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Relationship between coping strategies and anxiety in patients with Systemic Lupus Erythematosus

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ABSTRACT

Introduction: Systemic Lupus Erythematosus (SLE) is a chronic autoimmune disease that can cause psychological distress. Anxiety is often seen in SLE patients as a reaction to the illness. Coping strategies used to deal with incriminating problems could help patients become more adaptive and survive living with SLE. Thus, this study aims to determine the relationship between coping strategies and anxiety in SLE patients.
Methods: A non-experimental, cross-sectional study with a correlational analysis was performed on 32 SLE patients. Anxiety was measured using the Hospital Anxiety and Depression Scales (HADS), and coping strategies were assessed using The Brief Cope Scale.
Results: The results showed that 75% of the respondents experienced anxiety. 56.25% of respondents used adaptive coping, while 43.75% used maladaptive coping to deal with their problems. A significant relationship between coping strategies and anxiety was found in SLE patients, and the result showed a moderate negative correlation (p=0.001, r=-0.538). In patients with SLE, the more adaptive the coping strategies used to deal with the illness, the lower the anxiety experienced. Amongst coping strategies, religious coping significantly correlated with anxiety (p = 0.003, r = -0.508) in the subscale analysis.
Conclusion: This study are expected to be used to help develop interventions, training, or psychoeducation that provides benefits in terms of better and more effective management for SLE patients

INTRODUCTION

Systemic Lupus Erythematosus (SLE) is an autoimmune disorder of unknown cause that has clinical manifestations, a fairly diverse course of the disease, and a poor prognosis. The average incidence is 5.5 cases per 100,000 population, and the prevalence is 73 cases per 100,000 population, but the rate is much higher in blacks and other ethnic groups compared to whites. Asians are also more commonly affected than whites (Lewis & Jawad, 2017). Genetic, immunological, hormonal, and environmental factors are predicted to play a role in the pathophysiology of SLE. In Indonesia, at Hasan Sadikin Hospital Bandung, there were 291 SLE patients, or 10.5% of the total patients, who sought treatment at the Rheumatology Polyclinic during 2010 (Perhimpunan Reumatologi Indonesia, 2019). Meanwhile, based on data from Dr. Moewardi Surakarta Hospital, there were 3,777 outpatient visits with a SLE diagnosis throughout 2021 and 4,656 visits throughout 2022.

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SLE is a chronic disease that can cause psychological suffering (Nowicka-Sauer et al., 2018). Common psychological reactions to SLE are sadness, depression, anxiety, regression, and denial. In the previously mentioned meta-analysis of 59 studies, the estimated prevalence of anxiety (as assessed in clinical interviews) was 37% (Zhang et al., 2017).

Coping is a way of managing external and internal demands that are considered to suppress or exceed the limits of individual abilities. Coping strategies will be effective when individuals are able to choose and perform coping patterns that have maturity values and adaptation values that are in accordance with the demands of the situation (Folkman, 1984). This method or strategy is needed by Odapus because, by suffering from SLE, he is faced with several problems that arise due to his sick condition. This strategy will help Odapus be more adaptive and survive living with lupus (Mariana, 2008).

Previous research has found that patients with SLE use coping strategies such as acceptance and turning to religion and less coping strategies such as planning, suppression of competing activities, restraint coping, focusing on and venting emotion (Rinaldi et al., 2006). SLE patients also used fewer problem-focused coping strategies compared to healthy controls. In another study, it was also found that, compared to patients with rheumatoid arthritis (RA) and healthy controls, patients SLE had psychological distress associated with emotional coping strategies (Kozora et al., 2005).

This study aims to find out how coping strategies relate to anxiety in people with SLE. This research is important to do because coping strategies are quite instrumental in the life of Odapus as a way, effort, and action taken by Odapus to overcome anxiety due to pain. Coping is believed to be an important factor in self-adjustment, and effective coping can reduce anxiety levels. The hypothesis proposed is that there is a relationship between coping strategies and anxiety in people with SLE.

METHODS & MATERIALS

This research is non-experimental, using a correlational analysis research design with a cross-sectional approach. This research was carried out at the Internal Medicine and Rheumatology Polyclinic of Dr. Moewardi Hospital Surakarta in January–February 2023.

The study subjects were assigned a total of 32 samples using purposive sampling techniques based on inclusion and exclusion criteria. The inclusion criteria include SLE patients who are routinely controlled at the outpatient polyclinic of Rheumatology Dr. Moewardi Hospital aged 18–60 years, able to read and write, use the National Health Insurance (JKN), and are willing to be research subjects and sign informed consent. Exclusion criteria include patients with a history of mental disorders who are under psychiatric treatment and patients with comorbid severe physical illnesses.

Coping strategies are measured using the Brief Cope Scale, which consists of twenty-eight questions using the Likert scale with four alternative answers. The instrument has 14 sub-scale items that assess different coping dimensions, namely active coping, planning, use of instrumental support, religion, reframing positive, use of emotional support, humor, acceptance, denial, self-distraction, venting, behavioral disengagement, self-blame, and substance use (Carver et al., 1989).

Anxiety is measured with the Hospital Anxiety and Depression Scale (HADS). HADS consists of 14 statements divided into 2 subscales, namely to assess anxiety (7 statements) and depression (7 statements), where sufferers classify each statement on 4 value scales. Determination of the degree of anxiety by summing the scores of each with the results: 0–7 = normal, 8–10 = mild cases, 11–14 = moderate cases, and 15–21 = severe cases (Stern, 2014).

Statistical analysis of this study using SPSS 21.0. The ordinal data of the coping strategy will be transformed into interval data by the successive interval (MSI) method. An analysis of the relationship between coping strategies and anxiety levels was performed using correlative analytics with the Pearson correlation test because a normal data distribution was obtained.

RESULTS

A descriptive analysis of anxiety levels in SLE patients in this study showed that 25% were not anxious, 15.62% were mildly anxious, 46.88% were moderately anxious, and 12.5% were severely anxious. While the picture of coping strategies showed that 56.25% of respondents used adaptive coping and 43.75% used maladaptive coping. A widely used coping subscale is the religion subscale.

Table 1. Demographic Characteristics of Research Subjects

Characteristic	Average (Frequency)	Percentage
Age (Mean ± SD)	38.97 ± 10.09	
Gender		
Man	2	6,3%
Woman	30	93,8%
Recent Education		
Elementary school	2	6,3%
Junior high school	1	3,1%
Senior high school	6	18,8%
Bachelor	23	71,9%
Marital Status		
Unmarried	8	25,0%
Widow/Widower	5	15,6%
Marry	19	59,4%
Work		
Work	19	59,4%
Not Working	13	40,6%

Coping strategies have a significant relationship with anxiety. The higher the coping or the more adaptive it is, the lower the anxiety score. Based on the correlation analysis of each subscale with anxiety, the coping subscale that shows a significant correlation (p-value = 0.003) with anxiety in SLE patients is the religion subscale (Table 3).

Table 2. Pearson's Correlation of Coping Strategies with Anxiety

	Pearson Correlation	*p-value*
Coping and Anxiety Correlation Score	-0,538	0,001

Table 3. Correlation of Coping Strategy Subscale with Anxiety

	Pearson Correlation	p-value
Active Coping	-0,407	0,021
Emotional Support	-0.421	0,016
Planning	-0,239	0,187
Instrumental Support	-0,461	0,008
Positive Reframing	-0,426	0,015
Religion	-0,508	**0,003**
Acceptance	-0,473	0,006
Humour	-0,470	0,007
Self-Distraction	0,260	0,151
Denial	0,167	0,361
Substance Use	0,053	0,771
Disengagement	-0,008	0,967
Venting	0,047	0,797
Self-Blame	-0,145	0,430

DISCUSSION

The demographic data obtained in this study consisted of age, gender, marital status, education, and occupation. Based on age and gender, the results of this study showed that the average age of the study subjects was 38.97 ± 10.09 years, with 93.8% being women. This is in accordance with the literature on SLE demographics, where the onset and signs of SLE generally appear in the age range of 9–58 years (the highest range is 21–30 years), with a peak at the age of 28 years, and the ratio of women to men is 9.5:1 (Perhimpunan Reumatologi Indonesia, 2019).

In this study, it is known that there is a significant relationship between coping strategies and anxiety, where the more adaptive the strategy, the lower the anxiety. These results are consistent with previous research suggesting that the course of illness and mental well-being of SLE patients influenced by the type of coping strategies used. SLE subjects with insomnia, which is a risk factor for psychiatric disorders, showed higher levels of stress assessment and more maladaptive coping strategies (Palagini et al., 2016).

Another study examining the association between coping measurements and anxiety and depression in SLE patients reported that reduced psychosocial reserve capacity in individuals (including coping) led to vulnerability that could ultimately result in a greater burden of illness and psychological distress. Low self-esteem, optimism, coping, and social support are associated with depression and anxiety (Zamora-Racaza et al., 2018). A qualitative review of coping in SLE patients found that active coping styles can help maintain quality of life in SLE patients, whereas quality of life can influence anxiety in SLE patients (Córdoba-Sánchez & Limonero-García, 2015) (Wang et al., 2022).

In Pearson's further analysis, it was found that the coping subscale that was significantly associated with anxiety was the religion subscale. These results are consistent with previous studies examining coping in SLE patients, where the results showed that patients with SLE used more coping strategies such as acceptance and turning to religion and less coping strategies such as planning, suppression of competing activities, restraint coping, focusing on, and venting of emotion (Rinaldi et al., 2006). Koping religion refers to the use of religious beliefs or practices to cope with stressful life situations (Pargament et al., 2005). Studies have shown that religious beliefs and practices can help overcome difficult situations, such as physical illness (Koenig,

1998). Individuals who use coping religion are better able to handle their condition than those who don't (Paloutzian, 2005). In research on the role of coping with religious beliefs in patients with chronic diseases, including SLE, it was found that religious beliefs are important in living with chronic diseases so that patients are able to cope with their problems well (Gordon et al., 2002).

The limitations of this study include the absence of a healthy control group investigated for comparison. Biological factors such as the severity of the disease and the dosage of corticosteroid medication, which could potentially influence anxiety in the research subjects, were not documented. Additionally, the study respondents were from a referral hospital health service center, and as a result, he findings may not be generalizable to the general population.

CONCLUSION

This study shows that there is a significant association between coping strategies and anxiety in SLE patients, where the strength of the relationship is moderate and has a negative direction. The meaning is that the higher the coping score, or the more adaptive, the lower the anxiety score. The coping subscale that plays a significant role in relation to anxiety is the religion subscale. More research is needed to control for confounding factors such as disease severity and doses of corticosteroid drugs that may affect anxiety. Further research also suggested using control groups so that it could be compared to see whether there were differences in the relationship between coping strategies and anxiety between SLE patients and healthy controls.

REFERENCES

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing Coping Strategies: A Theoretically Based Approach. In *Journal of Personality and Social Psychology* (Vol. 56, Issue 2).

Córdoba-Sánchez, V., & Limonero-García, J. T. (2015). Coping and Quality of Life in Patients with Systemic Lupus Erythematosus: A Review. *Pensando Psicología*, *11*(18), 129–139. https://doi.org/10.16925/pe.v11i18.1223

Folkman, S. (1984). Personal Control and Stress and Coping Processes: A Theoretical Analysis. In *Journal of Personality and Social Psychology* (Vol. 46, Issue 4).

Gordon, P. A., Feldman, D., Crose, R., Schoen, E., Griffing, G., & Shankar, J. (2002). The role of religious beliefs in coping with chronic illness. *Counseling and Values*, *46*(3), 162–174. https://doi.org/10.1002/j.2161-007X.2002.tb00210.x

Kozora, E., Ellison, M. C., Waxmonsky, J. A., Wamboldt, F. S., & Patterson, T. L. (2005). Major life stress, coping styles, and social support in relation to psychological distress in patients with systemic lupus erythematosus. *Lupus*, *14*(5), 363–372. https://doi.org/10.1191/0961203305lu2094oa

Lewis, M. J., & Jawad, A. S. (2017). The effect of ethnicity and genetic ancestry on the epidemiology, clinical features and outcome of systemic lupus erythematosus. In *Rheumatology (Oxford, England)* (Vol. 56, Issue 1, pp. i67–i77). https://doi.org/10.1093/rheumatology/kew399

Nowicka-Sauer, K., Hajduk, A., Kujawska-Danecka, H., Banaszkiewicz, D., Smoleńska, Czuszyńska, Z., & Siebert, J. (2018). Illness perception is significantly determined by depression and anxiety in systemic lupus erythematosus. *Lupus*, *27*(3), 454–460. https://doi.org/10.1177/0961203317751858

Palagini, L., Mauri, M., Faraguna, U., Carli, L., Tani, C., Dell'Osso, L., Mosca, M., & Riemann, D. (2016). Insomnia symptoms, perceived stress and coping strategies in patients with systemic lupus erythematosus. *Lupus*, *25*(9), 988–996. https://doi.org/10.1177/0961203316631630

Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. A. (2005). The Sacred and the Search for Significance: Religion as a Unique Process. In *Journal of Social Issues* (Vol. 61, Issue 4).

Rinaldi, S., Ghisi, M., Iaccarino, L., Zampieri, S., Ghirardello, A., Sarzi-Puttini, P., Ronconi, L., Perini, G., Todesco, S., Sanavio, E., & Doria, A. (2006). Influence of coping skills on health-related quality of life in patients with systemic lupus erythematosus. *Arthritis Care and Research*, *55*(3), 427–433. https://doi.org/10.1002/art.21993

Stern, A. F. (2014). The Hospital Anxiety and Depression Scale. In *Occupational Medicine* (Vol. 64, Issue 5, pp. 393–394). Oxford University Press. https://doi.org/10.1093/occmed/kqu024

Sutton, G. W. (n.d.). *Handbook of the Psychology of Religion and Spirituality (2nd ed.)*. https://www.researchgate.net/publication/284162592

Wang, Q., Jia, J., Zhang, K., Zheng, Z., & Liu, H. (2022). Investigation and Analysis of Anxiety and Quality of Life among Systemic Lupus Erythematosus Patients in Northwestern China. *Healthcare (Switzerland)*, *10*(11). https://doi.org/10.3390/healthcare10112180

Zamora-Racaza, G., Azizoddin, D. R., Ishimori, M. L., Ormseth, S. R., Wallace, D. J., Penserga, E. G., Sumner, L., Ayeroff, J., Draper, T., Nicassio, P. M., & Weisman, M. H. (2018). Role of psychosocial reserve capacity in anxiety and depression in patients with systemic lupus erythematosus. *International Journal of Rheumatic Diseases*, *21*(4), 850–858. https://doi.org/10.1111/1756-185X.13033

Zhang, L., Fu, T., Yin, R., Zhang, Q., & Shen, B. (2017). Prevalence of depression and anxiety in systemic lupus erythematosus: A systematic review and meta-analysis. *BMC Psychiatry*, *17*(1). https://doi.org/10.1186/s12888-017-1234-1