

Effectiveness Of Early Ambulation Training With Independence In Doing ADL (Activity Of Daily Living) In Post Orif Patients In The Prima Medika Hospital Hospital

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Abstract

Background: Clinically postoperative ORIF (Open Reduction Internal Fixation) patients need treatment and education to go through the patient's ADL (Activity of Daily Living) dependency phase and achieve the full ADL independence phase. Postoperative patients with ORIF (Open Reduction Internal Fixation) must be immediately mobilized early. Treatment measures in the case of postoperative ORIF (Open Reduction Internal Fixation) in addition to the intervention of wound care, the treatment is directed at early ambulation exercises. **Research Methods:** pre-experimental design design with one group pretest-posttest design research design. The sampling technique used was purposive sampling, the sample of this study was 20 postoperative patients at Prima Medika Hospital in Pemalang with 20 respondents. Statistical analysis using Regional Test. **Results:** The results showed that the majority of respondents were 20-35 years old (70%), female sex (60%), basic education (60%) and not working (60%). Independence before early ambulation is moderate dependence (45%) and after early ambulation is mild dependence (55%). **Conclusion:** There is an influence of early ambulation exercise on independence in doing ADL (Activity of Daily living) in post ORIF (Open Reduction Internal Fixation) patients in the Inpatient Room of Prima Medika Hospital in Pemalang with $p \text{ value} \leq \alpha (0.001 \leq 0.05)$.

Keywords: Early Ambulation, Independence, Activity of Daily Living, Post ORIF (Open Reduction Internal Fixation) operation

Introduction

Indonesia has a fairly high fracture rate. According to the Central Java Health Office (2013), there are around 2,700 people who experienced a fracture incident. Based on the medical records of Pemalang Prima Medika Hospital in 2016 to 2017, there were 570 ORIF cases. In 2016 the number of patients reached 220 ORIF cases. In 2017, ORIF reached 350 cases. Meanwhile, in June - August 2018 there were 120 ORIF cases in the inpatient room.

Treatment of fractures can be done surgically and without surgery, including immobilization, reduction and rehabilitation. The condition of the fracture, both in the initial phase or patients with fractures in malunion conditions, will identify invasive open reduction internal fixation (ORIF) surgery as an intervention to bring together and fix both ends of broken bone fragments. Problems experienced by post-patient ORIF surgery is a limitation in carrying out daily activities that can cause patients to lose their independence (Potter & Perry, 2009). Treatment measures in postoperative ORIF cases apart from interventional wound care, treatment is directed

at early ambulation exercises. Early ambulation exercises are performed

immediately after 24 hours after surgery. Early ambulation exercises in post ORIF patients are very important because if the patient restricts his movements in bed and does not perform early ambulation the patient will find it increasingly difficult to walk (Kozier, 2010).

Methods

The research design used was pre-experimental with a sample of 20 people. This study uses research instruments namely Observation Sheet for early ambulation exercises and Barthel Index. Barthel index is a standardized scale (Kelana, Darma, 2011). Analysis of the data in this study is univariate and bivariate. Univariate analysis is the distribution of respondents according to age, sex, education, occupation, while the bivariate analysis of the effectiveness of early ambulation exercises on independence in conducting ADL (Activity of Daily Living) uses Wilcoxon test.

Results

Characteristics of Respondents In this study the characteristics assessed were age, sex, educational status, occupation, independence before it was done and after an early ambulation exercise.

No	Education	Frequency (f)	Prosentase (%)
1	Junior High School	12	60
2	Senior High School	6	30
3	Bachelor Degree	2	10
	total	20	100

1. Characteristics of respondents based on age Table 4.1. Distribution of Characteristic Frequency Based on Age in Post ORIF patients in Prima Medika Hospital in Pemalang (n: 20)

No	Age	Frequency (f)	Prosentase (%)
1	< 20	2	10
2	20-35	14	70
3	>35	4	20
	Total	20	100

Table 4.1 shows that the majority of respondents were 20-35 years old with 14 (70%) respondents.

2. Characteristics of respondents by sex Table 4.2. Distribution of Characteristic Frequency by Sex in Post ORIF Patients in Inpatients at Prima Medika Hospital Pemalang (n: 20)

No	Sex	Frequency (f)	Prosentase (%)
1	men	8	40
2	woman	12	60
	Total	20	100

Based on table 4.2 it can be seen that the majority of respondents in the Prima Medika Hospital in Pemalang are 12 people (60%).

3. Characteristics Based On Work Table 4.3. Distribution of Characteristic Frequency Based on Occupation in Post

ORIF Patients in Inpatient Room Prima Medika Hospital Pemalang (n: 20)

No	Occupation	Frequency (f)	Prosentase (%)
1	working	8	40
2	not working	12	60
	total	20	100

Based on table 4.4 it can be seen that the majority of respondents in RS Prima Medika Pemalang are not working 12 people (60%).

4. A description of independence in conducting ADL (Activity of Daily living) in post orif patients before early ambulation in the Inpatient Room of Prima Medika Hospital in Pemalang Table 4.4. Frequency Distribution of Independence In Doing ADL (*Activity Of Daily Living*) In Post ORIF Patients Before Early Ambulation Is Done In The Inpatient Room Of Prima Medika Hospital Pemalang (n: 20)

Activity Of Daily Living (ADL)Pre	Frequency (f)	Prosentase (%)
light dependence	3	15
moderate dependence	9	45
Weight dependence	8	40
Total	20	100

Table 4.5 shows that most of the ability to carry out Activity of Daily Living (ADL) in post orif patients before early ambulation is moderate dependence (45%).

5. A description of independence in performing ADL (Activity of Daily Living) in post Open Reduction and Internal Fixation (ORIF) patients after early ambulation at the Polyclinic Hospital in Pemalang Prima Medika. Table 4.5. Frequency Distribution of Independence in Doing ADL (Activity Of Daily Living) in Post Open Reduction and Internal Fixation (ORIF) Patients After Early Ambulation in the Inpatient Room of Prima Medika Hospital (n: 20)

Activity Of Daily Living (ADL)Post	Frequency (f)	Prosentase (%)
light dependence	11	55
moderate dependence	5	25
Weight dependence	4	20
Total	20	100

Table 4.5 shows that most of the ability to perform Activity of Daily Living (ADL) in post orif patients after early ambulation is mild dependence (55%).

Bivariate Analysis

Analysis of the effectiveness of early ambulation training with independence in conducting ADL (Activity of Daily Living) in post orif patients at the Polyclinic Hospital of Prima Medika Pemalang before and after doing early ambulation exercises

Table 4.6. Effectiveness of Early Ambulation Exercise with Independence in Doing ADL (Activity Of Daily Living) in Post ORIF Patients in Polyclinic Hospital Prima Medika Pemalang (n: 20)

Ambulasi Dini	Activity Of Daily Living (ADL)						Total		<i>p value</i>
	light		moderate		Weight				
	F	%	f	%	f	%	f	%	
Before	3	15	9	45	8	40	2	10	0,001
After	1	5	5	25	4	20	2	10	

Table 4.4 shows the Wilcoxon test results obtained p value α ($0.001 \leq 0.05$) which means that there is an influence of early ambulation exercise with independence in performing ADL (Activity of Daily Living) in post orif patients.

Discussion

Description of the characteristics of post orif patients based on age, sex and education in the Inpatient Room of Prima Medika Hospital Pemalang. In this study, the results showed that the age range of respondents 20-35 years as many as 14 people experienced ORIF. According to the Ministry of Health (2009) included in the category of early adults are people aged 26-35 years, so that at the age of 26-35 years many experience fractures. At the age of 26-35 they do more strenuous activities

than in the old age group, the activities of young people outside the home are quite high with fast movements can increase the risk of collisions or accidents that cause fractures. Based on data extracted by researchers, respondents aged 20-35 years experienced a fracture due to a fall and a motorcycle accident. According to an article written by Widiyanto (2014) in Kedaulatan Rakyat Online, the highest number of work accident cases were experienced by productive workers aged 26-30 years during the period of 2013. Based on the results of Kairupan, Monoarfa & Nantung (2014) research. who were treated at SMF Surgery for the period of January 2012 to December 2012 as many as 156 cases (5.60%) out of a total of 2786 facial trauma treated. The age of most facial fractures is 20-29 years, which is 78 (50.00%)

In this study it was found that female respondents had more numbers, namely 12 people (60%) compared to male types, 8 people (40%). This is supported by Sanderlin (2003) in Maulana (2015) which states that the incidence of fracture is more common in women (64%) than men (50%). This is because women have more activities and low levels of ability to drive vehicles.

An illustration of independence in conducting ADL (Activity of Daily living) in post orif patients prior to early ambulation at the Inpatient Hospital Prima Medika Pemalang The results showed that most of the ability to carry out Activity of Daily Living (ADL) in post orif patients before early ambulation was moderate (45%). In the results of the study there were 45% who were still experiencing moderate disturbances in the fulfillment of ADL, this was due to fear in doing body movements so that the fulfillment of ADL was still helped by others. After the client's operation is more often in bed and afraid to move, the client experiencing immobilization can become depressed due to changes in self-concept and anxiety about his health, financial condition, family problems, and other factors such as the problem of decreasing independence and autonomy in carrying out daily activities (Activity Daily Living - ADL) (Asmadi, 2008).

One of the factors that causes dependence on increasing ADL compliance after fracture is anesthesia used during surgery. This could be due to the body's reaction to the anesthetics given previously (Sheppard & Wright, 2012). Clients who experience upper limb fractures are given general anesthesia at the time of surgery. General anesthesia is where there is no response at the time of surgery. Patients with general anesthesia given correctly will experience unconsciousness, the autonomic nervous system does not respond or only responds minimally to stimulation of surgery, and the patient is silent, or does not move, during stimulation (Carl, 2009). After general anesthesia shows signs of pain, Post Operative Nausea Vomitus (PONV), hypotension, dizziness. This effect often occurs after orthopedic surgery with general anesthesia and plastic surgery procedures (Miller, 2010). Nausea and vomiting can be reduced by early ambulation (Connely & Silverman, 2009). The level of dependence on ADL compliance in operations using general anesthesia is higher than regional anesthesia (Pillai, 2014). An illustration of independence in conducting ADL (Activity of Daily living) in post orif patients after an early ambulation in the Inpatient Room of Prima Medika Hospital in Pemalang.

The results showed that most of the ability to carry out Activity of Daily Living (ADL) in post orif patients after early ambulation was mild dependence (55%). The impact of trauma and surgery can increase the dependence of fulfilling ADL. Early ambulation is one of the nursing interventions that can reduce dependence on the fulfillment of ADL. This is evidenced in the study of Lin & Wang (2015) the experimental group showed a significantly decreased mortality rate as well as an increase in ADL significantly compared to the control group. The effectiveness of early ambulation exercises with independence in doing ADL (Activity of Daily living) in post orif patients in the Inpatient Room of Prima Medika Hospital in Pemalang.

The results showed the Wilcoxon test results obtained $p \text{ value} \leq \alpha$ ($0.001 \leq 0.05$) which means there is an influence of early ambulation exercise with independence in doing ADL

(Activity of Daily Living) in post ORIF patients. The results of research conducted on increasing the independence of postoperative femoral fractures post ORIF patients with exercise programs can increase independence so as not to depend on others when returning home. This is in accordance with the goal of returning independence, which is to prepare patients and families physically and psychologically to return home as the highest stage of achieving independence with an exercise program that has been studied (Adiantoro, 2010).

Conclusion

Characteristics of post orif patients based on age, sex and education. In the Inpatient Room of Prima Medika Pemalang Hospital, most respondents were 20-35 years old (70%), most respondents were female (60%), most had basic education (60%) and most did not work (60 %). Independence in carrying out ADL (Activity of Daily living) in post orif patients before early ambulation in the Inpatient Room of Prima Medika Hospital in Pemalang is mostly moderate (45%). Independence in carrying out ADL (Activity of Daily living) in post orif patients after early ambulation in the Inpatient Room of Prima Medika Hospital in Pemalang Early is mostly mild dependence (55%). There is an influence of early ambulation exercise on independence in conducting ADL (Activity of Daily Living) in post-patient patients in the Inpatient Room of Prima Medika Hospital in Pemalang with $p \text{ value} \leq \alpha$ ($0.001 \leq 0.05$).

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