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Self-Empowerment and Coping Strategies In Type 2 Diabetes Mellitus Patients

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ABSTRACT

Diabetes Mellitus is a chronic disease that can harm the body, both physically and psychologically (stress). DM patients will carry out adaptive coping strategies to properly manage treatment or therapy. The process of self-empowerment in people with type 2 diabetes mellitus will appear when they have information or knowledge about the disease so that it can influence the patient's self-skills for further treatment. This study aimed to analyze the relationship between self-empowerment and coping strategies in patients with type 2 diabetes mellitus. The design of this study was an analytical observational study using a cross-sectional method. The sampling technique used is consecutive sampling. The sample of this study was type 2 DM patients with 84 respondents. The instrument used in this study is the Diabetes Empowerment Scale-Long (DES-LF) questionnaire and the Cope Inventory questionnaire. Data were analyzed using the Spearman test. Self-empowerment and coping strategies in type 2 diabetes mellitus patients showed close to maximum results. In the results of the study, it was found that there was no significant relationship between self-empowerment and coping strategies in type 2 DM patients with p = 0.086. It means that other factors can influence coping strategies. Health services can educate patients about the importance of coping strategies for DM clients so that they can reduce the impact of DM disease.

Keywords: Empowerment, Coping Strategy, Diabetes Mellitus

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1. INTRODUCTION

Diabetes mellitus, often called diabetes, is a chronic disease that occurs because the pancreas does not produce insulin or the body cannot effectively use the insulin produced by the pancreas. Type II diabetes mellitus is a problem in the body due to the decreased ability of cells to accept insulin

which is called insulin resistance (Kurdi et al., 2021). Disturbances in the blood sugar regulation system will increase blood sugar more than usual (Savitri & Ratnawati, 2022). Chronic hyperglycemia can cause ischemia in various organs and cause other diseases, such as hypertension and diabetic ulcers (Nistiandani et al., 2021).

Diabetes Mellitus is a chronic disease that can hurt the body, both physically and psychologically (stress) (Kurniyawan et al., 2022). Stress in DM patients will bring up coping responses to deal with all problems and losses (Kurniyawan et al., 2023). Usually, when a patient is diagnosed with DM, they will use adaptive coping strategies to manage treatment or therapy properly. However, in reality, not all patients diagnosed with DM can have adaptive coping strategies (Larasati et al., 2017).

Coping strategies are efforts to neutralize or reduce the stress that occurs in individuals (Dyah, 2021). Coping is an effort a person makes when experiencing a threat that aims to reduce stress (Wuryaningsih et al., 2020). Coping strategies are used to solve individuals' health problems (Intiyaskanti et al., 2021). Individuals with good coping strategies can adapt to the changes resulting from their illness (Patuh et al., 2021). Individuals with good coping skills will increase self-control to maintain their health (Basri et al., 2021). Coping strategies can help patients manage stress so that they can carry out treatment until they recover (Fuadiati et al., 2019).

Empowerment is the ability of individuals to control themselves over resource decisions that affect life. Empowerment is divided into three elements: building trust, increasing capacity, and making changes (Woodall et al., 2010). Self-empowerment will continue to increase if each individual has high motivation. So individuals will tend to believe that their efforts to improve health will be successful (Huang, 2017). The management of diabetes is very complex, requiring long-term commitment and drastic changes in the patient's lifestyle (Trisnadewi & Suniyadewi, 2022). Self-empowerment in people with type 2 diabetes mellitus will appear when they know about the disease. So that it can influence the patient's self-skills for further treatment, the attitude and self-awareness that is carried out will have an impact on increasing the psychology of type 2 diabetes mellitus sufferers (Łuczyński et al., 2016).

2. METHODS

The design of this research is observational analytic using a cross-sectional method. The sampling technique

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used is consecutive sampling. The sample of this study was type 2 DM patients at the Internal Medicine Polyclinic at Level III Baladhika Husada Hospital, Jember, which had been recorded on the inclusion and exclusion criteria. The sample used in this study was 84 respondents, and the number of samples was determined using the G*Power formula.

Inclusion criteria for the sample included: patients diagnosed with type 2 diabetes mellitus, had DM for ≥ 3 months, were aged 30-79 years, communicated well, and were willing to be respondents. Exclusion criteria included: patients with type 2 diabetes mellitus with severe physical impairment or discomfort and were unable to participate in the study, patients with complications such as stroke, kidney failure, and heart failure, patients with physical limitations such as blind and deaf, and patients withdrawing from the study.

The research instrument used to measure self-empowerment in DM patients is the Diabetes Empowerment Scale-Long (DES-LF) questionnaire consisting of 28 questions. The instrument for measuring coping strategies uses the Cope Inventory questionnaire consisting of 28 questions. The data that has been obtained is then analyzed using the Spearman test.

3. RESULTS

Characteristics of Respondents

Table 1. Distribution of Respondents Based on Gender, Education Level, Type of Occupation, and Marital Status in Patients with Type 2 DM (n = 84)

Variable	Frequency	Percentage
Gender		
Man	36	42,9%
Woman	48	57,1%
Level of education		
College	2	2,4%
Senior High School	57	67,9%
Junior High School	13	15,5%
Elementary school	12	14,3%
Occupation		
Does not work	6	7,1%
Housewife	46	54,8%
Self-employed	24	28,6%
civil servant	1	1,2%
Etc	7	8,3%
Marital status		
Marry	83	98,8%

Widow/widower	1	1,2%

Based on table 1, the results of the data distribution show that there are more females than males, totaling 48 people (57.1%). The highest level of education, namely high school, was 57 people (67.9%). The most common type of work for respondents was housewives, totaling 46 people (54.8%). The most common marital status, namely married, amounted to 83 people (98.8%).

Table 2. Distribution of Respondents Based on Age and Length of Suffering from DM in Type 2 DM Patients (n = 84)

Variable	Mean	Median	SD	Min-Maks
Age (years)	53,56	54,00	10,15	31-74
Suffering from diabetes for a long time (years)	2,94	2,00	-	1-11

The distribution of respondent data according to age has an average of 53.56 years with an SD value of 10.15. The mean value for the duration of suffering from DM is 2.94 with a median value of 2, and the minimum value for respondents is one year and a maximum of 11 years.

Self Empowerment

Table 3. The average value of self-empowerment in type 2 DM patients (n = 84)

Variable	Mean	Median	Min-Maks
Self Empowerment	49,48	51,00	38-55

In Table 3, the data distribution shows that the average value of self-empowerment is 49.48 with a median value of 51, the minimum value of self-empowerment is 38, and the maximum value of self-empowerment is 55. In addition, the value of each indicator of self-empowerment is presented in the form of mean, median and min-max and can be seen in table 4 as follows.

Table 4. The average value of self-empowerment indicators in type 2 DM patients (n = 84)

Variable	Mean	Median	Min-maks
Aspects of dissatisfaction and readiness to change factors	1,73	1,77	1,2-2
Aspects of setting and achieving goals	1,73	1,8	1,3-2
Psychosocial aspects	1,87	2	1,3-2

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Based on table 4, the highest average indicator score is the psychosocial aspect of 1.87, with a median value of 2, a minimum value of 1.3, and a maximum value of 2. Indicators with the same value are aspects of setting and achieving goals, aspects of dissatisfaction, and factors of readiness to change, with an average value of 1.73. The aspect of setting and achieving goals has a median value of 1.8, with a minimum value of 1.3 and a maximum value of 2. Meanwhile, indicators for dissatisfaction and readiness to change have a median value of 1.77.

Coping Strategy

Table 5. The average value of coping strategies in type 2 DM patients (n = 84)

Variable	Mean	Median	Min-Maks
Coping Strategy	83,82	85,50	65-94

In Table 5, the distribution of the data shows that the average value of the coping strategy is 83.82 with a median value of 85.50 and the minimum score for the coping strategy is 65, and the maximum score for the coping strategy is 94.

Table 6. The average value of coping strategy indicators in type 2 DM patients (n = 84)

Variable	Mean	Median	Min-max
Self-redirect	3,16	3	1,5-4
Active coping	3,29	3,5	2-4
Use of help	3,48	3,5	2-4.
Planning	3,31	3,5	2-4
Reception	3,36	3,5	2-4
Religion copy	3,57	3,5	1-4
humor	3,22	3	1,5-4
Positive drafting	3,32	3,5	1,5-4
Denial	2,77	3	1-4
Substance use	3,66	4	2-4
Use of emotional support	1,65	1,5	1-3
Helplessness	3,07	3	1,5-4
Release	1,87	2	1-4
Blame myself	2,14	2	1-3,5

Based on table 6, the highest average indicator value is religious coping, with 3.57 with a median value of 3.5 and a minimum value of 1, and a maximum value of 2. The lowest value is the use of emotional support, with an average value of 1.65. The median value is 1.5, the minimum value is one, and the maximum is 3.

Analysis of the Relationship between Self-Empowerment and Coping Strategies

Table 7. Analysis of the relationship between self-empowerment and coping strategies in type 2 DM patients (n = 84)

Variable	p-value	r
Self-empowerment Coping strategy	0,086	0,188

Based on the results of the Spearman statistical test, the p-value was 0.086, which means that Ha was rejected. There is no correlation between self-empowerment and coping strategies-spearman correlation value of 0.188.

4. DISCUSSIONS

Self-Empowerment

Based on the results of statistical test analysis related to the self-empowerment variable in type 2 DM patients at the Internal Medicine Polyclinic at Level III Baladhika Husada Hospital, Jember, the average value was 49.48. Self-empowerment in patients with type 2 diabetes mellitus shows that (83%) is quite suitable for patients with a positive self-empowerment attitude. This number is evidenced by the behavior of patients who visit the hospital for treatment (Arifin, 2017). Factors affecting self-empowerment are age, education, and long-suffering from DM.

An individual has a sense of control over himself. As people get older, they will be more able to control themselves if they face a problem. This happens because there is a significant relationship between self-empowerment and age, and this research was conducted in Iran (Tol et al., 2012). Based on this, researchers argue that age plays an essential role in controlling individuals in deciding what health alternatives to do for their good.

The level of one's knowledge usually affects the level of education. This relates to how one thinks if one has a high education. If individuals have higher education, they will try to think more about the problems they face, and well-educated individuals tend to be calm when facing problems (Potter et al., 2010). This researcher argues that the higher the level of individual education, the higher the knowledge about diabetes mellitus. Because if an individual has high intellectual ability, it will affect the acceptance of diabetes mellitus, making it easier to accept positive influences for his health.

Someone who has suffered from diabetes mellitus for too long will experience boredom. Individuals who suffer from DM at a younger age will

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undoubtedly experience a higher level of sensitivity than older individuals. Moreover, vice versa, if the individual's age is getting older and suffers from diabetes mellitus for too long, it has a significant relationship to dissatisfaction and readiness to change. Of course, if the individual is older, they will tend to be less sensitive to the disease they are suffering from (Tol et al., 2012). This happens because individuals have suffered from DM for too long, so they feel comfortable with their disease, and adaptation that takes a long time makes them less sensitive to changes in themselves.

The highest indicator value, namely psychosocial, is 1.87. This psychosocial has an essential influence on each individual in empowering himself. This psychosocial aspect is related to environmental and personal aspects. Woodall et al. (2010) said that self-empowerment is the feeling of an individual who can control his life. Have a sense of self-control to improve individuals' mental and physical health in dealing with their illnesses. However, not all individuals can control themselves without any environmental interference.

Indicators with the same value as type 2 DM patients, namely aspects of setting and achieving goals and aspects of dissatisfaction and readiness to change factors, is 1.73. In addition, this significant relationship is found in the indicators of dissatisfaction and readiness for change found in the Diabetes Empowerment Scale (DES) with a value of 0.009 (Tol et al., 2012). Researchers say that individuals who have suffered from DM for too long find it challenging to change their lifestyle and comfort. This happens because individuals have suffered from DM for too long, so they feel comfortable with their disease. Adaptation takes a long time to make individuals less sensitive to changes in themselves.

Coping strategy

Based on the results of statistical test analysis related to coping strategy variables in type 2 DM patients at the Internal Medicine Polyclinic at Level III Hospital Baladhika Husada Jember, the average value was 83.82. Coping strategies depend on each individual in dealing with the problem when experiencing difficulties, the status of the disease experienced, and the status of welfare (Snyder, 1999). Factors that can affect self-empowerment are age, marital status, and gender. At the same time, the results of this study found that the average age of respondents was 53.56, who had good coping and were included in the age group who had good motivation. This research shows that women's coping strategies are

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much more constructive, tend to be open about their problems, and can deal with existing stress.

According to Hidayat (2014), married individuals can deal with the stress that occurs within them because every problem they face will be resolved with their partner. Each couple has a sense of control over each individual to carry out suitable activities and avoid marital discord. Individuals who have good family support, the individual's coping will be better (Saltzman et al., 2002). Based on the study's results, researchers argue that married individuals have good coping strategies. This happens because the couple can overcome problems because they have a partner who can be invited to discuss when problems occur.

Gender differences greatly influence each individual in solving the problems or stress they face. This is proven by the opinion that women are more likely to have adaptive coping than men in dealing with stress and solving problems (Gentry et al., 2007). This research shows that women's coping strategies are much more constructive, tend to be open about their problems, and can deal with existing stress.

The highest indicator value, namely religious coping, is 3.57. This means that a person suffering from type 2 DM's coping is very good, especially regarding religion. This religious coping is vital in every individual because it is a source of emotional support when dealing with stressors. Even though every individual has different religious principles, in general, religious coping can deal with stress (Carver et al., 1989). This is proven by the results of research conducted by researchers. Researchers revealed that the average coping strategy in type 2 DM patients showed that there was more religious coping. This happens because religious coping in solving problems has a sense of control and hope that can overcome the problems at hand.

The lowest indicator in type 2 DM patients, namely the use of emotional support, is 1.65. Emotional support is usually manifested by talking to other people about their feelings, getting support from family and close friends, and discussing with them to understand the problems that occur (Carver et al., 1989). Usually, respondents with low emotional support only get support from their family, such as simply reminding them about their diet (Altera, 2011). Based on this study's results, researchers say they have low emotional support. This happens because the family thinks the patient already understands how to manage his diet and medication.

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The Relationship between Self-Empowerment and Coping Strategies

The study found no significant relationship between self-empowerment and coping strategies in type 2 DM patients at the Internal Medicine Polyclinic at Level III Hospital Baladhika Husada Jember. Ha was rejected, which means there is no relationship between self-empowerment and coping strategies in type 2 DM patients. The results of this study contrast with previous research, which said that there is a link between self-empowerment and the process of coping strategies (Schneider et al., 2016). The results of a similar study conducted by Gutierrez (1994) show an attachment to empowerment with coping strategies.

Berry et al. (2015) reported that diabetes mellitus not only affects the physical condition but also has a psychological impact. When patients receive negative psychological responses due to their illness, patients experience emotional disturbances such as anxiety, stress, and depression (Chew et al., 2014). Usually, when a patient is diagnosed with DM, they will use adaptive coping strategies to manage treatment or therapy properly. However, in reality, not all patients diagnosed with DM can have adaptive coping strategies (Larasati et al., 2017).

According to Stuart (2013), there are several coping factors: problem-solving skills, social skills, material assets, knowledge and intelligence, cultural stability, strong ego identity towards social networks, and spiritual belief value systems. According to Huang (2017), having high curiosity will affect the illness they suffer. The higher the individual's motivation to recover, the more confident he will be to improve his health. Woodall et al. (2010) said that self-empowerment is the feeling of an individual who can control his life. Have a sense of self-control to improve individuals' mental and physical health in dealing with their illnesses. However, not all individuals can control themselves without any environmental interference. The results of this study have no relationship, which could be due to other factors. The other factors influencing coping strategies are beliefs or positive views and social support.

Factors of positive beliefs or views have an essential role in coping. Lazarus (1993) mentions one factor influencing DM patients' coping strategies, namely positive beliefs or views. Positive beliefs or views are needed to describe one's perception of responsibility for events in one's life (Larsen et al., 2010). Therefore, researchers argue that individuals who have positive beliefs or views will be able to have

different coping strategies than individuals who see the result as luck. If the individual has confidence and handles his coping strategies well, of course, controlling the disease he is suffering from will be even better.

In addition, there are other factors, namely social support. It is significant for someone who suffers from DM to pay attention to their health condition because it is a chronic disease. The health condition that needs to be considered is the physical and psychological aspects and the social aspects. One social aspect that needs attention is social support (Hasanat & Ningrum, 2010). In addition to improving physical health, social support also reduces depression in patients with type 2 DM (Sacco & Yanover, 2006). Researchers argue that social support can affect DM patients because social support can reduce the depression they experience. Depression or stress can increase cortisol in the blood so that sugar levels increase. Therefore social support is very much needed to reduce the occurrence of depression and make patients feel optimistic and not feel lonely.

5. CONCLUSIONS

The following explains several factors of coping strategies in patients with type 2 DM, which states that there is no relationship between self-empowerment and coping strategies in patients with type 2 DM in the Internal Medicine Polyclinic at Level III Baladhika Husada Hospital, Jember. This has the possibility that not only self-empowerment is a factor in coping strategies, but other factors influence coping strategies. Other factors influencing coping strategies are beliefs or positive views and social support that need to be studied to improve coping strategies for type 2 DM patients. This study informs healthcare professionals, such as nurses, to educate patients about the importance of coping strategies for DM clients to reduce the impact of DM disease.

AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, and analysis: Enggal Hadi Kurniyawan1, Sofi Fitriyah Santoso, Nur Widayati, Erti Ikhtiarini Dewi, Mulia Hakam, Fitrio Deviantony, Yeni Fitria. Writing and manuscript revisions: Enggal Hadi Kurniyawan, Sofi Fitriyah Santoso.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

REFERENCES

Altera, B.H. 20111. Determinan Ketidakpatuhan Diet Penderita Diabetes melitu Tipe 2 (Studi Kualitatif di Wilayah Kerja Puskesmas Srondol Kota Semarang). Skripsi. Semarang Program Studi Ilmu Gizi Fakultas Kedokteran Universitas Diponegoro Semarang

Arifin, A.Z. (2017). Hubungan Strategi Pemberdayaan dengan Empowerment pada Penderita Diabetes Mellitus Tipe 2 di Wilayah Kerja Puskesmas sibela Kota Surakarta. Skripsi. Surakarta: Fakultas Ilmu Kesehatan Universitas Muhammadiyah Surakarta

Basri, R. F., Juliningrum, P. P., & Rahmawati, I. (2021). Relationship Religious Coping with Smoking Behavior of Adolescent Students Islamic Boarding School Al Amin Paciran Lamongan. Nursing and Health Science Journal (NHSJ), 1(2), 142-148. https://doi.org/10.53713/nhs.v1i2.27

Berry, E., S, Lockhart, M. Davies, J. Lindsay dan M. Dempster. (2015). Diabetes Distress: Understanding the Hidden Struggles of Living with Diabetes and exploring Intervention Strategies. Postgraduate Medical Journal. 91(1075): 278-283 https://doi.org/10.1136/postgradmedj-2014-133017

Carver, C S., Scheier, M. F., Weintraub, J. K. 1989. Assessing coping strategies: A theoretically based approach. Journal of Personality and Social Psychology, 56,267-283. https://doi.org/10.1037//0022-3514.56.2.267

Chew B. H., S. S. Ghazali, A. Fernandez. 2014. Psychological aspects of diabetes care: Effecting behavioral change in patients. Word Journal of Diabetes. 5 (6):796-808. https://doi.org/10.4239/wjd.v5.i6.796

Dyah, RK. (2021). Strategi Coping Menghadapi Pandemi Covid-19 pada Populasi Umum. ANALITIKA: Jurnal Magister Psikologi UMA. Vol. 13 No. 1. https://doi.org/10.31289/analitika.v13i1.4906

Fuadiati, L., Dewi, E., & K, E. (2019). Hubungan Mekanisme Koping dengan Stres Pasien TB Paru di Rumah Sakit Paru Jember. Pustaka Kesehatan, 7(2), 71-79. https://doi:10.19184/pk.v7i2.19118

Gentry, L. A., Chung, J. J., Aung, N., Keller, S., Heinrich, K. M., & Maddock, J. E. (2007). Gender Differences in Stress and Coping Among Adults Living in Hawai'i. Californian Journal of Health Promotion, 5(2), 89-102. https://doi.org/10.32398/cjhp.v5i2.1235

Gutierrez, L. M. (1994). "Beyond Coping: An Empowerment Perspective on Stressful Life Events," The Journal of Sociology & Social Welfare: Vol. 21: Iss. 3, Article 13.

Hasanat, N. & Ningrum RP (2010). Program Psikoedukasi Bagi Pasien Diabetes Untuk Meningkatkan Kualitas Hidup. Universitas Gadjah Mada.

Hidayat, F. 2014. Hubungan Koping Individu dengan Tingkat Kepatuhan Penyandang Diabetes Melitus sebagai Anggota Persadia cbang RSMM Bogor. Prosiding Konferensi Nasional II PPNI Jawa Tengah 2014

Huang, J. (2017). The Relationship Between Employee Psychological Empowerment And Proactive Behavior: Self-Eficacy As Mediator. 45(7), 1157–1166. http://doi.org/10.2224/sbp.6609

Intiyaskanti, RO., Ikhtiarini Dewi, E., & Hadi Kurniyawan, E. (2021). Overview of Coping Mechanism Mother of Children With Disabilities in SDLB Negeri Tompokersan Lumajang. Nursing and Health Science Journal (NHSJ), 1(2), 88-96. https://doi.org/10.53713/nhs.v1i2.25

Kurdi, F., Abidin, Z., Priyanti, R. P., & Kholis, A. H. (2021). Management Of Diabetes Mellitus Type 2 For Elderly: Taichi Exercise To Reduce Blood Sugar Levels. Nursing and Health Science Journal (NHSJ), 1(2), 112–117. https://doi.org/10.53713/nhs.v1i2.51

Kurniyawan, EH., Rondhianto, Sulistyorini, L., Ardiana, A., Asmaningrum, N., Susanto, T., & Purwandari, R. (2023). Buku Ajar Agronursing Pendekatan Asuhan Keperawatan pada Sektor

Agroindustri. Bondowoso: KHD Production

Kurniyawan, EH., Nadziroh, U., Widayati, N., & Wantiyah, W. (2022). Correlation between Self Efficacy and Coping Mechanism in Patients with Type 2 Diabetes Mellitus. Nursing and Health Science Journal (NHSJ), 2(2), 174-178. https://doi.org/10.53713/nhs.v2i2.121

Larasati, TA, Saputra, O., R. Liliswati., H. Rahmania. 2017. Strategi Koping pada Pasien Diabetes Mellitus Tipe 2: Studi Kualitatif. Jurnal Kesehatan dan Agromedicine. 4(1): 7-13

Larsen, R.J., D.M.Buss. 2010. Personality Psychology: Domain of Knowledge About Human Nature. New York: McGraw Hill

Lazarus, R.S. (1993). From Psychological Stress to The Emotions: A History of Changing Outlooks. Annual Review of Psychology. 44: 1–21. https://doi.org/10.1146/annurev.ps.44.020193.000245

Łuczyński W, Głowińska-Olszewska B, Bossowski A. (2016). Empowerment in the Treatment of Diabetes and Obesity. Journal of Diabetes Research, vol. 2016, Article ID 5671492, 9 pages, 2016. https://doi.org/10.1155/2016/5671492

Nistiandani, A., Rondhianto, R., & Fakhrur Rozsy, M. (2021). Overview of Motor Nerve Damage in People with Diabetes Mellitus. Nursing and Health Science Journal (NHSJ), 1(3), 242-248. https://doi.org/10.53713/nhs.v1i3.83

Patuh, A., Wuri Wuryaningsih, E., & Tri Afandi, A. (2021). Description of Stress and Coping Mechanism Farmer in Kalisat District Jember City. Nursing and Health Science Journal (NHSJ), 1(1), 54-56. https://doi.org/10.53713/nhs.v1i1.17

Sacco, P. & Yanover, T., (2006). Diabetes and Depression: The Role of Social Support and Medical Symptoms. Journal of Behavioral Medicine, Vol. 29, No. 6, https://doi.org/10.1007/s10865-006-9072-5

Saltzman, K. M. & C. J. Holahan. (2002). Social Support, Self-efficacy, And Depressive Symptoms: An Integrative Model. Journal of Social and Clinical Psychology. 21(3): 225–228.

https://doi.org/10.1521/jscp.21.3.309.22531

Savitri, A., & Ratnawati, D. (2022). Buerger Allen Combination Therapy Exercises and Soak Feet Warm Water Lowers Blood Sugar Levels in Elderly with Diabetes Mellitus Type 2. Nursing and Health Science Journal (NHSJ), 2(2), 94-98. https://doi.org/10.53713/nhs.v2i2.32

Schneider, H. Hill, S. Blandfond. 2016. Patient empowerment: designing technology that supports people's coping strategies. Journal of Medical Internet Research 18.2 https://doi.org/10.2196/jmir.4652

Snyder, CR. (1999). Coping: The Psychology of What Works. New York: Oxford University Press

Stuart, GW. (2013). Principles and Practice of Psychiatric Nursing-E-Book. 10thEdition. St. Louis Missouri: Elsevier Mosby

Tol, A., Alhani, F., Shoujaeazadeh, D., Sharfirad, G., Rahimi, A.,& Mohajeritehrani, M. (2012). Development of a Valid and Reliable Diabetes Empowerment Scale: An Iranian Version. Iran Red Crescent Med J. 2012 May; 14(5): 305–308.

Trisnadewi, N. W., & Suniyadewi, N. W. (2022). Family Support with Diabetes Management in Type 2 DM: Correlation Study. Nursing and Health Science Journal (NHSJ), 2(4), 345-348. https://doi.org/10.53713/nhs.v2i4.138

Woodall, J., Raine, G., South, J., & Warwick-Booth, L. (2010). Empowerment & Health and Well-Being: Evidence Review. Centre for Health Promotion Research. Leeds Metropolitan University

Wuryaningsih, EW , Kurniyawan, EH., & Faiza, WM. 2020. Overview Of The Coping Strategy Of Farmers In The Flood Disaster Area Of Wonoasri Village, Tempurejo District, Jember Regency. Jurnal Ilmu Keperawatan Vol. 7 No. 2. 187-194. https://doi.org/10.21776/ub.jik.2019.007.02.8