

Women of low socioeconomic status living with diabetes: Becoming adept at handling a disease

SAGE Open Medicine
3: 2050312115621312
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sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/2050312115621312
smo.sagepub.com


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Abstract

Objective: The objective of this study was to explore how Thai women of low socioeconomic status handle their type 2 diabetes.

Methods: A qualitative interpretative method was used to study 19 women with type 2 diabetes in a suburban community in Thailand. Data were collected via semi-structured interviews and were analysed using inductive and constructive processes.

Results: Participants' lives underwent many changes between their initial diagnoses and later stages when they became adept at handling diabetes. Two themes emerged, which involved (1) the transition to handling diabetes and (2) the influences of the social environment. The first theme encompassed confronting the disease, reaching a turning point in the process of adaptation and developing expertise in handling diabetes. The second theme involved threats of loss of status and empowerment by families. These findings showed that becoming adept at handling diabetes required significant changes in women's behaviours and required taking advantage of influences from the social environment.

Conclusion: The process of developing expertise in handling diabetes was influenced by both inner and outer factors that required adjustment to learn to live with diabetes. Furthermore, the reductions found in women's social statuses when they become patients in the healthcare system might pose a barrier to women of low socioeconomic status becoming adept at handling diabetes. However, the experiences of empowerment received from the women's families acted as a powerful strategy to strengthen their handling of the disease. To develop accessible and sensitive health care for this population, it is important to pay attention to these findings.

Keywords

Type 2 diabetes, handling diabetes, women's health, low socioeconomic status, qualitative interpretative method, Thai culture

Date received: 27 July 2015; accepted: 10 November 2015

Introduction

The experiences of people who live with type 2 diabetes (T2D) have become a matter of growing concern as the prevalence of this disease continues to increase worldwide. Healthcare professionals need to become familiar with ways to encourage people to manage their disease while still living a usual life. As reported in the fact sheet of World Health Organization, the global prevalence of diabetes among adults ages more than 18 years in 2014 is estimated to be 9%.¹ In Thailand, the diabetes prevalence of the last decade (2003–2013) trends to increase and the admission rate of patients with diabetes to public hospitals in 2013 was 1081 persons per 100,000 population per year.² Additionally, the risk of

Thai women developing the disease is 1.9 times that of men.³ Despite these statistics, qualitative data describing the life situations of these women are rare.

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International studies and studies conducted in Thailand have begun to examine the way people try to address T2D as a chronic disease. Western researchers have found that people with T2D are challenged to confront their altered circumstances^{4,5} and modify their behaviour to suit their new life situation.⁶⁻⁸ Jutterström et al.⁹ found that people with T2D initially needed to develop insight into the new situation they were confronted with. A Thai study found that those women who could handle and adjust to their illness were able to minimize the burden of their chronic disease.¹⁰ This accommodation was described as taking control of the disease through cognitive decision-making and processing with the aid of family, community members and healthcare professionals.¹¹ Nevertheless, managing T2D clearly requires those with the disease to perform complicated tasks during everyday life.⁷

Handling T2D not only depends on the disease itself but also is influenced by social surroundings.¹²⁻¹⁵ Many contemporary studies have attempted to explore the effect that factors in the social environment have on the daily lives of people with T2D. These influences include religion,¹²⁻¹⁴ family relationships and support,^{14,15} hierarchy in the healthcare system,¹⁶ the role of the women in the family¹⁷ and economic status.^{12,18} Furthermore, research reporting the effects of the social environment on the daily life of people with T2D has highlighted the need for further investigations of these influences in different populations. However, little empirical evidence regarding handling life with T2D and the social influences on doing so has been collected in Thailand.^{12,13,16,19} Most of these prior studies were conducted with both women and men of all socioeconomic statuses.^{12,16,19} Until now, studies exploring women's experiences and focusing on individuals of low socioeconomic status have been rare, especially in Thailand. Because Thai women generally suffer from a higher rate of diabetes than Thai men,³ it is important to focus on the experiences of women.

The aim of this article focuses on investigating the experiences of Thai women of low socioeconomic status when handling their life circumstances as they suffer from T2D. Understanding such information may help health professionals design appropriate interventions for this population.

Methods

Setting

This research was located in a suburban community which is close to Bangkok. It included some people who lived in a substandard environment and others who lived under somewhat better circumstances. This setting was characterized by (1) low financial status, (2) poor housing and (3) squatter dwellings. The land where the study was conducted belonged to the Royal Irrigation Department, and the people who settled there paid no rent and lived with the uncertainty of the potential for eviction at any time.

The community we studied was situated near many healthcare facilities, including those in both the private and public sectors, which provided various levels of health care ranging from primary to tertiary care. There were private hospitals, pharmacies, private clinics and healthcare facilities in the public sector such as a Health Promoting Hospital (HPH), a community hospital, a provincial hospital (general hospital) and a university hospital. Health services in these facilities were available to all Thai citizens with or without payment depending on patients' preferred treatment type and healthcare coverage. Thai people who could afford the cost of treatment could seek their preferred healthcare service from various facilities. This study covered the catchment area of the HPH, a sub-district healthcare unit which provided primary care covering a population of 5000. The HPH delivered mostly preventive and health promotion services mainly via a community-based outreach approach using Village Health Volunteers (VHVs), community inhabitants who were trained to promote health by serving as mediators between people living in the community and the healthcare providers. VHVs could perform general tasks with regard to diabetes, such as checking blood sugar from fingertips (dextrostix) and communicating health messages from the HPH's staff to people living in the community. The HPH also provided basic curative care and diabetes care, which were run by the registered nurses under the supervision of a doctor from a provincial hospital. No formal patient education session was run. Instead, health education was provided informally through short conversations between healthcare providers and patients after receiving a prescription at the HPH. Additionally, the HPH provided a universal coverage programme under the standard scheme of the Thai Ministry of Public Health, which provided free treatment at the HPH and also covered the cost of treatment at a referral hospital for community inhabitants who were registered for this programme.

Participants

In total, 19 women with T2D, ranging from 40 to 73 years old (mean age: 59.5 years), participated. Fourteen women had completed primary school. These women had been diagnosed with T2D between 1 and 25 years ago (mean: 9.2 years ago). All were taking oral anti-diabetic agents. Four women also took traditional Thai herbs. More than half had experienced an acute episode (hypoglycaemia) or symptoms of chronic complications such as numbness of the hands or feet. A common co-morbidity was hypertension. Sixteen participants had children over the age of 18 years. Seven of the participants were living with their children in the same houses, and the others had children or siblings living in small houses nearby. Most participants lived in an extended family; their family roles included grandparent, mother or wife, and common duties were housekeeping or taking care of grandchildren. Nine participants did not have paid work, and these

participants' children were providing them with all aspects of support, including financial support. Four of the women were employees, and the others owned a small food stall or grocery store. The participants commonly combined earned incomes in their families and spent the combined money mostly on the basic daily cost of living for all family members. The family income of most participants was just enough to live on with no savings. Their income fluctuated every month, and sometimes, for one-third of the participants, they did not earn enough income to cover daily living costs and needed to borrow money from relatives or neighbours.

Design

A qualitative interpretative study was conducted to collect and analyse the empirical data of this study. It was an explorative approach inspired by the principle of naturalistic inquiry set forth by Lincoln and Guba.²⁰ The aim of the inquiry was to develop a body of knowledge which was encapsulated and actually existed in participants' world. This research approach was considered useful for gaining insight into participants' subjective narratives that were considered as multiple, intangible, divergent and holistic and were also shaped by physical reality, events and sociocultural context in which participants engaged.²¹ As the life experiences of living with T2D were of interest, these realities could be constructed by interpreting or establishing plausible inferences of the entirety of participants' truth and the relations of the occurrences that participants experienced in their natural context.^{20,21}

Data collection

In-depth interviews of prospective participants were carried out from May 2012 to October 2012. The inclusion criteria for participation were threefold: (1) Thai citizens who could communicate Thai language, (2) a diagnosis of T2D for at least 1 year preceding the study and (3) following a treatment regimen of insulin or an oral anti-diabetic agent(s). Two initial participants, one under and one over the age of 60 years, were selected by the director of the HPH in order to select participants both below and over the age of retirement. Additional participants were sampled by the snowball technique.²² Thus, an early interviewee was asked to suggest another neighbour who also had T2D and the interviewer contacted the neighbour to verify her eligibility. If that person was found to be ineligible, another recommendation was sought from the earlier interviewee and another individual contacted. Nineteen eligible participants were contacted; all were willing to participate and no one withdrew from the study.

Data collection was conducted via semi-structured interviews that began with the posing of two open-ended questions. After a trial of the initial questions were conducted with two women with T2D, a minor revision to the interview questions was made. The final questions were as follows: (1) How do you handle your daily life activities since you

became sick with diabetes? (2) What has improved the way you handle the disease? and what hindrances do you encounter?

Participants were encouraged to share their experiences in detail. Follow-up questions were asked to probe deeper into each participant's stories.²² The interviews lasted 50–90 min each and were conducted in the participant's home or in a place they suggested. A day before each interview, the first author met the participant to briefly explain the study's purpose, advantages and disadvantages, and how to participate or withdraw. This procedure confirmed that participation was voluntary, and an appointment for the interview date was then made. Before the interview began, the research process was explained again, permission to record the participant on tape was requested, assurance was given about the confidentiality of the participant's data and that they were free to terminate both the interview and their participation at any time without having to provide an explanation. At this time, an informed consent statement was signed by literate interviewees. For participants who were illiterate, imprinting the thumb fingerprint in place of signature was made, a normal practice in Thai society when unschooled, which signified acceptance to participation. The interviewer read all written information in the consent form to the participants and allowed the participants to ask questions. When participants agreed, they then stamped their thumb fingerprint on the consent form. The audio tapes were later transcribed and translated into English and were checked by a bilingual language expert.

Data analysis

Data analysis was guided by both methods, naturalistic data processing²⁰ and inductive content analysis,²³ which aimed to describe experiences of handling life situations of women with T2D in a conceptual form. The processes of induction and abstraction were applied to organize and formulate qualitative data into meaningful entities. Inductive approach was used to collapse narratives of participants' experiences which were similar or dissimilar into various categories and the process of abstraction was applied afterwards to formulate more abstract meaning through generating categories. The first author read and reread the transcribed texts several times and then captured all units of information. Similar texts were grouped by the meaning embedded in the text. Data were defined as internally homogeneous in content if they belonged to the same group and as heterogeneous if they pertained to different groups. All narrative materials within groups were thoroughly considered and were interpreted to build new pictures and understandings; sub-themes comprising the initially more abstract meaning then emerged. To meet the standards of trustworthiness, all co-authors read the transcribed interviews and independently identified categories. Several discussions and revisions in a research team were conducted until a framework of sub-themes and themes could be developed. Finally, the main findings of the data

analysis were discussed with the participants. They agreed with the findings and some participants asked about the definitions and contents of the main findings and discussed more detail linking to their experiences. This step helped the researchers ensure that they had a correct understanding of what the participants meant.

Ethical considerations

This project was approved by the medical officer committee of the Provincial Health Office (reference number 0027/3615). The conduct of the study was guided by respect for each person and by the recognition that people with diminished autonomy are entitled to protection.²⁴

Results

The participants' lives underwent many changes in the process between being healthy and when they became sick with T2D and had to handle the associated needs. Facing the disease also entails facing its challenging social issues. Sometimes these issues represented barriers, and sometimes overcoming them encouraged participants to take control of their illness. Two themes emerged from the situations participants confronted in everyday life: (1) the transition to handling diabetes, which had three sub-themes, and (2) the influences of the social environment, which had two sub-themes.

Transition to handling diabetes

The process of handling T2D seemed like a journey for these participants. Women went through a transition to handling T2D that was described as a process in which the participant evolved from a novice at the time of the initial diabetes diagnosis to an 'expert' over a period during which they gained personal knowledge and the skills to manage their disease. In this 'expert state', participants could integrate disease management into daily living and feel stable in their lives. The three sub-themes that were found to characterize this process were as follows: (1) initially confronting the disease, (2) reaching a turning point in the adaptation process and (3) developing expertise in handling diabetes.

Initially confronting the disease. During the early process of confronting T2D, women faced their new situations and responded differently. Most participants were able to make their own initial diagnosis when they noticed that something had changed in their eating, drinking and urination habits. One woman mentioned the special way she diagnosed her disease:

I was a good eater but I grew thinner. ... I drank lots of water but I was not full and often voided. When my husband went to the toilet after I had urinated he said there were many ants.

Once T2D was confirmed by a physician, those women were no longer frightened. As one interviewee expressed it, 'I

suspected that I might have one of two diseases: diabetes or cancer. Because I was reconciled to the fact that it would be either one or the other, I was not alarmed when it turned out to be diabetes'. Participants tried to take strict care of themselves in accordance with the medical advice they were given, especially the advice to change their eating habits and take their medicine. Feelings of anxiety, stress, discouragement or irritability continued for years as a result of the participants' efforts to change their eating behaviours, control their hunger and repress their cravings for sweets. One woman described the difficulty she had with eating less, as recommended by her health professional, as follows:

I couldn't adjust at all. A doctor told me to reduce the amount of rice I ate. He suggested one ladle, but I wasn't full. If my hunger wasn't satisfied, he told me to eat more vegetables and fruits, but I didn't like them. I felt stressed and discouraged because I couldn't manage it.

This expression could imply that these women experienced struggles with the medical recommendations because they did not fit their lifestyles. Some women noticed emotional changes, such as feeling overwrought, and searched for a way to calm down. As one participant added, 'If I got a hot flash I would sometimes pick up something to throw. It was like a fidgety feeling. I deem that my hot temper comes from my diabetes. Previously, I was a cool-headed person'. In contrast, in the absence of clinical symptoms, one interviewee said she had her doubts about her physician's diagnosis, and so she ignored the treatment:

I believed and yet I didn't believe that I had diabetes. Was it possible? I didn't believe it because I felt strong. I was healthy and was able to eat, so it didn't matter. When a doctor gave medicines to me, sometimes I took them and sometimes I didn't. Nothing happened.

Reaching a turning point in the adaptation process. Before accepting the disease as a part of life and earnestly deciding to address it, some participants said that they experienced a turning point. The insight they gained from direct experiences was accompanied by a powerful impulse to change their methods of handling the disease and the intent to regulate their disease by themselves. Two types of sources were mentioned as leading to this turning point: inner and outer sources. Inner sources referred to factors in a participant's thoughts that prompted them to start taking their illness seriously, such as a feeling that their life was being threatened after suddenly experiencing a severe attack. By contrast, an outer source of inspiration for change came from something in the participant's surroundings. This source may have been pressure from relatives. One interviewee, inspired by her inner self, described the awakening that came to her when she experienced a T2D attack: 'I fainted and was unconscious. I had low blood sugar. ... While lying in the hospital I thought that if I got well, I would take better care of myself'. She spoke of her changing perception of the disease and,

now that she reached the turning point, regretting her former ignorance:

Previously I thought that diabetes was not a serious illness. Then, I found out that when my blood sugar levels were high, sugar would stick to the outside of my red blood cells and stay there. My doctor told me every year how dangerous this was, but I didn't realize its importance.

Some women were motivated by outer sources that included close relatives and acquaintances with T2D. Reflecting on the impetus from an outer source, one woman spoke of the responsibility she had to her nephew, which led her to wish to stay alive: 'I thought of my nephew who lived with me and what would happen if I didn't take care of myself. So I turned things around and took care of myself. I wanted to live a little longer'.

Developing expertise in handling diabetes. The women we interviewed had developed their expertise by trial and error, continually learning, adjusting and adopting the knowledge and skills they acquired to address their new life situation. They gained insights in their knowledge from their own experiences and from others with T2D with whom they communicated, accumulating information from day to day and retaining whatever they found useful. The women explained how they learned things about T2D when they were at home: 'The doctor doesn't tell me, I know it myself from the situation that I confront. Other people talk, those who have had experience, and I agree', 'We talk among ourselves about what we should eat to lower our blood sugar – how we can manage it. We kind of exchange ideas'.

Women described actions taken during the process of developing skills for adeptly handling T2D to generate skills of their own by attempting to control their bodily symptoms and adjust their dietary habits. The participants encountered many obstacles, especially with regard to eating behaviours. Managing T2D required constant vigilance regarding the participants' diets. Most participants tried to gain control of their blood sugar while going about their lives as usual. They felt it difficult to resist their cravings for the foods and sweets they were used to and struggled with conflicting feelings about adjusting their diet. Still they persisted. As one woman expressed it,

I crave to eat *longans* (Thai fruit), but I stop myself from buying any. If I do take one, I remind myself that I shouldn't eat too much. I have to control my mind to eat small quantities. I tell myself that this much is enough and that I should keep the rest for my grandchildren.

Participants learned to constantly listen to their bodies, reported success in dealing with their new situation, continually adjusted their habits when the situation changed and chose to use whatever information they found useful. A woman spoke of her reasons for trying to find a flexible way to coexist with her disease:

If I eat only what the doctor tells me to, my eating will be completely influenced by diabetes and I will not be able to do anything. I am continually making adjustments. I take the doctor's advice, but I do it in moderation, in a way that fits my life.

Most participants used two main strategies to manage their eating behaviours: (1) estimating by heart and (2) eating enough to be satisfied but not enough to become full. 'Estimating by heart', the phrase participants used, meant judging the appropriate quantity of food to eat based on what their hearts told them. There was no exact amount, but participants used two criteria: a feeling of not being hungry and satisfactory monthly blood sugar levels. As described by one participant, 'I estimate by what my heart tells me, not by what the doctor says. That means I estimate it by myself so that I can live and my blood sugar is good'. The second strategy, 'eating enough to be satisfied but not enough to become full', meant that participants consciously limited their intake while trying to lead normal lives. One woman explained how she employed this strategy: 'If I have some sweets, I only eat two spoonfuls – just enough to go down my throat, but not fill my stomach'.

When participants gained control of their situation, they no longer experienced their disease as a major problem. Most of them saw themselves as one in a group of people who had T2D and felt better when comparing their illness with other diseases. A participant voiced her feelings as follows:

I don't feel anything. Many people have diabetes. Having it [diabetes] is having it. It's not just me. I think cancer kills quicker and needs frequent follow-ups. Although diabetes requires visiting the doctor, you only need to take a blood test and get your medicine.

Some participants accepted T2D as something that would be a part of their lives until they died. 'Having diabetes isn't normal, but it's OK for me. It's like a friend that I can't get rid of, so I just have to take care of myself'. This process of developing expertise comprised growth in the women's knowledge and skills until they could generate personal practices that suit their usual lives. Afterwards, they would perceive life with T2D as something that they could manage.

Influences of the social environment

Living with T2D was interconnected to the social context in which the women lived. Factors in the social environment influenced the way these women became adept at handling T2D, and the outcomes of these influences could either support or act as a barrier to handling the disease, depending on what type of social factors the women were engaged in. Participants' thoughts and actions in this regard were described by two sub-themes: (1) a threatened loss of status and (2) empowerment by families.

A threatened loss of status. A participant's social status could fluctuate between superior and inferior, depending on their situation and the context. Women experienced that they felt lower in social position than health professionals in the healthcare system, but their social position was restored when they were around their families. After the women were stricken with T2D and became patients, they lost own authority and let healthcare providers take control over their lives. As patients in the healthcare system, participants all perceived that they had a reduced status and acted in accordance with their inferior position. Most of them trusted the competence of the health professionals who treated them and tried to follow their advice, although some felt conflicted while doing so. As one participant explained,

The doctor said that if I don't take my medicine I'll go into hyperglycaemic shock. I know that information but I'm strong and want to stop the medicine. However, I don't have the courage to do so because the doctor didn't order it. If I do, the doctor will blame me.

Sometimes women disagreed with the medical recommendations given to them, but they listened quietly without objection. They said that they expected that their healthcare providers had investigated their illness thoroughly and were familiar with their daily lives. Sensing their inferior status, the women felt that they should not demand anything or question their providers. Participants mostly complained of feeling disappointed after speaking to their relatives or neighbours. As a woman said,

The doctor tells me that my blood sugar is a little better this month, so he prescribed the same medicine as before. I wonder why he didn't give me a complete check-up to see how I am? Sometimes I ask him many questions but he quickly becomes irritated, so then I stop. I don't want to fight with him, so I take whatever medicine he tells me to.

As family members, participants filled the roles of wife and mother. As such, they had full authority over managing their way of living. One woman took charge of the disease by deciding to manage the dosage of her medication without a medical recommendation:

I don't stop taking my medicines. I just cut down on my anti-diabetic agent because I think it induces my bloated stomach. I noticed that when I soaked it in water, it's swollen. Now I cut it down and feel better and I won't tell the doctor.

However, when participants had obvious symptoms of illness and a limited ability to take care of themselves or to work, they felt hesitant in exercising their authority. One woman isolated herself from all social activities because of her physical limitations: 'I couldn't work anymore and felt weak, so I decided to resign my position as head of the community funds'.

Empowerment by families. All our interviewees acknowledged that family was an important part of their lives and was the first place they would turn to for help, including physical, psychological and financial support. Most participants felt comfortable when they lived with their families and mentioned the advantages of having such an arrangement: 'I'm moving in to live with my son and daughter-in-law. It's good and they empower me. Where there is encouragement, things go well'. Women and their family members who lived under one roof were attentive to each other's needs and showed mutual understanding. Whether they lived together or not, when mothers or grandmothers became sick they would be cared for by their children. Participants reciprocated in any way they could by doing housework or taking care of their grandchildren. As one woman stated,

My married daughter lives in my house and takes care of me. She makes me feel happy. I never fear going hungry because my daughter buys food and fills up the fridge. When she goes to work, I help her as much as I can. If I feel dizzy, I lie down until I feel better and then I continue. This is the way of doing things that makes us feel happy to live together.

This expression reflected the mutual concern and generosity between the woman and her family members. Despite having the disease, this participant attempted to lighten the household load of her daughter, while the daughter took responsibility for taking care of her mother in all aspects.

Getting attention and empathy from family members made participants feel strong and gave them a sense of hope despite living with a disease. It helped them harness their energy so that they could take care of themselves as best they could. 'I can do it (I can control my diabetes and take care of myself). I love my relatives. I want to be cured and want to stay with them. I don't want to leave them'. At least one participant spoke of feeling dispirited in the absence of family members living together. A woman who lived alone said, 'I am not like others. Encouragement, money, children, relatives – I have none of these [begins sobbing]. I feel tired and lonely. I live by myself. When it is time to eat or go to sleep, no one takes care of me'. The implications of this expression highlighted the importance of having family, which could encourage women to possess strength. Attentiveness, encouragement and mutual understanding in the family empowered participants to have a desire to live longer and be willing to take care of themselves, despite having T2D.

Discussion

In the group of Thai women of low socioeconomic status whom we interviewed, the transition to handling life with T2D required significant changes in behaviour and adjustment to the influences of the social environment. The findings suggested that successfully handling T2D involved reaching a

turning point, persistently learning and adapting to the disease, and taking advantage of influences from social surroundings. The latter needed to be accomplished so that the social aspects of life were supportive and did not act as barriers.

Our findings showed the significance of reaching a turning point that is driven by two sources of motivation, both inside and outside the self. Inner sources have frequently been cited in contemporary research about people with T2D,^{8,9} whereas motivation from outer sources, such as close relatives, was prominent in our study. This noticeable finding may reflect a tradition in the Thai setting, as a previous study of this culture found that caring for people recovering from illness is not only an individual responsibility but also involved the immediate family and relatives as well.²⁵ However, in the study reported here, acceptance of the disease by reaching a turning point was found to be the first step in coming to terms with T2D. A sense of confidence and power may result from becoming adept at handling one's disease so that T2D becomes integrated into the totality of daily life, rather than a burden of external routines.

This study mentioned the recurrent and cyclical process of learning, adapting and adopting as an important method in the development of personal expertise to the extent that women could handle T2D effectively. This process seems to correspond to the self-management techniques that have been explored in other studies.^{6,7} Although alternative viewpoints have been expressed, previous studies have identified similar processes, such as continually learning, experimenting, modifying, adapting and finally establishing individual practices. Our study and earlier research found that the adjustment of eating behaviours, especially reducing the amount of rice, was the main obstacle to developing skills in handling T2D.^{16,19} This problem seems to involve the cultural context. Because rice is the chief component of all Thai meals, the recommendation for lowering the rice intake by replacing it with low energy foods such as vegetables may be difficult to follow. Moreover, a wide assortment of cheap foods is available from many street food stalls, and seasonal fruits, which are sweet and high in natural sugar, are obtainable throughout the year. The convenience and abundance of choices in food selection may have made it difficult for women in our study to control their eating behaviours.

Achieving expertise in handling one's T2D depends on the influences of not only the disease itself but also the social environment. The influence that the hierarchical structure of the healthcare system has on participants' social statuses and the empowerment provided by the typical Thai family are factors that also impact the attainment of expertise in handling T2D. Becoming a patient in the healthcare system lowers one's status, which was acknowledged by participants in this study and also shown in earlier research among Thai people with T2D.¹⁶ The respect accorded to health professionals in Thailand and the willingness of Thai people to compromise may have influenced the women in our study to accept this change to their status. Furthermore, the lower

education and lower socioeconomic status of these participants when compared with the health professionals may have further led the women to agree with their inferiority and then act as if they were in an inferior position when they became a patient. In accordance with other studies conducted in Thailand,^{16,26} some women in this study chose avoidance or compromise rather than confrontation with their healthcare providers by listening quietly without objection or by not asking questions. Although they may have disagreed with medical recommendations, they did not express those feelings openly in order to maintain harmonious relationships. Women who are too intimidated to discuss their health issues with healthcare providers may fail to improve the way they handle their disease. The differences in social position between health professionals and patients may not only create distance but also may result in discordant perspectives on diabetes control.¹⁶ While clinicians may view diabetes control as simply arresting certain behaviours in their patients, in our study and earlier research, patients required support in adjusting those new behaviours to fit their lives.^{16,27} As a healthcare professional, you may not express feelings of irritability and dissatisfaction to patients when they have high level of blood sugar. Manners that may promote patients to keep distance from their healthcare providers and close the opportunities to discuss with their healthcare professionals. Conflicting viewpoints may result in barriers to the development of the expertise needed to handle T2D.

Women's attitudes tended to be positive when they lived in a family context; this may be a result of the regained authority to control their disease in this setting. As found by the results of earlier research and of our study, when symptoms were not noticeable, women trusted themselves and started to take charge of their own T2D management.^{4,16} They were also better able to maintain harmony in their lives by keeping the disease in the background, and then found it possible to function normally despite having a disease, although this 'new normal' was not the same as before. As a result, the disease no longer seemed like a major issue to those women who recognized their ability to control their T2D, their body and their life. In contrast, as found in our study, a visible disease that includes physical limitations may reinforce the idea of being sick, thus lowering a woman's status within her family, as was reflected by those participants who had limited functional ability and isolated themselves from social activities.

Two traits of Thai families, providing support and children's obligations, may empower patients to adjust to handling their T2D effectively. According to Thai social norms, children have the responsibility of taking care of parents and grandparents.²⁶ They supply physical, mental and financial support, as acknowledged by the participants in this study and in similar research among Thai people.^{12,13} While providing financial support was typical in Thai families, Western findings reported that family members generally served as allies only,^{7,14} and one dissimilar study concluded that

Western women did not feel they received support from family members.¹⁷ In addition to the distinct family support provided in Thai culture, the lower socioeconomic status of our participants may have also increased their need for financial support from their children and may have led to the obvious importance of this factor in this study.

With regard to how T2D is handled among women of low socioeconomic status, other Western studies have described the burdensome impact that treatment costs have on family incomes and the negative perceptions of those living with T2D.^{18,28} Our study did not reveal these effects. The common practice in low-income families of weighing expenditures before allocating funds was not applicable to our participants. Instead, they told of that they could count on receiving financial support from their family in addition to getting universal coverage with free treatment at the HPH and free outpatient and in-patient services at the referral hospital under the Thai healthcare system. Because our participants did not have to worry about paying for health care, they may have had greater opportunities to adjust their lifestyles to accommodate their illness. However, their low socioeconomic status may still act as a barrier to becoming adept at handling T2D. One may be their experiences of lower position than the healthcare professionals. Another might be that although there are many health facilities in this research area, women in this study had less of an opportunity to select a higher level of healthcare services from other health facilities because they needed free healthcare services from the universal coverage scheme. Moreover, these women could not support extra costs such as the travel costs to a hospital or additional treatment costs when getting treatment from other healthcare sectors. Additionally, our participants had less opportunity for participation in a formal session for diabetes care, which is generally provided in higher level healthcare facilities.

It may be challenging for health professionals, especially nurses, to be aware of the dynamics of handling T2D and of the interaction between individuals with a disease and their social environment in this population of women of low socioeconomic status. Understanding the impacts that socioeconomic status and hierarchy in the healthcare system might have on lowering a patient's social status may help healthcare providers to avoid this stigmatizing behaviour. Furthermore, a health intervention that utilizes the strength of family encouragement may measurably assist women with T2D to successfully integrate the disease into their lives.

Methodological considerations

This qualitative study was conducted among women in a specific area of the province near Bangkok. As the study possessed the rigour of qualitative research,²² the findings may be transferable outside this research area to other settings with low socioeconomic circumstances in Thailand. Further

research may illuminate the experiences of men in similar settings or of women of low socioeconomic status in other countries to obtain extensive knowledge of the population in this specific group. Considerations of the methodology used in this study can be divided into strengths and limitations as follows.

Strengths. Because the interviews were conducted in participants' homes, the interviewees may have felt relaxed and at ease. These circumstances may have facilitated positive interactions and a certain measure of freedom in narrating experiences, despite the risk of interruption from relatives or neighbours.²⁰ Using a snowball recruiting technique allowed data to be obtained from a variety of participants, giving a better picture of existing social networks.²² The interviews were carried out by the first author (W.B.), a nurse researcher familiar with T2D and Thai culture, which may increase the credibility of the data gathering. The analysis phase, which was conducted in a collaborative manner with all authors taking part, may be considered a transcultural analysis because it was conducted by a team of Eastern and Western researchers. Additionally, the research team did study visits in the target area, the HPH, and got acquainted with some of the participants.

Limitations. The fact that all interviews were performed by the first researcher (W.B.), a Thai nurse, may have been a limitation because some participants might have felt *Krengjai*, a consideration for other people's feelings, and held back information due to the professional status of nurses. We tried to minimize this limitation by assuring participants that the interviewer was a researcher and not a staff member of the HPH, and that all data gathered would remain confidential and not be made available to HPH staff.

Conclusion

Our study focused on the experiences of Thai women of low socioeconomic status in handling T2D, a subject on which not much literature is available. The cultural context, especially the closeness of the Thai family, and the socioeconomic status of the participants had significant influences on the personal ways in which these women became adept at handling T2D. Being of low socioeconomic status strengthened the women's acceptance of an inferior position when becoming patients in the healthcare system, which appeared to widen the distance between the health professionals and the patients and reduced the patients' opportunities to choose preferable healthcare services from other health sectors. These factors could represent barriers to developing expertise in handling T2D. On the other hand, the tradition of providing support and the close relationship in Thai families could have empowered the participants to have a sense of hope for living longer and to take care of themselves as best they could despite having T2D. Such information may assist

health professionals, especially nurses, in designing interventions that reduce the social distance between themselves and their patients while utilizing the strength of the family to help patients in this specific group adjust to living with T2D.

Declaration of conflicting interests

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

Funding

The author(s) received no financial support for the research, authorship and/or publication of this article.

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