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Improving the satisfaction and readiness of chronic disease patients through the use of IDEAL discharge planning

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Abstract

Introduction: Effective discharge planning is critical for ensuring continuity of care and improving outcomes for patients with chronic diseases. This study explores the implementation of the IDEAL discharge planning strategy—Involve, Discuss, Educate, Assess, and Listen—to enhance patient satisfaction and readiness for discharge. A quasi-experimental design was employed, involving chronic disease patients from a tertiary care hospital. The intervention group received discharge planning based on the IDEAL framework, while the control group received standard discharge procedures. Outcomes were measured using validated tools assessing patient satisfaction and readiness for discharge.

Results: The results of the study showed that there was a positive and significant difference between the intervention group and the control group with a p-value of 0.000 <0.05, which means that there is a difference in patient readiness to go home between the intervention group with IDEAL Discharge Planning treatment and with Discharge planning treatment in the control group.

Discussion: Indicated a statistically significant improvement in both satisfaction and readiness scores among patients in the IDEAL group compared to the control group. Patients reported feeling more informed, involved in their care, and confident in managing their condition post-discharge. These findings suggest that structured, patient-centered discharge planning can play a pivotal role in improving the transition from hospital to home for individuals with chronic illnesses.

Conclusion: The study underscores the importance of adopting comprehensive discharge planning models like IDEAL to foster better patient outcomes and reduce readmission rates. Further research is recommended to explore long-term impacts and scalability across diverse healthcare settings

Introduction

Competition in marketing health services in hospitals has become an important issue in competition for the quality of services in hospitals.(Hariyanti, Fitriasari, Pradana, & Lenggono, 2024),where chronic diseases have become a significant global health challenge, accounting for more than 70% of deaths worldwide and causing a large economic burden.(Heron, 2016). In Indonesia, the prevalence of chronic diseases such as hypertension, diabetes mellitus, and heart disease continues to increase, requiring the health system to provide a more integrated and sustainable care approach.(Pahlevani, Taghavi, & Vanberkel, 2024). Patients with chronic conditions often require a careful transition from hospital to home, which if not managed well can lead to complications, readmissions, and decreased quality of

life.(Jaganathan, Conway, & Dunlap, 2017). Discharge planning is a critical element in ensuring a safe and effective transition. The IDEAL Discharge Planning model, developed by the Agency for Healthcare Research and Quality (AHRQ), emphasizes five key components: Include, Discuss, Educate, Assess, and Listen.(Burns, Amobi, Chen, O'Brien, & Haber, 2022). This model has been shown to increase patient and family readiness to perform self-care at home, as well as reducing readmission rates by up to 30% in several intervention studies.(E. Chang & Johnson, 2013). Active involvement of patients and families from the beginning of care has been shown to improve understanding, adherence to treatment, and satisfaction with health services.(Galvin, Wills, & Coffey, 2017).

Discharge readiness is an important indicator of successful chronic patient care. Studies show that patients who feel physically, emotionally, and socially ready to return home have a lower risk of complications and a better quality of life. IDEAL Discharge Planning helps identify patient needs holistically, including social support, understanding of medications, and ability to perform self-care.(Barrett et al., 2025). Recent studies have also shown that this approach improves health literacy and reduces patient anxiety around discharge.

However, the implementation of discharge planning in many hospitals is still not optimal. Many institutions still provide discharge information in a hurry before the day of discharge, without adequate education or cross-professional involvement. In Indonesia, studies show that most nurses have not consistently implemented discharge planning, which has an impact on low patient and family readiness. Therefore, the implementation of the IDEAL model systematically and in a structured manner is very necessary to improve the quality of care transitions, especially for patients with chronic diseases.

In this context, hospitals should be an example of relevant institutions to implement this approach, considering the high burden of chronic diseases in the region and the mandate of hospitals to handle cases such as heart disease, stroke, and cancer. This study aims to assess the effectiveness of the booklet “Prepare Yourself to Go Home” developed based on the principles of IDEAL Discharge Planning. The study also analyzes the effectiveness of IDEAL Discharge Planning in improving the readiness to go home of chronic patients in this hospital will provide an important contribution to the development of better nursing policies and practices in Indonesia..

2. MATERIALS AND METHODS

This study used a quasi-experimental design with a post-test only control group approach which aims to evaluate the effect of implementing IDEAL Discharge Planning on the readiness to go home of chronic disease patients in hospitals. The research sample consisted of 44 stroke patients treated in the stroke treatment room selected using the consecutive sampling method.

The intervention group received education and implementation of IDEAL Discharge Planning by nurses, while the control group received discharge planning according to hospital SOP. Patients with odd numbers entered the intervention group, while even numbers entered the control group. The RHDS instrument covers four domains: personal status, knowledge, coping skills, and expected assistance, with proven validity and reliability. Patient readiness to go home was measured using the Readiness for Hospital Discharge Scale (RHDS) instrument on the day of patient discharge

Data obtained from filling out the Readiness for Hospital Discharge Scale (RHDS) instrument will be analyzed quantitatively. Data analysis used the Statistical Package for the Social Sciences (SPSS-26) by comparing the level of readiness to go home between the intervention group and the control group. A normality test was performed first to determine the appropriate type of test, such as an independent t-test if the data is normally distributed, or a Mann-Whitney test if the data is not normally distributed.

3. RESULTS

Table1Frequency Distribution of Respondent Characteristics Intervention Group and Control Group

Respondent Characteristics		Group				Total
		Intervention (n=27)	%	Control (n=27)	%	
Gender	Man	19	(70.4)	11	(40.7)	30
	Woman	8	(29.6)	16	(59.3)	24
Age	21-30	1	(3.7)	1	(3.7)	2
	31-40	1	(3.7)	0	(0)	1
	41-50	3	(11.1)	4	(14.8)	7
	51-60	9	(33.3)	10	(37)	19
	61-70	9	(33.3)	8	(29.6)	17
	71-80	4	(14.8)	4	(14.8)	8

Level Education	Didn't finish elementary school	0	(0)	1	(3.7)	1
	SD	12	(44.4)	16	(59.3)	28
	Junior High School	7	(25.9)	4	(14.8)	11
	High School	7	(25.9)	5	(18.5)	12
	S1	1	(3.7)	1	(3.7)	2
Type Cost	BPJS/KIS	24	(88.9)	24	(88.9)	48
	General	3	(11.1)	3	(11.1)	6
Diagnosis	DM	8	(29.6)	13	(48.1)	21
	CKD	8	(29.6)	3	(11.1)	11
	CVA	6	(22.2)	2	(7.4)	7
	Cancer	1	(3.7)	3	(11.1)	4
	Hypertension	0	(0)	2	(7.4)	1
	Heart failure	1	(3.7)	1	(3.7)	2
	Thalassemia	0	(0)	1	(3.7)	1
	Hepatitis B	1	(3.7)	0	(0)	1
	Asthma	0	(0)	1	(3.7)	1
	Anemia	0	(0)	1	(3.7)	1
	Arthritis	1	(3.7)	0	(0)	1
	Chronic Dyspepsia	1	(3.7)	0	(0)	1

Note: Data are presented in n (%)

This study involved 54 respondents divided into two groups, namely the intervention and control groups, each consisting of 27 people. Demographic characteristics showed differences in gender distribution: the intervention group was dominated by men (70.4%), while the control group was predominantly female (59.3%). The average age of the two groups was similar, namely 58.4 years (intervention) and 58.9 years (control), with the majority of respondents in the 51-70 year age range. The highest level of education in both groups was elementary school (44.4% intervention; 59.3% control). Most respondents used BPJS/KIS as health financing (88.9%). The main diagnoses in the intervention group were diabetes mellitus (DM) and chronic kidney disease (CKD) (29.6% each), while the control group was dominated by DM (48.1%).

Table2Average Patient Readiness to Go Home and Group Homecoming Readiness Domain Intervention and Control Groups

		Intervention			Control		
		Mean (n=27)	**SD**	**Category**	**Mean (n=27)**	**SD**	**Category**
Readiness to Go Home		8.00	±0.69	Ready with help	6.90	±0.10	Not ready
Domain Readiness Go home	Status Personal	8.40	±1.54	Very high	7.47	±1.76	Currently
	Knowledge	8.72	±0.77	Very high	6.84	±2.13	Low

	Abilities Coping	7.77	±2.29	Currently	6.72	±2.53	Low
	Support	5.92	±2.89	Low	6.20	±2.80	Low

The results of the analysis of patient readiness to go home showed significant differences between the two groups. The intervention group had an average score of readiness to go home of 8.00 (±0.69), which was included in the category of "ready with help". Meanwhile, the control group had a lower score, namely 6.90 (±0.10), which was classified as "not ready". Discharge readiness domains such as personal status (8.04 vs. 7.47) and knowledge (8.72 vs. 6.84) were also higher in the intervention group. However, there was no significant difference in the domains of coping ability (7.78 vs. 6.72; *p=0.118*) and support (5.91 vs. 6.20; *p=0.746*).

Table3Independent t-test results. Intervention Group and Control Group

		Intervention		Control		P Value
		Mean (n=27)	SD	Mean (n=27)	SD	
Readiness to Go Home		8.00	±0.69	6.90	±0.10	0,000
Domain Readiness to Go Home	**Personal Status**	8.04	±1.54	7.47	±1.76	0.034
	Knowledge	8.72	±0.79	6.84	±2.13	0,000
	Coping Skills	7.78	±2.29	6.72	±2.53	0.118
	Support	5.91	±2.88	6.20	±2.80	0.746

The results of statistical tests using independent t-test and Man-Whitney confirmed significant differences in discharge readiness between the two groups (*p=0.000*). The personal status domain (*p=0.034*) and knowledge (*p=0.000*) also showed significant differences, while coping ability and support were not statistically different. These findings indicate that the intervention provided was successful in improving patient discharge readiness, especially through increasing health literacy and mental readiness.

4. DISCUSSION

Patient Readiness to Go Home in the Intervention Group

In this study, Discharge planning in the intervention group was carried out using the Booklet "Prepare Yourself to Go Home" which is an adaptation of the IDEAL Discharge Planning booklet from AHRQ. From this study, it was found that the average readiness to go home in the intervention group showed the interpretation of "ready with help". This result is marked by high values in the personal status and knowledge domains. while knowledge involves their understanding of their chronic disease conditions.

Readiness to go home for patients with the criteria "ready with assistance" in the intervention group can be influenced by effective discharge planning, such as providing written and verbal information to patients and families about the care that must be carried out at home after returning home.(Mirza, 2022), in this case through the booklet that has been given. This also needs to be supported by providing health education to patients and families about the patient's health condition and how to overcome health problems that may arise after returning home, involving families in homeward planning and providing emotional support, providing physical and psychological exercises that are appropriate to the patient's condition, and conducting periodic homeward readiness evaluations to ensure that the patient is truly ready to go home.

Patient knowledge plays a key role in readiness for discharge. Health education provided to patients based on booklets and periodically can be a cause of increased knowledge levels.(Harleni, Yanti, & Wahyu Diana, 2022b). Based on research from Muwakhidah et al. (2021) which compared education about anemia using booklets, leaflets, posters and lecture methods, it showed that booklets were the most effective media. So with good education and media, it can increase patient readiness to go home(Muwakhidah, Fatih, & Primadani, 2021). This finding is consistent with previous research, such as that conducted by Michalski et al. (2020), which found that high levels of knowledge at discharge were associated with high levels of discharge readiness.(Michalski, Kasprzak, Siedlaczek, & Kubica, 2020).

The results of this study also showed that the required support domain showed low results, indicating that patients in the intervention group could take care of themselves well, so that the self-care possessed by patients was high. This result is in line with the findings of the study.(Astuti, Suhartono, & Sulisno, 2016), which shows that IDEAL Discharge Planning influences patient self-care.

With the implementation of transitional care, patients' knowledge of self-monitoring, correct medication use, reasonable diet, and proper exercise, along with their self-care abilities, improved significantly.(Li, Ma, & Wang, 2020). Reengineering the Hospital Discharge Process to Improve the Transition from Hospital to Home: An Overview and Outlook for the Future(Jack, Austad, Renfro, & Mitchell, 2023)

Patient Readiness to Go Home in the Control Group

Discharge planning in the control group was carried out in accordance with the SOP in force in the hospital. From this study, it was found that the average interpretation of patient readiness to go home was "not ready". This result is in line with the low value in the domain of knowledge, coping skills, and support needed. One factor that can explain the low readiness to go home in the control group is the low knowledge of patients about their illness and how to manage it after going home(RIZKI, 2021). Lack of adequate health education during hospitalization can result in patients' lack of understanding of the actions they need to take after returning home.(Rosymida, 2018).

In the SOP for Patient Discharge Planning, it is divided into 3 main parts, namely identifying the patient's needs to go home, planning the patient to go home, and implementing the patient's discharge, where there is no specific time when it must be done. For its implementation in the hospital, nurses collaborate with doctors to determine which patients can go home, then prepare the patient's medical record files, then when it is the day of discharge, the nurse provides education using the lecture method and using leaflets. This can be the cause of low patient knowledge. Therefore, it is necessary to improve a more comprehensive, periodic and personal educational approach to patients in the control group.(Wang et al., 2021).

Low patient readiness to go home may be caused by patients experiencing insecurity and uncertainty during the transition home due to lack of information, rushed discharge, confusion about medications, and lack of involvement in care and decision-making, which is often caused by lack of communication between health care providers.(Hestevik, Molin, Debesay, Bergland, & Bye, 2019). Therefore, further evaluation is needed regarding factors that influence patient coping abilities, such as age, type of disease, and severity of disease, so that more appropriate care and education can be provided.(J. Chang, Hou, Wang, & Sun, 2020). The method that can be applied for patient discharge planning is using educational media such as booklets, where providing health information through booklet media and question and answer sessions has a more significant impact compared to only using the question and answer lecture method.(Subdari et al., 2020). This result is also in line with the research of Sumiyati, et al. (2023), where there is a significant mean difference in attitudes and practices towards breast self-examination with the provision of booklets, so it is recommended to utilize booklet media to improve skills.(Sumiyati, Widiastuti, Hastuti, Winarso, & Kurniasih, 2023).

Differences in Patient Readiness to Go Home Between the Intervention Group and the Control Group

The results of this study indicate that there are significant differences in the readiness to go home of patients with chronic diseases between the intervention and control groups. The personal status and knowledge domains have significant differences, while the coping ability and support domains in the intervention group are higher than the control group but the differences are less significant.

In the personal status domain, it shows that the value in the intervention group is higher than the control group. Personal Status is a description of the physical and emotional state of patients before they go home, including how they feel physically and their feelings such as patient confidence to go home, physical readiness, pain, strength, energy, emotional readiness, and stress.(Andreas, Era, & Hidayat, 2023). Previous research has identified that personal status factors, such as the patient's physical and mental condition, have a strong impact on readiness to go home.(Galvin et al., 2017), and there is a possibility that the patient's personal status is related to the patient's level of dependency. Patients who feel less personally ready to go home will have difficulty in caring for themselves after going home and will need greater support from family or medical personnel. With adequate support, patients and families can better understand post-discharge steps, accelerate recovery, and prevent re-admission to the hospital, so that appropriate actions can be taken, such as increasing social support or intensive health education.(Datuela, Riu, & Yahya, 2022).

Readiness to go home is not only influenced by medical indicators alone, although in terms of medical indicators the patient has met the set targets, there are situations where patients may not feel ready to go home, which can be caused by several factors, such as patient concerns about their ability to care for themselves after going home, lack of social support, or lack of understanding of their health condition. In this context, effective communication between patients, doctors, and nurses is very important, the decision to go home must be based on a comprehensive understanding of the patient's physical and mental condition, as well as their feelings and concerns.(Hestevik et al., 2019), so nurses need to carry out periodic assessments related to personal status.

In the knowledge domain, it was found that the scores in the intervention group were higher than those in the control group, and the difference was significant. Knowledge refers to patients' understanding of the information they need to address their health problems, such as patient diagnosis, treatment given, and steps to take after discharge. Adequate knowledge is important for self-management of their health conditions. The results of this study are in line with various existing studies, where the level of patient knowledge about their illness has a major influence on patient readiness to go home. This can be influenced by the patient's ability to receive information associated with the patient's education level, where there were more elementary school graduates in the control group than in the intervention group, and even in the control group there were patients who did not graduate from elementary school.(Sasono, Husna, Zulfian, & Mulyani, 2021). In addition to the patient's ability to receive information, patient knowledge is also influenced by the quality of discharge teaching provided by nurses.(Qian et al., 2021)., 2021;(Zhao, Feng, Yu, Gu, & Zhang, 2020). Patients who receive good health education during their treatment tend to be better prepared to manage their condition after discharge. Therefore, it is necessary to evaluate the quality of teaching provided by nurses to control group patients. So that improvements are needed in teaching methods, including clearer delivery of information, provision of written materials, or other resources that support patient understanding. The use of appropriate and specific educational media such as the Sahabat Patient Stroke application can improve patient knowledge better.(Ningrum et al., 2023). The findings can be an indicator that adjustments are needed to the SOP for Patient

Discharge Planning implemented in hospitals. Better and more effective care practices must always be based on evidence-based practice, one of which is the IDEAL Discharge Planning itself. Discipline is an important factor in mediating compliance in implementing SOPs to improve the quality of service to patients.(Lenggono et al., 2023), where the application of the stroke patient safety model is needed in preventing nosocomial infections in hospitals.(Rahmawati, Noviyanti, & Lenggono, 2024)

Research from Harleni et al., (2022) revealed that the use of booklets increased knowledge and attitudes more than leaflets. The use of booklets as a health education medium in patient discharge planning has been proven effective based on several studies.(Harleni, Yanti, & Wahyu Diana, 2022a). These results indicate that providing health information through booklets, accompanied by a question and answer session, has a significant impact and can improve patient knowledge. Although these studies support the use of booklets, it should be noted that there are various other methods such as leaflets, posters, and lectures that have also been used in the context of health education. Therefore, the choice of method must be adjusted to the needs of the patient and the specific situation.

Coping ability in both groups showed no significant difference. Coping ability refers to the ability perceived by patients to manage their personal and health care needs after discharge, including the ability to cope with stress, comply with treatment recommendations, and take necessary actions for their recovery. This result may be due to factors such as age, type of disease, and severity of disease that can affect the level of patient coping ability.(Sharma, Maurya, & Muhammad, 2021), where in both groups the education level mode, patient age mode, and disease type mode are more or less the same. Therefore, an individual approach is needed in identifying patients who may have difficulty coping with their condition after returning home. Social support, education level, health conditions, and previous experiences can affect patients' coping abilities in dealing with health problems after returning home from the hospital (Gunawan, 2018), so further assessment may also be needed regarding health conditions and experiences during previous care.

In discharge planning, it is important to provide targeted and easily understood education to patients, involve families in the planning process, provide social support, and ensure patients have access to follow-up care (Rina, 2021). Psychological counseling and regular evaluation of the patient's coping abilities are also essential steps. In addition, effective communication between patients, nurses, and other care teams is essential, and patients need to be educated about the danger signs to watch out for after discharge. All of these steps contribute to the patient's readiness to deal with health problems after discharge from the hospital (Rina, 2021).

In the domain of assistance needed by patients, there was no significant difference in the two groups. Expected support refers to emotional assistance including psychological and social support to help patients cope with stress and uncertainty after discharge and instrumental assistance includes physical or practical assistance, such as follow-up medical care, if needed (Andreas et al., 2023). The results showed that most patients felt they needed little help. The absence of a significant difference in support in the two groups may be because the participants were ready enough to seek support sources at home (from family, relatives, and health community resources), as indicated by the low level of assistance needed by patients in both groups. This study found that almost all groups of participants had a caregiver at home, which could make them more ready to go home. This is similar to previous studies that found that patients who lived with a caregiver felt a greater level of readiness compared to those who lived alone (Nurhayati, 2018).

The level of assistance required by a patient can be influenced by various factors, including family support, perception of the disease, previous medical history, and knowledge about the disease.(Pahria, Nugroho, & Yani, 2022). In an effort to identify the type of support needed by each patient, it is essential to apply a personalized and holistic approach. This means involving patients in decision-making about their care, recognizing the uniqueness of each individual, and considering the physical, emotional, social, and psychological aspects of their well-being. Support for patient discharge preparation can be in the form of providing sufficient information, for example a booklet that can be developed into an application such as the Covid Nurse Assistant (CNA) because it has been proven to improve patient knowledge and self-care to undergo care at home (Ningrum et al., 2021). Thus, the care provided can be more tailored to individual needs and improve overall health outcomes. In addition, strong collaboration between the care team, patient, and family is also needed to ensure the provision of effective and holistic support according to patient needs (Amanda, 2018). Awareness of patient needs and provision of appropriate support can help patients better face their challenges and journey home.

5. Nursing Implications

The results of this study provide important implications for nursing practice, especially in improving the quality of discharge planning. Integration of the IDEAL model into hospital SOPs can improve patient readiness to go home and reduce the risk of readmission.(Aboumatar et al., 2021)(Mitchell, Weigel, Laurens, Martin, & Jack, 2018). Nurses have a central role in providing education, conducting readiness assessments, and ensuring a safe and effective transition (Rodríguez-García et al., 2021). The use of educational media such as booklets has been shown to be effective in improving patient understanding.(Kaya & Karaca, 2020).

Therefore, hospitals need to develop discharge protocols that include written educational materials, Q&A sessions, and family involvement. This is in line with the principle of patient-centered care that places patients as active partners in their care.(Rathert, Wyrwich, & Boren, 2019). In addition, training for nurses on the implementation of IDEAL-based discharge planning needs to be carried out periodically.(Kable, Chenoweth, Pond, & Hullick, 2019). Research shows that the success of discharge planning is highly dependent on the communication and education competencies of health workers.(Kable et al., 2019).

Periodic evaluation of the effectiveness of discharge planning is also important to ensure that the quality of service is maintained.((AHRQ), 2023). Based on these findings, it is recommended that educational institutions and clinicians use the results of this study as a reference in developing evidence-based nursing practices.(Melnyk & Fineout-Overholt, 2022).

Hospitals are also expected to evaluate the existing discharge planning SOPs to make them more effective and appropriate to each patient's condition. Finally, the results of this study can be the basis for developing hospital policies and further research.

By adopting an evidence-based approach such as IDEAL Discharge Planning, healthcare institutions can improve clinical outcomes, patient satisfaction, and overall service system efficiency.

6. CONCLUSION

The implementation of the IDEAL Discharge Planning method has been proven to have a positive effect on the readiness to go home for patients with chronic diseases in the hospital. The results showed that patients who received intervention through this method had a higher level of readiness to go home, with the category "ready with help", compared to the group that did not receive intervention, which was categorized as "not ready".

This difference was statistically significant, confirming that a structured, needs-based approach to discharge planning can improve patients' readiness for continued care at home.

For further research, the integration of information technology, the use of more innovative educational media, and more complex and collaborative research approaches are highly recommended to deepen understanding and improve the quality of care for chronic patients as a whole.

7. ETHICAL APPROVAL

Research involving human subjects has received a research ethics permission number: 71/EA/KEPK/2023 from the Health Research Ethics Committee of Ngudi Waluyo Hospital Wlingi which is affiliated under the Ministry of Health of the Republic and is declared "applicable". Research Ethics has referred to the seven standards outlined by the WHO (2011), including: (1) social value, (2) scientific validity, (3) fair distribution of benefits and burdens, (4) risk minimization, (5) protection against exploitation, (6) confidentiality, and (7) informed consent, in accordance with the CIOMS guidelines (2016).

8. AVAILABILITY OF DATA AND MATERIALS

The datasets used and/or analyzed during the current study are available from the corresponding author.

9. ACKNOWLEDGEMENT

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