

Research Article

Factors Associated With the Application of Patient Centered Care in a General Hospital

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Abstract: Patient centered care (PCC) is a service and caring that focused on patient, caring which engage patient and family involvement to identify patient's needs by consider patient's preference and prioritize patient's satisfaction. In its implementation, PCC is influenced by some factors such as leadership, strategical vision, patient and family involvement, work environment, monitoring and evaluation, quality of environment and technology. The objective of study is to identify the related factors of the PCC implementation in General Hospital of Banda Aceh. The study is descriptive correlative study with cross sectional study approach. Samples of the study are 142 respondents with total sampling technique. Descriptive statistic is used to describe respondent's characteristic. Chi-square test and logistic regression is conducted to identify related factor in PCC implementation. The multivariate study shows that leadership is significantly related with PCC implementation (P-value = 0,000) and value (OR=142.292), there significant relation between strategic vision with PCC implementation (P-value =0,000) and value (OR=8.782), there is significant relation between monitoring and evaluation with PCC implementation (P-value =0,000) and value (OR=17.642), and there significant relation between technology and PCC implementation (P-value =0,000) and value (OR=68.938). It is suggested to policy maker and manager to establish PCC in hospital strategic plan and oversee the implementation of PCC as efforts to improve the caring quality to the patient in hospital.

Keywords: Factors, Implementation, Patient, Centered Care, Hospital, Nursing, Management.

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INTRODUCTION

Patient-focused service, patient-focused care, caring which engage patient and family involvement to identify patient's needs by consider patient's preference and prioritize patient's satisfaction is called by Patient Centered Care (PCC) (Frampton *et al.*, 2008). As one of main key for health services quality by leads to patient satisfaction, health status, and produce bigger work satisfaction for professional worker and reduce medical error levels are also part of the PCC concept (Mill, Frost, Mole & Kay, 2013).

The study conducted by Kuipers, Cramm and Niebor (2019) in Holland, showed the PCC correlates significantly with physical, social welfare and care satisfaction in patients with multiple morbidity. PCC has some factors which influence its implementation.

There are seven factors that influence its implementation in health services institution such as leadership, strategical vision, patient and family involvement, work environment, monitoring and evaluation, environmental quality and technology support (Shaller, 2007). The Study conducted by Syarifudhin and Rosa (2018) in Indonesia showed there is direct influence of PCC to reduce anxiety and indirectly influence to improve satisfaction in patient with cataract surgery. All this explain PCC is effective to applicate in hospital.

Regional General Hospital of Banda Aceh, where the study conducted is level B health services provider. The results of an interview with the nursing department of Banda Aceh Regional Hospital on March 28, 2019 stated that PCC implementation in hospital is not going well, it can be observed from lack of

communication and collaboration among health care professionals (Profesional Pemberi Asuhan/PPA, in providing health service to patient and less effective of care documentation, especially in integrated patient status (Catatan Perkembangan Pasien Terintegrasi/CPPT) as one of communication tools for helping PPA in providing health care to patient.

The number of hospitalizations in 2017 was 20.096 and in 2018 was 17.710. based on preliminary study, it can be indicated that the higher of visitation in Regional General Hospital of Banda Aceh. Therefore, as one of efforts to improve the patient and family satisfaction is giving optimal services by maintaining patient centered care principal.

Regarding data above, it can be observed that PCC implementation is not going optimally so this study aims to identify the relation of leadership, startegical vision, patient and family involvement, work environment, monitoring and evaluation, environmental quality and technology support with PCC implementation in Regional General Hospital Banda Aceh.

METHOD

Design of this study is descriptive correlational study. Population of the study is professional's health provider (PPA) those who assigned at 9 room in Regional General Hospital Banda Aceh specifically are nurse, physiotherapists, pharmacists, nutritionists, and physician as 142 respondents. Sampling technique in this study is totally sampling with inclusion criteria such as PPA who assigned inpatient room, directly giving health service to the patient, executive nurse and head of team, the doctor in charge of the patient, and specialist doctor. The data collected by using questionnaire which include related factors of PCC and its dimension. Data analyze that used are (a) univariate analysis by frequency distribution, (b) bivariate analysis by chi square test and (c) multivariate analysis by logistic regression test.

RESULTS

Respondents characteristics

Analysis of the characteristics of respondents showed that most respondents are PPA in 19 - 35 years old, commonly is woman with vocational education level (Diploma III), Employee status as non-permanent staff and mostly nurse with length of work more than three years.

Table 1. Respondent Characteristics

No.	Dhemographic Data	F(%)
1.	Age:	
	18- 35 Years old	91 (64.1)
	36 - 45 Years old	39 (27.5)
2.	46-55 Years old	12 (8.4)
	Gender:	
	Male	41(28,9)
3.	Female	101(71.1)
	Education Level:	
	Diploma	80 (56.4)
4.	Bachelor	57 (40.1)
	Post Graduate	5 (3.5)
	Employee status:	
5.	Non-permanent staff	90 (63.4)
	Permanent staff	52 (36.6)
	Profession:	
6.	Nurse	94 (66.2)
	Pharmacist	6 (4.3)
	Nutritionist	9 (6.3)
	Therapist	7 (4.9)
	Physician	26 (18.3)
6.	Length of work	
	1 – 3 Years	36 (25.4)
	> 3 Years	106 (74.6)

Univariate analysis

Most respondent to the item concerning Patient Centered Care (PCC) were good (81.0%), leadership were effective (93.0%), strategical vision were good (87.3%), patient and family involvement were good

(95.1%), work Environment were good (73.9%) Monitoring and evaluation were good (88.7%) Environmental Quality were good (62.7%) and Technology were good (90.8%).

Table 2. Factors of the PCC implementation

No	Categories	F(%)
1.	Leadership: Effective	132 (93.0)
	Less Effective	10 (7.0)
2.	Strategical Vision: Good	124 (87.3)
	Poor	18 (12.7)
3.	Patient and family involvement: Good	135 (95.1)
	Poor	7 (4.9)
4.	Work Environment: Good	105 (73.9)
	Poor	37 (26.1)
5.	Monitoring and evaluation: Good	126 (88.7)
	Poor	16 (11.3)
6.	Environmental Quality: Good	89 (62.7)
	Poor	53 (37.3)
7.	Technology: Good	129 (90.8)
	Poor	13 (9.2)
8.	Patient Centered Care (PCC): Good	115 (81.0)
	Poor	27 (19.0)

Bivariate analysis

Association between Independent variables and PCC implementation in Regional General Hospital

of Banda Aceh are tested with Chi-square test. The results of data analysis are served in the table 3 as follows:

Table 3. Association of factors with PCC implementation

Independent Variables	PCC Implementation				P-value
	Good		Poor		
	f	%	f	%	
Leadership					
Effective	113	85,6	19	14,4	0,000
Less Effective	2	20,0	8	80,0	
Strategical Vision					
Good	109	87,9	15	12,1	0,000
Poor	6	33,3	12	66,7	
Patient and Family involvement					
Good	111	82,2	24	17,8	0,126
Poor	4	57,1	3	42,9	
Work Environment					
Good	92	87,6	13	12,4	0,002
Poor	23	62,2	14	37,8	
Monitoring and Evaluation					
Good	109	86,5	17	13,5	0,000
Poor	6	37,5	10	62,5	
Environmental Quality					
Good	83	93,3	6	6,7	0,000
Poor	32	60,4	21	39,6	
Technology					
Good	112	86,8	17	13,2	0,000
Poor	3	23,1	10	76,9	

Based on Table.3 can be identified that there is significant relation between leadership factors with PCC implementation on $\alpha = 0,05$ and P-value $0,000 < 0,05$. It can be concluded that null hypothesis (Ho) is refused. Strategical Vision is gotten P-value $0,000 < 0,05$, it can be concluded that null hypothesis is refused. Patient and Family involvement had P-value $0,126 <$

$0,05$, it can be concluded that null hypothesis (Ho) is accepted, which mean there is no any significant correlation between patient and family involvement with PCC implementation. Work environment had a P-value of $0,002 < 0,05$, it can be concluded that null hypothesis (Ho) is refused. Monitoring and evaluation finding has P-value $0,000 < 0,05$, it can be concluded

that null hypothesis (Ho) is refused. Environmental quality has P-value $0,000 < 0,05$, it can be concluded that null hypothesis (Ho) is refused and technological

support has P-value $0,000 < 0,05$, it can be concluded that null hypothesis (Ho) is refused.

Multivariate Analysis

Table 4. Results of Multivariate Logistic Regression Model 1

Predictors	B	OR	P-Value	95 % CI	
				Lower	Upper
Leadership	5,187	178,888	0,000	14,217	2250,8
Patient and Family Involvement	2,390	10,913	0,016	1,568	75,977
Work Environment	1,708	5,517	0,332	175	173,764
Monitoring and Environment	1,561	4,764	0,059	941	24,110
Environmental Quality	2,820	16,773	0,002	2,736	102,826
Technology	1,518	4,564	0,101	745	27,956
	3,413	30,342	0,001	4,061	226,697

Model 1 result shows that from seven related factors with PCC implementation, there are four factors that have P-value $< 0,05$, it means every factor have significant correlation with PCC implementation. On leadership factor has P-value $0,000 < 0,05$, Strategical value has P-value $0,016 < 0,05$, monitoring and Model 1 result shows that from seven related factors with PCC implementation, there are four factors that have P-value

$<0,05$, it means every factors have significant correlation with PCC implementation. On leadership factor has P-value $0,000 < 0,005$, Strategical vision has P-value $0,016 < 0,05$, Monitoring and evaluation has P-value $0,002 < 0,05$, and technology has P-value $0,001 < 0,05$, therefor only leadership factors, monitoring and evaluation, strategical vision, and technology which can be examined in next Model.

Table 5. Results of Multivariate Logistic Regression Model 2

Predictors	B	OR	P-Value	95 % CI	
				Lower	Upper
Leadership	4,958	142,292	0,000	19,081	1061,083
Strategical vision	2,173	8,782	0,014	1,556	49,563
Monitoring and evaluation	2,870	17,642	0,001	3,060	101,708
Technology	4,233	68,938	0,000	10,747	442,211

Model result shows the four factors are significantly related to PCC implementation, meanwhile the most significant related factor to PCC implementation is leadership factor which is proven has biggest (OR=142,292, P- value 0,000), it means that an effective leadership factor has a 142,292 times chance of implementing a good PCC compared to an ineffective leadership factor in Local General Hospital of Banda Aceh.

DISCUSSION

Leadership is dominant factor related to PCC implementation (P-value 0.000) and OR value (142.292). This is supported with theory by Putra (2016) which stated leadership is the ability to persuade a group to reach particular vision or such certain goal. According to Buncbinder and Shank (2014), leader was needed to keep organization in its direction and to overcome obstacle that get in the way. In PCC, leadership has close correlation with case manager role to create preference or patient rights in order to determine optional treatment that will be given based on needs and expectation (Morales-Asencio *et al.*, 2010). Case manager work very close to the patients so that

together make treatment plan as patients need and expect.

Strategical vision also has correlation with PCC implementation (P- value = 0,014) and has OR value (8,782). This is in line with theory which stated the strategical vision meetings must be scheduled each year by every institution, which followed by all part of the hierarchy. In order to improve staff effectivity, communication will be better among every level of personnel, the spirit of teamwork to solve problem and integrated believes in all department with directed goals, and help organization to reach the vision (Marquise, 2010). Hospital as one of health service providers also need to develop vision and clear strategical value to arrange how PCC will enter priority and processed operationally in daily (Shaller, 2007). Vision and mission should be clearly stated so that make staff easier to understand and it will be applied in daily care and services to patient and PCC goals achievable maximally.

Patient and family involvement showed no correlation with PCC implementation. This study results inversely proportional with recent study which

conducted by Clarke, Ells, Brett, Thombs and David (2017) that identify 6 main elements in PCC implementation such as a whole patient's involvement, emotional identification, fostering therapeutic relationships, information exchange, decision making involvement and sustainable treatment. And according Rosa (2018), patient and family involvement in PCC concept on hospital accreditation standard 2012 is stated that every service should respect value, choice and needs which expressed by patient. Service that focus and collaborate with patients. Patient and family are not an object, but as center of care that must be involved and supported to participate in treatment and decision-making process. This is caused by some factors like lack of knowledge implementation in order to give professionally service that involve patient and family consistently and continuously.

Work environment is not significantly related to PCC implementation. This is inversely proportional with the theory that stated a form of support so that PCC can succeed if the hospital is able to create an environment that is suitable for the needs of the patient. One of the things that can be done is with intense inter-professional collaboration in providing services to patients (Pelzang, 2012). Another study showed that PCC effectively can be used to build well inter-professional collaboration toward patient safety regarding service that will be given to the patient or family, it is supported by good communication among health service provider (Purba, 2018). This discrepancy can be due to the limitations in forming and developing a solid teamwork in efforts to provide care to patients. The information that the authors get from respondents says that communication between professions is still not running effectively because it requires a lot of time to produce maximum communication, meanwhile a lot of patients need to be treated makes very difficult to bring together all the caring professionals at the same time.

Monitoring and evaluation factor have significant correlation with PCC implementation (P-value 0,001) and OR value (17,642). It is in line with theory by Swanburg (2000), which stated monitoring and evaluation is oversee and evaluating the effectiveness and efficiency of performance in the hospital continuously that functioned by nursing management during planning, organizing, and directing process. By its process, standard will be created and used, it will be followed by constructive feedback, and makes this process will be maintained. According to (2018), monitoring and evaluation of PCC are closely related to integrated medical record that involve many professionals such as physician, pharmacist, nurse, nutritionist, and physiotherapist. Advantage from this integrated medical record is prioritizing patient interests in a collaborative and comprehensive manner, as media of information, control tools, medication and food analysis, and patient screening. Therefor monitoring

and evaluation are needed to improve quality health care services in hospital.

Environmental quality factor is not significantly related to PCC implementation. This is inversely with theory by Dewi (2013) which stated that PCC is physically health care service model that prioritize patient and family needs in its design. In other hand, it is possible to make a design that involve family in health care service because it is believed that family involvement gives its own tranquility. The results of other studies on room design that support clear information from patients and their families that by providing complete and open information, it is expected that service providers obtain a complete description of the patient (Dellinger, 2010). This can be due to the limitations of the planners in understanding to design the physical concepts related to PCC so sometimes the implementation of the concepts could not apply due some problem in hospital.

Technology factor has significant relation with PCC implementation (P- value 0,000) and OR value (68,938). It is similar as theory that said electronic health systems must be built to facilitate data exchange. In addition, available patient health information must be served with an information system, so everybody who need the data do not need to come directly to the place of the data management institution. As is health information system that provide patient's data access in digital form, it is expected patient's data can be identified by health professional in period of time, help to find out how condition of the patient and improve the quality of health services. Then by patient health information management which is done electronically and integrated, can help health care providers in giving better health services to patient (WHO, 2012). The study result from Azizah and Setiawan (2017) said there are five elements needed to apply health information management in integrated way those are human resources, policy and institutional, system implementation, data and its management, also access and integrated data.

CONCLUSION

In General, PCC implementation related to leadership, strategical vision, monitoring and evaluation, and technology. Meanwhile the most related factor is leadership factor. It has mean that effective leadership will have an impact on the application of good PCC, compared with less effective leadership in hospital. It is expected that policy makers and leaders will be able to establish PCC in the hospital strategy program and conduct supervision on its implementation in with scheduled and continuously.

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