

The Influence of Self Help Groups on the Self Efficacy of People with Type 2 Diabetes Mellitus at the Paccerakkang Health Center in Makassar City

Syaipuddin¹, Sitti Nurbaya², Rahmawati³

¹²³Nani Hasanuddin College of Health Sciences Makassar

ARTICLE INFO

Keywords:

Self help group,
Self efficacy,
Diabetes Mellitus type 2.

ABSTRACT

Optimal self-efficacy is a key factor in the success of self-management of DM patients. Poor self-efficacy affects many things, such as motivation and adherence, and can lead to poor self-care management by people affected by DM. Learning from the experiences of others through the law of self-help groups can increase self-efficacy. The purpose of this study was to clarify the influence of self-help groups on the self-efficacy of type 2 diabetes patients at the Paccerakkang Health Center in Makassar City. The design of this study was pre experimental and pre-test for one group. The free variable in this study is self-help group, and the bound variable in this study is self-efficacy. Sampling using simple random sampling method. The population includes all type 2 diabetics of the Paccerakkang Health Center in Makassar City, with a total sample of 3 respondents. Search for self-efficacy data using the DMSES (Diabetes Management Self Efficacy Scale) questionnaire. A statistical test by Wilcoxon signed the rating test. This research has been carried out in the Paccerakkang Health Center Working Area, Makassar City from June to July 2022. The population in this study were patients with Type 2 DM who visited data at the Paccerakkang Health Center in Makassar City, a sampling technique using Probability sampling with a simple random sampling type with a total sample of 46. The results of the research obtained were the influence of self-help groups with self-efficacy on patients with Type 2 DM at the Paccerakkang Health Center, Makassar City.

E-mail:

Syaifuddinzainal41@gmail.com

Copyright © 2022 Science Midwifery.

1. Introduction

Diabetes mellitus is one of the diseases whose prevalence continues to increase in the world, both in developed and developing countries. So it is said that diabetes mellitus has become a health problem as well as a global disease in society. The World Health Organization or WHO estimates that more than 346 million people worldwide have diabetes mellitus. This number is likely to more than double by 2030 without intervention. Almost 80% of diabetes mellitus deaths occur in low- and middle-income countries (Waode Azfari, 2020).

High self-efficacy is an important factor in the success of self-management of DM patients (Messina et al., 2018). Self-efficacy in DM patients focuses on the belief that they can perform actions that can help improve their illness and self-care, including: Examples: diet, exercise, dosing, glycemic control, treatment and treatment of DM in general (Rashid et al., 2018).

The phenomenon that DM patients experience in today's society is a saturation of long-term treatment that makes them incapable of committing to self-care. Such as lazy to go on a diet and physical activity, which indicates low self-efficacy.

According to IDF (International Diabetes Federation) data (2018), the world's population suffering from DM is 425 million in 2018, and the number of dm sufferers will reach 629 million by

2045. An estimated 80% of them are with type 2 diabetes. According to a report by the Province of South Sulawesi in 2018, the prevalence of diabetes mellitus in the population of all ages is 1.3% and the highest in Wajo Regency (2.19%) and the prevalence of diabetes mellitus at the age of >15 years with the highest doctor's diagnosis in the age group of 65 - 74 years (5.48%), female sex (2.3%), education does not finish elementary school / MI (2.4%), work as a civil servant / TNI / Polri / BUMN / BUMD (3.64%), and city dwellings (2.39%) (Risksedas, 2019).

The results of a preliminary study in the working area of the Paccerakkang Health Center in Makassar City, showed that there was an increase in the number of diabetes mellitus patients every year. Data obtained by people with diabetes mellitus in 2019 was recorded at 267 (2.67%), in 2020 it was recorded at 383 (33.9%), while data in 2021 was recorded at 599 (53%). (Profile of Puskesmas Paccerakkang Makassar City, 2021).

The results of the recap of monthly data from the Paccerakkang Health Center in Makassar City in 2021, the prevalence of type 2 diabetes mellitus patients who came for treatment during the Covid-19 pandemic was 65 people (5.7%) in January and increased every month by 599 people (53%) at the end of July 2021. (Paccerakkang Health Center, 2021).

Low self-efficacy affects the success of DM management, however individuals with good self-efficacy show some form of adherence to the diabetes treatment regimen (Istimatika & Umdatus, 2017). Proper self-efficacy can encourage patients to make choices about the treatment and treatment of DM (Dehghan et al., 2017).

Self help groups, or also called self-help groups, are seen as alternative strategies to increase social support that affects self-efficacy (Aglen et al., 2015). Based on the explanation of the problem that has been described, the researcher will study the influence of self-help groups on the self-efficacy of type 2 diabetes patients at the Paccerakkang Health Center, Makassar City. The purpose of this study was to analyze the influence of self-help groups on the self-efficacy of people with type 2 Diabetes Mellitus at the Paccerakkang Health Center, Makassar City.

2. Method

2.1 Types and Methods of Research

This research is a type of pre-experimental research that uses a one-group approach, pre-test design that aims to clarify causation by involving a group of subjects. The target group was observed before the intervention and re-observed after the intervention (Nursalam, 2016). In this study, researchers wanted to know the effect of self-help groups on the self-efficacy of type 2 diabetes patients at the Paccerakkang Health Center, Makassar City. The design used in this study is pre-experimental with the one group pre-posttest design method.

2.2 Research Location and Time

This research will be carried out at the Paccerakkang Health Center in Makassar City from April to August 2022.

2.3 Population and Sample

Population is an object or data with certain criteria to be investigated (Nursalam, 2016). The population in this study was all people with type 2 diabetes mellitus who were willing to be studied at the Paccerakkang Health Center in Makassar City. The total population was 599 starting from January to July 2021, so that the average population in this study was 85 people. The sample is part of an affordable population that can be used as a research subject through sampling (Nursalam, 2016). The large sample in this study was obtained using the sloving formula (Nursalam, 2017). So that 46 respondents were obtained.

3. Results and Discussion

3.1 General Characteristics of Respondents

Table 2
Characteristics of respondents by gender

No	Gender	Frequency	Percentage (%)
1	Man	18	39
2	Woman	28	61
	Sum	46	100

Based on the table, it shows that most of the respondents are female, namely 28 respondents (61%).

Table 3.
Characteristics of respondents by age

No	Age	Frequency	Percentage (%)
1	25-35 year	1	2
2	36-45 year	4	7
3	46-55 year	22	48
4	56-65 year	14	30
5	>65 year	5	11
	sum	46	100.0

Based on the table above, it shows that most respondents are between the ages of 46-55 years, namely 22 respondents (48%).

Table 4.
Characteristics of respondents by education

No	Education	Frequency	Percentage (%)
1	No school	0	0
2	Primary school	0	0
3	Junior High School	9	19
4	High School	26	56
5	College	11	23
	Sum	46	100

Based on the table above, it shows that most of the respondents have a high school education, namely 26 respondents (56%).

Table 5.
Characteristics of respondents based on marital status

No	Marital Status	Frequency	Percentage (%)
1	Marry	33	72
2	Unmarried	0	0
3	Widow/widower	13	28
	Sum	46	100

Based on the table above, it shows that almost all respondents have married status, namely 33 respondents (72%).

Table 6.
Characteristics of respondents by employment status

No	Work	Frequency	Percentage (%)
1	Not working /Housewife	18	39
2	Farmers / Traders / Laborers	6	13
3	Private employees	10	21
4	PNS /TNI / POLRI	9	19
5	Miscellaneous	3	6
	Sum	46	100.0

Based on the table above, it shows that most of the respondents are not working or as housewives, namely as many as 18 respondents (39%).

3.2 Univariate Analysis

Table 7.
The level of self-efficacy of people with type 2 DM before self-help group is carried out

No	Self efficacy	Frekuensi	Presentase (%)
1	Very low	5	10
2	Low	24	52
3	Keep	13	28
4	Tall	4	8
	Total	46	100.0

Based on the table above, it shows that most of the respondents before the self-help group intervention had a low level of self-efficacy, namely 24 respondents (52%).

Table 8.
The level of self-help groups of people with type 2 DM after self-help group

No	Self help group	Frekuensi	Presentase (%)
1	Low	3	6
2	Keep	25	54
3	Tall	15	32
4	Very high	3	6
5	Total	46	100.0

Based on the table above, it shows that most respondents after a self-help group intervention had a moderate level of self-efficacy, namely 25 respondents (54%).

3.3 Bivariate Analysis

Table 9.
Analysis of the effect of self-help group on the self-efficacy of dm type 2 sufferers at the Pacerakkang Health Center, Makassar City

No	Self Efficacy	Measurement Results			
		Before		After	
		Frekuensi	Presentase (%)	Frekuensi	Presentase (%)
1	Very low	5	10	3	6
2	Low	24	52	25	54
3	Keep	13	28	15	32
4	Tall	4	8	3	6
5	Very high	46	100.0	46	100.0
	Sum	5	10	3	6

Uji Wilcoxon Signed Ranks Test p value = 0,000 < ($\alpha = 0,005$)

Based on the table above above, it is known that of the 46 respondents with type 2 DM at the Pacerakkang Health Center in Makassar City before the self-help group intervention, most of them had low self-efficacy, namely 24 respondents (52%), and after two self-help group interventions, it was found that most of the respondents had moderate self-efficacy, namely 15 respondents (32%). Based on the results of the Wilcoxon Signed Ranks Test ρ value = 0.000 with a value of $\alpha = 0.05$. So that the value of ρ 0.000 < 0.05 then H0 is rejected and H1 is accepted, which means that there is an influence of self-help group on the self-efficacy of dm type 2 sufferers at the Pacerakkang Health Center, Makassar City.

3.4 Discussion

The foot care self-efficacy index score also increased significantly. The pre-test result was 3.30 and the post-test result was 5.0333. This increase in scores is due to the increased knowledge gained from the support group about foot care in DM patients to prevent complications. This has been stated by Rusnoto et al. (2017) DM patients who get foot treatment to prevent diabetic ulcers say it is more common due to knowledge factors

The implementation of self-help groups can be divided into two phases, namely the formation and implementation of self-help groups. The first meeting in the founding phase and the group understood the self-help group and the five steps. group. At the second and subsequent meetings,

we performed five steps: the group made a list of problems facing members, the group discussed problem solving, and the group chose one of the appropriate problem-solving methods. The problems each member faces are based on a list of problem solutions created. Three problem themes were identified in the group session. These problems include stress management, sleep disturbances, and drug-induced boredom.

Almost all participants had the same problem coping with stress. In the process of adaptation and acceptance of chronic diseases, a person's ability (coping mechanism) in the face of life problems becomes important (Parildar et al., 2014). Proper coping mechanisms reduce stress levels and stabilize blood sugar levels. In the discussion panel, three participants who experienced the same complaints learned effective ways to deal with stress, such as first pursuing their favorite hobbies such as cooking and gardening, then practicing worship according to the Qur'an, I shared the methods I found.

The next topic is insomnia in diabetics. This problem is a fairly high comorbidity that occurs in diabetics. Patients' sleep disorders are associated with various complications such as nocturnal seizures, paraesthesias, and uncontrolled blood glucose (Zhu et al., 2014). Another study found that shorter sleep times in diabetic patients were significantly associated with impaired glucose tolerance (Gottlieb et al., 2005).

Regarding insomnia, some participants with similar problems shared ways to cope with insomnia, such as spending time without sleep on other activities and reducing sleep during the day. Because it is caused by hyperglycemia, participants gave advice to ensure that blood glucose is stable and controlled.

The next issue is drugs to overcome boredom based on the research of Eroglue et al. (2014), the non-compliance rate of diabetes drug consumption is up to 70%. The group cited several causes of violations of medication adherence, including lack of motivation when taking medications and difficulty remembering drinking schedules. Participants with the same problem said they would return to taking medication if they experienced complications such as blurred vision, headaches, and tingling, and said if these symptoms looked weak they would be painful. , Must lie down. for a long time.

The solution to overcoming the boredom of treatment is to imagine worse complications, stick to treatment to avoid unexpected complications, participants are believed to be more enthusiastic about themselves Another solution to getting a treatment regimen is to schedule a drink every day or by asking. To be remembered by families, WhatsApp groups are also used as a feature to remind each other between group members.

This self-help group activity involves DM patients with similar problems and provides mutual social support. This is supported by the theory that social support increases when a person joins a support group. There is comfort and freedom in feeling alienated from people with similar problems and understanding each other's emotions (O'Brien et al., 2013). In a study by Renban et al. (2017) We found a significant association between social support and self-care activity for DM patients. With low social support, DM patients experience emotional impairment, lack of motivation, vigor, and self-efficacy or self-confidence during DM treatment.

Self help groups are also an effective way to learn from the experiences of others, which is a source of self-efficacy. The experience of others is the experience gained from the social model. Observing the successes of others can improve your self-efficacy, while observing character failures equivalent to you can discourage what your character has long denied. The self-help group is the right choice of intervention and has a strong impact on self-efficacy because they learn from the experiences of others, since the amount observed is different from the observer's self, since the substitute effect is not significant (Kott, 2008) To perform. Correct health behaviors struggling through observation and imitation can improve self-efficacy (Kusuma, 2013).

This research is in line with research conducted by Herlina and Sitorus (2016) which obtained the results of multiple logistic regression analysis. It turns out that the ORExp value (B) of the experience of others is 0.195 (OR <1 = protective factor). This means that respondents are more likely to use the experiences of others 0.567 times to manage diabetes. Self-efficacy is better than those who do not take advantage of the experiences of others.

4. Conclusion

Analysis of the influence of self-help groups on the self-efficacy of dm type 2 sufferers at the Pacerakkang Health Center, Makassar City. The results of the statistical test using the "Wilcoxon Signed Ranks Test" test where the result of the value $\rho = 0.000$ with a value of $\alpha = 0.05$ was obtained. The value of $\rho = 0.000 < 0.05$ then H_0 is rejected and H_1 is accepted, which means that there is an influence of self-help group on the self-efficacy of dm type 2 sufferers at the Pacerakkang Health Center, Makassar City. The increase in respondents' self-efficacy after self-help group intervention was also based on an increase in the average of all self-efficacy indicators in the post-test questionnaire. The increase in the value of the index which has increased significantly affects eating habits and the BBI index. The meal regulation index and BBI score before the test were 24.53, but it increased to 33.3667 after the test. This is due to an increase in information or knowledge from DM patients about the importance of food intake or dietary arrangements so that DM management can be obtained through support groups. As reported by Sumjangkut et al. (2013) We found that the importance of dietary regulation, improper eating habits, and lack of information about the frequency of irregular diets by each job led to uncontrolled food intake. Phitri and Widyaningsih (2013) state that an increase in scores or adherence to eating habits can also be influenced by accepted motives. Lack of motivation leads to laziness and boredom associated with the nutritional principle of DM.

References

- Aglen, B., Hedlund, M., & Landstad, B. J. (2015). Self-help and self-help groups for people with long-lasting health problems or mental health difficulties in a Nordic context: A review. *Scan J Public Health*, Vol. 39, No. 8, September 2011, Hal. 813–822.
- Ahmadi, K. (2016). What is a Self-Help Group? Available at: <https://psychcentral.com/lib/what-is-a-self-help-group/> (Diakses tanggal: 27 October 2018).
- American Diabetes Associations. (2018). Living with Diabetes Mellitus. <http://www.diabetes.org/living-with-diabetes/> (Diakses tanggal 20 September 2018).
- Amila, A., Sinaga, J., dan Sebiring, E. (2018). Self Efficacy dan Gaya Hidup Pasien Hipertensi. *Jurnal Kesehatan*. Vol. 9, No. 3, November 2018, Hal. 360-365.
- Apriani, S., Raksanagara, A., & Sari, C. (2013). Pengaruh Program Edukasi dengan Metode Kelompok terhadap Perilaku Perawatan Diri Pasien Diabetes Mellitus Tipe 2. *E-Journal Keperawatan*.
- Ariani, Y., R. Sitorus dan D. Gayatri. (2012). Motivasi dan Efikasi Diri Pasien Diabetes Melitus Tipe 2 dalam Asuhan Keperawatan. *Jurnal Keperawatan Indonesia*. Vol. 15, No. 1, Maret 2012, Hal 29-38.
- Ariani, Yesi. (2011). Hubungan antara Motivasi dengan Efikasi Diri Pasien DM Tipe 2 dalam Konteks Asuhan Keperawatan di RSUP. H. Adam Malik Medan. Tesis, Depok: Magister Ilmu Keperawatan Fakultas Keperawatan Universitas Indonesia.
- Bandura, A. (2009). *Societies, Self-Efficacy in Changing*, New York: Cambridge University Press.
- Bijl, J.V., Eelthink, V.P., dan Baggett, L.S. (1999). The Psychometric Properties of The Diabetes Management Self-Efficacy Scale for Patients with Type 2 Diabetes Mellitus. *Journal of Advanced Nursing*. Vol. 30, No. 2, August 1999, Hal: 352-359.
- Corwin, J. (2009). *Buku Saku Patofisiologi Edisi revisi 3*. Jakarta: EGC.
- Deghan, Hajar, A. Charkazi., G.M. Kouchaki., et al. (2017). General Self Efficacy and Diabetes Management Self Efficacy of Diabetic Patiens Reffered to Diabetes Clinic of Aq Qala, North Iran. *Journal of Diabetes Metabolic Disorders*. Vol. 16, No. 8, Februari 2017, Hal 1-5.
- Eroğlu, S. Ç., Şensoy, F., Beydağ, K. D., & Kiyak, M. (2014). Compliance with diabetic patients with diabetes and requirements of taking education. *Procedia-Social and Behavioral Sciences*, Vol. 152, Hal: 457-464.
- Frank, M. A. (2011). The pillars of the self-concept; self-esteem and self-efficacy. from <https://www.excelatlife.com/articles/selfesteem.htm>(Diakses tanggal: 1 Maret 2018).
- Ghufron, N., dan S. R. Rini. (2017). *Teori-Teori Psikologi*. Jogjakarta: Ar Ruzz Media.
- Gottlieb, D. J., Punjabi, N. M., Newman, A. B., Resnick, H. E., Redline, S., Baldwin, C. M., & Nieto, F. J. (2005). Association of sleep time with diabetes mellitus and impaired glucose tolerance. *Archives of internal medicine*, Vol. 165, No. 8, April 2005, Hal. 863-867.
- Indrayana, Sandhi. (2016). Pengaruh Diabetes Self Management Education and Support (DSME/S) Terhadap Efikasi Diri Klien Diabetes Mellitus (DM) Tipe 2 Di Wilayah Kerja Puskesmas Patrang Kabupaten Jember. Skripsi. Jember: Universitas Jember.

- International Diabetes Federation. (2018). IDF Diabetes Complications Congress 2018. <https://www.idf.org/our-activities/congress/hyderabad-2018.html> (Diakses tanggal : 25 Juni 2018).
- Ismatika, Umdatus Soleha. (2017). Hubungan Self Efficacy dengan Perilaku Self Care Pasien Pasca Stroke di Rumah Sakit Islam Surabaya. *Jurnal Ilmiah Kesehatan*, Vol. 10, No. 2, Agustus 2017, Hal 139-148.
- Kott, K.B. (2008). Self-Efficacy, outcome expectation, self-care behavior and glycosylated hemoglobin level in persons with type 2 diabetes. Diunduh tanggal 18 Mei 2014 dari <http://proquest.umi.com/pqdweb>.
- Kusuma, H. (2013). Hubungan antara Motivasi dengan efikasi diri pada Pasien Diabetes Mellitus tipe 2 di Persadia Salatiga. *Jurnal Keperawatan Medikal Bedah*. Vol. 1, No. 2, November 2013, Hal. 132-141.
- Messina, Rossela., R. Paola., J. Sturt., M. Tatiana., et al. (2018). Assessing Self Efficacy in Type 2 Diabetes Management : Validation of The Italian Version of The Diabetes Management Self Efficacy Score (IT- DMSES). *Health and Quality of Life Outcomes*, Vol. 16, No. 71, April 2018, Hal 1-9.
- Mertha, I. M., Ribek, I., & Widastra, I. (2016). Kelompok Swabantu Diabetes terhadap Pengetahuan dan Kepatuhan Kontrol Pasien Diabetes Mellitus di Puskesmas IV Denpasar Selatan Tahun 2015. *Jurnal Skala Husada* Vol. 13, No.2, September 2016, Hal: 165-176.
- Mugihartandi, Rosa, E. M. and Afandi, M. (2015). Efektifitas Self Help Group Terhadap Kualitas Hidup Pada Pasien Gagal Ginjal Kronik. Thesis, Yogyakarta: Faculty of Medicine and Health Science Universitas Muhammadiyah Yogyakarta.
- Nursalam. (2016). *Metodologi Ilmu Keperawatan Pendekatan Praktis Edisi 4*. Jakarta: Salemba Medika.
- O'Brien, P., Kennedy, W., & Ballard, K. (2013). *Keperawatan Kesehatan Jiwa Psikiatrik: Teori dan Praktik*. Jakarta: EGC.
- Okatiranti, E. I., dan F. Amelia. (2017). Hubungan self efficacy dengan perawatan diri lansia hipertensi. *Jurnal Keperawatan BSI*. Vol. 5, No.2, September 2017, Hal:130-139.
- Parildar, H., Cigerli, O., & Demirag, N. G. (2015). Depression, coping strategies, glycemic control and patient compliance in type 2 diabetic patients in an endocrine outpatient clinic. *Pakistan journal of medical sciences*, Vol. 31, No.1, Hal. 19-24.
- Perhimpunan Endokrinologi Indonesia (PERKENI). (2015). *Pengelolaan dan Pencegahan DM Tipe 2 di Indonesia*. <https://id.scribd.com/doc/310474800/Perkeni-Diabetes-Mellitus> (Diakses tanggal : 3 Maret 2020).
- Phitri, H. E., & Widyaningsih. (2013). Hubungan antara Pengetahuan dan Sikap Penderita Diabetes Mellitus dengan Kepatuhan Diet Diabetes Mellitus di RSUD AM. Parikesit Kalimantan Timur. *Jurnal Keperawatan Medikal Bedah* 1(1), 58-74.
- Piette, J.D., C. Richardson., dan M. Valenstein. (2004). Addressing the Need of Patients with Multiple Illness: The Case of Diabetes and Depression. *The American Journal of Managed Care*. Vol. 10, No. 2, Februari 2004, Hal: 152-162.
- Potter. P. A. & Perry, A.G. (2005). *Buku Ajar Fundamental Keperawatan; Konsep, Proses dan Praktek*, Jakarta: EGC.
- Prakoso, D., Asdie, A., & Pramono, B. (2016). The Effectiveness of Self help group Therapy to Type 2 Diabetic Women with Comorbid Depression. *Globalizing Asia: Integrating Science, Technology and Humanities for Future Growth and Development*. Hal: 203-209.
- Puskesmas Paccerrakkang, (2021). *Profil Puskesmas Paccerrakkang Kota Makassar Sulawesi Selatan*
- Putra, P. S. P. dan L. K. P. A. Susilawati. (2018). Hubungan Antara Dukungan Sosial Dan Self Efficacy Dengan Tingkat Stres Pada Perawat Di Rumah Sakit Umum Pusat Sanglah Putu Surya Parama Putra Dan Luh Kadek Pande Ary Susilawati. *Jurnal Psikologi Udayana*. Vol. 5, No. 1, April 2018, Hal :145-157.
- Rashid, Aneesa, A., Z, Hamzah., dan T. Chai-Eng. (2018). Social Support, Self Efficacy and Their Correlation Among Patients with Type 2 Diabetes Mellitus: A Primary Care Perspective. *Med J Malaysia*. Vol. 73, No. 4, Agustus 2018, Hal : 197-201.
- Rembang, V. P., Katuuk, M. E., & Malara, R. (2017). Hubungan Dukungan Sosial dan Motivasi dengan Perawatan Mandiri pada Pasien Diabetes Melitus Tipe 2 di Poliklinik Penyakit Dalam RSUD Mokopido Toli-Toli. *e-journal Keperawatan*, Vol. 5, No. 1, Februari 2017, Hal. 1-10.
- Riskesdas. (2019). *Laporan Provinsi Sulawesi Selatan Riskesdas 2019*. Badan Penelitian dan Pengembangan Kesehatan (Vol. 110). Diambil dari <http://ejournal2.litbang.kemkes.go.id/index-php/lpp/article/view/3658>
- Rusnoto, Chandiq, N., & Winarto. (2017). Pengetahuan dan Kepatuhan Kontrol Gula Darah sebagai Pencegahan Ulkus Diabetikum. *The 6th University Research Colloquium 2017 Universitas Muhammadiyah Malang*.
- Self Help Nottingham. (2005). *Self Help Group*. <http://www.selfhelp.org.uk> (Diakses tanggal :11 Februari 2008).
- Smeltzer, Susan C. (2013). *Keperawatan Medikal Bedah Brunner & Suddarth*. Jakarta :EGC
- Sugarman., M. (2000). *Peer Conseling and Help Group fasilitation for People*. <http://www.mnsu.edu> (Diakses tanggal : 20 Februari 2008).

- Sumjangkut, S., Supit, W., & Onibala, F. (2013). Hubungan Pola Makan dengan Kejadian Penyakit Diabetes Melitus Tipe-2 di Poli Interna BLU. RSUP. Prof. Dr. R. D. Kandou Manado. *Ejournal Keperawatan* 1(1).
- Tejada-Tayabas, L. M., & Lugo, M. J. R. (2014). The role of mutual support groups for the control of diabetes in a Mexican City: Achievements and limitations from the patients' perspective. *Health*, Vol. 6, No. 15, August 2014, 1984-1993.
- Utami, T. W. (2008). Pengaruh Self Help Group Terhadap Kemampuan di Kelurahan Sindang Barang Bogor. Skripsi. Depok: Fakultas Ilmu Keperawatan Universitas Indonesia.
- Wantiyah, Sitorus, R., Gayatri, D. (2010). Faktor-Faktor Yang Mempengaruhi Efikasi Diri Pasien Penyakit Jantung Coroner Dalam Konteks Asuhan
- Winahyu, Karina Megasarai., dan A. Badawi. (2016). Hubungan Antara Motivasi dengan Efikasi Diri pada Pasien DM Tipe 2 di Puskesmas Batuceper Kota Tangerang. *JKFT*, Vol. 2 No.2. Januari 2016 , Hal : 70-75.
- Zhu, B. Q., Li, X. M., Wang, D., & Yu, X. F. (2014). Sleep quality and its impact on glycaemic control in patients with type 2 diabetes mellitus. *International Journal of Nursing Sciences*, Vol. 1. No. 3, Hal. 260-265.