

## The Relationship Between Family Involvement and Satisfaction Level of The Family of Critical Care Patients in The Sumber Waras Hospital

Indah Purnama Sari<sup>1</sup>, Mochamat Helmi<sup>2</sup>, Wiyarni Pambudi<sup>3</sup>, Ernawati<sup>4</sup>

**ABSTRACT** 

<sup>1,2,3,4</sup> Universitas Tarumanagara, Indonesia

Email: indahpurs45@gmail.com, emailhelmi@yahoo.com

\* Correspondence: emailhelmi@yahoo.com

# KEYWORDS Family Involvement, Family Satisfaction, Critical Patients, Intensive Care

The average trend of intensive care unit (ICU) patients increases every day across the globe, including in Indonesia. Patients and their families have various needs during intensive care in the ICU. Based on these needs, we classify them into care, hope, information, participation, and assurance. In order to fulfill these needs, support and involvement of family members are needed. If the needs are fulfilled, this will have an effect on the satisfaction of family members. Therefore, this study aims to investigate the relationship between family involvement and family satisfaction of critical patients in Intensive Care Unit of Sumber Waras Hospital, West Jakarta. Descriptive and analytic research design with a quantitative approach is used in this study. Samples were collected using a consecutive sampling method and a questionnaire was used as a data collection instrument. Pearson Chi-Square correlation test was performed to determine the relationship among variables. This study showed the average scores of family involvement and family satisfaction were 4.0-4.3 out of 5 on a Likert scale. From 49 respondents, 29 respondents had a higher level of involvement in information and 34 respondents had a higher level of satisfaction in assurance. involvement in care, hope, information, participation, and assurance had a significant positive association with family satisfaction, with the effect exerted at 42%, 56%, 51%, 49%, and 49%, respectively. From this study, we can conclude that the patient's family members had a moderately to very high level of involvement and satisfaction. There is a significant positive association between family involvement and family satisfaction in the Sumber Waras Hospital, West Jakarta.

Attribution-ShareAlike 4.0 International (CC BY-SA 4.0)



#### Introduction

In many countries, including in Indonesia, the number of intensive care patients has risen from day to day. This increase goes hand in hand with the rising mortality rate (Fedosiuk & Kovalova, 2018). Intensive care patients are those who are receiving critical care in the Intensive Care Unit (ICU). According to a study conducted by Aro et al., the patients in the ICU have several needs, namely:(Aro et al., 2012)1) needs for physical comfort, 2) needs to feel safe; 3) needs to be respected as a unique individual; 4) needs for emotional supports; 5) needs for information; 6) needs for privacy; 7) needs for the presence of families and friends; 8) needs to be involved in a decision making. For families, ICU becomes a less favorable place due to the need for emotional responses and the higher demand for the right decision compared to other units in hospitals (Pochard et al., 2005). In addition to patients, according to the Critical Care Family Need Inventory (CCFNI), the family of patients in the ICU also have various needs.4-6 Based on the needs of the patients and family during the critical care in the ICU, the researchers try to classify these needs into CHIPA, which stands for: 1) C=Care; 2) H=Hope; 3) I=Information; 4) P=Participation; 5) A=Assurance. It requires supports from various parties including families to satisfy all these needs (Davidson, 2009). Family supports to improve communication and decision making can shorten the length of stay for the care (Lee et al., 2019). Quality of life and patient satisfaction are among the expected outcomes of patient care management based on the 1st edition of the National Accreditation Standard for Hospital of 2018. If the family of the patient complains of discomfort during the care in the ICU, this will lead to dissatisfaction which will in turn affect patient care (Potter Patricia & Perry Anne, 2012). Negative responses from the family can hinder implementation of family center care philosophy and hamper the role of family in patient care (Hudak & Gallo, 2010). Therefore, this study was conducted to find out the relationship between family involvement and the satisfaction level of the family of critical patients in Sumber Waras Hospital, West Jakarta, November 2019. (Luo et al., 2020)

#### **Research Methods**

As for research design, this study is a descriptive and analytic study using a cross-sectional design and quantitative approach. The subjects of this study involved the families of intensive care patients in Sumber Waras Hospital during the period of 01-30 November 2019. The sampling technique used was consecutive sampling with which the required sample size includes all families of intensive care patients on 01-30 November 2019. The families of the patients who were willing to participate in this study were asked to fill the consent form. Primary data was obtained by filling out a closed-ended questionnaire. There are five independent variables and one dependent variable in the present study. The independent variables are care, hope, information, participation, and assurance involvement. Meanwhile, the dependent variable is involvement satisfaction. All variables in this study were measured using a modified Likert-scale. Following validity and reliability testing, descriptive analysis and Pearson Chi-square test were performed using the SPSS (Statistical Product and Service Solution) v24 program. The variables are correlated or the null hypothesis is rejected if the p value < 0.05.

#### **Results and Discussions**

A total of 49 samples was obtained in this study. The respondent characteristics are listed in Table 1. Descriptive statistics was conducted to figure out the characteristics

of the study results.

Table 1. Characteristics of Respondents

		Frequency	Percentage (%)
Gender	Male	14	28.6
	Female	35	71.4
Kinship	Husband	1	2.0
	Wife	7	14.3
	Child	32	65.3
	Father	1	2.0
	Mother	1	2.0
	Older brother/sister	6	12.2
	Adik	1	2.0
Length of Stay for care	1 day	19	38.8
	2 days	11	22.4
	3 days	9	18.4
	> 3 days	10	20.4

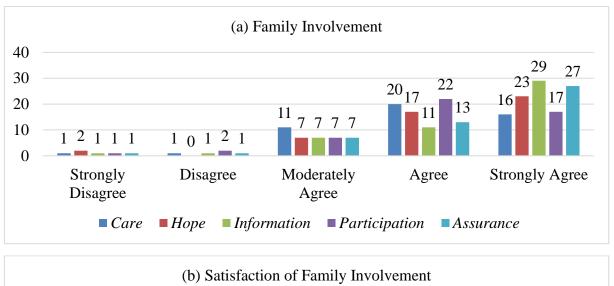
The descriptive statistics indicates average score of 4.0 - 4.3 out of 5 in Likert-scale (Table 2).

Table 2. Results of Descriptive statistical test

Variable	N		Maximum	Mean	SD
Care Involvement	49	1	5	4.0	0.9
Hope Involvement	49	1	5	4.2	0.9
Information Involvement	49	1	5	4.3	0.9
Participation Involvement	49	1	5	4.0	0.9
Assurance Involvement	49	1	5	4.3	0.9
Care Satisfaction	49	2	5	4.0	0.7
Hope Satisfaction	49	2	5	4.2	0.7
Information Satisfaction	49	3	5	4.3	0.7
Participation satisfaction	49	2	5	4.0	0.8
Assurance Satisfaction	49	2	5	4.3	0.8

SD = Standard Deviation.

From the descriptive statistical test, it was found that most families of intensive care patients moderately agree to strongly agree with care involvement, hope involvement, information involvement, participation involvement, and assurance involvement (Figure 1a) and the same results were obtained on the care satisfaction variable, hope satisfaction, information satisfaction, participation satisfaction, and satisfaction assurance, where most families of intensive care patients moderately to strongly agree with involvement satisfaction (Figure 1b). Among care, hope, information, participation, and assurance, information has the highest involvement with 29 respondents (Figure 1a) while the highest level of satisfaction is assurance with 34 respondents (Figure 1b).



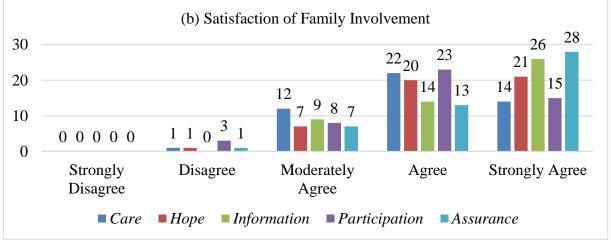


Figure 1. Frequency

All variables analyzed using the Chi-square Pearson test in this study have a significantly positive relationship from strong to very strong correlation.

Table 3. Relationship between two variables

Variabel 1	Variabel 2	N	r	n
Care Involvement	Care Satisfaction	49	0.77	<0.001
	Hope Involvement	49	0.77	< 0.001
	Hope Satisfaction	49	0.58	< 0.001
	Information Involvement	49	0.67	< 0.001
	Information Satisfaction	49	0.52	< 0.001
	Participation Involvement	49	0.66	< 0.001
	Participation Satisfaction	49	0.58	< 0.001
	Assurance Involvement	49	0.70	< 0.001
	Assurance Satisfaction	49	0.53	< 0.001
Care Satisfaction	Hope Involvement	49	0.67	< 0.001
	Hope Satisfaction	49	0.71	< 0.001
	Information Involvement	49	0.50	< 0.001
	Information Satisfaction	49	0.60	< 0.001
	Participation Involvement	49	0.54	< 0.001
\(\frac{1}{2}\)	·			

Assurance Involvement		Participation Satisfaction	49	0.71	< 0.001
Hope Involvement		Assurance Involvement	49	0.53	< 0.001
Information Involvement		Assurance Satisfaction	49	0.61	< 0.001
Information Satisfaction	Hope Involvement	Hope Satisfaction	49	0.75	< 0.001
Participation Involvement         49         0.77         <0.001           Participation Satisfaction         49         0.66         <0.001		Information Involvement	49	0.82	< 0.001
Participation Satisfaction         49         0.66         <0.001           Assurance Involvement         49         0.83         <0.001		Information Satisfaction	49	0.67	< 0.001
Assurance Involvement		Participation Involvement	49	0.77	< 0.001
Assurance Satisfaction		Participation Satisfaction	49	0.66	< 0.001
Hope Satisfaction		Assurance Involvement	49	0.83	< 0.001
Information Satisfaction		Assurance Satisfaction	49	0.73	< 0.001
Participation Involvement         49         0.70         <0.001           Participation Satisfaction         49         0.74         <0.001	Hope Satisfaction	Information Involvement	49	0.67	< 0.001
Participation Satisfaction         49         0.74         <0.001           Assurance Involvement         49         0.72         <0.001		Information Satisfaction	49	0.75	< 0.001
Assurance Involvement         49         0.72         <0.001           Assurance Satisfaction         49         0.83         <0.001		Participation Involvement	49	0.70	< 0.001
Assurance Satisfaction   49   0.83   <0.001     Information Involvement   Information Satisfaction   49   0.76   <0.001     Participation Involvement   49   0.81   <0.001     Participation Satisfaction   49   0.55   <0.001     Participation Satisfaction   49   0.55   <0.001     Assurance Involvement   49   0.88   <0.001     Assurance Satisfaction   49   0.74   <0.001     Information Satisfaction   Participation Involvement   49   0.69   <0.001     Participation Satisfaction   49   0.67   <0.001     Assurance Involvement   49   0.87   <0.001     Participation Involvement   49   0.76   <0.001     Participation Involvement   49   0.76   <0.001     Assurance Involvement   49   0.84   <0.001     Assurance Satisfaction   49   0.71   <0.001     Participation Satisfaction   Assurance Involvement   49   0.61   <0.001     Participation Satisfaction   Assurance Involvement   49   0.61   <0.001     Participation Satisfaction   Assurance Involvement   49   0.61   <0.001     Assurance Satisfaction   Assurance Satisfaction   49   0.71   <0.001		Participation Satisfaction	49	0.74	< 0.001
Information Involvement         Information Satisfaction         49         0.76         <0.001           Participation Involvement         49         0.81         <0.001		Assurance Involvement	49	0.72	< 0.001
Participation Involvement         49         0.81         <0.001           Participation Satisfaction         49         0.55         <0.001		Assurance Satisfaction	49	0.83	< 0.001
Participation Satisfaction         49         0.55         <0.001           Assurance Involvement         49         0.88         <0.001	Information Involvement	Information Satisfaction	49	0.76	< 0.001
Assurance Involvement         49         0.88         <0.001           Assurance Satisfaction         49         0.74         <0.001		Participation Involvement	49	0.81	< 0.001
Assurance Satisfaction         49         0.74         <0.001           Information Satisfaction         Participation Involvement         49         0.69         <0.001		Participation Satisfaction	49	0.55	< 0.001
Information Satisfaction         Participation Involvement         49         0.69         <0.001           Participation Satisfaction         49         0.67         <0.001		Assurance Involvement	49	0.88	< 0.001
Participation Satisfaction         49         0.67         <0.001           Assurance Involvement         49         0.76         <0.001		Assurance Satisfaction	49	0.74	< 0.001
Assurance Involvement         49         0.76         <0.001           Assurance Satisfaction         49         0.87         <0.001	Information Satisfaction	Participation Involvement	49	0.69	< 0.001
Participation Involvement         Assurance Satisfaction         49         0.87         <0.001           Participation Involvement         Participation Satisfaction         49         0.76         <0.001		Participation Satisfaction	49	0.67	< 0.001
Participation InvolvementParticipation Satisfaction490.76<0.001Assurance Involvement490.84<0.001		Assurance Involvement	49	0.76	< 0.001
Assurance Involvement         49         0.84         <0.001           Assurance Satisfaction         49         0.71         <0.001		Assurance Satisfaction	49	0.87	< 0.001
Assurance Satisfaction 49 0.71 <0.001 Participation Satisfaction Assurance Involvement 49 0.61 <0.001 Assurance Satisfaction 49 0.71 <0.001	Participation Involvement	Participation Satisfaction	49	0.76	< 0.001
Participation SatisfactionAssurance Involvement490.61<0.001Assurance Satisfaction490.71<0.001		Assurance Involvement	49	0.84	< 0.001
Assurance Satisfaction 49 0.71 <0.001			49	0.71	< 0.001
	Participation Satisfaction	Assurance Involvement	49	0.61	< 0.001
Assurance Involvement Assurance Satisfaction 49 0.85 < 0.001		Assurance Satisfaction	49	0.71	< 0.001
	Assurance Involvement	Assurance Satisfaction	49	0.85	< 0.001

Tabel 4. Relationship between care involvement, hope involvement, information involvement, participation involvement, and assurance involvement on the level of involvement satisfaction of the patient's family

		Lev satis		
Variable	N	r	R square	p
Care involvement	49	0.64	0.42	< 0.001
Hope involvement	49	0.75	0.56	< 0.001
Information involvement	49	0.71	0.51	< 0.001
Participation involvement	49	0.71	0.51	< 0.001
Assurance involvement	49	0.70	0.49	< 0.001

From table 4, it can be concluded that care involvement influences the satisfaction level of family involvement of critical patients with 42%, hope involvement has an influence with 56%, information involvement and participation involvement have an effect with 51% respectively, and finally, assurance involvement affects the level of

satisfaction of family involvement of critical patients by 49%.

From the descriptive statistics, the result indicated that the patients' family had a high level of involvement and involvement satisfaction with the average score of 4.0-4.3 out of 5 on a Likert scale. This finding is consistent with a study conducted by Wijayanti in 2016 which demonstrated that of the total 36 respondents, 22 (61.1%) respondents have a good family involvement, 10 (27.8%) have a moderate involvement, and 4 (11,1%) have a poor involvement (Wijayanti, 2016). The result of this study, however, contradicts with a study by Azoulay et al, which showed that family of patients has not optimally played a significant role, where 66% of the family refuse to be involved. Likewise, another study conducted by Elmawati in 2018 indicated that of the total 35 respondents, 15 (42,9%) have a poor involvement, 13 (37,1%) have a moderate involvement, dan 7 (20%) have a good involvement (Elamwati, 2019). Factors that can impede family involvement in providing care services to the patients include; low level of family education, limited budgets, facilities and infrastructures, as well as habits and culture. In this study, the patient's family has the highest level of involvement in information. This finding is in line with previous research which indicated that information becomes the most important need because families will feel insecure if they do not receive sufficient information related to the patient's condition (Frivold et al., 2015). While the patient's family has the highest level of satisfaction with assurance involvement. This result agrees with Fatmalia who conducted a study and the result revealed that assurance of care service quality will affect the satisfaction level of the patients and their family (Zouka et al., 2014). All variables examined using Pearson Chi-square have a significantly positive relationship with a strong to very strong correlation.

## Care Involvement and Relationship with The Involvement Satisfaction of The Family

From this study, the average score of care involvement was 4.0 out of 5 based on a Likert scale. Subsequently, the results of this study found that care involvement has a significant positive relationship with the level of involvement satisfaction with a strong correlation. Care involvement influences on the level of involvement satisfaction by 42%. This finding is in agreement with a study by Zouka in which showed that 81% of satisfaction of the family of ICU patients were influenced by caring, attention, and management of care to patients.

## Hope Involvement and Relationship with the Level of Involvement Satisfaction of Family

From the result of this study, the average score of participation involvement was 4.2 out of 5 in a Likert scale. Further analysis also indicated that hope involvement has a significant positive relationship with involvement satisfaction with a strong correlation. Hope involvement influences on the involvement satisfaction level by 56%. This result is in contrast with a study by Zouka in 2014 which indicated that the satisfaction of the ICU patients' in family was only 6% influenced by emotional support.15

## Information Involvement and The Relationship with The Level of Involvement Satisfaction of The Family

The result of this showed that the average score of information involvement was 4.3 out of 5 on a Likert scale. The result also revealed that information participation has a significant positive relationship with the level of involvement satisfaction with a strong

correlation. The percentage of the effect of information involvement on the level of involvement satisfaction was 51%. This result supports the previous study by Zouka in 2014 which showed that satisfaction of ICU patients' family is influenced by fulfillment of information needs by 89% (Zouka et al., 2014). This finding is supported by research conducted by Retnaningsih et al, in 2017 regarding the level of family satisfaction of patients in the ICU room at Permata Medika Hospital Semarang, where communication was ranked highest in the perception of patient family satisfaction at the hospital.(Retnaningsih et al., 2017)

### Participation Involvement and The Relationship with The Level of Involvement Satisfaction of The Family

From the result of this study, the average score of participation involvement was 4.0 out of 5 on a Likert scale. Further analysis also found that participation involvement has a significant positive relationship with the level of involvement satisfaction with a strong correlation. The percentage of the influence exerted by participation involvement on the level of involvement satisfaction was 51%. This results is consistent with Clark et al, which suggested among 40 family members, the overall average score for family satisfaction with decision making is 72.03% (SD, 16.61%) (Clark et al., 2016). This result is also in line with a study conducted by Hendrawati et al, which showed that family involvement in providing patient care will result in satisfaction to the family and improve the quality of life of families and patients (Hendrawati et al., 2017).

## Assurance Involvement and The Relationship with The Level of Involvement Satisfaction of The Family

The result of the present study indicated that the average score of assurance involvement was 4.3 out of 5 on a Likert scale. Subsequent analysis found assurance involvement has a significant positive relationship with the level of involvement satisfaction with a strong correlation. The percentage of the effect of assurance involvement on the level of involvement satisfaction was 49%. This result is in agreement with a study by Zouka in 2014 which found that the level of ICU patients' family satisfaction was 47% influenced by the atmosphere in the waiting room.15.

#### Conclusion

The families of the patients have involved in care, hope, information, participation, and assurance, and they are satisfied with their involvement with average 4.0-4.3 of 5 on a Likert scale. Among care, hope, information, participation, and assurance, information has the highest level of involvement with 29 respondents (59%). Among care, hope, information, participation, and assurance, the variable that has the highest level of involvement satisfaction is assurance with 34 respondents (69%). There is a significant positive correlation between care, hope, information, participation, and assurance with strong to very strong relationship each other, both in involvement and involvement satisfaction with a correlation coefficients ranging from r=0.50 to r=0.88. Care involvement has a significant positive effect or relationship on the level of involvement with a total of 42%, with a correlation coefficient of r=0.64. Hope involvement has a significant positive effect or relationship on the level of satisfaction with a total of 56%, with a correlation coefficient of r=0.75. Information involvement has a significant positive effect or relationship on involvement satisfaction with a total of 51%, with a correlation coefficient of r=0.71. Participation involvement has a significant

positive influence or relationship on the level of involvement satisfaction with a total of 51%, with a correlation coefficient of r = 0.71. Assurance has a significant positive influence or relationship on the level of involvement satisfaction with a total of 49%, with a correlation coefficient of r = 0.70.

#### References

- Aro, I., Pietilä, A., & Vehviläinen-Julkunen, K. (2012). Needs of adult patients in intensive care units of Estonian hospitals: a questionnaire survey. Journal of Clinical Nursing, 21(13–14), 1847–1858.
- Clark, K., Milner, K. A., Beck, M., & Mason, V. (2016). Measuring family satisfaction with care delivered in the intensive care unit. Critical Care Nurse, 36(6), e8–e14.
- Davidson, J. E. (2009). Family-centered care: meeting the needs of patients' families and helping families adapt to critical illness. Critical Care Nurse, 29(3), 28–34.
- Elamwati, C. (2019). Hubungan peran keluarga dengan pencegahan decubitus pada pasien stroke di ruang rawat inap RSUD Muntilan Kabupaten Magelang. Universitas' Aisyiyah Yogyakarta.
- Fedosiuk, R. N., & Kovalova, O. M. (2018). Major trends of the last decade in the number of icu beds, the number of icu patients, and the rates of icu mortality in Ukraine. Wiadomosci Lekarskie (Warsaw, Poland: 1960), 71(7), 1320–1324.
- Frivold, G., Dale, B., & Slettebø, Å. (2015). Family members' experiences of being cared for by nurses and physicians in Norwegian intensive care units: A phenomenological hermeneutical study. Intensive and Critical Care Nursing, 31(4), 232–240.
- Hendrawati, S., Fatimah, S., Fitri, S. Y. R., & Nurhidayah, I. (2017). Kajian kebutuhan family centered care dalam perawatan bayi sakit kritis di neonatal intensive care unit. Jurnal Keperawatan Padjadjaran, 5(2).
- Hudak, C. M., & Gallo, B. M. (2010). Keperawatan kritis: Pendekatan holistik. Jakarta: EGC.
- Lee, H. W., Park, Y., Jang, E. J., & Lee, Y. J. (2019). Intensive care unit length of stay is reduced by protocolized family support intervention: a systematic review and meta-analysis. Intensive Care Medicine, 45, 1072–1081.
- Luo, M.-S., Huang, G.-J., & Wu, L. (2020). Intensive care unit length of stay is reduced by protocolized family support intervention. Intensive Care Medicine, 46(1), 149–151.
- Pochard, F., Darmon, M., Fassier, T., Bollaert, P.-E., Cheval, C., Coloigner, M., Merouani, A., Moulront, S., Pigne, E., & Pingat, J. (2005). Symptoms of anxiety and depression in family members of intensive care unit patients before discharge or death. A prospective multicenter study. Journal of Critical Care, 20(1), 90–96.
- Potter Patricia, A., & Perry Anne, G. (2012). Buku Ajar Fundamental Keperawatan: Konsep, Proses, dan Praktik edisi 7 vol. 1.
- Retnaningsih, D., Aini, D. N., & Yulianti, I. (2017). Kepuasan keluarga pasien di ruang ICU rumah sakit permata medika semarang. Jurnal Kesehatan Kusuma Husada.
- Wijayanti, W. (2016). Hubungan Peran Serta Keluarga Dengan Pencegahan Terjadinya Decubitus Pada Pasien Stroke Di Ruang Rawat Inap Rsud Dr. Soehadi Prijonegoro Sragen. Skripsi. SKripsi. STIKES Kusuma Husada Surakarta: Tidak diterbitkan.
- Zouka, M., Myrou, A., Soultati, I., Aslanidis, T., Euthymiou, A., Geka, E., Anastasiou, E., Ourailoglou, V., & Giannakou, M. (2014). Family satisfaction in the ICU: a 6-month experience. Critical Care, 18, 1–182.