analysis (factorial analysis) developed in psychology and psychometrics as well as simultaneous equation modeling developed in econometrics [11]. By SEM method effect of exogenous variables to endogenous variables can be identified [12].

4. RESULTS AND DISCUSSION

Based on Table 1 it can be seen that the majority of nurses in the inpatient room of RSUD X Regional Hospital Semarang who are female respondents are around 75.8 percent. In addition, the majority of nurses are aged between 20-30 years, around 55 percent while nurses are aged over 40 years it's only been around 3.3 percent. So it can be said that the majority of nurses are young. Furthermore, based on their level of education, nurses are still dominant D-III graduates or around 58.3 percent and the rest are S1 or Nurse graduates. Whereas nurses who have completed their education until master degree do not yet exist. If seen from work experience, the majority of nurses work for at least 5 years in the inpatient room RSUD X Regional Hospital Semarang, which is around 60 percent. While nurses who have worked more than 10 years there are around 15.8 percent. Although the social demographic conditions of the nurses are quite diverse from a number of things, overall the nurses have attended training related to patient safety.

4.1 Instrument Quality Test data

The next step in analyzing research data is to test the validity and reliability of the list of questions or questionnaires submitted. In distributing questionnaires, respondents were given 24 questions representing each research variable where each variable was measured based on 6 questions. The instrument quality test is carried out to find out whether the research instruments have met the validity and reliability criteria. Following are the results of testing the validity and reliability based on the distribution of questionnaires to 120 respondents.

4.2 Validity Test

Validity test aims to measure the quality of research instruments. The instrument is said to be valid if the instrument can measure what should be measured [13]. In this study, validity testing will be carried out using the Confirmatory Factor Analysis (CFA) method with the help of AMOS software. The CFA adopted in this study was used to evaluate the convergent and discriminant validity of the measurement scale. According to Heir et al, [14] a research instrument can be accepted if the loading value of each item is ≥ 0.4 . CFA test is performed on exogenous variables, endogenous variables and on the full model.

4.3 Confirmatory Factor Analysis (CFA) Exogenous Variables

The construct variable is a research variable that cannot be measured directly but can only be measured based on certain indicators with the support of existing theories. The construct variable that is thought to influence other variables is called the exogenous variable. Exogenous variables in this study include perceptions of professionalism, knowledge and motivation. The validity test of the exogenous variables with CFA was carried out on the three exogenous variables. The results of processing the CFA model on exogenous variables are presented in Fig. 1 and Table 2.

Table 1. Social demographics of respondents

Variable	Category	Frequency	Percentage
Gender	Male	29	24,2
	Female	91	75,8
Age	20-30 years	66	55,0
	31-40 years	50	41,7
	> 40 years	4	3,3
Education	D-III	70	58,3
	S1	50	41,7
	S2	0	0,0
Work experience	0-5 years	72	60,0
	6-10 years	29	24,2
	> 10 years	19	15,8
Enrolled training <i>Patient Safety</i>	Not yet	0	0,0
	Already	120	100,0

Table 2. Test the validity of exogenous variables

Variable exogenous	Indicator	Estimate	S.E.	C.R.	P	Factor loading
Perception	T1	1.000				.839
	T2	1.068	.089	12.007	***	.892
	T3	1.054	.079	13.285	***	.940
	T4	1.044	.079	13.223	***	.938
	T5	1.026	.082	12.559	***	.914
	T6	.948	.083	11.469	***	.869
Knowledge	X6	1.000				.870
	X5	.921	.072	12.785	***	.887
	X4	1.009	.073	13.781	***	.918
	X3	.987	.074	13.320	***	.904
	X2	1.008	.075	13.430	***	.907
	X1	.949	.078	12.143	***	.865
Motivation	P6	1.000				.868
	P5	1.062	.086	12.420	***	.875
	P4	1.108	.078	14.170	***	.930
	P3	1.095	.076	14.322	***	.934
	P2	1.071	.083	12.892	***	.891
	P1	1.055	.083	12.710	***	.885

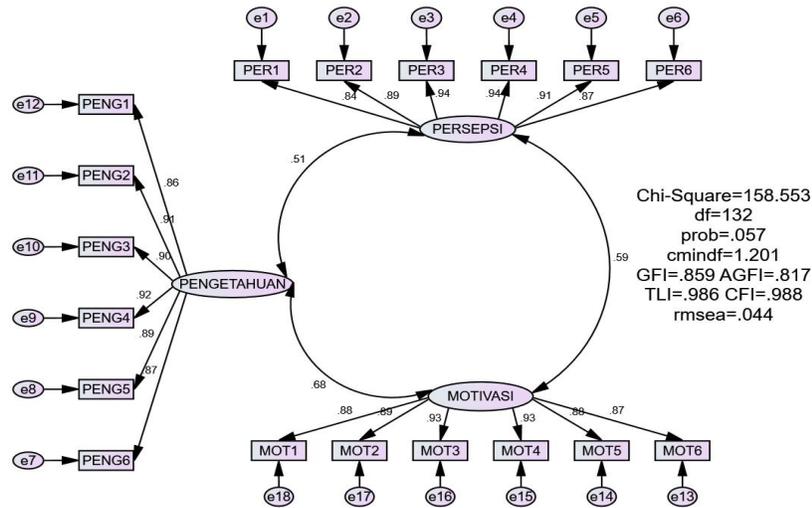


Fig. 1. CFA Path Diagram Exogenous Variables

In Fig. 1 it appears that the CFA model on exogenous variables is fit. This can be seen from a number of goodness of fit index values that already meet the cut-off value, including the probability value (0.057) already greater than the 0.05 test level; cmindf value (1,201) \leq 2; RMSEA value (0.044) \leq 0.08; CFI values (0.988), TLI (0.986) \geq 0.90; and the value of GFI (0.859), AGFI (0.817) is approaching the value 0,90.

Based on Table 2 it is known that all indicators on exogenous variables have validly measured each construct variable based on the value of C.R., p, and value loading. On the perception variable about professionalism it is known that the value of C.R on all indicators (T1, T2, T3, T4, T5, T6) is greater than 1.96; the p value for all indicators is *** which means it is smaller than the 0.05 test level and the factor loading value for all indicators is greater than 0.40. Based on this, it can be said that all indicators that measure perception variables about professionalism are valid.

In the knowledge variable it is known that the value of C.R on all indicators (X1, X2, X3, X4, X5, X6) is greater than 1.96; the p value for all indicators is *** which means it is smaller than the 0.05 test level and the factor loading value for all indicators is greater than 0.40. Based on this it can be said that all indicators that measure knowledge variables are valid.

In the motivation variable it is known that the value of C.R on all indicators (P1, P2, P3, P4, P5, P6) is greater than 1.96; the p value for all indicators is *** which means it is smaller than

the 0.05 test level and the factor loading value for all indicators is greater than 0.40. Based on this it can be said that all indicators that measure motivation variables are valid.

4.4 Confirmatory Factor Analysis (CFA) Endogenous Variables

The construct variables that are influenced by other variables or affect and are influenced by other variables simultaneously are called endogenous variables. Endogenous variables in this study include the implementation of patient safety programs. The results of processing CFA models on endogenous variables are presented in Fig. 2 and Table 3.

In Fig. 2 it appears that the CFA model on endogenous variables is fit. This can be seen from a number of goodness of fit index values that already meet the cut-off value, including the probability value (0.059) already greater than the 0.05 test level; cmindf value (1,821) \leq 2; GFI (0.947), CFI (0.984), TLI (0.973) \geq 0.90; and the AGFI value (0.876) is close to the value of 0.90; and RMSEA value (0.101) marginal standard value of 0.08.

4.5 Confirmatory Factor Analysis (CFA) Full Model

Validity test with a full model (a combination of all exogenous and endogenous variables) is carried out with CFA using valid items as previously discussed. The results of testing the full model instrument validity are presented in Table 4.

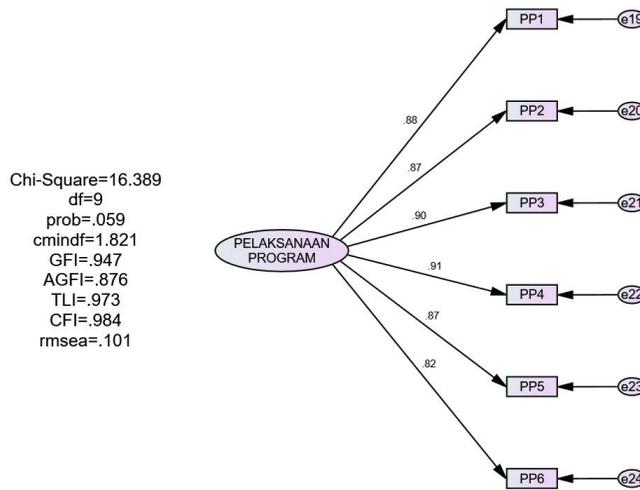


Fig. 2. Diagram of CFA pathways for endogenous variables

Table 3. Test the validity of endogenous variables

Variable exogenous	Indicator	Estimate	S.E.	C.R.	P	Factor loading
Implementation program	PP1	1.000				.880
	PP2	.918	.083	10.998	***	.868
	PP3	1.002	.084	11.959	***	.902
	PP4	.983	.081	12.133	***	.908
	PP5	.916	.083	11.093	***	.872
	PP6	.847	.087	9.726	***	.816

Based on Table 3 it is known that all indicators on endogenous variables have validly measured the construct variables based on the value of C.R., p, and factor loading values. In the program implementation variable it is known that the C.R value on all indicators (PP1, PP2, PP3, PP4, PP5, PP6) is greater than 1.96; the p value for all indicators is *** which means it is smaller than the 0.05 test level and the factor loading value for all indicators is greater than 0.40. Based on this it can be said that all indicators that measure program implementation variables are valid.

An item is said to be valid in measuring the construct variable if it has a value of C.R. greater than 1.96; p value smaller than 0.05; and factor loading value ≥ 0.40 . Based on table 4 above it is known that all items in the full model are valid in measuring each construct variable because it meets the cut-off value.

4.6 Reliability Test

The reliability test is used to test the level of how large a gauge measures in a stable and consistent manner whose magnitude is indicated by the coefficient value, namely the reliability coefficient [15]. In this study the reliability test uses the value of Construct Reliability (CR) and Variance Extract (VE). Items on a construct variable are said to be reliable if the value of $CR \geq 0.70$ and the value of $VE \geq 0.50$ [16]. Based on calculation of 120 respondents obtained the

results of reliability for each construct variable as follows.

The reliability test results in Table 5 show the CR value on the knowledge construct variable is 0.969 and the value is greater than 0.70 and the VE value of 0.796 is greater than 0.50 so it can be concluded that as many as 6 items can measure the knowledge construct variable reliable. Variable constructs of perception and motivation have CR values of 0.962 and 0.961 respectively and VE values of 0.809 and 0.805, respectively. This shows that the items can reliably measure perceptions and motivations. Furthermore, items that measure program implementation have a CR value of 0.952 and VE of 0.766 where the CR and VE values meet the cut-off value so that it can be said that the six items can measure the construct of the program reliably. For further analysis, all variables will be further investigated.

Table 4. Full model validity instrument test results

Variable exogenous	Indicator	Estimate	S.E.	C.R.	P	Factor loading
Perception	T1	1.000				.838
	T2	1.069	.095	11.245	***	.891
	T3	1.056	.085	12.470	***	.941
	T4	1.046	.084	12.406	***	.939
	T5	1.027	.087	11.756	***	.913
	T6	.948	.088	10.747	***	.869
Knowledge	X6	1.000				.871
	X5	.921	.077	12.021	***	.887
	X4	1.008	.078	12.939	***	.917
	X3	.986	.079	12.502	***	.903
	X2	1.008	.080	12.623	***	.907
	X1	.950	.083	11.438	***	.866
Motivation	P6	1.000				.869
	P5	1.062	.091	11.696	***	.875
	P4	1.109	.083	13.394	***	.931
	P3	1.093	.081	13.446	***	.933
	P2	1.069	.088	12.111	***	.890
	P1	1.054	.088	11.942	***	.884
Implementation program	PP1	1.000				.883
	PP2	.918	.077	11.852	***	.871
	PP3	.992	.079	12.629	***	.897
	PP4	.978	.075	12.968	***	.907
	PP5	.914	.077	11.881	***	.872
	PP6	.847	.081	10.471	***	.819

Table 5. Reliability test results

No	Variable	Total indicator	CR	VE	Keterangan
1	Knowledge	6	0,969	0,796	Reliable
2	Perception	6	0,962	0,809	Reliable
3	Motivation	6	0,961	0,805	Reliable
4	Implementation program	6	0,952	0,766	Reliable

4.7 Descriptive Variable Data Answers

Descriptive statistics are statistics that are useful for describing the object under study through sample or population data as they are [17].

4.8 Description of Perception about Professionalism

Summary of respondents' responses is proposed to measure the nurse's perception of professionalism through 6 indicators or statements. Based on the descriptive of each item on the perception variable about professionalism, it can be said that the majority of respondents agree (44.9%) about the items that construct the perception variable about nursing professionalism.

4.9 Description of Perception about Knowledge

Recapitulation of respondents' responses is proposed to measure the knowledge variable through 6 indicators or statement items based on descriptive of each item on the knowledge variable it can be said that the majority of respondents agree (45.6%) about the items that build the knowledge variable about patient safety.

4.10 Description of Perception about Motivation

The recapitulation of respondents' responses is proposed to measure patient safety motivation variables through 6 indicators or statement items. Based on the descriptive of each item on the variable perception of motivation it can be said

that the majority of respondents agree (47.2%) about the items that build motivation variables about patient safety.

4.11 Description of Perceptions about Program Implementation

Summary of respondents' responses is proposed to measure the variable implementation of the patient safety program through 6 indicators or statement items. Based on the descriptive of each item on the variable perception of the implementation of the program it can be said that the majority of respondents agree (42.9%) about the items that build the patient safety program.

4.12 Evaluate SEM Assumptions

The process of data analysis and research results will explain the steps of analysis used in this study.

Normality test is carried out using the criteria $c.r \pm 2.58$ at a significance level of 0.01 or 1%. The results of normality test data from this study can be seen in Table 6.

From Table 6 it can be concluded that the number in the CR column is 1.385 or smaller than 2.58 at the 1% significance level. Therefore it can be said that there is evidence that multivariate data distribution is normally distributed.

4.13 Evaluate Outlier Multivariate

From Table 7 it is known that the observation data has the biggest d-squared value that is

44.279 at the 26th observation and also the d-squared value of 36.813 at the 45th observation. This value is greater $\Sigma^2 - (24;0,05) = 44,99$. Both observations are outliers. However, the number of outliers that are quite small or only around 1.67% can be ignored or still be involved in the model. Meanwhile, other observations have a d-squared mahalnobis value smaller than $\Sigma^2(24; 0,05)$ so it can be said that the majority of the data does not contain outliers.

4.14 Goodness of Fit Test

The purpose of the test model fit or Goodness of fit is to find out how precisely these indicators can explain the latent variables that exist. The results of the Goodness of fit test can be seen in Table 8.

Based on the results in Table 8 it can be seen that the research model can be said to be a fit model. This can be seen from a number of goodness of fit index values that already meet the cut-off value, including the probability value (0.058) already greater than the 0.05 test level; RMSEA value (0.040) ≤ 0.08 ; TLI (0.984) and CFI (0.986) ≥ 0.90 ; cmindf value (1,145) is already smaller than 2; the GFI (0.820), AGFI (0.780) is approaching or marginal to 0.90.

4.15 SEM Analysis

To analyze the relationship between knowledge, perception and motivation variables on the implementation of patient safety, it can be seen in the following Table 9.

Table 6. Normality test

Variable	min	max	skew	c.r.	kurtosis	c.r.
Multivariate					8.930	1.385

Table 7. Multivariate outlier test

Observation number	Mahalanobis d-squared	p1	p2
26	44.279	.007	.574
45	36.813	.046	.975
3	36.166	.053	.956
90	35.632	.060	.932
:	:	:	:
:	:	:	:
37	18.839	.761	.130
7	18.352	.786	.240
14	18.114	.797	.266
72	17.388	.832	.540

Tabel 8. Goodness of fit

Goodness of fit	Cut of value	Result	Criteria
Chi Square	Expected to be small	281,758	
Probability	≥ 0,05	0,058	Fit
CMINDF	≤ 2,00	1,145	Fit
GFI	≥ 0,90	0,820	Marginal
AGFI	≥ 0,90	0,780	Marginal
TLI	≥ 0,90	0,984	Fit
CFI	≥ 0,90	0,986	Fit
RMSEA	≤ 0,08	0,040	Fit

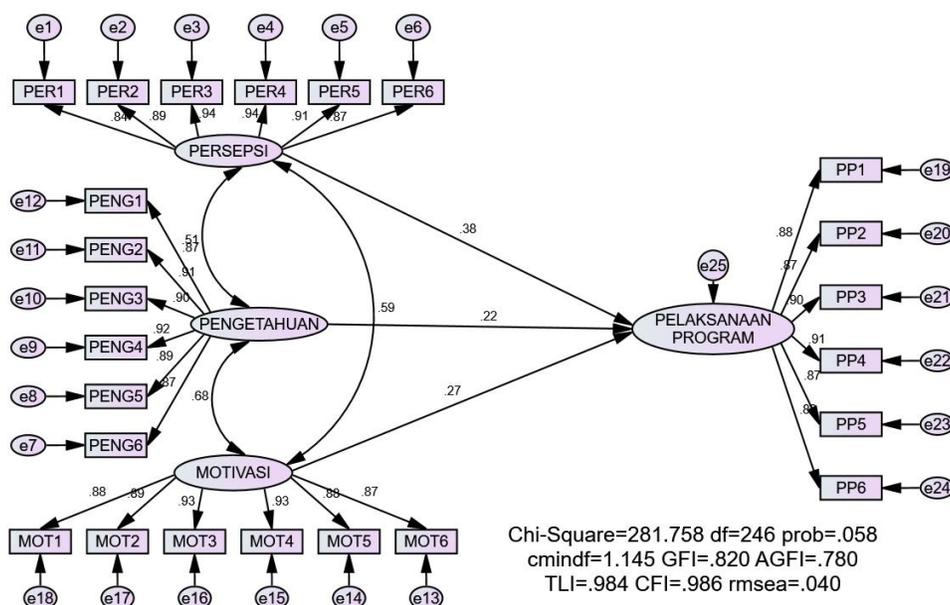


Fig. 3. Structural equation modeling method for analysis of the effect perception on professionalism, knowledge and motivation of nurses on the implementation of patients safety programs in the inpatient room of RSUD X regional hospital Semarang

Table 9. Relationships between variables in the SEM model

Pathway	Estimate	S.E.	C.R.	P	Standardize estimate
Knowledge → Implementation_Program	.210	.105	2.007	.045	.223
Perception → Implementation_Program	.390	.107	3.653	***	.377
Motivation → Implementation_Program	.270	.120	2.239	.025	.266

Based on Table 9 we can explain the direct influence relationship between variables as follows.

4.15.1 Relationship of knowledge to program implementation

The standardized estimate is 0.223; this shows that the influence of patient safety knowledge on the implementation of patient safety programs is

positive. This means that the better the patient safety knowledge of nurses will increase the patient safety implementation program. A p-value of 0.045 or smaller than the 0.05 significance level indicates that the patient safety knowledge of nurses significantly influences the implementation of patient safety programs. SEM analysis results show that nurses 'knowledge about patient safety has a positive and significant effect on the implementation of patient safety

programs, so the hypothesis that nurses' knowledge about patient safety has a positive and significant effect partially on the implementation of patient safety programs in the Inpatient Room of the RSUD X Regional Hospital Semarang supported.

This finding is in line with Notoatmodjo's [18] theory that knowledge about patient safety is the result of tofu and this happens after people have sensed a certain object. So after the nurse knows about patient safety, he will then understand and then apply and evaluate what he knows.

4.15.2 Relationship of professional perception to program implementation

The standardized estimate is 0.377; this shows that the effect of perceptions about nursing professionalism on the implementation of patient safety programs is positive. It means that the better perception of nursing professionalism will improve the implementation of patient safety programs. A p-value of *** or smaller than the 0.05 significance level indicates that perceptions of nursing professionalism significantly influence the implementation of patient safety programs. SEM analysis results show that the perception of nursing professionalism has a positive and significant effect on the implementation of the patient safety program, so the hypothesis that the perception of nursing professionalism has a positive and significant effect partially on the implementation of the patient safety program in the Inpatient Room of RSUD X Regional Hospital Semarang is supported.

This finding is in line with research by Kim I, Park M.J, Park M.Y, Yoo H, Choi J., [19] who found that positive perceptions indicate improved patient safety efforts. The same thing was also stated by Blais [7] that professional health workers have special abilities and expertise in their fields so that they are able to carry out their duties and functions as health workers to the maximum or in other words, professional health workers are well-educated and well-trained people in carrying out their duties.

4.15.3 Relationship of motivation to program implementation

The standardized estimate is 0.266; this shows that the motivation of patient safety nurses towards the implementation of patient safety programs is positive. This means that the better motivation of patient safety nurses will increase

the implementation of patient safety programs. A p-value of 0.025 or smaller than the 0.05 significance level indicates that the patient safety motivation of nurses significantly affected the implementation of patient safety programs.

Based on Table 9, it can be seen that the variable perception of nursing professionalism (0.377) has the most positive and direct influence on patient safety implementation programs compared to the direct influence of patient safety knowledge (0.223) and patient safety motivation (0.266) patient safety implementation programs. This means that the increased implementation of patient safety programs is greatly influenced by the role of perception of nursing professionalism. SEM analysis results show that patient safety motivation has a positive and significant effect on the implementation of patient safety programs, so the hypothesis that patient safety motivation has a positive and partially significant effect on the implementation of patient safety programs in the Inpatient Room of RSUD X Regional Hospital Semarang supported.

This finding is in line with the research of Sudarsono's theory [20]. which states that nurses work motivation as a broad term, used in psychology, which includes internal conditions or conditions that activate or give strength to the organism, and direct the organism's behavior toward the goal. The same thing also stated Siagian [9] that nurse work motivation is a driving force for someone to contribute as much as possible for the success of the organization to achieve its goals so that the achievement of organizational goals means also achieved the personal goals of the members of the organization concerned.

5. CONCLUSION

Based on the results of the analysis and discussion in the previous chapter it can be concluded that socially demographically, the majority of nurses working in the Inpatient Room of RSUD X Hospital Semarang can be categorized as young nurses but overall have received training on patient safety. Perceptions of professionalism have a positive and significant effect. on the implementation of patient safety programs in the Inpatient Room of RSUD X Regional Hospital Semarang. Patient safety knowledge has a positive and significant effect on the implementation of patient safety programs in the Inpatient Room of RSUD X Regional Hospital in Semarang. Motivation of patient

safety has a positive and significant effect on the implementation of patient safety programs in the Inpatient Room RSUD X Regional Hospital Semarang.

6. SUGGESTION

Based on the conclusions above, the advice that can be given from this research is important for the hospital to continue to assist and provide guidance for nurses, especially young nurses to continue to improve work knowledge and motivation with full professionalism so that the implementation of patient safety programs can continue continuously. It is expected to foster a climate of good professionalism perceptions of health workers, especially nurses who are the largest component of health service personnel in hospitals by providing management procedures for patient services that support patient safety programs. Hospitals must facilitate their health personnel by conducting training and workshops to improve knowledge specifically about patient safety in order to improve the implementation of the patient safety program. Hospitals are expected to increase the motivation of health workers in conducting nursing care through care reward r as a result of the annual performance evaluation at the hospital. This research has limitation because primary data only from inpatient room Department. Should be in all hospital Department because implementation safety program is part of audit in hospital. For further research, it can add other variables that affect the implementation of the patient safety program or add intervening variables.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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