

The Resilience Quotient of Diabetic Patients in Tharae Subdistrict Health Promoting Hospital Mueang Sakon Nakhon District Sakon Nakhon Province Suwatsa Punneng^{1*}, Kanokporn Thokaewkhiew¹, Pavinee Kasian¹, Ratchaporn Akkapin¹

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Abstract

The objective of this research was to (1) study resilience quotient status of diabetic patients at Health Promoting Hospital in Tha Rae subdistrict, Mueang district, Sakon Nakhon province and to (2) investigate the resilience quotient development of diabetic patients. This research was done in the form of surveys and interview. The sample population includes 238 diabetic patients. The research methodology includes interviews, general information questionnaire, and resilience quotient assessment's findings from the Department of Resilience quotient. The data of this resilience quotient research findings is analyzed by utilizing quantitative research method which includes percentage, mean and standard deviation. The research findings revealed that the majority of research population or 54.20% falls under the group of healthier (high) resilience quotient than average. Furthermore, the survey showed 87.00% of diabetic patients possess emotional stability, 90.40% of diabetic patients receives emotional support from others and 95% of diabetic patients can handle their daily life problems.

Keywords: Resilience quotient, Diabetic patients, Promoting resilience quotient program, Diabetic patients' resilience quotient

1. Introduction

According to World Health Organization (WHO) report in 2012, there's 1 out of every 10 adults had diabetes which is a the most problematic chronic disease in the 21st century. Additionally, there were 387 million diabetic patients in 2014 and a predicted population of 600 million diabetic patients worldwide in 2030. Data showed that the prevalence of diabetes was 9.00% and this disease caused around 1.5 million deaths in 2012. For Thailand in 2014, there were 11,389 deaths from diabetes or 32 deaths daily. Out of every 100,000 Thai citizen, there was 17.53 diabetes-related deaths. Thai diabetic patients entered hospitals belongs to the Thai Ministry of Public Health a total of 698,720 visits yearly or 1,081.25 visits out of every 100,000 Thai citizens. Furthermore, there were only 37.90% of diabetic patients can control their glucose blood level well (Nuchari Apsuwan, 2015: Online). Department of Resilience quotient (2015: Online) announced that besides taking care of their physical health, diabetic patients also need to take care of their resilience quotient. Diabetic patients can have an

emotional reaction to the news in many ways: some people might feel resentment, in denial, anger, moody, or annoyed towards the changes in their lifestyle after being diagnosed with diabetes. Also, some patients underestimate the significance, neglect changing their lifestyle, and don't realize the importance and fail of diabetic treatment or unable to manage their diabetic disease. Next, diabetes-diagnosed patients will face the risk of falling into depression up to 30%. Understanding the necessity to screen and identify diabetes-diagnosed patients with depression, public hospitals must host events to identify depressed patients with chronic diseases. It is necessary for diabetic patients to change their health behaviors and ideal for them to change their mentality about the situation first to motivate themselves when managing this disease. When you feel discouraged and don't recognize the problem and start helping yourself by making treatment decision, it is very difficult to find happiness. Also, during the tough time, their family members and close ones need to give the patient emotional support. This will aid the patient to continue fighting against his/her disease.

In addition, everyone has a different level of mental strength when dealing with lifestyle changes, adjusting their mindset when facing tough times, and able to continue your daily life after experiencing tragedy. Mental strength includes resilience, optimism and determination (Department of Resilience quotient, 2012: 9). And those possess resilience quotient can overcome difficulties and obstacles in their life well without any following mental disorders. General people should also educate themselves on resilience quotient and always improve their resilience quotient. When facing tough times or sad moments in their lives, this will help them to pass through these moments without any negative impacts on them.

Health Promoting Hospital in Tha Rae subdistrict, Muang district, Sakhon Nakhon province, provided medical clinics for diabetic patients living in Tha Rae subdistrict to come and use their service. There was a total of 238 patients used the clinic's service. Also, data showed that there will be continuous upward growth in the number of patients entering the clinic in the next upcoming years. When comparing to the previous years statistics, a major problem that diabetic patients face is undergoing a lot of distress, which can result in depression. This further causes difficulties in living their daily life and numerous additional obstacles that these patients must face. If the patients have a strong resilience quotient, it can help them to overcome these difficulties and obstacles in their lives. Also, if they can practice having a strong mindset toward changes in their lifestyle and habit, it will become very useful for them when undergoing tough times during their life with diabetes.

Consequently, researchers are now recognizing the importance of the diabetic patient's resilience quotient and to identify if the patient will fall under bad resilience quotient group, normal resilience quotient group or healthier resilience quotient group according to the resilience quotient assessment criteria from Department of Resilience quotient in 2008. This resilience quotient assessment includes 3 resilience quotient criteria: the ability to maintain emotional stability (resilience), the ability to maintain positive morale (optimism) and the ability to manage life problems (determination) (Department of Resilience quotient, 2012: 21-22). In addition, researchers are also examining the development in patient's resilience quotient. These scholars will study from 238 patients under treatment at Health Promoting Hospital in Tha Rae subdistrict, Muang district, Sakhon Nakhon province. Data and information from this research will be used as foundation

information for future involving organizations to use for the applicable benefit and for improving the resilience quotient of these current 238 patient.

2. Objective

2.1. To study the resilience quotient of diabetic patients under treatment at Health Promoting Hospital in Tha Rae subdistrict, Muang district, Sakhon Nakhon province.

2.2. To investigate the resilience quotient development of diabetic patients at Health Promoting Hospital in Tha Rae subdistrict, Muang district, Sakhon Nakhon province.

3. Materials and Method

3.1. Research format

This research utilizes quantitative research method. The research population includes 238 diabetic patients under care of Health Promoting Hospital in Tha Rae subdistrict, Muang district, Sakhon Nakhon province. These 238 patients are both male and female that are diagnosed by doctor to be any type of diabetes. The research is done to study about the resilience quotient state of these patients. The concept and theory from Department of Resilience quotient is applied to this work along with a resilience quotient enhancement program when studying these patients. The resilience quotient enhancement program includes 3 parts:

- Emotionally stability required when adjusting to the new lifestyle and habit caused by being a diabetic including possessing a stable mind, unwavering to challenges and mental control to not get pulled in by the events.
- Keeping positive morale including staying motivated, self-encouragement, and receiving compliments from others.
- Managing problems from a crisis event including negotiation, finding multiple solutions to the problem, overcoming obstacles.

In addition to this, we also came up with our own resilience quotient assessment and interviews to identify if the resilience quotient enhancement program is required by the patients. This resilience quotient assessment includes 3 resilience quotient criteria: the ability to maintain emotional stability (resilience), the ability to maintain positive morale (optimism) and the ability to manage life problems (determination). The resilience quotient assessment took place from The September 2016 until October 2017.

3.2. Research method

This research applied 3 types of interviews: general information interview, resilience quotient

assessment interview from Department of Resilience quotient and resilience quotient promoting program interview. Details are as following:

1) General information interview is designed by researchers to gather general information from the interviewee. There's a total of 8 general information questions regarding gender, age, religion, education, career, income, marital status and current address.

2) Resilience quotient assessment interview from the Department of Resilience quotient in 2008 with a total of 20 questions: 10 questions on emotional stability, 5 questions on positive morale and 5 questions on managing life problems.

Table 1. Resilience quotient Assessment Criteria

Components of Resilience quotient	Points		
	Low	Normal	High
Emotional Stability (Question 1- 10)	<27	27-34	>34
Positive Morale (Question 11 – 15)	<14	14-19	>19
Managing Life Problems (Question 16 – 20)	<13	13-18	>18
Total Points	<55	55-69	>69

Two groups are divided and scored accordingly

Group 1 received survey that included question 2, 3, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 17, 18, 19 and 20.

Each question is scored as follow:

Not true	1 point
Sometimes true	2 points
Relatively true	3 points
Very true	4 points

Group 2 received survey that included question 1, 5, 14, 15, and 16.

Each question is scored as follow:

Not true	4 points
Sometimes true	3 points
Relatively true	2 points
Very true	1 point

3) Resilience quotient promoting program interview is a questionnaire designed by the researchers. There's a total of 20 questions: 9 questions on emotional durability, 5 questions on positive morale and 6 questions on managing life problems. These questions are designed to be answered by a 5-level rating scale as follow:

Strongly agree	5 points
Agree	4 points
Neutral	3 points
Disagree	2 points
Strongly disagree	1 point

And the score range is registered as follow:

1.00 – 1.80 means interviewee's opinion is at the lowest level

1.81 – 2.60 means interviewee's opinion is at a low level

2.61 – 3.40 means interviewee's opinion is at a neutral level

3.41 – 4.20 means interviewee's opinion is at an agreeable level

4.21 – 5.00 means interviewee's opinion is at the most agreeable level

3.3. Data Analysis

Data gathered from the 3 types of interview (general information interview, resilience quotient assessment interview from Department of Resilience quotient and resilience quotient promoting program interview) is analyzed by utilizing quantitative methods such as percentage, mean and standard deviation from a ready-made software. This information is then presented in a grid along text explanation for the reader's convenience.

4. Result

The research's result is divided into 3 parts:

Part 1: General information analysis result of patients

Most diabetic patients are female with 170 patients (71.40%) while there's only 68 male diabetic patients (28.60%). Most of them also falls under the age group of 61 years old and above with 136 patients or 57.10%. Second on the list belongs to the age group between 51-60 years old with a total of 56 patients or 23.50%. The main religion followed by our research population is Christianity with 231 people or 97.10%. Buddhist comes second with 7 patients or 2.90%. Most of our research population finished primary school with 204 people or 85.70%. the second most common education level is Thai's Lower Secondary School with 14 people or 5.90%. Most of our research population is working as farmers with 78 people or 32.80%. Second in the rank are 66 people as stay-at-home mom or dad or 27.70%. Most of the research population earn an income of lower than 3,000 Baht with 142 people or 59.70%. Second in line is 64 people or 26.90% with an income of 3,001 – 5,000 Baht. In terms of marital status, most of the population is married with 158 patients or 66.50%. The following status is widowed with 61 people or 25.60%. Most people are living in their own house with 237 or 99.60% and only 1 patient is living in their rental house or 0.40%.

Part 2: Result of diabetic patient’s resilience quotient undergoing treatment at Health Promoting Hospital in Tha Rae subdistrict, Muang district, Sakhon Nakhon province.

Table 2. Presents the percentage of resilience quotient in all 3 areas

Questions	Opinion Level Amount (Percentage)			
	Never True	Sometimes True	Relatively True	Very True
Emotional Stability Part				
1. I do not feel comfortable when facing little problems	160 (67.20)	35 (14.70)	23 (9.70)	20 (8.20)
2. I don't care when people laugh at me	109 (45.80)	26 (10.90)	6 (2.50)	97 (40.80)
3. I take responsibility and admit my wrongdoing when I make a mistake or damage	5 (2.10)	6 (2.50)	18 (7.60)	209 (87.80)
4. I used to suffer the present for a better future	8 (3.40)	5 (2.10)	8 (3.40)	217 (91.10)
5. I feel very depressed when facing with major problems	96 (40.30)	19 (8.00)	13 (5.50)	110 (46.20)
6. When experiencing hard time, I teach and remind myself	7 (2.90)	5 (2.20)	22 (9.20)	204 (85.70)
7. Suffering during hard times improved me as a person	10 (4.20)	6 (2.50)	16 (6.70)	206 (86.60)
8. I don't keep bad memories from the past to think about	55 (23.20)	18 (7.60)	23 (9.70)	142 (59.70)
9. Even if the problem is heavy, it won't take over my whole life	14 (5.90)	9 (3.80)	20 (8.40)	195 (81.90)
10. When I'm feeling depressed, I have someone to talk to	20 (8.40)	7 (3.00)	21 (8.80)	190 (79.80)

Table 2. Presents the percentage of resilience quotient in all 3 areas (continue)

Questions	Opinion Level Amount (Percentage)			
	Never True	Sometimes True	Relatively True	Very True
Positive Morale Part				
11. From my previous experience, I am confident that I can deal with what life plans for me	7 (2.90)	5 (2.10)	20 (8.40)	206 (86.60)
12. I have family and relatives that support me	5 (2.10)	5 (2.10)	15 (6.30)	213 (89.50)
13. I have future plans for my life	12 (5.00)	5 (2.10)	22 (9.20)	199 (83.60)
14. I feel incompetent to solve my problems when facing with a life crisis	97 (40.80)	23 (9.70)	22 (9.20)	96 (40.30)
15. It's difficult for my life to improve	129 (54.20)	12 (5.00)	21 (8.80)	76 (31.90)
Managing Life Problems Part				
16. When I have to take responsibility for big issues, I just want to run away from it	65 (27.30)	10 (4.20)	22 (9.20)	141 (59.20)
17. Dealing with problems helps me to gain more experience	10 (4.20)	2 (0.80)	26 (11.00)	200 (84.00)
18. During conversation, I find reasonings that everyone can relate and agree with	6 (4.20)	8 (0.80)	24 (10.10)	200 (84.90)
19. I always have a plan B when the situation turns out worse than expected	9 (3.80)	5 (2.30)	30 (12.60)	194 (81.50)
20. I enjoy listening to different opinion than my own.	8 (3.40)	5 (2.10)	27 (11.30)	198 (83.20)

Table 3. Displays the amount and percentage of the classified samples according to the resilience quotient level (N= 238) as follows:

Resilience quotient	Amount	Percentage
Low <55	5	2.10
Normal 55-69	104	43.70
High >69	129	54.20
Total Resilience quotient ($\mu = 69.36, \sigma = 6.59$)		

From Table 3, we can conclude that the majority of diabetic patients or 129 patients (54.20%) have a resilience quotient that is classified as high level or being mentally healthy. Next, 104 patients (43.70%) are classified as normal resilience quotient and the last 5 patients (2.10%) are classified as low resilience quotient. ($\mu = 69.36$, $\sigma = 6.59$)

Table 4. Displays amount, percentage, mean, standard deviation and resilience quotient levels including both overall and classified levels as follow:

Resilience quotient	Amount (N=238)	Percentage
Resilience quotient criteria on emotional stability ($\mu = 32.04$, $\sigma = 4.24$)		
Low <27	23	9.70
Medium 27-34	166	69.70
High >34	49	20.60
Resilience quotient criteria on positive morale ($\mu = 16.63$, $\sigma = 2.92$)		
Low <14	71	29.80
Medium 14-19	107	45.00
High >19	60	25.20
Resilience quotient criteria on managing life problems ($\mu = 20.68$, $\sigma = 2.62$)		
Low<13	8	3.40
Medium 13-18	26	10.90
High >18	204	85.70

From Table 4, we can conclude that the majority of diabetic patients falls into the normal group for both resilience quotient on emotional stability and positive morale. For moral resilience quotient on managing life problems falls into the high group. Details to this is shown as below

For resilience quotient on emotional stability, the majority of diabetic patients falls into the normal group at 69.70%. High group and low group follows as 20.60% and 9.70% accordingly. The average score is presented as follow ($\mu = 32.04$, $\sigma = 4.24$).

For resilience quotient on positive morale, the majority of diabetic patients falls into the normal group at 45%. Low group and high group follows as 29.80% and 25.20% accordingly. The average score is presented as follow ($\mu = 16.63$, $\sigma = 2.92$)

For resilience quotient on managing life problems, the majority of diabetic patients falls into the high group at 85.70%. Normal group and low group follows as 10.90% and 3.40% respectively. The average score is presented as follow ($\mu = 20.68$, $\sigma = 2.62$).

Part 3: Result of diabetic patient's opinion on resilience quotient promoting activity classified into levels

The result of the resilience quotient promoting activity analysis including 3 parts: emotional stability, positive morale and managing life problems of diabetic patients under treatment at Health Promoting Hospital in Tha Rae subdistrict, Mueang district, Sakhon Nakhon province. (N= 238)

Table 5. Shows percentage, mean, standard deviation and the sample group's opinion level on emotional stability part of classified activities of resilience quotient promoting activity

Questions	Opinion Level Amount (Percentage)					μ	σ	Opinion Level
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree			
Emotional Stability Activities								
1. Musical activities such as choir singing or dancing	184 (77.30)	20 (8.40)	11 (4.60)	3 (1.30)	20 (8.40)	4.44	1.19	Strongly Agree
2. Laughter Therapy	179 (75.20)	30 (12.60)	18 (7.60)	3 (1.30)	8 (3.40)	4.55	0.93	Strongly Agree
3. Exercising activities such as aerobics, walking, or running SKT	175 (73.50)	42 (17.60)	11 (4.60)	3 (1.30)	7 (3.00)	4.57	0.87	Strongly Agree
4. Recreational activities such as playing video games or travelling	134 (56.30)	47 (19.70)	21 (8.80)	8 (3.40)	28 (11.80)	4.05	1.35	Agree
5. Relaxation activities such as watching/ listening to comedy, TV programs, music	185 (77.70)	37 (15.50)	5 (2.10)	3 (1.30)	8 (3.40)	4.63	0.87	Strongly Agree
6. Counting numbers activities such as counting sheep to relax when feeling angry	83 (34.90)	49 (20.60)	28 (11.80)	12 (5.00)	66 (27.70)	3.30	1.63	Neutral
7. Massaging/ Self-contacting muscles activities such as holding a fist then release or shoulder shrugging then release	157 (66.00)	49 (20.60)	15 (6.30)	5 (2.10)	12 (5.00)	4.40	1.04	Strongly Agree
8. Hobby activities that can make a living as a secondary income	158 (66.40)	41 (17.20)	11 (4.60)	4 (1.70)	24 (10.10)	4.28	1.26	Strongly Agree
9. Aroma therapy with essential oils, lemon grass scent or citrus scent	146 (61.30)	42 (17.60)	14 (5.90)	7 (2.90)	29 (12.30)	4.13	1.37	Agree
Total	159 (66.80)	57 (23.90)	14 (6.00)	7 (2.90)	1 (0.40)	4.53	0.77	Strongly Agree

From Table 5, we found out that diabetic patients have opinions on resilience quotient activities as follows

For emotional stability part, in general, the opinion level falls under strongly agree segment ($\mu = 4.53$). When analyzing as individual criteria, we can conclude that there are 7 criterias that falls under the strongly agree segment. From the most agreed to least agreed, the list of these 7 criterias are relaxation activities such as watching/ listening to comedy, TV programs, music ($\mu = 4.63$); Exercising activities such as aerobics, walking, or running SKT ($\mu = 4.58$); Laughter Therapy ($\mu = 4.55$); Musical activities such as choir singing or

dancing ($\mu = 4.44$); Massaging/ Self-contacting muscles activities such as holding a fist then release or shoulder shrugging then release ($\mu = 4.40$); and Hobby activities that can make a living as a secondary income. In the next segment, there are 2 criterias that fall under the agree segment which are Aroma therapy with essential oils, lemon grass scent or citrus scent ($\mu = 4.13$) and recreational activities such as playing video games or travelling ($\mu = 4.05$). The only activity that falls into the neutral segment at ($\mu = 3.30$) is Counting numbers activities such as counting sheep to relax when feeling angry.

Table 6. Shows percentage, mean, standard deviation and the sample group's opinion level on positive morale part of classified activities of resilience quotient promoting activity

Questions	Opinion Level Quantity (Percentage)					μ	σ	Opinion Level
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree			
Positive Morale Activities								
1. Consultation from public health authorities	190 (79.80)	38 (16.00)	5 (2.10)	1 (0.40)	4 (1.70)	4.72	0.68	Strongly Agree
2. Hugging Therapy	152 (63.90)	42 (17.60)	21 (8.80)	8 (3.40)	15 (6.30)	4.29	1.16	Strongly Agree
3. Family Bonding activities such as having family unity, eating together, talking together, spending time together	183 (76.90)	36 (15.10)	13 (5.50)	2 (0.80)	4 (1.70)	4.65	0.77	Strongly Agree
4. Massage Therapy such as body massage and foot massage	109 (45.90)	42 (17.60)	7 (2.90)	7 (2.90)	73 (30.70)	3.45	1.75	Agree
5. Self-talk Therapy	207 (87.00)	19 (8.10)	8 (3.40)	3 (1.30)	1 (0.40)	4.80	0.59	Strongly Agree
Total	113 (47.50)	106 (44.50)	16 (6.70)	3 (1.30)	0 (0.00)	4.38	0.55	Strongly Agree

From table 6, we can conclude that most diabetic patients hold a strongly agree opinion towards positive morale part of the health promotion activities ($\mu = 4.38$). However, when analyzing as individual criteria, we can conclude that there are 4 criterias that falls under the strongly agree segment. From the most agreed to least agreed, the list of these 4 criterias are Self-talk Therapy ($\mu = 4.80$); Consultation from public

health authorities ($\mu = 4.72$); Family Bonding activities such as having family unity, eating together, talking together, spending time together ($\mu = 4.65$); and Hugging Therapy ($\mu = 4.29$). The only activity that falls under the agree segment is Massage Therapy such as body massage and foot massage ($\mu = 3.45$)

Table 7. Shows percentage, mean, standard deviation and the sample group's opinion level on managing life problems part of classified activities of resilience quotient promoting activity

Questions	Opinion Level Quantity (Percentage)					μ	σ	Opinion Level
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree			
Managing Life Problems Activities								
1. Praying activities	208 (87.50)	22 (9.20)	1 (0.40)	2 (0.80)	5 (2.10)	4.79	0.69	Strongly Agree
2. Charity activities	200 (84.00)	28 (11.80)	4 (1.70)	1 (0.40)	5 (2.10)	4.75	0.70	Strongly Agree
3. Knowledge sharing activities	194 (81.50)	31 (13.00)	4 (1.70)	4 (1.70)	5 (2.10)	4.70	0.77	Strongly Agree
4. Watching educational videos about religion, fairy tales with moral/life lessons	177 (74.40)	35 (14.70)	12 (5.00)	5 (2.10)	9 (3.80)	4.54	0.96	Strongly Agree
5. Religious activities	199 (83.60)	26 (10.90)	5 (2.10)	4 (1.70)	4 (1.70)	4.72	0.76	Strongly Agree
6. Diabetes seminar hosted by public health authorities	199 (83.60)	25 (10.50)	7 (2.90)	1 (0.40)	6 (2.60)	4.73	0.73	Strongly Agree
Total	206 (86.6)	21 (8.80)	8 (3.50)	3 (1.30)	0 (0.0)	4.70	0.51	Strongly Agree

From table 7, we can conclude that most diabetic patients hold a strongly agree opinion towards managing life problems part of the health promotion activities ($\mu = 4.70$). From the most agreed to least agreed, the list of these 6 criterias. are Praying activities ($= 4.79$); Charity activities ($= 4.75$); Diabetes seminar hosted by public health authorities ($= 4.73$); Religious activities ($= 4.72$); Knowledge sharing activities ($= 4.70$); and Watching educational videos about religion, fairy tales with moral/life lessons ($= 4.54$).

Table 8. Displays amount and percentage of resilience quotient promoting activity including 3 criteria: emotional stability, positive morale and managing life problems as follow

Promoting Program	Opinion Level Amount (Percentage)					μ	σ	Opinion Levels
	Strongly Agree	μ	σ	Opinion Levels	Strongly Disagree			
Emotional Stability	159 (66.90)	57 (23.90)	14 (5.90)	7 (2.90)	1 (0.40)	4.20	0.60	Strongly Agree
Positive Morale	113 (47.50)	106 (44.50)	16 (6.70)	3 (1.30)	0 (0.00)	4.30	0.50	Strongly Agree
Managing Life Problems	206 (86.60)	21 (8.70)	8 (3.40)	3 (1.30)	0 (0.00)	4.70	0.50	Strongly Agree
Total						4.40	0.40	Strongly Agree

From Table 8, we can conclude that in general, diabetic patients strongly agree with the resilience quotient promoting activities ($\mu = 4.40$). When examining diabetic patient's opinions on each individual part, we can conclude the part that diabetic patients agree the most with is managing problem program ($\mu = 4.70$). Positive Morale Program follows at second place with $\mu = 4.30$ and Emotional Stability Program ranks lowest at $\mu = 4.20$.

Additional Research Findings on Survey Sample

This analysis part is a fragment of the entire survey research which focuses on diabetic patients under treatment at Health Promoting Hospital in Tha Rae subdistrict. Gathering information from interviews with the survey sample and listening to their comments, we can analyze and conclude as follow

1) For emotional stability activity, the interviewee gave feedback comments on many aspects. For example: "There's no need to care too much about them. We don't have to rely on them for food", "If there's anything I did wrong, then I would take fully accept my mistakes", "When there's anything problem that I have to face, I usually don't share it with anyone else. I think I should keep it to myself because it's my personal business", "We don't have to attach our feeling with things that happened in the past. We should just focus in the present". After sharing these comments, many diabetic patients would burst out

in laughter, smile and display a relaxing attitude towards the situation.

2) For positive morale activity, the survey sample gave feedback comments on many aspects. One patient said: "My family is my best motivation. Whenever there's any problems, we would talk about it to them". Another one commented: "I have no plans for the future. I am already old. Currently, I'm just spending time with my children and grandchildren". Some other diabetic patients don't have a family, remain single or widowed without the company of children and grandchildren. With this lack of company from children or grandchildren, these patients may not receive the motivation or care that family members can offer to them. Their only support that they can rely on are their cousins and relatives. For example, there is a case of 1 diabetic patient with minor resilience quotient problem. The patient lives alone with any children and grandchildren. On the positive side, she is still living with her relatives in the same village. However, the relatives don't really pay attention or take care of the her anyway. In addition, she has no form of income except receiving social security fund for senior, disabled or unemployed citizen from the government. During the interview, she seemed really depressed and ready to burst out in tears at any point during the conversation. Her facial expression is extremely sad as she said that sometimes she felt that her life had no meaning or value.

3) For managing life problems, the diabetic also gave their feedback comments on many aspects.

One said “Sometimes I want to escape from my life problems, but I don’t have any good reason to do so. Who will take care of my grandchildren? Their parents are working in Bangkok.” Another one commented “I do enjoy listening to other’s opinions, but I don’t like to input any opinion of my own. It is their own business, so I don’t like to get involved”. When managing and solving any life problems, diabetic patients would enjoy listening to other people’s opinion without showing their own opinion. They would also use past or present experience, and support from others to help them solve and manage their life problems successfully.

During the interviews, we also received many other unexpected comments as follow. One said: “When I am distressed, I would listen or sing to music to release stress and have fun”. Another patient commented: “When I feel sad, I would do house chores to forget about my unhappiness”. Another shared: “When I am mad or in distress, I would pray to the gods before sleep to attain peace of mind”. One shared: “When I am feeling furious about something, I would curse and swear anyone or anything. Then the anger will lessen.”

Since our survey sample background is mainly Christian, this would be a factor and support the patients to have a healthier resilience quotient as follow:

1) Emotional Stability Part:

a. Many diabetic patients mentioned about the Christmas Star Parade during their interview. “Christmas Star Parade is a big provincial event. There will be Christmas star marching band on the street. People believe that the star is the symbol of Jesus Christ descending to our world. There will be decorations of big Christmas stars to the marching cars with colorful string lights and pictures that tell the stories of Jesus Christ. The villagers will decorate the star lamp in front of their houses. In addition, there will be other activities such as choir singing, Christmas singing contests, acting out religious plays, entertainment and night market all night”. And from my personal experience, Christians do have a lot of preparation, excitement and happiness from this religious event.

b. Other patients also mentioned about candlelight memorial ceremony. “It is a religious ceremony or culture of Christians in the memory of the deceased. Generally, the event will be hosted once a year or on December the 31st in a sacred forest or at the graveyard.

2) Positive Morale Part:

a. Giving merits and donating is a very common practice by the survey sample. “Donation of goods, money or volunteer work are ways to help

others”. Many Catholics said that these were the teachings of Jesus Christ. Christ taught them the concept of sharing, kindness, forgiveness and helping others. Especially, these acts of kindness are not applied exclusively for Christians. Many commented: “Whenever there’s a volunteer activity for villagers on mountains, I would participate with others. I don’t have money and would contribute by doing volunteer work. The more work I volunteer to do, the better I feel. I don’t wish for anything in return by doing these deeds.”

3) Managing Life Problem Part:

a. Doing prayers are frequently mentioned in the interviews. One commented: “Praying is a form of concentration and making a wish to the gods”. Others commented: “I would pray to Jesus Christ before going to sleep. After praying, she would feel calm and peaceful” while showing us her holy bead bracelets that she always uses to pray with. One more patient shared: “I pray multiple times every night until I calm down and feel better”.

5. Conclusion

From the findings of this research this project, we found out that in general, the resilience quotient of diabetic patients from Health Promoting Hospital in Tha Rae subdistrict, Mueang district, Sakhon Nakhon province, is under the group of healthier (high) resilience quotient than average. Specifically, resilience quotient on emotional stability and positive morale both falls under the normal grade while resilience quotient on managing life problems is classified into the healthier (high) grade. For emotional stability, patients can manage their emotion by thinking positively. For positive morale, patients receive emotional support from their family. For managing life problems, diabetic patients exchange advices between each other to find ways to relieve stress, especially through religious practices. In addition, we also find out that most of the diabetic patients is in the age group of 61-years-old and above with 136 patients (57.10%), which is consistent to Dr. Chatarudee Parayat’s work studying the predicting factors affecting resilience quotient of older adults in 2015. From this study, Dr. Chatarudee Prayat also concluded that half of the survey sample achieved a healthier (high) resilience quotient group. For age group from 60-69 years old, 51% of the patients are still capable of adapting to new changes or managing their own problems and helping others as well. Patients at this age group are still physically and mentally still very healthy. Many of them are very competent and still contribute their family, community or society more than other age groups, according to

Wagnlid and Young (1993). We also found out that their feeling and emotion can greatly affect the self-confidence they have. In addition, the reason for their resilience quotient falls into a healthy (high) group stems the necessity to live alone, self-exist, perseverance and tolerance in their lives.

5.1. Department of Resilience quotient's 3-part assessment

1) Emotional Stability Part:

For this part, we can conclude that diabetic patients fall into the normal group ($\mu = 32.04$) or 69.70%. This result is consistent with the study of Dr. Jansuda Janopakhun about resilience quotient's levels of new graduate nurses under job rotation at Chulalongkorn Hospital. Dr. Janopakhun's study found out that most of the newly graduate nursing staff (74.00%) also falls into the normal group. During the interview, there were many signs that showed diabetic patients can control their emotions. For example, one patient mentioned: "There's no need to care too much about them. We don't have to rely on them for food". Another commented similarly: "If there's anything I did wrong, then I would take fully accept my mistakes". Many adults of the age group 30-60 years old noted: "When there's anything problem that I have to face, I usually don't share it with anyone else. I think I should keep it to myself because it's my personal business". Meanwhile, older adults in the age group 60-70 years old would share: "We don't have to attach our feeling with things that happened in the past. We should just focus in the present". Patients generally will react in a non-serious and take the situation with a pinch of salt. However, in some infrequent cases, interviewees showed a much more serious attitude towards the situation. In conclusion, from the patient's comment, we can deduce that diabetic patients take full responsibility of being diagnosed with this disease, understand their own feelings or emotion, and able to self-control their emotion by not paying attention to things that already happened in the past.

2) Positive Morale Part:

In this part, we found out that diabetic patients fall under the normal group ($\mu = 16.64$) or 66.40%. The finding in this research is consistent with a research team member's previous work, Dr. Chaliya Wamalum. Dr. Chaliya Wamalum's research work studied group-based psychology counseling for cancer patients. The program is designed to support the cancer patient to overcome the obstacles of being diagnosed with cancer. From the work, Dr. Chaliya Wamalum also concluded that the cancer patient's emotional positive morale also falls under the normal group

($\mu = 14.10$). We concluded that under the influence of the chronic diseases, patients must stay positive by themselves and look for external support from their family or close ones. This process of motivation and realization will help them identify their own strengths, weaknesses, and improve the relationship with other individuals in their lives. During the interview, we noted many comments from patients that further supports the research findings. Many diabetic patients usually comment: "I have no plan for the future. There's no reason for me to do so. I'm already old. Nowadays, I only spend time with my children and grandchildren." Elders under the age group of 60 years old and above regularly shared: "My family is my best motivation. Whenever there's anything in my mind, I would talk and discuss with them". There is a group of elderly patients that are living alone, without the care and motivation that children and grandchildren. They can only rely on their cousins and relatives. There is a case of an elder patient that lives alone. She has minor mental problems and her only caretaker is the relatives from the same village that pays very little attention to her. She has no income but social security funds from the government. During the interview, she was very depressed while answering: "Sometimes, I feel like I have no value or meaning to my life. There's no one that will take care of me". In conclusion, in general, diabetic patients possess good positive morale from the support of their family and close members.

3) Managing Life Part:

From the research, we found out that diabetic patients fall under the normal group ($\mu = 16.96$) or 61.30%. This finding is unique when comparing to other research work but still holds valid when comparing with the evidences retrieved from the interviews. Diabetic patients from all age groups shared: "Sometimes I want to escape from my life problems, but I don't have any good reason to do so. Who will take care of my grandchildren? Their parents are working in Bangkok". A group of patients shared their thoughts: "I enjoy listening to others, but I wouldn't share my opinion because it's their business and I wouldn't want to get involved". Many diabetic patients enjoy listening to other's opinions that are different to their own. However, they wouldn't share their own opinion. They would then use their personal experience and ask for advice from others to help them manage their life problems. In conclusion, we can confirm that diabetic patients are able to recognize their diabetes problems and are prepared for treatment, knowing it is a chronic disease and won't heal. They would ask advice from professionals or friends

in order to continue fighting diabetes for their family and love ones.

5.2. Promoting Resilience quotient Activities for Diabetic Patient

1. Emotional Stability Part:

After analyzing the results, the type of activity that received the most agreeable rate at ($\mu = 4.63$) or 77.70% is relaxation activities.

Examples of these relaxation activities are watching comedy, TV shows, TV series, and listening to music. This finding is consistent with the Department of Resilience quotient theory about Necessary Activities for a Healthy Mental Psychology (2012). The theory mentioned that important activities that needs to be practiced are relaxation activities that brings happiness to the patient. In addition, according to the conversations between the interviewer and patients, we also found out 2 extra activities that are commonly mentioned are Christmas Star Parade and Candlelight Memorial Ceremony. During the Christmas Star Parade, people will decorate their houses with Christmas star lights, participate in Christmas singing contests, choir singing, perform in a Christmas play, and go for some shopping at a night market. From my own experience, during this festival, Christians are very excited, joyful while in preparation for the festival. For Candlelight Memorial Ceremony, Christians mentioned that it is a religious ceremony or culture of Christians in the memory of the deceased. During this festival, Christians will experience happiness, pride, enjoyment, and forget about sad memories. This event will be host once a year or on December the 31st in a sacred forest or at the graveyard.

2. Positive Morale Part:

After analyzing the result, the type of activity that received the most agreeable rate at ($\mu = 4.72$) or 87.00%, is self-talk. Examples of self-talks are self-talk to consolation yourself (believing everything will turn out well and problems will be solved somehow) or speaking subconsciously to yourself. This finding is consistent to Department of Resilience quotient 's theory on People Who Possess a Healthy Mental Psychology. The theory stated that self-support or self-talk such as "we must succeed" or "we must keep fighting", will raise encouragement for people to continue to solve problems and overcome obstacles in life. In addition, we also found out extra information during the interview. Many Christian patients mentioned that giving merit, donation of goods, money or volunteer work are teachings from Jesus Christ. Christ taught them the concept of sharing, kindness, forgiveness and

helping others and these acts of kindness are not applied exclusively for Christians. One patient commented: "Whenever there's a volunteer activity for villagers on mountains, I would participate with others. I don't have money and would contribute by doing volunteer work. The more work I volunteer to do, the better I feel. I don't wish for anything in return by doing these deeds."

3. Managing Life Problem Part:

After analyzing the result, the type of activity that received the most agreeable rate at ($\mu = 4.70$) or 87.50% is meditation and praying. In addition, we also found out extra information during the interview. Many patients commented that praying is a form of concentration and making a wish to the gods. One commented: "Praying is a form of concentration and making a wish to the gods". Others commented: "I would pray to Jesus Christ before going to sleep. After praying, she would feel calm and peaceful" while showing us her holy bead bracelets that she always uses to pray with. Another patient shared: "I pray multiple times every night until I calm down and feel better".

6. Suggestions

The result of this resilience quotient research can be used by public health and related authorities to develop future projects on diabetes and diabetic patients in general. From our research, we found out that for positive morale part, the opinion level is lower than average at 29.80%, which is consistent with our most strongly agreed activity of self-talk therapy such as talking to console yourself, believing in a better future with the ability to solve existing problems.

Therefore, Health organization should take participation in health promoting activities for diabetics by educating them, hosting health promoting events for diabetics by provide training sessions or seminars. For individuals living in villages, there should be a public-address system to provide information about diabetes to diabetic patients and others. Also, there should be more social activities for diabetic patients to meet, discuss and exchange knowledge to boost their positive morale and life quality of these patients

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