

The Relationship between Resilience Quotient, Social Support and Spiritual Well-Being of Caregivers of Patients with Hemiplegia

Panita Chavapattanakul, B.A.*, Theerapat Wongkumsin, Ed.D.**, Ratcharin Kongkasuwan, M.D.***

*Graduate Student in Department of Psychology, Faculty of Social Sciences, Kasetsart University, Bangkok 10900, Thailand.

**Department of Psychology, Faculty of Social Sciences, Kasetsart University, Bangkok 10900, Thailand.

***Department of Rehabilitation Medicine, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok 10700, Thailand.

ABSTRACT

Objective: There are three main objectives of this study. The first is to study the levels of resilience quotient, social support and spiritual well-being of caregivers of patients with hemiplegia. The second is to study the relationship between resilience quotient and spiritual well-being of caregivers of patients with hemiplegia. The third objective is to study the relationship between social support and spiritual well-being of caregivers of patients with hemiplegia. **Methods:** The sample of this study is composed of 170 caregivers of patients with hemiplegia who received treatment at the Department of Rehabilitation Medicine, Faculty of Medicine Siriraj Hospital. Data for this study were collected using a psychological questionnaire, and then by adopting analytical statistics, which are percentage, mean, standard deviation and Pearson's Product Moment Correlation Coefficient.

Results: After data collection and analysis, caregivers of patients with hemiplegia were found to have relatively high levels of resilience quotient and social support. Moreover, they have a high level of spiritual well-being. Taken together, these results suggest that there is a positive correlation between resilience quotient and the spiritual well-being of caregivers of patients with hemiplegia, with statistical significance at the .01 level. There is also a positive correlation between social support and the spiritual well-being of caregivers of patients with hemiplegia, with a statistical significance at the .01 level.

Conclusion: This research results can be used as a guideline for efforts to enhance the resilient quotient, social support and spiritual well-being of caregivers by providing knowledge, information and caregiving equipment to them. Moreover, caregivers should be encouraged to enjoy their free time by engaging in creative activities and religious activities, which are believed to help increase mental peace.

Keywords: Resilience quotient; social support; spiritual well-being; caregiver of patients with hemiplegia (Siriraj Med J 2020; 72: 245-252)

INTRODUCTION

The development of the quality of life of people with disabilities in Thailand has changed over time. In order to enhance the effectiveness of development of people with disabilities, a strategy was established in the

5th National Development Plan for Life Quality of the Disabled to promote and strengthen the effectiveness of efforts to assist people with disabilities and related organizations. Specifically, guidelines and processes are to be provided to enhance the effectiveness and offer support

Corresponding author: Panita Chavapattanakul

E-mail: pchavapattanakul@gmail.com

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ORCID ID: <http://orcid.org/0000-0001-5401-0050>

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for caregivers of people with disabilities.¹ According to the national statistics on people with disabilities, the number of people with physical disabilities rose from 880,662 people in September 2017² to 1,004,733 people in September 2018, an increase of 14.09%.³ The number of people with physical disabilities significantly increased within a year because hemiplegia is a disorder caused by stroke, which damages the brain function suddenly. It is the number one cause of disability and death in Thailand, where it is estimated that 50,000 people die from hemiplegia and it disables 250,000 people each year.⁴ The result is an increasing number of relatives of people with disabilities who need to adjust to new and unexpected roles as caregivers. The phenomenon of adjusting to these new roles can cause stress and anxiety to new caregivers in the long run. Far too often, the new caregivers are likely to confront physical and mental problems which they find it difficult to handle, and which may cause them to suffer a loss of confidence and self-esteem in their lives.

Resilience quotient is the capability of a person to adjust or adapt oneself and recover when facing crises.⁵ A crisis can happen when a family member becomes disabled suddenly and requires a caregiver who has ability to cope with the situation. This caregiver has to be resilient to deal with suffering and disappointment that the unexpected situation might have on the health expectations of person with disabilities. Therefore, a caregiver needs a high resilience quotient in order to understand both what the disabled person wants, and how to handle the situation so that the caregiver can eventually recover from the suffering brought on by the crisis. Additionally, there is a chance that a person with disabilities will face a health complication, thus, a caregiver needs to be capable of emotional-self regulation and the ability to handle things morally and conscientiously. Yet, a caregiver should also have the ability to bring one's own potential and skills, and use them productively in giving care to a person with disabilities.

Social support is a support given by means of delivering information, material or mental support from a person, a group of people, or an institution. This social support should have a positive result in any actions taken by the support receiver.⁶ Caregivers, acting alone, often have difficulties in taking care of people with disabilities, and social support is considered to be an important factor in successfully supporting caregivers of people with disabilities. This social support typically originates with family members, who provide attention and caring for caregivers of people with disabilities. Furthermore, social support can be expanded to include other close

relatives who are able to offer material or financial support, or engage in positive relationships with the caregiver. In addition, social support can come from a group of caregivers, themselves, who may share information between them, and contribute to better understandings and knowledge that helps each individual cope with his or her situation. Social support can have an effect on the thoughts, attitudes and behavior⁷ of caregivers towards the act of giving care to people with disabilities. More than that, hospitals or other institutions can provide information or material supports that helps in facilitating caregiver in giving care to people with disabilities.

Spiritual well-being is a state in which ones has both physical and psychological integrity, positive perspectives in living a meaningful life, and satisfaction in personal beliefs, including religion.⁸ Additionally, people with spiritual well-being are those who have clear life goals, hope, creativity, and feel the need to give and receive love.⁹ Thus, a caregiver of people with disabilities must have spiritual well-being in order to be a successful caregiver, able to enhance the lives of people with disabilities. The caregiver is responsible for creating and organizing activities for people with disabilities so that they can appreciate and live a meaningful life. Religion is one of the spiritual anchors that can hold together one's mind, and offers important principles that can guide one through the difficulties that arise in life. Also, religion teaches people to forgive, give love, sacrifice oneself for others, follow important principles in life, and be delighted and pleased in what they are doing as caregivers.

For this reason, the researcher is interested in studying the resilience quotient, social support and spiritual well-being of caregivers of patients with hemiplegia who are receiving treatment at the Department of Rehabilitation Medicine, Faculty of Medicine Siriraj Hospital. Siriraj Hospital was selected because of its holistic care system that provides physical, mental and social treatment, all of which are provided by personnel through a multidisciplinary approach which involves a number of professionals working together: rehabilitation physician, rehabilitation nurse, physical therapist, occupational therapist, speech therapist, orthotics, psychologist and social worker. The researcher hopes that this research will be useful for clinicians, physicians, scholars, hospital staff and administrators, and the personnel of any related institutions in enhancing the spiritual well-being of people with disabilities and those who care for them. In this study, it is hypothesized that there is a correlation between resilience quotient and spiritual well-being, as well as a correlation between social support and the spiritual well-being of caregivers of patients with hemiplegia.

Research Framework

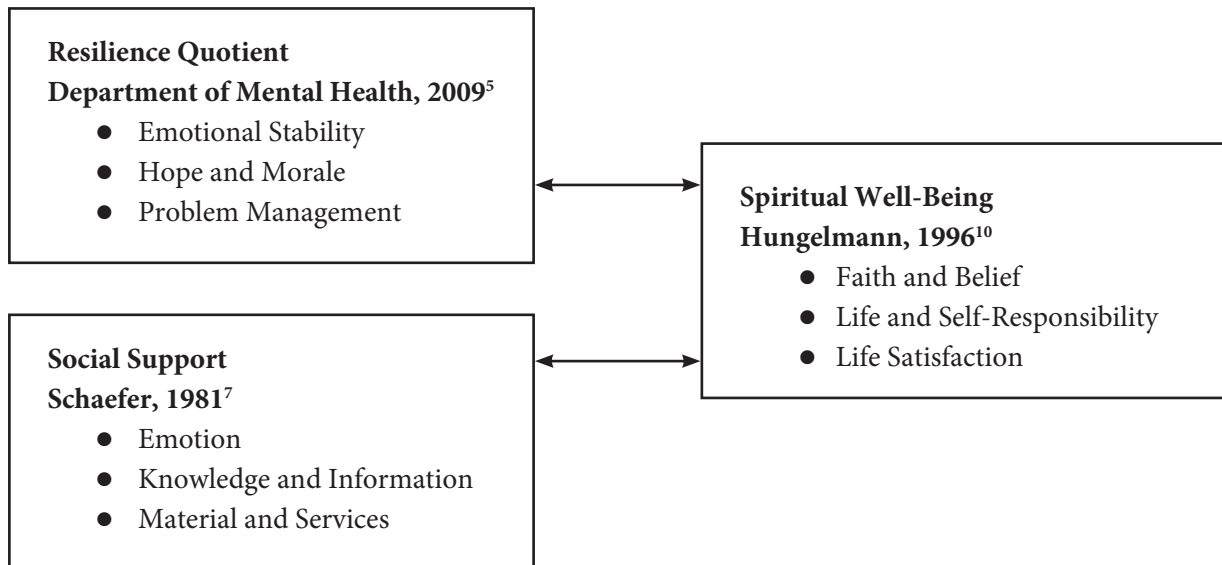


Fig 1. From the research framework, the researcher studied the correlation between resilient quotient and spiritual well-being and social support and spiritual well-being.

MATERIALS AND METHODS

Study design and population

This research study is a descriptive study and is certified for human research ethics by the Siriraj Institution Review Board (SIRB) of the Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand (Si 279/2019). The study involved the collection of data from caregivers aged of 18 years old and older who are the main caregivers of patients with hemiplegia that receive treatment at the Department of Rehabilitation Medicine, Faculty of Medicine, Siriraj Hospital. Each month in 2018, there was an average of around 229 patients, counted by the number of unique patients who come to receive treatment individually, without repeated counting.

Data collection

The sample of this study comprises 168 caregivers of patients with hemiplegia, which is calculated by Yamane's sample size formula (1973)¹¹ from the accidental sampling. The data were collected through the use of a psychological questionnaire designed by the researcher; and the validity and reliability assessment of the questionnaire was also performed by the researcher. There were 170 returned questionnaires, which exceeds the number of the sample because two more caregivers of patients with hemiplegia were found on the last day of data collection. Since they met the standards for qualification, their data wasn't eliminated.

Research instrument

The research instrument contains five sections. The first section collects personal information of caregivers such as sex, age, education, relationship with patients, duration of caregiving, occupation, monthly family income, balance of income and expense, health condition, family members, number of family members who need support, and caregiver counselling. The second section addresses characteristics of patients with hemiplegia, and includes the demographic characteristics of patients with hemiplegia who are taken care of by the respondents. The characteristics include the length of time that the patient has undergone treatment, sex, age, health condition, medical care and education. The third section is a set of questions used to develop the resilience quotient, adopted from the concept of resilience quotient from Department of Mental Health⁵ which covers three elements: emotional stability, hope and morale, and problem management. There are 18 questions in this section; for each question, the respondent needs to choose the answer that best describes him or herself. The validity index of this set of questions is .93 and the reliability index is .98. In the fourth section, the questionnaire covers all three components of Schaefer's⁷ concept of social support, which are emotion, knowledge and information, and material and services. There are 18 questions in this section; for each one, the respondent needs to choose the answer best describes him or herself. The validity

index of this set of questionnaires is .96 and the reliability index is .94. Lastly, the questionnaire addresses the level of spiritual well-being developed from the concept of Hungelmann¹⁰ that described three elements of spiritual well-being as faith and belief, life and self-responsibility, and life satisfaction. There are 18 questions on this section; for each question the respondent needs to choose the answer best describes him or herself. The validity index of this set of questionnaires is .96 and the reliability index is .97.

Statistical analysis

The researcher used descriptive analysis to analyze general information and study the level of resilience quotient, social support and spiritual well-being of caregivers of patients with disabilities. In this study, descriptive analysis is combined with frequency, percentage, mean and standard deviation. In addition, the researcher adopts Pearson's Product Moment Correlation Coefficient in order to analyze the relationships between resilience quotient, social support, and spiritual well-being.

RESULTS

The researcher found that 69.42% of the caregivers are women and 30.69% of caregivers are men. The average age of the caregivers was 52.10, the youngest is 19 years of age; the oldest is 83. Additionally, the highest proportion of respondents, 27.64%, were over the age of 60, while 27.06% were aged between 51 and 60, 25.89% aged between 41-50, and 19.41% aged between 19-40. With regard to education, 52.94% of caregivers have completed a bachelor's degree or higher, 17.06% completed upper secondary education, 12.94% completed lower secondary education, and 17.06% completed primary education. Forty percent of caregivers are children of the patients, 23.53% are spouses of the patients, 15.88% are relatives of the patients, 11.18% are parents of the patients, and 9.41% are paid caregivers.

The average duration of caregiving is 4 years; the shortest duration is 1 month, and the longest duration is 30 years. It was found that almost half of the caregivers had been giving care to patients for more than 24 months, which accounted for 48.80% of samples, followed by those with a caregiving duration between 13 and 24 months, at 24.70%. Approximately 18.80% had been giving care for less than six months, while only 7.70% had been caregivers for between 6 and 12 months. With respect to occupation, 25.88% of caregivers are housewives and househusbands, 21.18% are merchants, 20.59% are paid employees in the business sector, 17.06% are unemployed, and 15.29% are civil servants. The caregivers have an

average monthly family income of 33,308.82 baht. The lowest average monthly family income is 5,000 baht, and the highest is 100,000 baht. Furthermore, 44.12% of caregivers have an average family income between 5,000 and 20,000 baht per month, 29.41% have an average family income of more than 40,000 baht, and 26.47% have an average family income between 20,001 and 40,000 baht. Finally, it was reported that 42.35% of caregivers have a surplus of income compared to expenses, while 30.59% reported a deficit between income and expenses, and 27.06% said that income and expenses are equal.

Most of the caregivers (61.76%) do not have congenital diseases, while the remaining 38.42% of caregivers reported that they do. The average number of members in the families of caregivers is 4.76, with the lowest number being 2 and the highest number of family member being 10. Proportionally, 27.65% of caregivers have 4 family members, 27.65% have a 6-10 family members, 24.70% have 5 family members, and 20% have 2-3 family members. The average number of family members who needs financial support is 1.65, with the lowest being 1 and the highest being 6. Proportionally, 60.59% of caregivers' family have 1 family member who needs financial support, while 39.41% have 2 family member who need financial support. 72.94% of caregivers have received advice about caregiving and only 27.06% have not.

The information about patient's characteristics, shows that the average length of time that patients have been receiving treatment at the Department of Rehabilitation Medicine is 3.34 years; the shortest duration is 1 month, and the longest is 25 years. Proportionally, 32.35% of patients have been receiving treatment between 1 and 2 years, 25.88% have been receiving treatment for more than 5 years, and 24.12% have been receiving treatment for less than a year. Most of the patients are male, accounting for 66.47%, while only 33.53% of patients are female. The average patient age is 64.15; the youngest patient is 18 and the oldest is 92. Proportionally, 31.76% of patients aged between 18-59, 28.24% are aged between 60-69, 22.35% are aged between 70-79, and 17.65% are at least 80 years old. The health condition of patients can be divided into 2 groups. The first is the group of patients who are unable to walk, accounting for 54.12%. The second group comprises patients who are able to walk, accounting for 45.88%. When it comes to paying for treatment, 40% of all patients are using health insurance for the treatment, 38.24% are using civil servants' medical insurance, 11.18% are using a benefits card for persons with disabilities, 5.88% are using a social security card, and only 4.70% are paying on their own. For the education

of patients, 39.41% of patients completed secondary education, 33.53% completed primary education, and 27.06% completed at least a bachelor's degree.

The research results show that the caregivers of patients with hemiplegia have a relatively high resilience quotient, which means that they have flexibility in their lives and have the ability to adapt themselves and handle problems during crises. In the same way, it is shown that the social support for caregivers of patients with hemiplegia is at a relatively high level, which indicates that the caregivers receive good information, material and encouragement supports. Moreover, the spiritual well-being of the caregivers is at a high level, which can be interpreted to mean that they have great physical and mental well-being, they are satisfied with their lives, and value themselves. These results can be seen in [Table 1](#) below.

The research shows that resilience quotient has a positive correlation with the spiritual well-being of caregivers of patients with hemiplegia, with statistical significance at the .01 level ($r = .71$) as shown in [Table 2](#).

The overall dimension of the resilience quotient and its determinants, which are emotional stability, hope and moral, and problem management, is shown to have positive correlation with spiritual well-being at the overall dimension as well as each determinant, including faith and belief, life and self-responsibility, and life satisfaction at the .01 level of statistical significance. The results indicate that there is a positive correlation between social support and spiritual well-being of caregivers of patients with hemiplegia with a statistical significance at the .01 level ($r = .71$) as can be seen from the data in [Table 3](#).

The overall dimension and each determinant of social support, which are emotion, knowledge and information, and material and services are revealed to have positive correlation with spiritual well-being at the overall dimension along with each determinant of spiritual well-being, which are faith and belief, life and self-responsibility, and life satisfaction at the .01 level of statistical significance.

TABLE 1. Mean, standard deviation and level of resilience quotient, social support and spiritual well-being of caregivers of patients with hemiplegia.

Variable	\bar{x}	S.D.	Level
Resilience quotient	4.06	.41	Relatively high
Social support	4.13	.45	Relatively high
Spiritual well-being	4.25	.41	High

TABLE 2. Correlation Coefficient (r) and p-value of resilience quotient and spiritual well-being of caregivers of patients with hemiplegia.

Resilience quotient	Spiritual well-being							
	Faith and belief		Life and self-responsibility		Life satisfaction		Overall	
	r	p	r	p	r	p	r	p
Emotional stability	.46**	.00	.52**	.00	.57**	.00	.58**	.00
Hope and morale	.58**	.00	.56**	.00	.57**	.00	.64**	.00
Problem management	.48**	.00	.57**	.00	.51**	.00	.58**	.00
Overall	.59**	.00	.65**	.00	.65**	.00	.71**	.00

**means having a statistical significance at the 0.1 level

TABLE 3. Correlation Coefficient (r) and p-value of social support and spiritual well-being of caregivers of patients with hemiplegia.

Social support	Spiritual well-being							
	Faith and belief		Life and self-responsibility		Life satisfaction		Overall	
	r	p	r	p	r	p	r	p
Emotion	.58**	.00	.62**	.00	.65**	.00	.69**	.00
Knowledge and information	.52**	.00	.47**	.00	.54**	.00	.57**	.00
Material and services	.46**	.00	.40**	.00	.52**	.00	.52**	.00
Overall	.62**	.00	.59**	.00	.68**	.00	.71**	.00

**means having a statistical significance at the 0.1 level

DISCUSSION

In this study, it is found that the resilience quotient of caregivers of patients with hemiplegia is at a relatively high level ($\bar{x} = 4.06$). This might be because the average age of caregivers of patients with hemiplegia is 52.10 years old, meaning that they are typically adults who have experienced several problems previously, so they tend to be mature and patient. This corresponds with data from the Department of Mental Health,⁵ which indicate that those who have experienced life problems and crises are people who have higher resilience quotient than those who have not. Moreover, patience in adults can help them adjust and adapt themselves promptly when facing serious situations or crises, and they are likely to have fewer physical impacts from mental issues than people with lower patience. The social support of caregivers of patients with hemiplegia is at a relatively high level ($\bar{x} = 4.13$). Based on this result, it appears that the caregivers have received sufficient social support, assistance, and information, leading to good results in giving care of patients with hemiplegia. These supports include material and financial supports that enhance the ability of caregivers, and which, in the long run, may benefit the lives of patients with hemiplegia in positive way, in accordance with National Development Plans for Life Quality of the Disabled. The spiritual well-being of caregivers of patients with hemiplegia is also at a high level ($\bar{x} = 4.25$), which may be because the caregivers understand the life of people with disabilities and how these people struggle daily, so the caregivers desire to give the best care to these people. The caregivers see how meaningful life is, so they are willing to devote their lives

to be caregivers for people with hemiplegia. Furthermore, religion can be a spiritual anchor to caregivers.

The correlation analysis shows that there is a positive correlation between the resilience quotient and spiritual well-being of caregivers of patients with hemiplegia, with statistical significance at the .01 level, which is in line with the hypothesis. It can be interpreted that the higher the resilience quotient caregivers of patients with hemiplegia have, the more spiritual well-being they will have. This is likely because caregivers have the ability to manage and cope with problems, crises, and pressure, so they are able to deal with changes and become productive caregivers. Moreover, religion is another factor that affects the way caregivers perform as the religion teaches people to be good and do good things. For caregivers, helping others by devoting themselves in giving care is in line with this religious teaching. These results are consistent with data in the previous study, “The effect of the E&R Program on mental health of caregivers of children with developmental and intellectual disabilities Rajanukun Development Center (Muangkae) Rajanukun Institute” by Anchalee Watthong and Sala Techameena¹² (E&R Program is a training program that enhances the resilient quotient to people for them to overcome life crises as well as to strengthen people’s spiritual encouragement). This research revealed that supporting the resilience of caregivers of children with developmental and intellectual disabilities leads to better performance of caregivers in giving care to children, because the caregivers gain better understanding of problems and know how to manage those problems with creative solutions. Yet, it is a characteristic of caregivers who have spiritual well-

being to participate in creative activities to make their lives meaningful, which is also in accordance with the notion of Pravet Wasee: “If what we are doing is correct and good, we will achieve spiritual well-being.”¹³

Furthermore, the correlation analysis shows that there is a positive correlation between social support and spiritual well-being of caregivers of patients with hemiplegia, with a statistical significance at the .01 level. This indicates that the more social support caregivers receive, the more spiritual well-being they will enjoy. In other words, social support given to caregivers will help them accomplish what they are doing; thus, the caregiving is likely to be successful and effective. When people accomplish what they are doing, they tend to be proud and satisfied; this is what is called spiritual well-being. Giving social support to caregivers by providing information about caregiving for patients is essential and has a high positive impact on caregivers’ performance. This finding was also reported by Sukheeluk, Nuanchana and Rabudda¹⁴ in their research, “The result of developing caregiver potential for stroke patients at home in Maharaj district, Phranakhon Si Ayuthhaya province.” In this research, it was identified that caregivers of patients of stroke gained confidence and courage in giving care wholeheartedly and that they were able to manage problems when they received social support, including joining activities, training, and exchanging knowledge and information on caregiving of patients. Therefore, caregivers who receive social support are likely to have higher motivation, possess greater courage, and be better caregivers. More than that, a family is one of the main supports for caregivers, providing material support, financial support and courage that can mitigate the difficulties from caregiving that may result from patients’ unstable emotional states or from the expectations from the patient’s family. This also accords with the previous study by Panphadung, Nilmanut and Kitrungrrote,¹⁵ “Spiritual Well-Being of Family Caregivers of Hospitalized Patients with Advanced Gynecological Cancer.” In this study, it was reported that caregivers need to cope with the misunderstandings and ignorance that could arise from the patient’s family or relatives about certain aspects of caregiving. Hence a lot of effort is required for caregivers to provide favorable caregiving, which can have an effect on the spiritual well-being of caregivers.

In this study, there was a time constraint on collecting data from the caregivers of patients with hemiplegia who are receiving treatment at the Department of Rehabilitation Medicine, Faculty of Medicine Siriraj Hospital. Due to the small number of caregivers at the hospital each day, it took two months to get all the

designated samples. Notwithstanding this limitation, the study suggests that resilience quotient and social support have correlations with spiritual well-being. Siriraj Hospital has a holistic care system that offers physical, mental and social treatment which are provided by personnel involved in a multidisciplinary approach which includes a rehabilitation physician, rehabilitation nurse, physical therapist, occupational therapist, speech therapist, orthotist, psychologist and social worker. Therefore, with the holistic care, the patients receive comprehensive treatment, which may have positive effects on the caregivers of patients with hemiplegia. These positive effects include a high level of resilience quotient acquired after the caregivers have been able to get through crises and have also been able to bring the patients to receive effective and timely treatment. In addition, the caregivers receive social supports that help them greatly in enhancing their skills and knowledge about giving care to patients with hemiplegia. When the caregivers have a sufficiently high resilience quotient and receive social supports, they are likely to have higher spiritual well-being because resilience quotient and social support both have positive correlations with spiritual well-being. Thus, the caregivers are very likely to have good mental health, be selfless, satisfied in their lives, and feel that what they are doing is valuable to themselves and others. However, the findings in this study are based solely on information collected from the caregivers of patients with hemiplegia at Department of Rehabilitation Medicine, Faculty of Medicine Siriraj Hospital. It is impossible to know if the results of this study are applicable to caregivers of patients with other health conditions, or those from different areas or cultural backgrounds, or whether similar studies of different populations will be relevant or get the same results. Therefore, further studies in different conditions need to be conducted in the future.

The research results can be applied to benefit caregivers in a number of ways. Resilience should be promoted for caregivers of patients with hemiplegia so they can get through problems and difficulties that happen during caregiving which could undermine their courage. Additionally, creative activities and relaxing activities such as drawing, reading, doing sports, crafting or religious activities should be promoted for caregivers to enjoy. Also, social support should be made easily available to caregivers of patients with hemiplegia by providing necessary materials such as wheelchairs and walking sticks, providing guiding information and advice about caregiving for patients with hemiplegia, and arranging experience exchanges among caregivers of patients with

hemiplegia. Exchanging and sharing experiences among caregivers of patients with hemiplegia is considered to be very important because it has a positive impact on the spiritual well-being of caregivers through the acts of giving and receiving support to each other, which helps caregivers to appreciate themselves and gain motivation and confidence to give the best care to patients

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REFERENCES

1. Department of Empowerment of Persons with Disabilities. The fifth National Development Plans for Life Quality of the Disabled 2017-2021. Department of Empowerment of Persons with Disabilities; 2017.p.21-22.
2. Department of Empowerment of Persons with Disabilities. Statistic report on persons with disabilities in Thailand. Department of Empowerment of Persons with Disabilities; 2017.p.4.
3. Department of Empowerment of Persons with Disabilities. Statistic report on persons with disabilities in Thailand. Department of Empowerment of Persons with Disabilities; 2018.p.3.
4. Charnnarong N. Stroke is the number cause of death of Thai people. In: Hfocus Delve into health system. Available from: <https://www.hfocus.org/content/2019/04/17033>
5. Department of Mental Health. From bad to good RQ Resilience Quotient. Nonthaburi: Social Mental Health Office, Department of Mental Health, Ministry of Public Health; 2009.
6. House J. Work Stress and Social Support Reading. Mass: Addison Wesley; 1981.
7. Schaefer C, Coyne J, Lazarus R. The Health-Related Functions of Social Support. *J Behav Med* 1981;4 4:381-406.
8. Charoenjittikul C. Spirit: Caregiving. *Journal of Huachiew Chalermprakiet University* 2004;7 14:78-87.
9. Highfield F, Cason C. Spiritual need of patient: are they recognized? *Cancer Nurs* 1983;6 3:187-192.
10. Hungelmann J, Kenkel-Rossi E, Klassen L, Stollenwerk R. Focus on spiritual well-being: harmonious interconnectedness of mind-body-spirit-use of the JAREL spiritual well-being scale. *Geriatr Nurs* 1996;17 6:262-266.
11. Yamane T. *Statistics: An Introductory Analysis*. 3rd ed. New York: Harper & Row; 1973.p.725-733.
12. Watthong A, Techameena S. The effect of the E&R Program on mental health of caregivers of children with developmental and intellectual disabilities Rajanukun Development Center (Muangkae) Rajanukun Institute. Rajanukun Institute, Ministry of Public Health; 2011.p.29.
13. Wattayakorn P, Chongchareon W, Chukumnerd P. Spiritual Well-Being and Spirituality at Work of Head Nurses in General Hospitals, Southern Thailand. *Academic Journal of Prince of Songkla University*; 2016;27 3:115-126.
14. Sukheeluk P, Nuanchana K, Rabudda L. The result of developing caregiver potential for stroke patients at home in Maharaj district, Phranakhon Si Ayuthhaya province Available from: <https://www.ayo.moph.go.th/main/index.php?mod=MultiForms&id=2aa0221e1b882110ef5554b77f26c4f>
15. Panphadung S, Nilmanut K, Kitrungrate L. Impact of a Buddhism-Based Spiritual Wellbeing Promotion Programme on the Spiritual Wellbeing of Family Caretakers Responsible for Hospitalised Advanced Gynaecological Cancer Patients. *Thai J Nurs* 2015;30:16-28.