



## Relationship between Family Support and Compliance of Post-Stroke Clients Undergoing Physiotherapy in the Medical Rehabilitation Room of Pariaman Hospital

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### ABSTRACT

One of the degenerative diseases whose incidence has increased recently is stroke. The recovery rate of stroke is still low, as many as 15-30% of patients will experience paralysis. One of the healing processes is to follow the physiotherapy program. In the physiotherapy unit of Pariaman Hospital, more than half (50%) were not compliant with physiotherapy. The purpose of this study was to determine the relationship between family support and client compliance with physiotherapy in the physiotherapy unit of Pariaman Hospital. Stroke is an acute vascular injury to the brain, or a severe and sudden injury to the blood vessels of the brain. Injury can be caused by blockage of blood clots, narrowing of blood vessels, blockage or rupture of blood vessels. Physiotherapy is a health service that is carried out for the healing process. The implementation is in accordance with the degree of disability experienced by the client. This research is descriptive analytic with cross sectional approach. The population is stroke clients who follow physiotherapy in the physiotherapy unit of Pariaman Hospital, with sampling techniques using accidental sampling which amounted to 52 people. Data were collected by interview in accordance with the questionnaire provided and the data were processed by SPSS and then analyzed univariately and bivariately. The results of this study obtained 28 (53.8%) family support that played a role there were 3 (10.7%) clients who were not compliant with undergoing physiotherapy and from 24 (46.2%) family support did not play a role there were 22 (91.7%) clients who were not compliant with undergoing physiotherapy, P Value = 0.025 < 0.05 means  $H_0$  accepts which means there is a significant relationship between family support and compliance with undergoing physiotherapy for post-stroke patients in the medical rehabilitation room of Pariaman Hospital. to increase client compliance, health workers can provide counseling on the importance of family support in increasing stroke client compliance to follow physiotherapy for the client's healing process.

**Keywords:** Adherence, Family Support, Physiotherapy

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## **INTRODUCTION**

Modern life now demands everything to be instant and fast. Whether in work activities, home life and daily meals (Groopman dkk., 2019). The development of communication and transportation technology seems to shorten the distance and shorten the time. Humans seem to be spoiled in life (Egan dkk., 2019). Because of all that, it turns out that humans have to pay dearly with health. In addition to the above, living habits are also very influential for the health of the human body, food that is not nutritionally balanced, little exercise and lack of rest will support contracting diseases, one of which is stroke.

Stroke is an acute vascular injury to the brain, or a severe and sudden injury to the blood vessels of the brain. Injury can be caused by blockage of blood clots, narrowing of blood vessels, blockage or rupture of blood vessels (Liang dkk., 2020). This causes a lack of adequate blood supply, stroke may or may not cause symptoms (asymptomatic stroke or silent stroke), depending on the place and size of the damage (Soeharto, I 2002).

Many symptoms arise when there is a stroke attack, such as paralyzed half of the body, slurred speech, difficulty swallowing, difficulty speaking, unable to read and write, intelligence backwards, forgetfulness (Lippi dkk., 2020), impaired vision, impaired hearing, the patient's feelings are more sensitive, sexual disorders, even to bedwetting and unable to defecate on their own (Yerika, W 2009).

Stroke attacks can also result in various disorders both from

The inability to recover completely, mild to severe can even result in death. One of the most common is damage to the center of muscle movement in the brain, so that the muscles become weak or unable to move.

Recent studies have shown an increase in the number of stroke patients aged 20-45 years, which is of increasing concern to researchers, the percentage of stroke patients aged 20-45 years increased to 7.3% in 2005 (Piva dkk., 2020). Whereas, in the period 1993-1994, the percentage was only 4.5% (Carr & Rowe, 2020). According to research by the American Stroke Association International Stroke Conference 2010, the proportion of patients under 45 years of age is increasing and the incidence rate is also rising (Slivnick & Lampert, 2019). Stroke cases are increasing in developed countries such as America where obesity and junk food have become epidemic. According to 2008 US statistics, there are 750,000 new stroke cases in the US every year (Jung dkk., 2020). The data shows that every 45 minutes, there is one person in America who will have a stroke (<http://www.medicastore.com>).

In Indonesia stroke is the number 3 killer after infectious diseases and coronary heart disease. In Indonesia there are about 800-1000 cases of stroke each year and 25%

of stroke patients die. One of the causes of the increase in stroke cases is the lack of public awareness to implement a healthy lifestyle.

The incidence of stroke in West Sumatra is still high (Huang dkk., 2020). The number of stroke patients in West Sumatra in 2007 reached 35,108 people. Compared to 2006, this figure showed an increase of 35,071. In Padang city in 2007 there were 945 people and in the first quarter of 2008 there were 369 people and 60 people died.

Efforts made by post-stroke patients include rehabilitation programs or stroke treatment including physical and occupational therapy, or exercises to control patient movement. The therapy or exercise can also help learn new ways of doing things, to compensate for weakness in the limbs or other parts of the patient's body (Guan dkk., 2020). For example, post-stroke rehabilitation therapy may involve learning to bathe, dress or eat with only one hand. Speech therapy is needed to learn how to communicate in case the patient's speech is affected by the stroke. However, the above can be implemented if someone has strong motivation first.

According to the Big Indonesian Dictionary (Awad dkk., 2020), obeying is like obeying orders, obeying orders, while compliance is behavior according to rules and discipline. Sarafino (1990) cited by (Adams & Walls, 2020), defines compliance (obedience) as the level of patients carrying out the treatment and behavior recommended by doctors or others. Compliance can also be defined as the positive behavior of patients in achieving therapy goals.

Adherence in therapy is the level of patient behavior that is directed towards instructions or instructions given in any form of prescribed therapy, whether diet, exercise, medication or keeping appointments with a doctor (Alatab dkk., 2020). Compliance is a change in behavior from behavior that does not obey the rules to behavior that obeys the rules (Green in Notoatmodjo, 2003).

Like post-stroke patients who are not motivated by the family, the family should also assist patients in practicing under the supervision of a nurse or physical therapist, inject enthusiasm and motivation in patients, in order to continue their lives, reassure patients that they are also an important part, needed and wanted in the family, reassure that many people have successfully recovered from stroke and then carry out normal activities.

In undergoing a rehabilitation program, many factors affect the speed of the rehabilitation process (Baabdullah dkk., 2019). Among them, the patient's inability, the family's unwillingness to care for and accompany the patient because they prefer to only be treated at home, limited funds, long distances and others. (<http://www.strokebethesda.com>)

The family is the closest unit to the client and is the "primary caregiver" for the client. The family plays a role in determining how or what care the client needs at home. The success of hospital care can be wasted if it is not continued at home which then results in the client having to be re-admitted (Li dkk., 2021). The family agreed to do exercises on physiotherapy units, but did not take action to bring the patient to the physiotherapy unit (Kumar dkk., 2019). The family understands how to do range of

motion and joint exercises on the patient, but the family does not provide routine exercises. (<http://www.strokebethesda.com>)

According to research conducted by Nasrullah (2004) if the rehabilitation program is carried out by force by the family, with negative attitudes and expressions from the family (Al-Ansi dkk., 2019), unwilling to care for the client at home, it is easy to predict that the patient will not be motivated in undergoing the rehabilitation program, will be easily discouraged and fall into depression.

The results of research by Hannadkk (2009) in the physical aspect, there is assistance from other parties to fulfill needs ranging from nutritional arrangements, elimination assistance (Saha dkk., 2020), body movement, self-care (Hult dkk., 2019). For the emotional aspect, the support of the closest person in this case the family is a need that is considered very instrumental in the process of restoring the client's condition. In addition to the motivation they provide for clients is also considered a very important need. (Hannadkk 2009)

The speed of the recovery process of stroke patients and disability is also influenced by the level of compliance of stroke patients to carry out rehabilitation (Pfefferbaum & North, 2020). Therefore, the level of patient compliance in carrying out rehabilitation for post-stroke patients is important (Pierce dkk., 2020). The more regular the stroke patient in carrying out rehabilitation, the risk of complications caused can be prevented and the return of function quickly, on the other hand, if rehabilitation is not carried out seriously and regularly, it can accelerate permanent paralysis in the limbs that have experienced paralysis, and one of the things that affects client compliance is the role of the family (Selamiharja, 2005).

The number of clients suffering from Hemiparise or stroke who must follow physiotherapy averages 63 people. (Medical Record). From the last 6 months it can be seen that the number of patients who have had a stroke who have to do physiotherapy from month to month is increasing while the number of patients who recover is only 5% of the total number of patients who have had a stroke. (Pariaman Hospital physiotherapy unit report 2021)

the number of attendance of post-stroke patients to undergo physiotherapy is less than half (> 50%) every month from July to December 2013. (Pariaman Hospital physiotherapy unit report 2021)

From research studies on client adherence to treatment, non-compliance is mostly found in clients with chronic diseases. Treatment that requires a long period of time and treatment that does not show rapid results in changes in client health (Niven, 2010).

This is in accordance with Pratt's research (2007) that support from the family can be a very influential factor in determining individual health beliefs and values, and can determine the treatment program they receive. Social support in the form of emotional support from other family members such as friends and money is an important factor in adherence to medical programs. According to researcher Nuil Niven, family and friends can help reduce patients' anxiety and increase motivation. They can remove the temptation to disobedience family can often be a support group to achieve compliance.

Based on an initial survey conducted in the physiotherapy unit for post-stroke patients at Pariaman Hospital, of the 10 clients interviewed, 3 people explained that they were not compliant because the family did not have time to accompany the client to follow rehabilitation, 3 people explained that they were not compliant because the family never involved themselves in caring for clients at home and 1 person explained that they were not compliant because the family never gave encouragement and encouragement but only accompanied them if there was time to accompany them, and 3 more patients said they were always diligent in undergoing physiotherapy because one of their families (husband/wife, children, grandchildren) was there to accompany and encourage them during physiotherapy and at home.

## **RESEARCH METHODOLOGY**

The type of research conducted is descriptive analytic method with cross sectional research design where the independent variable is family support and the dependent variable of post-stroke physiotherapy client compliance is collected at the same time (Notoatmodjo, 2007). The population is stroke clients who follow physiotherapy in the physiotherapy unit of Pariaman Hospital, with sampling techniques using accidental sampling which amounted to 52 people. Data were collected by interview in accordance with the questionnaire provided and the data were processed by SPSS and then analyzed univariately and bivariately.

## **RESULT AND DISCUSSION**

From the results of research conducted on 52 respondents in the Physiotherapy unit room of Pariaman Hospital "the relationship between family support and compliance with undergoing physiotherapy in post-stroke patients" there are the following results:

Fig 1.

Frequency Distribution of Respondents Based on Family Support  
Who Follow Physiotherapy in the Physiotherapy Unit  
Pariaman Hospital

No	Family Support	f	%
1	Played a role	29	55,8
2	No Role	23	44,2
Total		52	100

From Fig 1. it can be seen that 55.8% of respondents Family support plays a role. From the results of research conducted at Pariaman Hospital Poly, it can be seen that 29 (55.8%) respondents have families who always support and play a role in following the physiotherapy carried out by clients and 23 (44.2%) respondents whose families do not play a role in post-stroke client physiotherapy.

The results of this study are almost the same as research by Fani Nofrima (2005) on the role of the family with repeated stroke events found 69% of families play a role in the patient's physiotherapy process.

Social support in the form of emotional support from other family members such as friends and money is an important factor in compliance with medical programs. According to Neil Niven (2002) family and friends can help reduce anxiety from patients and be able to increase motivation. They can eliminate temptations to disobedience, families can often be a support group to achieve compliance.

The fact that researchers found in the field, many of the reasons physiotherapy received family support were because the patient no longer had a life partner and the family was busy so they could not monitor the progress of treatment.

Fig 2. Frequency Distribution of Respondents Based on Family Support Who Follow Physiotherapy in the Physiotherapy Unit Pariaman Hospital

No	Compliance	f	%
1	Compliant	28	53,8
2	Non-compliant	24	46,2
Total		52	100

From the table above, it can be seen that 53.8% of respondents complied with undergoing physiotherapy.

From the results of research conducted at Poly RSUD Pariaman, it can be seen that 28 (53.8%) respondents obediently carried out physiotherapy and as many as 24 (46.2%) respondents did not obediently carry out physiotherapy.

The results of this study are almost the same as research by Silvi Yuliant (2001) on physiotherapy client compliance with post-stroke client healing found 89% of clients who obediently undergo physiotherapy experience maximum healing.

Stanlay (2006) revealed that obedience or compliance is a behavior that is conveyed continuously by a person in his daily life which comes from a motive that has an emotional component (effective) that encourages that person to influence his needs (eating, minimal, health, treatment, and healing) and tends to be repeated to produce useful and enjoyable which cannot escape the motivation given by the surrounding people.

The high compliance rate of respondents in doing physiotherapy in the process of healing post-stroke disease in this case is due to the support and motivation that is always given by the closest people such as wife / husband, children, grandchildren or the closest family to the respondent himself.

Fig 3. Relationship between Family Support and Post-Stroke Client Compliance undergoing Physiotherapy in the Physiotherapy Unit Pariaman Hospital

Family Support	physiotherapy compliance				total		P Value
	Compliant		Non-compliant				
	f	%	f	%	f	%	
Played a role	25	89,3	3	10,7	28	53,8	0.025

No Role	2	8,3	22	91,7	24	46,2	
Total	27	51,9	25	48,1	52	100	

In Fig 3. It can be seen that 28 (53.8%) of family support that plays a role there are 3 (10.7%) clients who are not obedient to undergo physiotherapy and from 24 (46.2%) of his family support does not play a role there are 22 (91.7%) clients who are not obedient to undergo physiotherapy, P Value = 0.025 <0, 05 means that Ha accepts, which means that there is a significant relationship between family support and compliance with undergoing physiotherapy for post-stroke patients in the medical rehabilitation room of Pariaman Hospital, that of the 52 respondents, 28 (53.8%) respondents whose family support played a role, 25 (89.3%) respondents complied with physiotherapy and 3 (10.7%) respondents who did not comply with physiotherapy. Of the 24 (46.2%) respondents whose family support did not play a role, only 2 (8.3%) were obedient to undergo physiotherapy and the remaining 22 (91.7%) respondents were not obedient to undergo physiotherapy.

The results of statistical tests (chi-square) show P Value = 0.025 <0.05, this shows that Ha is accepted, which means that there is a significant relationship between family support and compliance with undergoing physiotherapy for post-stroke patients in the medical rehabilitation room of Pariaman Hospital.

These results are almost the same as the results of research by Roni Azhari (2003) on the role of the family with the obedience of post-stroke clients undergoing physiotherapy found a significant relationship with the results of p Value 0.018 <0.05.

According to Pratt (1997) support from the family can be a very influential factor in determining and believing the value of individual health, and can determine the treatment program they can receive. Social support in the form of emotional support from other family members such as friends and money are important factors in adherence to medical programs. They can eliminate the temptation of family disobedience so that they can often become a support group to achieve compliance, so that the risk of post-stroke patient impacts including decubitus does not arise (Asman A, et al. 2022).

Based on the results of the study, someone who gets full support from the family in stroke treatment through physiotherapy shows good and fast recovery progress. However, there are still many respondents who are not compliant and do not have good family support, this may be due to the lack of time from family members in accompanying respondents in attending physiotherapy and lack of motivation from the family.

## **CONCLUSION**

Family support that plays a role in physiotherapy at Pariaman Hospital is 28 (55.8%) of 52 respondents' families. Respondents' compliance in carrying out physiotherapy at Pariaman Hospital was 24 (46.2%) of 52 respondents. There is a significant relationship between family support and post-stroke client compliance with

physiotherapy in the physiotherapy unit of Pariaman Hospital. Family support plays an important role in the compliance of post-stroke patients to undergo physiotherapy.

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