

Experiences of Kurdish immigrants with the management of type 2 diabetes: a qualitative study from Norway

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ABSTRACT

Objective: To explore the experiences of immigrant Kurdish patients in Oslo, Norway, related to the management of type 2 diabetes mellitus (T2DM).

Design: A qualitative study with focus group interviews.

Setting: Participants were recruited at meeting places in Oslo through Kurdish networks.

Subjects: Eighteen Kurdish immigrants (9 females and 9 males) living in Oslo, aged 40 to 64 years, diagnosed with T2DM participated in a total of five focus groups. Participants had to be proficient in the Norwegian language to be eligible.

Main outcome measures: Immigrant Kurdish patients' experiences with being diagnosed with T2DM, their disease management, and need for medical information.

Results: Participants stressed that living with T2DM was emotionally challenging, mainly because they were afraid of possible complications of the disease. They claimed to adhere satisfactorily to their medicines and blood glucose measurements. The majority of participants shared that they had made changes to their diet, even though it was difficult. To the contrary, physical activity received only minimal attention. The participants' main source of information was general practitioners and the majority of them were satisfied with the information that they had received about their disease and its management.

Conclusion: Kurdish T2DM patients in the present study from Norway reported that they adhered to the medical treatment, even if they were stressed about living with the disease. However, they were more occupied with changing their diet than to be physically active. Therefore, healthcare personnel should try to be aware of lifestyle challenges among their patients.

KEY POINTS

- Eighteen Kurdish patients in Oslo with Type 2 diabetes claimed to be adherent to medication treatment and blood glucose measurement.
- The participants shared that they had made changes to their diet, even though it was hard.
- There was generally little attention given to the need for physical activity in their daily lives.
- The participants were in need of more information and support in making healthy lifestyle changes.

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Introduction

Diabetes mellitus and its complications constitute a major threat to global public health in the 21st century. An estimated 425 million people had diabetes mellitus in 2017, and this number is expected to increase to about 630 million by 2045 [1]. The corresponding figures in Europe are 58 and 67 million people, respectively [1]. Type 2 diabetes mellitus (T2DM) constitutes about 90% of the diabetes mellitus cases [1], and its prevalence varies between countries and socioeconomic groups. In Europe, it is evident that

some ethnic immigrant groups are especially affected. For instance, in Norway, Sweden and the UK, the prevalence of T2DM is higher among immigrants from the Middle East and South Asian countries compared to the host populations [2–4]. This is partly explained by obesity, physical inactivity and a high intake of energy-dense food [2,3]. In addition, cultural factors may elevate the risk [5–7].

The Kurds are an example of a Middle Eastern ethnic immigrant group in Norway. Kurds constitute one of the largest ethnic groups in the Middle East, where

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they live primarily in Iraq, Iran, Syria and Turkey. Most Kurds residing in Norway have immigrated as a consequence of war and political instability in their country of origin. Because only country of origin, and not ethnicity, is recorded in Norwegian population censuses, the exact number of Kurds living in Norway is uncertain; the most recent estimate is between 25 000 and 30 000 [8]. The prevalence of T2DM in the Middle Eastern countries where most Kurds live is estimated to be around 1.5–2 times higher than in Norway (9–12% vs 6%, respectively) [1,9]. The overall prevalence of T2DM among Kurdish immigrants in Norway is unknown. However, its prevalence among the Turkish immigrants in the country, of whom a large proportion are Kurds, has been found to be around 12% [4].

The management of T2DM depends largely on patients' ability to modify lifestyle habits, adhere to anti-hyperglycaemic drug treatment and monitor blood glucose levels. In Western countries, research among South Asian and Middle Eastern immigrant T2DM patients has shown that a low level of education, lack of proficiency in the host country's language and cultural/religious traditions may result in poor management of T2DM [10–14].

In Norway, all legal inhabitants are listed with a general practitioner (GP) and patients only pay a small co-payment for consultations due to the state-funded reimbursement system. According to clinical guidelines, most T2DM patients should be followed-up at least 2–4 times a year by their GP [15]. Scheduled consultations last for 15–20 minutes on average, which is long when compared to many other countries [16]. Studies from Oslo conducted among Norwegian GPs and community pharmacists have shown that linguistic and religious factors make communication between them and non-Western immigrant patients challenging [17,18]. Thus, whether or not these patients receive sufficient information to manage their disease is questionable.

Some studies of Kurdish immigrants with or at a high risk of developing T2DM have been conducted in Nordic countries (Sweden and Finland), primarily related to prevalence, risk factors assessment or lifestyle interventions [3,5,19–23]. However, no studies on the management of the disease have been conducted, and there is a paucity of information about this patient group in Norway. Therefore, the aim of this study was to explore the experiences of immigrant Kurdish patients in Norway related to the management of T2DM.

Methods

Qualitative approach

The study was based on a qualitative design in which data was collected through focus group interviews. The method is considered appropriate to explore people's knowledge, feelings, experiences and attitudes, and is also useful when investigating a population whose views on a defined topic are largely unknown [24]. In our study, focus group interviews were used to explore how Kurdish immigrants in Oslo manage their T2DM. The research group consisted of two pharmacy students (one with an ethnic Kurdish background) and three academics (with a background in pharmacy or medicine, including one GP) who have previously performed several studies on non-Western immigrants with T2DM in Norway [4,10–12,17,25].

Study sample

The study participants consisted of 18 first-generation Kurds with T2DM from Oslo (9 females and 9 males). Thirteen participants originated from Iraq and five from Iran. Their mean age was 51.2 years (range: 40–64 years), and the mean time since diagnosis was 7.3 years (range: 0.5–16 years). Table 1 presents the compositions of the five focus groups. Although we did not ask specifically about the participants' employment status, more than half mentioned during the interviews that they were employed.

Data collection methods and instruments

Participants in this study were recruited from places in Oslo that the general Kurdish population frequently visits (Kurdish mosques and cafés). Before recruitment, those in charge of these venues (imams/café owners) were asked for permission to recruit participants at their premises. After permission was obtained, potential participants were approached and given oral and written information and invited to take part in the study. The inclusion criteria were as follows: Kurdish immigrant above 18 years of age, living in Oslo,

Table 1. Composition of the focus groups.

Focus group	Mean age in years (range)	Participant gender	Mean number of years since diagnosis with T2DM (range)
1	58.7 (55–61)	1 female, 2 male	5.3 (2–10)
2	54.3 (46–64)	2 female, 1 male	6.7 (2–12)
3	50.6 (46–51)	2 female, 3 male	11.2 (7–16)
4	46.5 (40–54)	2 female, 2 male	4.9 (2–11)
5	47.8 (42–51)	2 female, 1 male	6.5 (0.5–10)

diagnosed with T2DM and possessing oral proficiency in Norwegian. The response rate was 60%. Recruitment and all focus group interviews took place between October 2016 and January 2017.

The focus groups discussions were held in a meeting room at the School of Pharmacy or in a mosque. All focus group interviews were held in Norwegian. On arrival, the participants filled in a brief questionnaire with information about their age, gender, country of origin, and number of years since diagnosis with T2DM. The moderator then gave a standardized introduction. Based on the study aims and previous research on non-Western immigrants with T2DM [10–12,17], a structured interview guide was developed and used for the interviews. The main topics were: (1) experiences with being diagnosed with T2DM, including symptoms, causes and complications; (2) management of T2DM; and (3) need for medical information. All focus group interviews were led by the same moderator (the pharmacy student with Kurdish background). An assistant moderator (a pharmacist) took notes during the interviews. The interviews were audiotaped and lasted from 60 to 90 minutes. A pilot study was conducted; however, since no major changes were required in the interview guide or the interview setting, the pilot group was included in the study. After conducting five focus group interviews, saturation was considered to have been obtained. Each participant was compensated with a voucher of 300 NOK (30 EUR).

Data processing and analysis

Descriptive statistics were conducted on the collected data from the brief questionnaire. Audio-recordings were transcribed verbatim shortly after each interview and read by the authors to attain a comprehensive understanding of the data. A thematic content analysis with a deductive approach was conducted manually and included identification and coding of meaning units from the data before they were categorized [26,27]. The categories were later revised and modified through iterative reading of the transcripts. After critical discussion in the research group, consensus about the identified categories was reached.

Ethical considerations

The participants gave informed written consent prior to participation in the study. The study was approved by The Norwegian Center for Research Data.

Results

Experiences with being diagnosed and living with T2DM

Many of the participants were diagnosed with T2DM after presenting symptoms such as exhaustion, frequent urination, dry mouth or disturbed vision to their GP, while some were diagnosed at a routine check-up during a consultation with their GP. Participants in every focus group stated that they had family members with T2DM, many of whom were a first degree relative, e.g. mother or father, and that they knew that T2DM runs in families.

Participants in all focus groups elaborated on their experiences that being diagnosed with and living with T2DM is emotionally difficult. A range of emotions including fear, sadness and nervousness were described. Most participants described living with T2DM as very stressful and said that it had led to considerable changes in their lives. The most frequently reported stress factors were related to always having to think of their diet and remembering daily blood glucose measurements. In addition, participants in four focus groups talked about having typical comorbidities such as high cholesterol and hypertension, which they had received treatment for. Symptoms that could indicate microvascular complications, e.g. impaired eye function, numbness and pain in the extremities, were also mentioned. Some participants linked the development of the disease to everything that they had gone through during the stressful process of migrating from a war-torn country to settling in and starting a new life in Norway.

In two of the focus groups, participants spoke about complications from T2DM that their family members had suffered from. These had, in turn, increased own worries and concerns about having the disease. For example, a female participant talked about her grandmother and her father who could no longer walk and how that made her more careful about her own condition:

She [my grandmother] and my father have diabetes. They cannot walk anymore... I hope that does not happen to me too. So I take care because they did not. I hope I can manage.

In general, participants perceived T2DM as a burden they will have to carry for the rest of their lives. Three participants who received a T2DM diagnosis more than 10 years ago said that the burden became easier to carry as time passed and that accepting their situation was an important step in coping with living with T2DM.

Challenges with lifestyle changes

Lifestyle changes in terms of diet were eagerly discussed in all focus groups. The majority of participants shared that they had made changes to their diet and gave the impression that they tried hard to stick to a healthy diet—mainly because they were afraid that their T2DM would worsen. They said that they had made changes to their diet, such as having less sugar in their tea, eating more fruit (instead of sweets and cakes), more of certain vegetables (such as squash, garlic and carrots) and less of the Kurdish traditional dishes.

During the focus group discussions, it became clear that participants had found it difficult to make changes to their diet. They also stressed how hard it was to maintain this healthier diet. They mainly related this to personal preferences and/or socio-cultural traditions. Eating the traditional dishes of their home country was described as an important part of their cultural identity. Kurdish dishes usually consist of large portions of rice, stews of meat and rich sauces, and are often followed by a sweet dessert. Three participants described “healthy food” as tasteless and said that it could not compare with or replace the traditional dishes. Social gatherings with other Kurds, religious festivals and travelling to their home country were also mentioned as reasons for not sticking to a healthy diet. None of our participants brought up taking any measures to make other family members eat more healthily. Female participants in three different focus groups said that they were responsible for preparing food for their families and that they were reluctant to prepare two types of food, i.e. “healthy food” for themselves and traditional food for the rest of the family. They said that they prioritized preparing the traditional food that the family expected to be served. The situation was different for some of the male participants. One of them explained:

My wife cares for me so much. She says, for example, ‘This (food) is not good for your diabetes’. And I take care then. If it was not for her, maybe I would have had to start with taking insulin every day. God bless her.

The participants did not talk about the positive effects of physical activity in the same way that they talked about the importance of a healthy diet. Just a few seemed to be aware of the benefits of being physically active and told that they for example, were swimming, jogging or intensive walking on a regular basis. Most participants said that they did some low intensity walking from time to time. When the topic was introduced, some mentioned a lack of motivation and being tired as reasons to why they were not

more physically active, while others considered themselves sufficiently active by taking care of their children, doing housework or when doing movements in their religious prayers.

Adherence to blood glucose measurements and medication

The majority of participants described daily blood glucose measurements as an important task that they had incorporated into their daily routines—even though it could be painful to carry out. All participants were literate and seemed to have adequate knowledge of how to interpret the results. They were aware that maintaining a stable blood glucose level within the recommended range is important.

Most participants were prescribed only one oral anti-hyperglycaemic medication (mainly metformin), while a few used metformin in combination with other oral anti-hyperglycaemic medication(s) or injectable products. The latter (i.e., those with injectable medications) was the case for female participants who received T2DM diagnosis more than 10 years prior to study start. In general, the medication was not described as a source of concern for participants. They gave the impression that they had no problem administering their anti-hyperglycaemic medication before or between meals and that they had routines for remembering to take their prescribed medication. Three of the male participants said that they got reminders from their wives when it was time for the medication and/or blood glucose measurements. A couple of the female participants said they got similar help from their children. Although all the participants expressed that they were Muslims, fasting during Ramadan was not an issue and therefore not a reason for being non-adherent to their medication.

In all focus groups, participants mentioned situations in which they had forgotten to take their medication. Two participants were intentionally non-adherent due to a lack of motivation or a fear of potential side effects. Other participants talked about situations in which they were unintentionally non-adherent because they travelled abroad or took part in social gatherings. However, social gatherings did not always lead to non-adherence to medication, as they had friends who also had T2DM and used the same medication. One participant said:

I do not forget if I am at home, but sometimes (I forget) when I visit someone. Then, at three/four o'clock we eat dinner and I do not take the medicine that I really should take at four. But those I visit have metformin, all families have it!

Sources and types of medical information

The GP was the main source of information for the participants. Overall, participants felt they had a good relationship with their GPs and were satisfied with the information they had received on how to manage their disease. Three participants said that they had a Kurdish GP and eight a non-Kurdish GP. The remaining participants did not specify their GPs' ethnic background. Despite the general satisfaction with their GP, some participants mentioned that they had experienced some difficulties with understanding information their GP provided, especially when complicated Norwegian medical terms were utilized. These participants said that their GP seemed to solve this by talking slowly or using simpler terms to ensure that the information was understood.

Pharmacy personnel were mentioned as the main source of information about how to use the glucometer. Other sources that were mentioned included family members, friends, television and the Internet, mainly regarding lifestyle information.

Discussion

In the present study, participants expressed that they managed their T2DM in a satisfactory way, particularly regarding regular blood glucose measurements and taking their medication as prescribed. The participants discussed the efforts they had made to change their diets to healthier ones and the sociocultural barriers that they had encountered when trying to maintain these diets. Physical activity appeared to receive less attention in their daily lives.

This study is the first to explore how immigrant Kurds in Norway manage their T2DM and adds to the sparse literature on this patient group. With the engagement of key persons with extensive Kurdish networks, we made contact with Kurds in several types of meeting places in Oslo. We chose to include only Kurdish immigrants with satisfactory Norwegian language skills in order to avoid the use of a translator, which would have interrupted the flow in the discussions and introduced a certain degree of translation bias [24]. However, by selecting only participants who were fluent in Norwegian, the transferability of findings to Kurdish T2DM patients with poor Norwegian language skills is limited. Caution should be used when comparing these results with findings from studies that included non-Western immigrants who had the possibility of being interviewed in their native languages [10,13].

About two-thirds of potential participants accepted the study invitation, which is considered a satisfactory response rate in focus group studies [28]. Having a pharmacy student with a Kurdish background responsible for recruitment and moderation of the focus groups probably contributed to the good response rate. In addition, we consider that the presence of a Kurdish moderator likely had a positive effect on the participants' willingness to share their thoughts on sensitive topics during the interviews. This factor also probably minimized moderator bias [29].

In line with the results of previous studies, our participants highlighted the difficulties in making changes in their daily life after being diagnosed with T2DM, which in turn made their situation difficult and stressful [30–33]. For instance, the 2005 multinational Diabetes Attitudes, Wishes and Needs (DAWN) study investigated psycho-social experiences related to T2DM management in 13 countries in Asia, Australia, Europe and North America, both from the patients' and healthcare personnel's perspective [31]. About 40% of patients with T2DM reported experiencing poor psychological well-being. Moreover, healthcare personnel (including GPs) estimated that around 60–70% of their T2DM patients had psychological problems, including depression, stress, and burnouts [31]. Fear of developing T2DM-related complications has been identified in previous studies [32], and in the present study, participants expressed worries about developing the same complications that some of their family members experienced. This might have had a positive impact on our participants by raising their awareness about the importance of appropriately managing T2DM.

Blood glucose measurement and medication adherence were highlighted as important across all focus groups. These results indicate that the participants had educational levels sufficient to enable them carry out and interpret glucose measurements and to take medication as prescribed. A certain level of education has earlier been reported as important for good adherence to T2DM management, and consequently, good glycaemic outcomes [34]. This may explain, at least to a certain extent, why our results differ from those of previous studies of non-Western immigrants in Western countries in which the participants had no or only minimal basic education [10,13,35]. Another contrast to the previous studies was that the participants in this study did not fast during Ramadan and therefore did not consider this religious ritual to be an obstacle to drug adherence. In previous studies of non-Western immigrant patients with T2DM, a

considerable share of patients reported that they altered their medication-taking behaviour during Ramadan [10,11,35,36].

Most of our participants discussed how they had changed their diets to be healthier. However, the overriding barriers that were mentioned, at length and across all focus groups, suggest our participants finding it difficult to maintain a healthy diet. Undoubtedly, to permanently change one's diet is a challenge that requires both intent to change and substantial modifications in behaviour [32,37,38]. Our participants mentioned that socio-cultural traditions and lack of social support (from family, friends and communities) increased the difficulty of maintaining a healthy diet. This is consistent with previous studies that have found that a lack of social support may have adverse effects on T2DM patients' lifestyle management [39,40]. At the same time, we noted that none of our participants brought up that they had initiated healthy changes in the diet of the family as a whole. Apparently, our participants considered eating healthy food to be a part of T2DM treatment rather than a feature of healthy living with potential benefits for all. This attitude further complicates their own efforts to maintain healthy dietary habits. Regardless, our results show, that participants seemed be aware of the importance of a healthy diet and were trying harder to implement healthy eating habits compared with T2DM patients in the Middle East [41,42].

In the present study, there was little focus on the benefits of being physically active and the majority of our participants mentioned activity levels that were far below the guideline recommendations [15]. These results indicate, at least partly, a lack of interest in physical activity among the participants, something that has been identified earlier among other non-Western immigrants in Nordic countries [3,5,10]. In fact, findings from a Swedish study showed that 72% of participants with an Iraqi background were physically inactive compared with 39% of native Swedes [3].

Unsurprisingly, the GP was the patients' main source of information and the participants seemed fairly satisfied with their GPs and the information they were given from her/him. From the participants' discussions, it seems that they felt that they had received enough information about blood glucose measurements, drug treatment, and the features of a healthy diet. However, our participants did not act in a way that suggested that they understood the importance of physical activity. Of course, it is not possible to know how much information they had received about that compared to information about diet. Hence, there

is a possibility that an emphasis by GPs on providing more information about all aspects of treatment would be helpful in achieving the goal of improved T2DM management, better glycaemic outcomes and the prevention of future complications.

Conclusion

Kurdish T2DM patients in the present study from Norway reported that they adhered to the medical treatment, even if they were stressed about living with the disease. However, they were occupied with changing their diet than to be physically active. Therefore, healthcare personnel should try to be aware of lifestyle challenges among their patients.

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Ethical considerations

The study protocol was reviewed and approved by The Norwegian Center for Research Data. Approval from The Regional Committee for Medical and Health Research Ethics was not required. The participants provided informed written consent prior to participation in the study.

Disclosure statement

No potential conflict of interest was reported by the authors.

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