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# EXPERIENCES OF STROKES' CAREGIVER IN MALUKU PROVINCE: A QUALITATIVE STUDY

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ARTICLE HISTORY	ABSTRACT			
Received: 14 June 2021 Accepted: 11 August 2021 CONTACT	<b>Introduction:</b> Patients with stroke depend on their families to relieve their physical and emotional needs after discharge from the hospital. The family plays an essential role in caring for them, which is stressful for the caregivers. The study was aimed to investigate the experiences of caregivers of stroke's patients.			
La Rakhmat Wabula la.rakhmat.wabula.stikesmh@g mail.com STIKes Maluku Husada, Kairatu, Maluku, Indonesia	<ul> <li>Method: This is the qualitative study (descriptive phenomenology), in which the participants included seven caregivers of stroke patients. Data were collected through semi-structured interviews. Data analysis was performed based on Colaizzi.</li> <li>Results: The results were summarized in three main categories: anxiety (tension and stress, concern about economic future), care consequences (fatigue, reduced family interactions), and neglected needs (psychological needs educational needs)</li> <li>Conclusion: Nurses and physicians should pay more attention to the needs and concerns of patients and their caregivers and try to resolve them concerning the consequences of the disease.</li> </ul>			
	Keywords: caregivers; experience; patient; stroke			
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# INTRODUCTION

Stroke is the third common cause of death and the cause of severe and long-term inability in the world (Lu et al., 2019). The Basic Health Research study estimated that 15 million people suffer from stroke every year, of which 5.5 million people die, and 5 million people live with permanent disabilities (The Republic of Indonesia Ministry of Health, 2018). Evidence indicates a higher incidence of stroke in Indonesia than in Asia countries.

In addition, a stroke occurs at a younger age in Indonesia than in other countries (The Republic of Indonesia Ministry of Health, 2018). A study conducted in Maluku Province to assess the hospital admission rate from 2000 to 2003 showed that the admission rate increased from 84.16 to 103.33 per 100000 population. However, the mortality rate remained constant at 32% (The Republic of Indonesia Ministry of Health, 2018). Following an episode of stroke, 35 to 45% of patients become relatively or entirely dependent on other people to meet their needs in daily life (Palareti et al., 2016). For reducing the hospital stay, the families are expected to take more responsibility for patient care in the recovery period (Zhang & Lee, 2017). Therefore, patients with stroke become dependent on the family after discharge from the hospital to meet their physical and emotional needs (Bierhals et al., 2019). Indeed, their families play an essential role in caring for them (McLennon et al., 2014).

Care by family members has become an integral part of many health systems since most people in the community devote a significant time to caring for their loved ones (spouses, parents, and children) (McLennon et al., 2014). The need for economizing the health care system has led to programs that reduce the length of hospitalization. In addition, patients increasingly express that they tend to be cared for at home rather than at the hospital. These factors cause patients to stay home longer before being admitted or return home sooner, often with high levels of dependence and disability (Kitzmüller et al., 2012). Although home-based care is effective in terms of cost for the health care system, the increased dependence on family members can cause high levels of chronic stress, leading to physical and mental illness to family members (Dreslin, 2011). Caregivers with serious health problems often cannot perform long-term care (Cameron et al., 2013). Caring for patients by family members can have a profound effect on all aspects of everyday life. Therefore, many caregivers endure a significant burden, mainly when they are engaged in other activities.

Family caregivers become active healthcare team members without preparation or very little preparation, and sometimes they experience severe conditions. These caregivers do not have the resources or skills needed to play this complex and new role, including activities related to daily life, giving medication, and financial and mental support (Woodford et al., 2018). Therefore, taking care of patients may be severe and onerous. It has recently been reported that caregivers' older spouses may have health complaints that increase their risk of death (Deng et al., 2018). The results of studies indicate that more hours of care are associated with the deterioration of caregivers' physical and mental health and the increased burden of care responsibility (Lu et al., 2019). Caregivers also experience sleep disorders (Green & King, 2009). In addition, long-term care can cause depression, avoidance of community, and lower quality of caregivers' lives (Zhang & Lee, 2017).

Caring for stroke patients is a stressful task for the caregiver. The duration of caring is long, and the responsibility of care is comprehensive and extensive, facing many caregivers with multiple problems in caring (Bierhals et al., 2019). The study results showed that managing daily life activities and patients' cognitive, behavioural, and emotional changes are critical problems for patients' families. Patients' physical, emotional, cognitive, and behavioural changes are frightening for families and caregivers sceptical about managing these problems (McLennon et al., 2014). The caregivers should quickly adapt to a sudden change in the patient's motor status, communication skills, mood, and personality. The burden of care can be very high for them (Kitzmüller et al., 2012). Patients' families should be compatible with the reality that their family members suddenly depend on others to meet his/her

needs (Dreslin, 2011). It will lead to the decrease of caregiver's quality of life (Cameron et al., 2013), increased burden (Woodford et al., 2018), decreased physical and emotional health (Deng et al., 2018), increased depression (Bierhals et al., 2019), and pressure (Lu et al., 2019) in caregivers of stroke patients and the decreased marital satisfaction in spouses' caregivers (Bierhals et al., 2019).

Despite the high prevalence of stroke and the critical role of caregivers in meeting the needs of patients, the needs of caregivers of stroke patients have not been taken into account so far. The nature or meaning of life experience and caring for stroke patients has not been studied. According to the critical role of nurses in protecting patients and family members and the significant impact of people's experiences on their lives, the nurses need to be aware of this situation to provide proper care.

This study aimed to review the experiences of stroke patients' caregivers to attain a deeper understating of caregivers' experiences and meet their needs by providing nursing care. It can also be a scientific and practical development of nursing.

# METHOD

study used a qualitative This descriptive phenomenological study design. The researchers referred to the settings for the initial selection of participants and selected a place for interviewing with the participants' consent. Participants in this study were the caregivers of stroke patients. The requirements for participating in the study included a confirmed diagnosis of a family member with stroke by a neurologist, willingness to participate in research, being a family member of the stroke patient, participating in interviews, and transferring information and experiences. The caregivers also should have had a significant role in caring for the stroke patient. A purposive sampling method was followed to recruit a sample with maximum variation (any stroke, any age, any level of literacy, any occupation, both genders). To maximize the diversity of participants and gain first-stage and long-term caregiver experiences, the researchers selected the participants from the Haulussy Hospital among those whose patients had been diagnosed with stroke for the first time or referred to the hospital for rehabilitation or follow-up visits. The researchers continued the sampling until the information was saturated, which reached the selection of seven participants in this study. In this study, semi-structured interviews were used to gather information.

The researcher referred to Haulussy hospital after obtaining necessary permissions and receiving a letter from the STIKes Maluku Husada. By the criteria for participating in the study, the researcher selected the participants. After obtaining the participant's initial agreement and written consent, the researcher selected a place and time for the interview with the participant's agreement and then held the interviews. Haulussy Hospital was the place for the interviews. Before the interviews, while introducing himself and expressing the purpose of the research, the researcher stated that their conversations would be recorded, their recordings and personal details would remain confidential to the researcher, and they may withdraw from the interviews at any time they wished. Subsequently, they were allowed to conduct further interviews to clarify the information. Therefore, each of the seven participants was interviewed 3 - 5 times before receiving comprehensive information. Sample interview questions included: What are your experiences of taking care of your family member with stroke? How do you care for the patient? By answering these questions, they described their experiences in this area and explained how they acted after accepting their family members' care. When there was a need to clarify the information in a particular context, other questions were used to understand it better. The average duration of the interviews was 50 minutes in the range of 20 minutes to 90 minutes.

After completing an interview, the tape was carefully listened to by the researchers and transcribed verbatim. The researcher shows the research narrative report to the participants to ensure correct perception regarding the participant's opinion during the interview. After completing the analysis, the interviews and extracted concepts were given to some colleagues to strengthen the findings.

Data analysis was performed based on Colaizzi's seven-stage method, as follows:

- 1. Reading all the descriptions and stories of the participants and sympathy with them.
- 2. Researchers extracted the words and sentences associated with the phenomenon under study.
- 3. Conceptualizing the extracted introductory sentences.
- 4. Specific categorization of concepts based on related subjects:
  - a. Essential descriptions for the reliability of the content.
  - b. Disregarding materials that were irrelevant to the goals of the study.
  - 5. Combining all the extracted beliefs as a comprehensive description, including the details of the phenomenon under study.

- 6. Summarizing the comprehensive description of the phenomenon as an honest and concrete description.
- 7. In the final stage, the researchers referred to the participants to clarify the opinions based on the research findings and validate the findings.

The researchers used a long-term involvement to perform validation—phonecall with several participants were conducted to provide a deep understanding of each participant. For investigating the peers, the interviews were studied by researchers' colleagues. For conformability, the researchers provided the data to their colleagues for verifying the authenticity of the data encoding process. For transfer, the researchers described precisely and purposefully the research process and the activities carried out in the course of research. The data's dependence was determined so that the data obtained from the interview were also obtained in patients' observations and narratives. In total, 7 participants were interviewed, each taking an average of 1 - 2 hours.

All of the participants gave their informed consent to be involved in the study. This study has been registered, and it passed the research ethics committee of the Health Research Ethics Commission of the STIKes Maluku Husada with letter number: RK.017/KEPK/STIK/VIII/2021

# RESULTS

Of seven participants in this study, three were males, and four were females aged 27 to 50 years (mean: 38.5 years). There were five married participants and two single participants; four were employees, and three were housekeepers. All participants were taking care of their patients for more than a month (Table 1). The participants' experiences in this research reflected their needs and the responses of the treatment team to these needs. The findings of this study were expressed in three main categories of anxiety (stress, anxiety about the economic future), outcomes of care(fatigue, decreased family interactions), and neglected needs (psychological needs, educational needs) (Figure 1). The present research was conducted to describe the experiences of caregivers of patients during the care period.

#### Anxiety

Some experiences of the caregivers of stroke patients were about caregivers' anxiety, categorized into two subclasses of tension and economic future anxiety.

#### **Tension and Stress**

Family care of patients suffering from stroke, similar to taking care of other chronic debilitating diseases,

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creates much stress for the caregiver and the patient's family because the patient's biological, social, and mental needs overtake the caregiver's needs. One of the causes of tension in caregivers was exposure to a patient as a family member. Caregivers of stroke patients experienced much stress in the onset of symptoms and signs of the disease due to the acute nature.

"First, I told myself why this happened to us ... I just was taken aback ... My father had been talking to me about an hour before." (A 40-year-old woman caring for a patient with stroke for six months).

"When I got into the room, I met my mother's lifelessness a moment, and my world was broken...

I did not know for a while what I was doing ... I was overshadowed" (A 27-year-old woman caring for a patient with stroke for a year).

The stress was induced in the caregivers at the patient's hospitalization and discharge. At the time of the patient's admission to the hospital, performing diagnostic procedures or caring for family members caused stress to caregivers.

"At the hospital, some nights my mother and I did not have a problem; meanwhile, the tests frightened us, mornings when to change the bedsheets." (A 35-year-old woman caring for a patient with stroke for three months).

On the other hand, at the discharge time, caring and compatibility with the patient's problems caused stress to caregivers.

"When we discharge, I was frightened about how his meal ... How to move? ... How do we get the car?" (A 35-year-old woman caring for a patient with stroke for a year).

The proper taking care of the patient at home and the possible problems were other concerns for caregivers.

"After we went home, I was careful about everything that was happening every day and that everything was right. The nights were bad. On the one hand, I wanted to sleep, and on the other hand, I was afraid that something would happen." (A 40-year-old woman caring for a patient with stroke for six months).

# **Concerns about Economic Future**

In addition to the cost of the primary treatment(specialist physician, physiotherapist) for improving the motor status, preventing deformity and limb pain, skin health, eliminating perceptual limitations, preventing respiratory infections, and controlling urination and stools, the patient caregivers are also forced to pay recurring expenses. At the same time, the family itself has its own everyday needs. Since there is no support system, caregivers are worried about economic needs. "... since he had a stroke, he became fragile; I cared a lot, but his lungs were infected ... His back was bruised ... One man goes to dress, one for physiotherapy; its cost is high, these months, all the savings are spent. Then, I will decide what to do." (A 42-year-old woman caring for a patient with stroke for a year).

# **Care Consequences**

Following taking care of a patient, the caregivers experience some classified problems under the subclasses of fatigue and family interaction decrease. **Fatigue** 

Stroke and its complications caused the caregivers to be tired as they should provide care to the patient, the events that occur and the knowledge they have reached about the steps that should be taken for recovery.

"When my mom gets a lung infection, the doctor should come and go ... I take medication ...

physiotherapy ... then she gets a little better. I need to be careful with her to eat well to remain in good condition; when she gets sick again or sees she has got a wound on the back, I want to weep mournfully. I am too tired." (A 27-year-old woman caring for a patient with stroke for a year).

# **Decreased Family Interactions**

Due to patient conditions (such as special meals, breathing problems, and paralysis), the caregiver reduces the patient's interaction with another family member to get enough rest and get well soon.

"Because my mom needs to use the toilet with my help, and she only feels comfortable at my house, and actually, it troubles less, we often go at long intervals to see our families for too short." (A 27year-old woman is caring for an old stroke patient).

"... since a stroke occurred for him, he has a headache in disturbance, we go at long intervals to parties" (a 40-year-old woman caring for a patient with stroke for six months).

"People who have a stroke get tired in the crowd ... It is tough for them to sleep. We do not bring them anywhere for their being comfortable." (A 42-year-old woman caring for a stroke patient for a year).

# **Disregard Needs**

A part of the caregivers' experiences was related to their neglected needs by the health system, classified into two subclasses of psychological needs and educational needs.

# **Psychological Needs**

One of the needs of caregivers was emotional support from health employees, but neglected. Participants in this research pointed out their patient's stroke as a sudden experience with stress and anxiety. They pointed to the need for hope, sympathy and support, and indicated that the treatment staff ignored the need for care. They also said they experienced disregard instead of a supportive relationship.

"I was dying in the emergency room from the fright of the word stroke; the nurse told me what I had to go after. When I regained consciousness, I said what? Could you say again? She looked at me so that I said sorry." (A 35-year-old woman caring for a patient with stroke for three months).

"Nurses came to my mother's bed, like checking a car without saying what they wanted to do and then went ... When I spoke, I asked for something, or I was sad for all of it, they were indifferent as if I was not talking to them." (A 27-year-old woman caring for a patient with stroke for a year).

"... the doctor seemed to judge me as a cause of my father get stroke... the compassion did not make the meaning." (A 35-year-old man caring for a patient with stroke for a year).

"Sometimes when I am at home with my mom, and we lose our interest, I think if God did not give me patience, how I came out with the situation that nobody is going to get to anyone." (A 27-year-old woman caring for a patient with stroke for a year).

### **Educational Needs**

Part of the caregivers' experiences was on neglecting their educational care needs. Issues that caregivers had experienced in this area included confusion in decision making for regimen therapy (nutrition, drug treatment, rehabilitation), lack of awareness of the appropriate authority for resolving problems, and lack of information and education. The confusion in decision-making was one of the issues experienced by caregivers. The use of simple and understandable tools and methods for training to facilitate the understanding of family and patient regarding the dietary regimen plays a significant role in improving compliance with diet therapy. Participants have stated that at the moment of discharge from the hospital, the medical care staff has given up the patient and his family by saying a couple of general words.

"... It is better to get which kind of walker; I say to a doctor, he says a foreign word and speaks so fast I do not understand..." (A 50-year-old man caring for a patient with stroke for a year).

"... my father's mouth gets bruised, I do not know what his body needs. Sometimes, his body shakes once; I do not know it is better to give him sugar; it does not worsen for him! ...

When I say to his doctor, only mouthwashes he prescribes, useless" (A 30-year-old man caring for a patient with stroke for seven months).

"We are going to the doctor for my mummy by three; sometimes by two or three we go to the office; you know why? Because the doctor is talking fast and with big words." (A 35- year-old woman caring for a patient with stroke for three months).

# Lack of Awareness About The Appropriate Authority for Resolving The Problem

During the patient's care, his family needs an understanding of the disease and ways to resolve the problem in an emergency. Caregivers may face difficulties when unaware of the lack of access to the appropriate centre or reference.

"When mom became so bad, I was terrified and rung emergency. It became late so that I called for a taxi. Thank God ... We had a narrow escape. Sometimes, if I took a chance, I would get a doctor fast ... Recently a private doctor visits at home, but he takes much money ..." (A 27-year-old woman caring for a patient with stroke for a year).

"If there were a book or a movie that taught some work to us, it would be perfect... When he is bad, I do not know what to do ... Because I do not understand its language when I search it on the Internet" (A 42-year-old woman caring for a patient with stroke for a year).

# Lack of Sufficient Information and Education

Family-centred care and supporting stroke-affected patients by treatment staff are poor in Maluku. The families of patients with stroke do not receive any training in rehabilitation and care in this regard, which is very simple and applicable refer to private places for rehabilitation. Participants in this research experienced the need for the patient's condition awareness, improving their motor status, preventing respiratory infection, controlling urination and stool, deformity and limb pain, modifying thinking, skin health, and treatment program.

Lack of information and inadequate training about how to participate in patient's care, which was accompanied by increased tension

"I have seen the suction in the department, which the nurse does, but I did not know exactly when it was ... It's uncomfortable. But whenever I do it, he is relieved of pain. But before learning it, I was afraid. The nurse was expecting to learn it once and for all; I did not learn there. I went to a relative; he taught me with a simple language; many times he came to see my doing, so I learned it finally." (A 27-year-old woman caring for a patient with stroke for a year).

"... I think that this nurse is not in good spirits with all these strokes." (A 35-year-old woman caring for a patient with stroke for three months).

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		Table 1.		ensues of the ratherpaires in the study	
Sex	Age	Occupation	Marital Status	Patient's Relativity with Participant	<b>Duration of Stroke</b>
Female	40	Housewife	Married	Father	Six months
Female	27	Housewife	Single	Mother	One year
Female	35	Employee	Married	Mother	Three months
Female	42	Housewife	Married	Husband	One year
Male	35	Employee	Married	Father	One year
Male	50	Employee	Married	Wife	One year
Male	30	Employee	Single	Father	Seven months

Table 1. The Main Characteristics of The Participants in the study



Figure 1. Basic Concepts and Subcategories

"I ask the nurse about when I get him in the bathroom, what he should eat, when these tubes go outside, when he should go, etc. She says you should ask his doctor; I ask the doctor he says whether someone does not tell you what in the department; then he says a few English words, he does not look you more, he has no time. I learned finally from my other companions." (A 30-yearold man caring for a patient with stroke for seven months).

"... I want to be a very humorous person and tell me in my language what I should do for him." (A 50-year-old man caring for a patient with stroke for a year).

## DISCUSSION

Family exposure to the phenomenon of caring for patients with stroke, similar to taking care of other chronic disabling diseases, appears to create much tension for the caregiver and family of the patients. The primary caregivers are especially exposed to stress because their biological, social, and psychological needs exceed their own needs. According to a previous study, many families stated that due to the lack of social and financial support, educational programs, access to rehabilitation services, and their patients' physical and mental problems, they had many problems caring for the patient.

According to researchers, the caregivers of patients with stroke do not receive the necessary training in rehabilitation and the related issues. Thus they refer to private centres for rehabilitation. However, the number of these institutions is low, and the cost of rehabilitation is very high. Therefore, most caregivers take care of their patients at home according to their knowledge and the knowledge of people surrounding them, which is not by proper rehabilitation and may lead to many complications in the patients (Lu et al., 2019).

A study on families of patients with stroke; which showed the families had a low level of knowledge about care in different areas, and there was the neglected rehabilitation, diet, and drug regimens. This will lead to complications or prolonged complications. In research, the results showed that people who received nutrition education and the family after hospitalization had a significant difference from the control group in knowledge and awareness of low-fat diet (Bierhals et al., 2019).

Family-based educational programs in inpatient drug regimens effectively improve the interaction between the patient and his/her family and ultimately observe it (McLennon et al., 2014). He noted that the use of simple and understandable means and methods for training, which would facilitate the understanding of the patient and family in the context of the drug regimen, as well as the presentation of practical and essential points, played a significant role in improving adherence to the drug regimen. It is expected that treatment staff improves the quality and continuity of care in partnership with family-based care (Woodford et al., 2018).

Interventions such as education, family therapy, and group therapy should reduce the burden on caregivers and improve both the quality of patient care and the physical and mental health of the caregiver as a hidden patient. The importance of caring empowerment is prioritized. Since care is a speciality and nurses are in a unique position to interact with people and family members, they can provide the knowledge, skills, and support required for maintaining the quality of care at home. In the care of a patient, his/her family needs a correct understanding of the disease, and the nurse's duty, along with patient care, is to help the family to increase safety and trust; this approach will improve the health and wellbeing of the family not been studied. According to the important role of nurses in protecting patients and family members and the significant impact of people's experiences on their

lives, the nurses need to be aware of this situation to provide proper care (Deng et al., 2018).

This study aimed to review the experiences of stroke patients' caregivers to attain a deeper understating of caregivers' experiences and meet their needs by providing nursing care. It can also be a scientific and practical development of nursing.

# CONCLUSION

Given the chronic nature of stroke that puts the family in trouble and causes serious complications, the ability of a family element can affect the overall ability of the family to access health goals; the ability of families leads to their beneficial efficacy in providing care, as well. Health care providers can provide adequate training for improving the motor status, preventing deformity and limb pain, modifying the thinking process, finding ways to communicate appropriately, removing sense, perceptual and cognitive deprivation, skin health, preventing respiratory infection, and ways to control urination and defecation. They will be able to deal with the problems of families of patients after a stroke. The researchers suggest that caregivers' experiences of stroke patients be improved using several training sessions, training manuals, and sensitivity following the ongoing pursuit of telephone care programs. It is best to evaluate the care programs after the end of each training session with the question and answer method and observing the care provided by the patients' caregivers. It is suggested that family empowerment be implemented separately for each patient and his primary caregiver following the need assessment phase.

## REFERENCES

Bierhals, C. C. B. K., Low, G., & Paskulin, L. M. G.
(2019). Quality of life perceptions of family caregivers of older adults stroke survivors: A longitudinal study. Applied Nursing Research, 47, 57–62.

https://doi.org/10.1016/j.apnr.2019.05.003

Cameron, J. I., Naglie, G., Silver, F. L., & Gignac, M. A. M. (2013). Stroke family caregivers' support needs change across the care continuum: A qualitative study using the timing it right framework. Disability and Rehabilitation, 35(4), 315–324. https://doi.org/10.3109/09638288.2012.69193 7

Deng, C., Lu, Q., Gong, B., Li, L., Chang, L., Fu, L., & Zhao, Y. (2018). Stroke and food groups: An overview of systematic reviews and meta-analyses. Public Health Nutrition, 21(4), 766–776. https://doi.org/10.1017/S1368980017003093

Dreslin, J. (2011). Stroke Caregivers Handbook. Nursing, Stroke Awareness For Everyone.

# L. R. WABULA ET AL.

http://strokerecoverybc.ca/wpcontent/uploads/2011/03/Caregivers\_Handboo k\_snip]an2011.pdf

Green, T. L., & King, K. M. (2009). Experiences of male patients and wife-caregivers in the first year postdischarge following minor stroke: A descriptive qualitative study. International Journal of Nursing Studies, 46(9), 1194–1200.

https://doi.org/10.1016/j.ijnurstu.2009.02.008

- Kemenkes RI. (2018). Hasil Riset Kesehatan Dasar Tahun 2018. Kementrian Kesehatan RI, 53(9), 1689–1699.
- Kitzmüller, G., Häggström, T., Asplund, K., & Gilje, F. (2012). The existential meaning of couples' longterm experience of living with stroke. Illness Crisis and Loss, 20(4), 339–362. https://doi.org/10.2190/IL.20.4.c
- Lu, son, J., Zhao, Y., & Johansson, L. (2019). Living on the edge: observe caregivers' experiences of caring for post-stroke family members in China: A qualitative study. International Journal of Nursing Studies, 94, 1–8.

https://doi.org/10.1016/j.ijnurstu.2019.02.016

McLennon, S. M., Bakas, T., Jessup, N. M., Habermann, B., & Weaver, M. T. (2014). Task difficulty and life changes among stroke family caregivers: Relationship to depressive symptoms. Archives of Physical Medicine and Rehabilitation, 95(12), 2484–2490.

https://doi.org/10.1016/j.apmr.2014.04.028

- Palareti, G., Legnani, C., Cosmi, B., Antonucci, E., Erba, N., Poli, D., Testa, S., & Tosetto, A. (2016).
  Comparison between different D-dimer cutoff values to assess the individual risk of recurrent venous thromboembolism: Analysis of results obtained in the DULCIS study. International Journal of Laboratory Hematology, 38(1), 42–49. https://doi.org/10.1111/ijlh.12426
- Woodford, J., Farrand, P., Watkins, E. R., & Lewellyn, D. J. (2018). "I Don't Believe in Leading a Life of My Own, I Lead His Life": A Qualitative Investigation of Difficulties Experienced by Informal Caregivers of Stroke Survivors Experiencing Depressive and Anxious Symptoms. Clinical Gerontologist, 41(4), 293–307.

https://doi.org/10.1080/07317115.2017.13631 04

Zhang, J., & Lee, D. T. F. (2017). Meaning in stroke family caregiving: A literature review. Geriatric Nursing, 38(1), 48–56.

https://doi.org/10.1016/j.gerinurse.2016.07.005