The Relationship of Personal Factors and Family Support with Self-Management of Diabetes Mellitus Patients in Posbindu Working Area of Pisangan Puskesmas City of Tangerang Selatan

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Abstract

Based on data from the International Diabetes Federation in 2014 it was found that that increase in type 2 diabetes every year in every country and by 2035 it is estimated diabetes sufferers increase to 592 million people, and Indonesia is in 7th place. Diabetes is a disease degenerative that happened lifetime live. Diabetics will having hard times consequence changes in him, so that need endorsement from people around especially endorsement family for help him in dick pattern life and care management self families with diabetes. Diabetes is a disease chronic need management self diabetes for prevent serious complications. Study this aim for identify connection Among endorsement family with management self people with diabetes mellitus in Posbindu work area public health center South Tangerang City Banana. Design in study this use approach quantitative cross-sectional design with sample as many as 35 respondents. Data analysis using Chi Square test. Research results show that no there is connection Among endorsement family with management self diabetes with significance (p value = 0.274 at = 0.05). Researcher recommend the need deployment information related management self through counseling and also needed visit House for those who don't can present to posbindu because condition not physical possible, at once motivate family for help diabetics in control management self for prevent and avoid ongoing complications.

I. Introduction

Diabetes mellitus is a metabolic disease with be marked happening enhancement rate glucose in blood, result the disturbance insulin secretion, insulin activity or both (Smeltzer & Bare, 2008). Diabetes mellitus alone shared into 2 types that is diabetes mellitus types 1 and 2, and cases most often type 2 diabetes mellitus occurs with the percentage is 90-95% (IDF, 2013). Based on data from the International Diabetes Federation (IDF) it was found that that total Type 2 DM patients increase each year in various countries. In 2013, it was obtained as many as 382 people with diabetes mellitus, and cause 5.1 million death and suffering died every six the second. Estimation By 2035 people with diabetes will increase to 592 million people, and Indonesia is in 7th place among ten countries of the world with order under China, India, United States of America, Brazil and Mexico (IDF, 2014). Diabetes is a disease one disease degenerative with case the most after hypertension. Family life is bound by the existence of relationships between family members. Relationships in the family can be viewed from the dimensions of blood relations and social relations. The family in the dimension of blood relations is a unit that is bound by the relationship or blood relations between one another. While in the dimensions of social

relations, the family is a unit that is bound by the existence of interconnected or interacting and influencing each other with each other even though among them do not have blood relations. (Djamarah in Hendra,Y. et al. 2019)

Frequent complications _ caused by diabetes mellitus disturbance vessels blood macrovascular nor microvascular like heart, arterial vascular disease, failure kidney damage _ nerves and blindness. Amount the resulting complications make quality life somebody from aspect physical, psychological, financial, social. For prevent or lower risk drop quality What a life for people with diabetes mellitus good if conducted controlling by routine by individual that alone or from party family, as role supporter management diabetes mellitus (Golien, et al in Ronquillo et al, 2003).

Management self is one _ method maintenance self individual in Thing increase health individual and well- being they itself, which consists of from life stay, fulfill social, emotional and social needs psychological, caring condition period long them and for prevent impact others (UK Department of Health, 2005 in Koetsenruijter, 2014). For guard rate adequate glycemic, sufferers _ usually follow the management regimen self involved _ controlling rate glucose blood by routine, diet modification, exercise organized, education and giving medicine. Diet collaboration and negotiation, providers service health, member family, and others (Ciechanowski, 2004 in Mahfoue, et al, 2011).

Management self in people with diabetes mellitus is a very task _ challenging the needy high dedication to self _ every patient and supported role family as well as the energy medical (Bean, 2007). See importance management self people with diabetes mellitus for support enhancement quality life patient, researcher interested for do study related connection endorsement family with management self DM patients in Posbindu Work Area Public health center South Tangerang City Banana 2016.

II. Research Method

Study this use approach quantitative with a cross sectional design namely in patients with diabetes mellitus in Posbindu in the Puskesmas area Pisangan South Tangerang City 2016. Respondents study this taken with use total sampling technique with criteria inclusion that is age > 45 years old, live together family, and can communicate with good. On research this conducted in accordance with procedures that apply to the institution as well as the local area, then researcher come to the destination posbindu, asking for agreement respondent, read out questionnaire and explain pound-point in questionnaire and last ask respondent for fill in questionnaire that. The time of this data collection in April - May 2016, with use the support instrument taken family _ from Hensarling Diabetes Family Support Scale (HDFSS) developed by Hensarling (2009) and questionnaire management self The DMSQ developed by the Research Institute Diabetes Academy Mergentheim who already tested validity and reliability the questionnaire.

III. Result and Discussion

3.1 Analysis Univariate
Results obtained from study this is characteristics patients consisting of from age , type gender , level education , caring family _ DM patients , levels glucose blood and long suffering from DM. Plus with two variables , namely description Endorsement Family and Management Self diabetes and sugar control blood type II DM patients in respondents posbindu at Puskesmas Bananas in (Table 1).

On research this obtained respondent as many as 35 people with three group age that is age mid 45-59 years old as many as 22 people (62.9%) total 60-75 years old as many as 11 people (31.4%) and Friday age 76-90 as many as 2 people (5.7%). Respondent manifold sex man as many as 5 people (14.3%) and women as many as 30 people (85.7%). Respondent 's average education level that is graduate school elementary school (SD) as many as 1 person (51.4%), and subsequent data seen in (Table 2). Amount patient who lives together biased family with Husband, Wife, Children or with father/ mother, seen from results that the most average diabetics live _ together husband with total as many as 14 people (40%), wife as many as 6 people (17.1%), Children as many as 13 people (37.1%), and father/ mother as many as 2 people (5.7%). Glucose level blood when the average respondent ranges from between 224.46-274.05 mg/dl. With Mark the lowest was 148 mg/dl and the highest was 499 mg/dl. Almost whole respondent suffering from diabetes mellitus in range 1-5 years time as many as 32 people (91.4%), the rest in range time > 6 years. Variable second in analysis univariate this that is description management self where result not enough good as many as 19 people (54.3%) and good as many as 16 people (46.7 %). Variable third that is Endorsement family majority not enough good with the number of 22 people (62.9%) and good as many as 13 people (37.1%).

Table 1. Analysis Univariate Characteristics Respondent

Variable	Frequency (n)	Percentage (%)
Age		
- **45-59 years old**	22	62.9%
- **60-75 years old**	11	31.4%
- **76-90 years old**	3	5.7%
Type sex		
- **Man**	5	14.3%
- **Woman**	30	85.7%
Education		
- **Not school**	**5**	**14.3%**
- **SD**	**18**	**51.4%**
- **junior high school**	**7**	**20.0%**
- **senior High School**	**4**	**11.4%**
- **College _**	**1**	**2.9%**
Caring Family _ DM sufferers		
- **Husband**	14	40.0%
- **Wife**	6	17.1%
- **Child**	13	37.1%
- **Father/ Mother**	2	5.7%
Glucose Level Blood When		
- **224.46-274.05 mg/dl**	35	95%
Long time suffering from DM		
- **1-5 years**	32	91.4%
- **6-10 years**	2	5.7%
- **> 10 years**	1	2.9%
Description Endorsement Family		
- **Well**	13	37.1%
- **Not enough good**	22	62.9%
Description management Self		
- **Well**	16	46.7%
- **Not enough good**	19	54.3%

3.2 Analysis Bivariate
a. Connection Characteristics Respondents: Age, Type Gender, Education Level, Length of Suffering from DM, With Management Self DM sufferers

Analysis result connection age with management self known majority age patient with management self good there are 56-75 years old with standard 7.055-year deviation means scatter the data big so that Mark the data varies. Patient management _ self not enough good average age is 59-93 with standard deviation 9.625 years. From the results of statistical tests obtained Pvalue of 0.266, meaning that at 5% alpha it is not there is difference in mean age Among patient management self good compared to with patient management self not enough good.

Analysis result long - standing relationship with DM management self It is known that the patient 's average length of diabetes suffers with management self good there are 3.06 years with standard deviation 5,859 years means scatter the data big so that Mark the data varies. Patients with poor management _ both the average length of suffering from DM is 1.53 with standard deviation 1.124 years. From the results of statistical tests, it was found that the duration of suffering from DM was between patient management self good compared to with patient management self not enough good. Table 2

Table 2. Distribution Description Connection Age and Length of Suffering from DM with Management Self Diabetes Mellitus Patients

Variable	N	mean	SD	Pvalue
Age & Management self				
- Well	20	56.75	7,055	0.266
- Not enough good	15	59.93	9,625	
Long suffering from DM & management self				
- Well	16	3.06	5,859	1,270
- Not enough good	19	1.53	1,124	

Analysis result that known type of respondent sex man with management good self _ there are 2 people (40%) of the total number men. Whereas type of respondent sex woman there are 14 people (46.7%) out of 30 respondents who have management good self. _ From the statistical test results obtained Mark probability (Pvalue e = 1,000) means that at 5% alpha it is not there is meaningful relationship _ Among type sex with management self.

Analysis result on known respondents who have education low with management good self _ there were 13 people (43.3%) out of 30 people. Whereas educated respondents _ tall there are 3 people (60%) out of 5 respondents who have management good self. _ From the statistical results obtained Mark probability (P- value = 0.835) means that at 5% alpha it is not there is meaningful relationship _ Among level education with management self.

The results of the analysis that can be seen on respondents who have endorsement family good with management good self _ there were 8 (61.5%) of 13 people. Whereas respondents who have endorsement family good there are 8 people (36.4%) out of 22 respondents, who have management good self. _ From the results of statistical tests obtained when probability (Pvalue = 0.274), meaning that at 5% alpha it is not there is meaningful relationship _ Among endorsement management self DM patients, can our see Table 3.

Table 3. Distribution Description Connection Type Gender, Education Level and Support Family with Management Self Diabetes Mellitus Patients

Variable	Management Self				Total		OR (95%CI)	Pvalue
	Well		Not enough good					
	N	%	N	%	N	%		
Type sex								
- Man	2	40%	3	60%	5	100%	0.762 (0.111-5.237)	1,000
- woman	14	46.7%	16	53.3%	30	100%		
Education level							0.510 (0.074-3.510)	0.835
- tall	13	43.3%	17	56.7%	5	100%		
- low	3	60%	2	40%	30	100%		
Endorsement family							2,800 (0.680-11,530)	0.274
- Well	8	61.5%	5	38.5%	13	100%		
- Not enough good	8	36.4%	14	63.6%	22	100%		
Total	16	45.7%	19	54.3%	35	100%		

3.3 Description Characteristics Respondent

In study this obtained group frequent age _ caught diabetes mellitus in range 49-59 years old as many as 22 people (62.9%). This thing in line with research conducted by Tamara, 2014 at Arifin Achmad. Hospital Riau Province that of 46 respondents with diabetes mellitus, 21 of them 45-55 years old. Also, in line with study from Ferawati, 2014 that DM patients at the age of mid 45-59 years old more a lot. Case most are also experienced by those who are sex female. Where is the research data shows 5.7% of respondent's women with DM. in line with research conducted by Arifin et al 2014 that respondent manifold sex woman riskier tall for got DM with the number of 24 respondents (52.2%).

Education level join as well as in influence DM patients, where? from results study this obtained majority respondent with education most recent elementary school in study this namely 51.4%. However, _ no close possibility respondents who have education the end of middle school, high school, and college can also or even Possible affected by DM. This thing in accordance with research conducted by Styorogo & Trisnawati (2013), that no there is connection Among level education with occurrence of diabetes mellitus.

Connection family with DM patients in study this found 14 people (40.0%) as husband, 6 people (5.7%) as wife, 13 people (37.1%) as children, and 2 people (5.7%) as fathers/ mothers. This thing in line with research conducted _ Triyanto, (2010) there are meaningful relationship _ Among connection endorsement a husband with coping wife because of them accept attention from husband. Then the main factor problem from diabetes mellitus that is rate glucose blood when it becomes role main. Where found results rate glucose blood when DM patients were 249.26%, the median was 231 mg/dl and the standard deviation 72.178 mg. dl with rate glucose blood Lowest is 148 mg/dl and levels of glucose blood the highest was 499 mg/dl. From result rate interval estimation glucose blood when namely 224.46-274.05. So, we are 95% sure that the average rate glucose blood when is in the range of 224.46-274.05 mgl / dl. Somebody said have rate glucose tall if rate glucose when 200 mg/dl, while for rate glucose blood fasting (GDP) 126 mg/dl (Waspadji, 2007).

Based on the data obtained respondent more many suffering from DM already from 1-5 years, as many as 27 respondents (58.7%). This thing because after one year patient touch and feel change or complaint physical and psychological suffer (Rahmat, 2010).

3.4 Description Endorsement Family

Respondents who have endorsement good family _ by 13 or 37.1%, while for endorsement less family _ good as many as 22 respondents or 62.9%. This show that respondents who have endorsement family not enough good more many than respondents who have endorsement good family. _ This thing in line with theory from Salvicion (1989) in Chayantin (2009), support family is role two people who are tied in a connection life in one the place for maintain culture. by general very social support take effect active for lower mortality and can improve health status.

3.5 Description Management Self

Respondent with management self not enough good more many compared to with respondent management good self _ with 19:16 comparison, this show that respondent not enough can in apply management good self. _ This thing in accordance with research conducted by Wahyuningsih, 2014 that part respondent in Thing management self still negative. Ability every individual no same in management self Thing the influenced to what extent individual capable maintain, maintain, and develop four aspects possessed by someone who has _ management good self. _

Connection Characteristics Respondent with Management Self DM Patients in Posbindu Work Area South Tangerang City Health Center

From result analysis related connection characteristics respondents: age, type gender, level education, and long suffering from DM, with management self DM patients found results from all variable the show no existence significant relationship _ because management self DM patients do not peck only with age, type sex or level education. A number of Thing the only Becomes supporter will existence enhancement management self someone. still a lot things that affect efficiency management self someone. The same thing was also explained by Vivienne et al (2007) that age no relate with maintenance self diabetes. The same thing was also explained by Sousa et al (2005) who explained that that type sex give influence to maintenance self diabetes, type sex woman better compared to type sex men, According to Ford, Tilley, and Mc-Donald, (1998), explain that education by positive influence health and control glycemic. Research results this in line with research conducted _ Kusniawati (2011) shows that no there is connection between long suffering from DM and maintenance self diabetes. That's a number of supporting research _ existence results study this.

So, case with endorsement family with management self got results no there is significant relationship _ between both of them with (pvalue =2.743). This thing in accordance with research conducted by Nida, 2015 that no there is connection Among endorsement social with management self p=(-0.042) p it also corresponds to 75 with research conducted by Xu et.al (2008) found that that endorsement social from member family no live influence behavior management self diabetes.

IV. Conclusion

Characteristics respondent people with diabetes mellitus, namely female, >45 years old, educated school basic, caring family sufferer at home most husband and children, the majority have endorsement less family good as much as 62.9%, and managment self DM sufferers still not enough good as much as 54.3%. Related connection characteristics respondents (age, type gender, level education, long suffering from DM, and support family to management self generated no there is significant relationship by whole.

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