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Äldre patienters upplevelser av att leva med diabetes typ 2

En Litteraturstudie

Elderly patients` experiences of living with type 2 diabetes

A literature study

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SAMMANFATTNING

Bakgrund: Den äldre befolkning ökar samtidigt som den kroniska sjukdomen diabetes typ 2 bli alltmer förekommande vilket påverkar välbefinnandet. Detta resulterar i höga kostnader för att hantera den rekommenderade hälsosamma livsstilen. Patienter upplever både psykologisk och fysisk påverkan på grund av rädsla för sjukdoms komplikationer och att bli multi-sjuka.

Syfte: Att beskriva äldre patienters upplevelser av att leva med diabetes typ 2.

Metod: En litteraturstudie med kvalitativ innehållsanalys grundad på 12 original kvalitativa artiklar som genomfördes med fokus på patienters upplevelser.

Resultat: Tre huvudkategorier och sex subkategorier formulerades. Huvudkategorier: *Känslomässig erfarenhet, Upplevelser av stöd* och *Behov av diabetesutbildningsprogram.* Subkategorier: *Rädsla och frustration, Hopplöshet, Acceptans och socialt stöd, Attityder till hälso-sjukvård teamet, Brist på kunskap om T2D och Upplevelser av låg self-efficacy.*

Slutsats: Litteraturstudien har visat att patienter har olika upplevelser av att leva med diabetes typ 2 och att det behövs en mer individanpassad diabetesvård. Sjuksköterskan bör också bemöta patienten utifrån en helhetssyn genom att fokusera på hela person och inte bara på sjukdomen.

Implikationer: Vidare forskning rekommenderas med avseende att främja livskvalitet hos äldre patienter som drabbas av diabetes typ 2.

Nyckelord: diabetes typ 2, egenvård, upplevelser, äldre patienter

ABSTRACT

Background: The elderly population is increasing, and the chronic disease type 2 diabetes is becoming more prevalent, and this affects their well-being. This results in high costs regarding managing the recommended healthy lifestyle. Patients experience both psychological and physical impact due to fear of disease complications and becoming multimorbid.

Purpose: To describe elderly patients´ experiences of living with type 2 diabetes

Method: A literature study with qualitative content analysis based on 12 original qualitative articles was conducted with focus on patients ‘experiences.

Results: Three main categories and six sub-categories were emerged: *Emotional experiences, Experiences of support and Need for diabetes education program. Subcategories were fear and frustration, hopelessness, Acceptance and social support, Attitudes towards the health care team, lack of knowledge about T2D and experiences of low self-efficacy.*

Conclusion: Literature study has shown that patients have different experiences of living with type 2 diabetes and a more individualized diabetes care is needed. The nurse should also approach the patient from a holistic perspective by focusing on the whole person and not just on the disease.

Implications: Further research is recommended to promote quality of life in elderly patients with type 2 diabetes.

Keywords: elderly patients, experiences, self-care, type 2 diabetes.

TABLE OF CONTENTS

SAMMANFATTNING i
ABSTRACT ii
INTRODUCTION 1
BACKGROUND 2
Type 2 diabetes 2
Aging with Type 2 diabetes 2
Prevention of longterm complications 3
Responsibility of nurses 3
NURSING CONCEPTS 4
Suffering as part of life 4
Self-care 5
PROBLEMSTATEMENT 6
AIM 6
METHODS 6
Design 6
Selection criteria 6
Data collection 7
Dataanalysis 9
Ethical aspects 10
RESULTS 11
Emotional experience 11
Experience of support 13
Need for diabetes education program 15
DISCUSSION 17
Methoddiscussion 17
Resultdiscussion 19
CONCLUSION 23
Clinical implications 23
Proposal for further research 23

REFERENCES 24
APPENDICES 29
Appendix I:1.*Qualitative review template for assessment of studies with qualitative methodology based on SBU (2020)* 29
Appendix I:2.*Qualitative review template for assessment of studies with qualitative methodology based on SBU (2020)* 30
Appendix I:3.*Qualitative review template for assessment of studies with qualitative methodology based on SBU (2020)* 31
Appendix I:4.*Qualitative review template for assessment of studies with qualitative methodology based on SBU (2020)* 32
Appendix II *Article matrix* 33

INTRODUCTION

This topic was chosen because we had our internship within Geriatrics, and we got to learn about challenges that patients with type 2 diabetes experience and how their everyday life is affected. Knowledge was gained including on how a nurse could provide medical services to patients with diabetes to promote health. During our internship, we observed several nursing activities of promoting health for example, patients were encouraged to self-efficacy by providing them with education on how they can contribute to their wellbeing. As part of a nurse`s responsibility, patients especially elders should be educated on how to use insulin therapy, the importance of doing physical exercises, and how to regulate their blood sugar levels. However, we observed some elderly patients facing difficulties of coping with the disease, due to the disease complications and inadequate information about self-care. Therefore, the aim of this study is to describe elderly patients ‘experiences of living with type 2 diabetes.

BACKGROUND

Type 2 diabetes

Type 2 diabetes (T2D) is the common form of diabetes in elderly population which increases drastically on the global scale (Velazquez et al., 2020, p. 516). The prevalence of T2D has increased significantly from 14,9% in 2001 to 20 % in 2018 among elderly above 60 years of age (Velazquez et al., 2020, p. 516). Globally, it has been estimated that in 2017 there were 425 million people with diabetes, of which about 90% with type 2 diabetes (Yasmin et al., 2019, p. 3). In industrialized countries, the increase is expected to be 40-50%, while the prevalence in developing and low-income countries the number can double (Yasmin et al., 2019, p. 3). In Sweden, the prevalence increased from 5,8% to 6,8% between 2007 and 2013 in all age categories though most occurred in elderly population aged 65 years and above (Andersson, Ahlbom &Carlsson, 2015, p. 4). In the ages of 65-70 years, studies show that the disease had a higher prevalence in men (18,8%) compared to women (12,8%) in 2013 (Andersson, Ahlbom & Carlsson, 2015, p. 4). This is because women are more concerned to their health and therefore tend to seek health care to improve on their quality life in relation to men (Couras Corrêa et al., 2017 p. 1647). T2D mainly occurs due to insulin resistance that has developed in insulin dependent tissues in the body such as muscles (Couras Corrêa et al., 2017, p. 1646). Insulin resistance implies that the body tissues have decreased their sensitivity towards insulin that results in failure to absorb glucose by the cells. This is compensated by the beta cells in the pancreas through increased production of more insulin that results into hyperinsulinemia (Couras Corrêa et al., 2017, p. 1648). Most common symptoms of the disease include fatigue, increased thirst and increased urine production, weight loss, the disease can also debut with itching in the abdomen and urinary tract infections (Couras Corrêa et al., 2017, p. 1648).The symptoms of T2D are similar to type 1 diabetes, but at the beginning of the disease the symptoms do not need to show up, therefore the disease can be diagnosed several years after the start, when complications have already occurred (WHO, 2021). Risk factors for increased mortality in T2D includes age, poor blood glucose control and cardiovascular factors such as hypertension (Socialstyrelsen, 2018). Lifestyle factors such as inappropriate diet, overweight, obesity, lack of exercise, increased stress levels due to progressive urbanization can increase the incidence of diabetes type 2 Yasmin et al., 2019, p. 4)

Aging with T2D

World Health Organisation (2021) states that people worldwide are living longer, and every country is experiencing an increased aging population beyond 60 years of age and above. According to WHO (2021) an individual who is a minimum of 60 years of age is considered elderly which is the definition related in this study. It is estimated that between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%

(WHO, 2021). Older age is commonly associated with geriatric syndromes including T2D. (WHO, 2021).

Prevention of long-term complications

Elderly patients are more likely to be at higher risk of developing complications of T2D since they are vulnerable (Sorensen et al., 2015, p. 193). Excessive glucose levels in the blood streams may result in both long-term diabetes related macro and microvascular complications (Chepulis et al., 2020, p. 318). More so, nerve damages together with poor blood circulation leads to the development of foot ulcers within elderly patients who are bedriven and lacks physical exercises (Stasini, Margari, Fasoi, Kalesi &Dafogianni, 2020, pp. 1074-1075). According to Stasini et al. (2020, pp. 1072-1074), elderly patients suffer generally with the disease, and their quality of life is described as poor due to their inabilities to maintain physical activities and psychological factors such as low self-esteem. Therefore, early treatment of type 2 diabetes is much more important in order to prevent long term complications which may occur due to hypo and hyper glycaemia. Type 2 diabetes can be managed by regular blood sugar monitoring through use of electrical medical device called blood glucose meter that records glucose levels in the blood system. Moreover, performing regular physical exercises at least 30 minutes of regular, moderate-intensity activity on most days may help in maintaining a healthy weight and also regulate blood sugar levels (Campos de Sousa, Sousa Malaquias, Ribeiro Chavaglia, Barduchi Ohl, Fernandes Silva de Paula, Santos da Silva & da Silva Santos, 2020, p. 2). Adopting a healthy diet should also be considered as an important element in regulating blood sugars through eating higher fiber foods and avoiding food that consists of excessive calories (Campos de Sousa et al., 2020, pp. 3-4). Nurses should also encourage patients to avoid tobacco use because nicotine (bioactive substance in cigarettes) has been shown to directly alter glucose homeostasis which in turn increases the risk of developing long term complications of T2D (Campos de Sousa et al., 2020, p. 4). Pharmacological treatments include insulin injections and metformin in tablet form that helps in lowering glucose production by making body cells sensitive to insulin so that the body make use of insulin effectively (Chepulis et al., 2020, p. 320).

Responsibility of nurses

According to the International council of nurses, a nurse's responsibility should depend on four areas including healthy promotion, relief suffering, restore health and prevent diseases. In this case, a nurse should provide care with respect for the equal rights of all human beings regardless ethnicity, background, gender, social status and other affiliations (Svenska sjuksköterskeförening, 2017, p. 3).Additionally, the person who is in need of medical care, needs for example support, guidance and active help which must be done by attaining a good relationship between a nurse and a patient (Svensk sjuksköterskeförening, 2017 p. 6).According to Fernandes Lima et al. (2016, p. 523) it is recommended for a nurse to provide theoretical and practical education to patients with T2D on how they should control their blood sugar. This

should be done for instance by teaching elderly patients' different techniques of insulin injection. This is to strengthen patient's independence and reduces patient from worrying about complication of diabetes. More so, it is also stated that it's a nurse`s role to make an assessment of a patient's needs, formulate treatment goals that relate to diet, exercise and various practical issues related to the medical treatment on how blood sugar fluctuations occur, how they are experienced and how such can be avoided. Continuously, information about the factors that increase the risk of late complications should be provided by the nurse to the patient (Fernandes Lima et al., 2016, pp. 522-523).

NURSING CONCEPTS

Suffering as part of life

Suffering is an inevitable part of being human and is seen as an experience that all individuals experience, thus relieving suffering is the ultimate motive for all health care globally (Eriksson, 2015, p. 9). Every suffering can be unique depending in different circumstances and it can be caused by a person himself or his surroundings (Eriksson, 2015, p. 12). Suffering can be expressed in various ways and in its deepest essence, suffering is the same as dying (Eriksson, 2015, p. 14). Although suffering is part of human reality, there is no concrete language for expressing suffering, instead man sometimes uses a symbolic language (Eriksson, 2015, p. 19). More so, suffering can not only be physical but also related to mental dimensions (Eriksson, 2015, p. 22). Eriksson (2015, p.77) believes that suffering from a care science perspective can be divided into and described on the basis of three dimensions which includes disease suffering, care suffering and life suffering. Disease suffering is defined as suffering caused by the disease (Eriksson, 2015, p. 78). In connection with a disease, there may be a focus on a part of the body (Eriksson, 2015, p. 78). This focus can be shared by the patient as well as the care staff (Eriksson, 2015, p. 78). The nurse's own reflection on life and suffering can affect how the patient's suffering is noticed (Eriksson, 2015, p.79). In healthcare, there is a preparedness for the fact that pain usually causes suffering and techniques in pain relief have been developed for the benefit of the patient (Eriksson, 2015, p. 79). But it should be noticed that suffering should not be reduced to being identical with pain, rather there is also mental and spiritual suffering for a person who gets an illness and who has to undergo treatment (Eriksson, 2015, p. 80). Health care sufferings can arise due to the gap between patient`s needs and the knowledge that a nurse has to a suffering patient (Eriksson, 2015, p. 81). Moreover, it can be caused by incorrect, insufficient and / or non-care services. (Eriksson, 2015, p. 81). This suffering is present in most contexts where care is provided and is one of the more complex situations healthcare staff may find themselves in (Eriksson, 2015, p. 82). In every nurse- patient meetings, the suffering person is exposed and deserves the best possible treatment to improve on their health and well-being (Eriksson, 2015, p. 82). Eriksson (2015, p. 85) describes the paradox that today's care, which was originally a system intended to provide care for the suffering person, has instead in many cases become the system that causes suffering. Life suffering can occur in situations when the patient does not feel seen and confirmed, or when

life is coming to an end (Eriksson, 2015, p. 88). When the body and / or its functions constitute an obstacle the restricts a man to do what he is intended to do, a life-suffering arises (Eriksson, 2015, p. 88). Illness and ill-health affect the entire human life situation in such a way that access to the world is limited (Eriksson, 2015, p. 89). More Eriksson (2015, p. 89) states that being a patient can be a threat to the person's integrity and autonomy and that life suffering is unique in the same way that each patient is unique.

Self-care

Self-care is a broad and unspecified concept in today's society. According to Hälso och sjukvårdlagen[HSL] (SFS, 2017:30, 2 kap, 1 §) describes self-care as a measure that the individual can perform in case of common illnesses and simple injuries. In the area of self-care, all the health-promoting tasks and treatments that the patient himself or his relatives can handle are counted, without help from the health care system (socialstyrelsen, 2018). The concept also means knowing the limitations of self-care and knowing when a patient should seek medical care for help. Examples of self-care can be to cure yourself from a cold, take over-the-counter medicines for back pain and apply simple wound injuries. However, advice and guidance may be needed for self-care to be safe and effective (Socialstyrelsen,2018). There are health and medical care measure that can be performed as self-care (Socialstyrelsen, 2018). Therefore, the concept of self-care is defined as health and medical care measures that licensed health and medical care personnel have assessed that a patient can perform himself or herself (Gonçalves de Brito, Lisboa Gois, Zanetti, Santana Resende, & Santos Silva, 2016, p. 304). This implies that a licensed professional must initially make an assessment of whether a health and medical care measure can be performed as self-care (Gonçalves de Brito et al., 2016, p. 304). Thereafter, self-care should be planned, and adequate information given to the patient about how self-care should be performed and thereafter evaluated (Gonçalves de Brito et al., 2016, p. 305).. Self-care is regarded as a nursing measure in treatment of chronical diseases including T2D as it allows a patient to intervene in his own healthcare which prevents deterioration and complications thus making a difference in patients' life (Compas de Sousa et al., 2020, p. 3) Self-care for type 2 diabetes means being able to manage your diabetes in different situations that may arise in everyday life. In order for a person to be able to perform self-care, he or she needs to have good knowledge in order to be able to make important decisions regarding his or her way of managing his or her self-care. Self-care is important to prevent complications (Compas de Sousa et al. (2020, p. 2) Self-care management can mean difficulties for people who are 60 years or older due to. that they may have reduced physical function (Dos Reis et al., (2020, p. 1). Multiple illness is also a factor that negatively affects the elderly's self-care ability (Compas de Sousa et al., 2020, p. 3).). Glucose measurement is an important part of self-care because the person with type 2 diabetes must be able to check whether the blood glucose is high or low (Dos Reis et al., (2020, p. 3). Through blood glucose measurement, the person gets a deeper understanding of how glucose in the body is affected by food intake and physical

activity. Increased understanding of the blood glucose value makes the person more confident, which leads to the person not letting the disease affect everyday life (Dos Reis et al.2020, p. 3).

PROBLEM STATEMENT

Type 2 diabetes is the form of diabetes that most elderly people suffer from and living with it may be experienced as difficult and challenging among this patient group. This is because they need to implement lifestyle changes and take initiatives for self-care to be able to manage their illness and live a relatively normal life. Individuals need to face these new situations in various ways and acquire new coping strategies. How these patients handle emotional and physical experiences can be a major problem since they are vulnerable. Therefore, authors seek an understanding of how elderly patients experience living with type 2 diabetes and thereby increase the nurse`s knowledge to provide better support and treatment for these patients.

AIM

The aim of this study was to describe elderly patients` experiences of living with type 2 diabetes.

METHOD

Design

The method used in this study was a literature study that consists of scientific articles with a qualitative approach. In a literature study relevant work from multiple perspectives on a particular topic is being evaluated (Polit & Beck, 2017, p. 87). Authors chose to use this method because it provides an opportunity to compile and analyze previous research on the chosen problem area. This method is based on conducting a systematic search for data collection, critical review and analyzing existing research (Polit & Beck, 2017, pp. 88-90). This study followed a qualitative approach which is more used in nursing research upon researching people experiences. Since our study purpose was about elderly patients experience of living with type 2 diabetes, this method was considered to be appropriate.

Selection criteria

In order to find relevant articles that answered the study purpose, the authors ensured that selected articles meet a predetermined criterion of the purpose based on inclusion criteria and exclusion criteria (Polit &Beck, 2017, p.495). Inclusion criteria for the articles searched were elderly patients diagnosed with T2D ranging from the age of 60 and above regardless of sex. This is because patients in this age group are vulnerable with special care thus authors were interested in their experiences of living with T2D. The study was not gender based because the authors were interested in acquiring the differences in the way both elderly men and women experience the T2D. Moreover, articles were limited to the time interval of 10 years ranging from 2010-2021 in order to get current research as possible. Articles used in this study were limited in only English because both authors thought that it was less challenging to understand

and analyze articles' contents than in any other language. Authors ensured that the articles were original, and peer reviewed to ensure that included articles were examined with good quality, which makes the results more credible (Karlsson, 2017, p. 95). The exclusion criteria included systematic literature review, participants under 60 years of age, articles that included other forms of diabetes, articles that includes a nursing perspective. The critical review was done to assess the quality of the studies (trustworthiness), the differences in the studies 'weaknesses and strengths, (Polit & Beck, 2014, pp. 69 - 70). The scientific quality assessment was done according to SBU's template (2020) criteria which is a template for quality review of studies with qualitative research methodology upon patient experiences. The articles were first read by authors individually to increase credibility, as independent reviewers. An article was chosen to be reviewed following the SBU`s mall together to get confirmation that the authors have interpreted it equally. The grading in the template for reviewing the articles was high, medium and low quality. High quality according to SBU's template meant a good research question and a clear method as well as the researcher's interpretations were included in the data. However, low quality was that these criteria were not met. The articles that reached at least medium quality were selected for the literature study, see appendix I for quality analysis and appendix II for article matrix.

Data collection

To collect data, authors searched scientific articles through databases. CINAHL and PubMed using Medical Subject Headings (MeSH). Searching articles through CINAHL database was relevant for this study because it covers all references for nursing-related research (Polit & Beck, 2017, p. 92). The search was done with indexed words, then CINAHL`s subject headings were used, as well as free text words to get more numbers of articles and not miss important ones. The search was carried out using the Boolean terms "OR" and "AND" in order to get articles relevant to our purpose. Continuously, filters were added to limit articles that were not relevant to the study. Several searches were done in CINAHL with the keywords including "Diabetes Mellitus" AND "Elderly People", "Diabetes Mellitus" AND "self-care", "Type 2 diabetes" AND "suffering", "Type 2 diabetes" and "elderly population", "Diabetes Mellitus" AND "Foot ulcers", "Type 2 diabetes" AND "Aged +" AND "patient attitudes", "Type 2 diabetes" AND "life experience" "Type 2 diabetes" OR "life experience" OR "Aged +." Type 2 diabetes" OR "health promotion" OR "self-care." Based on the study purpose the total articles found were 288. The search in PubMed resulted in 94 articles whereas in CINAHL the search yielded 194 articles with both relevant and irrelevant titles. All titles and abstracts that did not answer the study purpose were excluded and there were only 47 articles that related with the study purpose and were analyzed if they fulfilled the inclusion criteria. After evaluating all of them,35 articles were excluded because they did not fulfill the inclusion criteria and therefore only 12 relevant articles were included in the results after quality analysis. The searched articles are reported in the table, (see table 1).

Table 1: Search matrix

Database	Searched words	Limitations	Articles found	Titles and Abstract read	Articles read	Articles chosen and reviewed
CINAHL	Diabetes Mellitus AND Elderly people	Abstract 2011-2021 English peer review	72	72	8	3
CINAHL	Diabetes Mellitus AND Self-care	Abstract, 2011-2021 English peer review	50	50	6	2
CINAHL	Type 2 diabetes AND Suffering Diabetes Mellitus AND Foot ulcers	Abstract 2011-2021 English peer review	60	60	10	2
CINAHL	Type 2 diabetes AND Elderly population	Abstract 2011-2021 English, peer review	12	12	3	1
PubMed	Type 2 diabetes OR Selfcare Type 2 diabetes OR self-care Type 2 diabetes OR life experience OR Aged+	Abstract 2011-2021 English	18	18	5	1
PubMed	Type 2 diabetes AND Elderly patients AND Experience Diabetes Mellitus AND psychology OR therapy	Abstract 2011-2021 English	30	30	7	1
PubMed	Type 2 diabetes AND Elderly patients AND perspective	Abstract 2011-2021 English	46	46	8	1
Total			288	288	47	11

Data analysis

A qualitative manifest content analysis was used when analyzing the text in order to find the differences and similarities of content in the text (Polit & Beck, 2017, p.530). The content was analyzed according to the obvious meaning of the text. Meaning units were used which are words containing aspects related to each other through their context that will later be condensed (Graneheim & Lundman, 2004, p. 106). The analyzing process was done step by step. First and foremost, authors searched and analyzed the articles individually and then authors read the searched materials several times to create an understanding of the study context in all articles. According to Polit and Beck (2017, pp. 530-531), the articles searched should be read repeatedly in order to get the complete meaning and understanding of various parts of the study. Moreover, the authors analyzed relevant content of the articles using a preliminary coding system by highlighting important text with colored pens. Highlighted notes were used as guiding tools to determine the main theme and the subtheme where each theme gets its own color to structure the work accurately. According to Polit and Beck (2017, p. 531), researchers whose aim are mainly descriptive tend to use codes that are concrete such as the coding scheme that may focus on differentiating several types of actions or events. A code is a sentence that consists of one or two words that summarizes the whole or part of meaning units. Both authors analyzed and coded the text individually and there after discussed and compared each other's similarities and differences found in-between codes. Codes were condensed and those with similar content were merged into subcategories and then into main categories. In this study, three main categories, and six subcategories gave rise to subheadings in the study results. To see an example of analysis of created categories and subcategories, see table 2.

Table 2: Examples of processing of selected material / data

Meaning units	Condensed meaning units	Code	Subcategories	Main categories
"*I was afraid and thought oh, better I go and kill myself"*	I was afraid and thought of killing myself	Self-destruction	Fear and frustration	Emotional experience
It's still early in the disease, if you diet and exercise, you can reverse it. And then I know I've said to people, well, you know, I've gotten to the point where it's irreversible, and some people have said, oh, no, no, no. You know, if you diet and exercise, you can reverse. But there's certain things... certain consequences that just are irreversible"	I have gotten to the point where the disease is irreversible, but some people said If you diet and exercise you can reverse the disease. But their certain consequences	Accepted and adapted self-management towards the disease	Acceptance and Social support	Experience of support

Ethical aspects

In nursing research, all researchers must follow the ethical principles for protecting study participants including animals as well. In Belmont Report, three principles are stated that govern the ethical conduct in research including beneficence, respect for human dignity and justice (Polit & Beck, 2017, p. 139). Ethical aspects have been considered in this study thus authors ensured that the articles that were used in this study were authorised by an ethic committee. Authors also read scientific articles while implementing a critical approach upon evaluating of research ethics considerations. The authors of this study also ensured that the consent of the participants was included in each individual study that was read, as all the chosen articles indicate that there was voluntary participation of the elderly patients that occurred after consent and signing of the Free and Informed Consent Term. According to Polit & Beck (2017,

pp. 139-141) researchers must inform the participants about the study purpose, right to privacy, risks and benefits that may encounter, and those participants have a right to refuse participation even in the middle of the study.

RESULTS

The result is based on 11 scientific articles analysed with a qualitative method. The result is presented in form of three main categories with six sub-categories respectively to describe elderly patients` experiences of living with T2D. The main categories and sub-categories from this study are presented in table 3.

Table 3: Categories and Sub-categories

Main Categories	Sub-categories
Emotional experiences	Fear and frustration Hopelessness
Experiences of support	Acceptance and social support Attitudes towards the healthcare team
Need for diabetes education program	Limited knowledge about diabetes Experience of low self-efficacy

Emotional experience

Among the studies reviewed in this literature study, emotional experiences were clearly emphasized by elderly patients, the experiences include fear and the feeling of hopelessness about concrete situations. The emotions are in various cases associated with the changes that take place after-disease diagnosis and the difficulties in coping up to these changes.

Fear and frustration

Living with T2D has been experienced in different ways by patients, some experienced it as a shock because it is something that is chronic and incurable and there was fear of what life would be like in the future (Chen et al., 2019, p. 8; Bukhsh et al., 2020, p. 9). In the studies of Chen et al., 2019, p. 8; Bukhsh et al., 2020, p. 9), participants experienced emotional factors in form of depression, stress, denial, and fear because of suffering from T2D and its related complications before and after their diagnosis. This mental suffering related to the fact that some patients lived with T2D for a long period of time and their frustration was due to prolonged medications in form of injections. Some participants mentioned a fear of the needle related to their insulin injections (Chen et al., 2019, p. 8; Bukhsh et al., 2020, p. 9). These patients expressed themselves negative and with no hope for the future though some patients expressed their confidence in controlling the disease (Chen et al., 2019, p. 8; Bukhsh et al.,

2020, p. 9). One of the participants expressed his negative experience in form of fear after being diagnosed with T2D but after a certain period, he regained the confidence to control the disease.

> I feel better now, I am always an optimist, or I would not be myself today, I have overcome so many problems… But I know that I had some negative thoughts at the beginning of my diagnosis. I was afraid at that time. (Chen et al., 2019, p. 8)

Patients experienced problems that could be related to their financial constraints upon having the disease. Participants who had low income or low retirement allowance had a great financial burden which includes high costs for diabetes diet and medication (Chen et al., 2019, p. 8; Bukhsh et al., 2020, p. 9). Among the participants, there was a one who expressed his financial burden to afford medical needs "Insulin is very effective, during my job I was provided with free insulin, but as of now I am retired from my job, it's expensive and difficult for me to afford…" (Bukhsh et al., 2020, p. 9).

Hopelessness

Being diagnosed with T2D can be challenging and many patients found it difficult in terms of coping with the emotional impact of the disease. In a certain study carried out in Indonesia about elderly patients coping up with T2D, some participants experienced the psychological burden since the disease came unexpectedly especially those with no family history of T2D (Arifin et al., 2019, p. 113; Bukhsh et al., 2020, p. 10). Participants displayed how powerlessness and overwhelmed they felt of living with T2D. The physical problems that come with the disease including troublesome frequent urination, fatigue, and insomnia led to the development of the psychological burden which in turn led to a feeling of hopelessness (Arifin et al., 2019, p. 113; Bukhsh et al., 2020, p. 10). Many participants decided not to reveal their physical and psychological burden of their disease to their family members because they thought by informing them would not reduce the burden but instead increase the stress in their family. Many participants stated that they lost hope in terms of achieving their responsibilities and obligations as citizens in the society as well as being affected by the general stigmatization that surrounds T2D (Arifin et al., 2019, p. 115; Bukhsh et al., 2020, p. 11). One of the participants described her fear of being stigmatized after gaining weight led by T2D "I was diagnosed with diabetes the first time I had my blood sugar checked at the hospital. I was very stressed. I lost weight and I have lost hope since then" (Arifin rt al., 2019, p. 115). T2D is a chronical disease, and it might progressively affect someone's ways of living leading to a range of negative emotions. Some participants found it difficult to change from their everyday life diet behaviours to the recommended diet plan (Arifin et al., 2019, p. 115; Bukhsh et al., 2020, p. 11). This is because some participants might have had their favourite routine meal during their life journey before acquiring the disease (Arifin et al., 2019, p. 115; Bukhsh et al., 2020, p. 12). This reduced their hope of experiencing the normal life again that was before the diagnose. Thus, many participants perceived this hopelessness as a barrier to adopt and sustain

a healthy diet. This is because they experienced adopting a healthy diet as a burden to their life because it changes their normal eating habits (Arifin et al., 2019, p. 115; Bukhsh et al., 2020, p. 12). Many participants felt of having lost control over their lives. One of the participants explained that its hard for him to change to the recommended diet because its tasteless “I feel it very difficult to sacrifice my food liberty. I am a food lover, and it is hard for me to live a tasteless life, so quite often I enjoy the food of my choice” (Bukhsh et al., 2020, p. 12).

Experience of support

The support from the family and healthcare staff was identified among different studies. Participants experienced this support in form of dietary monitoring and glucose controls, which the participants thought increased the ability to self-care. Despite this, the support from the family and health care staff was considered insufficient by many participants.

Acceptance and family support

In the study of Dahl el al. (2021, p. 4), many participants accepted that the disease was something you could live with, nothing would really change. The participants realised that the disease could not be cured other than keeping their blood sugar levels under control through adopting and practicing self-care (Dahl et al., 2021, p.4). In the same study, the participants could experience that the diagnosis came with something positive, a new start for a healthier life. One of the participants explained how he learn to face with the challenges coming with the disease and how he copes with it.

> It’s bloody annoying...but there’ll be ups and downs when you have diabetes. At one appointment, the figures look fine and then at the next, it’s just been Christmas and then the figures are too high; I think you just have to accept it. (Dahl et al., 2021, p. 6)

Among those participants who experienced challenges in acceptance or a non-appreciation of the disease, faced difficulties in disease management and there was a recognition that there is a lack of motivation within oneself to face the disease and even blaming of oneself (Dahl et al., 2021, p. 5). In the same study one of the patients expressed his weakness in coping with the disease “I don’t worry about it! I try to live as if nothing is happening, I don’t have any disease I think I lack willpower. I know how it should be, but I don’t do it” (Dahl et al., 2021, p. 6).

One of the most determinant factors of compliance with diabetic medications was getting support from family members (Mwila, Bwembya & Jacobs, 2019, p. 3; Dahl et al., 2021, p.7). Many participants explained that integrating new habits into their life to treat diabetes took a long time but having the support of their families proved to be important and beneficial. Participants got family support in form of medicine identification and administrations, performing regular physical exercises and taking a healthy diet. One of the participants informed that “My son has the responsibility to give me medicines. I can’t recognize and

remember my medicines, as every time doctors change my medicines. My son buys medicines for me and has the responsibility to administer me" (Bukhsh et al., 2020, p. 3).

However, there were also some participants who did not receive any family support from their loved ones as one of the respondents reported in the study that was carried out in Zambia (Mwila et al., 2019, p. 4).

> I have it very tough as a diabetic. My children really give a hard time, they tease me. I buy these DM recommended foods, they complain that I am buying expensive food. When in actual sense the same food doesn't even taste nice. So, my heart is really troubled. (Mwila et al., 2019, p. 4)

Attitudes towards the healthcare team

In the study performed in Sweden indicates that many participants experienced support from the healthcare team including free treatment aids and other care staff such as dieticians who assess patients' nutritional needs (Brobeck, Odencrants &Hildingh, 2014, p. 6). The dieticians are perceived to be there to provide support and encouragement. Accessibility was also experienced positively as there was support in being able to call and get help with any questions (Brobeck et al., 2014, p. 7). Getting control of your blood sugar levels and advice on how to live your life with type 2 diabetes was a supporting factor for the participants. Patients' meetings with the care staff that were satisfying included experiences such as empathy, understanding, equality and respect for one's own decision. Medical staff who listened more and understood what the patients wanted and respected their feelings created a better atmosphere that made them feel more motivated to their self-care and felt more worthy (Brobeck., 2014, p. 7). The staff's treatment affected their sense of trust, which led to good cooperation and good yields. One of the participants pointed out that they received a strong support from a nurse to reach their goals that took away that feeling of solving the problems as he expressed that "It felt as though we did it together…even though the nurse did not do it…and that felt amazingly good" (Brobeck et al., p. 8). Another one stated that "When I got back home, I went through everything we had talked about, and it felt really good. I was really happy…the nurse radiates real positivity and made me feel that I could easily fix this (Brobeck et al., p. 8).

However, in a study performed in Norway, a couple of participants meetings with healthcare staff could also be experienced as less satisfactory (Sørensen, Groven, Gjelsvik, Almendingen & Garnweidner- Holme, 2020, p. 3). These encounters were characterized by ill-treatment, ignorance, unkindness, disrespect, which in turn generated feelings of discrimination towards the patients instead of benefiting from good medical services (Sørensen et al., 2020, p. 3). Staff who did not listen to the patients and when there was a difference between their opinions, it created a feeling of insecurity and a lack of trust in the care staff (Sørensen et al., 2020, p. 5). One of the participants revealed his strong preference of being autonomous and listen to in his health plan.

> I want to be listened to and say everything on my mind in each visit. I don't like being interrupted when I speak. I had to find a new nurse because the previous one cut me off when I tried to say what's bothering me. He didn't take my worries seriously and just wanted to get the next patient in. (Sørensen et al., 2020, p. 5)

A study in Finland by Peltola, Isotalus & Åsted- Kurki (2018, p. 1276), shows that lack of understanding of the patient's perception of diabetes increases among nurses who affect the quality of care. This indicates the importance of good treatment, knowledge and education to reduce the risk of mental and physical complications of T2D in elderly patients. The study emphasized that it was also important that the nurses treated patients with great respect for what they always go through daily with the disease (Peltola et al., 2018, p. 1276). This could be done through being aware of the participants' experiences, thereafter a dialogue could be created and open a medical care assessment to the patient on how to live with her illness (Peltola et al., 2018, p. 1276). According to this study, mutual respect between patient and health care staff was taken as a positive experience among study participants (Peltola et al., 2018, p. 1277). Participants allowed care staff to conduct their profession by giving information and present the possible guidelines to their patients. Participants reported that care staff listened to their experiences of their health condition and the results of various treatments they take. During this patient- healthcare staff meeting, all matters were talked about appropriately so that the patients had a realistic view of the dimensions of managing a chronic illness (Peltola et al., 2018, p. 1277). One of the participants acknowledged the health care team about being neutral when discussing about the disease.

> I left there with a positive mentality even though the HCP's answers were not mind encouraging. He talked very clearly about those matters and did not make the illness sound nice, but he did not make it any worse either. That was a very appropriate visit. (Peltola et al., 2018, p. 1277).

Need for diabetes education program

Among the studies reviewed in this literature study was a need for knowledge and teaching about self-care identified. Many participants expressed their limited knowledge towards the disease management in form of diet and performing physical activities. Participants acknowledged group education as it provides an opportunity to exchange experiences.

Limited knowledge about T2D

In the study of Peltola et al. (2018, p. 1274) indicates that most of the patients experience inadequate knowledge about T2D, its complications and how it can be managed Peltola et al., 2018, p. 1274). In the same study one of the patients experienced that the diagnosis of type-2 diabetes aroused a feeling of insecurity and could be related to a lack of knowledge and experience of the disease, but also the fact that she had to start something new in her life. The patient reported that "When type 2 diabetes was diagnosed, the HCP insisted that a mere change

of diet would not suffice. I was merely handed a prescription with no explanation of the nature of the illness or the overall care" (Peltola et al., 2018, p. 1274).

In a study that was performed in Zambia about how elderly people coping with T2D, many participants responded that they had inadequate information, education, and communication messages about T2DM (Mwila et al., 2019, p. 3). This is evident as one of the participants narrated that he needed more information on the disease "When will I get cured from this condition? Where can we get information about what causes diabetes and to cure it?" (Mwila et al., 2019, p. 3). In some cases, T2D has been mistakenly described as things like witchcraft. In a study of Mwila et al. (2019, p. 3), one of the respondents narrated the symptoms that T2D shows is the same ones that his father who died years ago exhibited and that the whole family thought that he had been bewitched. According to this study, these wrong conclusions would not have been made if patients had enough information on their condition ((Mwila et al., 2019, p. 3).

Experience of low-self efficacy

Two studies indicate various factors that could contribute to low self-efficacy including emotional fluctuations and multimorbidity such as arthritis (Husdal Thos- Adolfsson, Leksell & Nordgren, 2021, p. 1004; Lv, Yu, Cao & Xia, 2021, p. 2). Among the participants who were interviewed in the study of (Lv, et al., 2021, p. 3), there was one who rarely exercise because he got an ankle joint injury (Lv et al., 2021, p. 3)

> I don't exercise regularly. I usually do housework at home. I go out for a walk when there is nothing to do at home. I used to do exercise and now, it is difficult for me to walk too much since I broke my ankle five years ago. (Lv et al., 2021, p. 5)

Most participants followed their medical prescription as recommended by a health care staff, especially those who received insulin treatments (Lv et al., 2021, p. 5). Few patients experienced difficulties in terms of adherence to medication order, and most participants stated that care staff did not tell them how to take the different medicine which led them to take it incorrectly (Lv et al., 2021, p. 5). It was a universal phenomenon for them to forget whether they took their pills or not, due to having too many kinds of drugs and memory impairment, even though they were reminded by a spouse (Lv et al., 2021, p. 5). Among those participants, one of them revealed that he often forgets to take his insulin injection when leaving home as he pointed out that "I often forget to take my medicine and insulin injection, although I have been unwell for a long time. Sometimes I fail to bring an insulin pen with me when I go out" (Lv et al., 2021, p. 6).In the same study, some participants felt stressed, upset, and confused, particularly when their diabetes was under poor control with increasing symptoms and when their blood glucose was fluctuating to a great extent, and they had no idea how to deal with it (Lv et al., 2021, p. 6). Patients considered it as a burden and being unfair for them compared with non-diabetics. Most patients agreed that diabetes self-care costs them a lot of energy and

time when they are already old as one of them reported that "It is suffering to have diabetes, you must pay attention to your diet, physical activity, and insulin injection. It is imbalanced compared with the responsibilities other people have" (Lv et al., 2021, p. 6).

Many participants who experienced physical discomfort caused by hyperglycaemia, such as restless legs, dry mouth or headache, did not have the knowledge to deal with this situation, and usually do not seek the help of healthcare providers until they cannot bear it. Participants elaborated that they were used to these experiences and think it is not a problem to worry about. Going to the hospital is full of challenges for them, because the hospital has made a lot of electronic devices, which requires certain experience and health literacy. Therefore, they could hardly adapt to the rapid development of the new mode of medical treatment and examination without help as one of the participants explained.

> "Perhaps because I am old, going to the hospital to see a doctor is really a big challenge for me, now the hospital and the city is developing so fast and use many intelligent equipment. I will not come to the hospital until my condition is particularly serious." (Lv et al., 2021, p.4)

De lima Santos, Mantelo Cecilio & Silva Marcon. (2015, p. 526) found that health education has a significantly greater impact on improvement of self-efficacy among T2D patients with low level of education and high proportion of unemployment. Patients found with low self-efficacy had a tendance to abandon treatment due to various obstacles because they do not believe in their ability to self-care (De lima Santos et al., 2015, p. 527).

DISCUSSION

Method discussion

In the method discussion, this study's strengths, and weaknesses as well as the authors' own reflections are discussed. The factors that may have influenced the results of the study are discussed based on methodological concepts such as transparency, authenticity and credibility described by Polit and Beck (2017, p. 160). The authors will discuss data collection, search strategy, data analysis and the quality of the included articles. A literature study was chosen for this thesis to gain deeper knowledge and understanding of the elderly patient's experience of living with T2D. According to Polit and Beck (2017, p. 161), it is important to choose the right kind of studies to include when the intention is to compile scientific articles. In this literature review, author use only qualitative articles. Since the purpose of this study was to describe elderly patients` experience of living with type 2 diabetes, authors choose qualitative articles that contained experiences, and stories from elderly people with T2D different countries such as Sweden, Zambia, Brazil, Iran and China. The design of the study is relevant because it focuses on previous studies and contains a large variety of nursing research within the chosen study area (Polit & Beck, 2017, p. 161). The Authors also thought that a phenomenological

study design would be suitable for the chosen purpose because it focuses on the subjective nature of human experience. There has been limited studies about the elderly population and how they experience living with T2D, therefore this study design could also suit our purpose. The inclusion criteria selected in this study were used to fit the purpose of the study (Polit & Beck 2017, p. 465). The inclusion criteria that were chosen gave rise to high quality of articles that matched the study purpose, therefore the inclusion criteria were seen as a strength. Low quality articles were excluded from the study as they could provide misleading information that would have caused an impact on the study results and quality. Therefore, this is considered a strength because it increases the reliability and quality of the literature study. Articles that were not available in full text, studies that could not be accessed via Södertörn`s library, studies that had a quantitative approach were excluded from this study. This can be considered as a weakness in the study, as articles that were not available in full text and could not be reached via Södertörn's Library, would have contained relevant information that authors missed.

Furthermore, authors ensured that all included articles are peer-reviewed. According to Polit and Beck (2017, p. 568), all research studies have to be analysed and reviewed by other researchers before being published. Furthermore, the collected data was analysed using a qualitative content analysis based on design of codes and categories that highlighted similarities and differences in scientific articles presented in the results. This analysis method has simplified the process of data collection and development of relevant information and contexts related to the purpose of the study. In the search process, the reliability of the results increased by using two databases to perform the data searches, PubMed and CINAHL The focus of the searches was on nursing to increase the opportunities to find studies of relevance (Polit & Beck, 2017, p. 92). According to Karlsson (2017, p. 87), the choice of databases depends on the subject area and that it is needed more than two databases to be able to find the right information. According to Karlsson (2017, p. 88), it is important to find out what the databases contain in order to find relevant articles. Alternatively, the breadth of scientific articles would increase if further searches were performed on the PubMed database or other nursing-based databases, as most searches were made on CINAHL. To further increase the sensitivity, Boolean search operators were used, which made it possible for terms to be combined with "AND" and for searches to be expanded with "OR", in this way credibility could also increase and NOT, to limit the searches. Authors experienced difficulties in trying to find the right keywords to use, thus it took a lot of time to get relevant articles since they were few studies on elderly patients and this was solved by authors booking an appointment with the university librarian regarding keywords and systematic search. In the first selection of articles, the authors may have missed relevant articles because they started by reading only headlines and abstracts that they were perceived as interesting. Moreover, authors wrote their study in English since the articles used are also in the same language and for this case the credibility of the results were not affected. The quality of the chosen articles was analyzed using the four quality criteria formed by Lincoln and Guba (1985, cited in Polit and Beck, 2017, pp. 559–560). In this study authors looked on the

“Confirmability” as one of the four quality criteria that the authors in this review have strived for through the process of developing the study's quality and credibility. Confirmability includes that the information is independent of the authors' own interpretations, prejudices or perspectives (polit & beck, 2017, p. 559). Therefore, the authors have tried to be objective in relation to the subject and the information collected from the included scientific articles. The authors have tried to be close to the text in the analysis work and no subjective interpretations were made. This was done by re-reading original text several times to ensure not to miss important information which increased the credibility of this study. The data read is reliable because the articles were quality reviewed and weakness as well as strengths in the articles were discussed. Studies selected for the literature study have been conducted in different countries, between different years and in the results, the reader can see a coherent answer about experiences of T2D.This was because authors wanted to obtain information from both a national and global perspective. This means that the results of the study were probably transferable and could be applied to people in other countries. Transferability is described as the extent to which the results can be transferred to other population, times and contexts (Polit & Beck, 2017, p.559. Additionally, the healthcare system, lifestyles and culture differed in the countries, but regardless of the country, the results showed that eldely patients with type 2 diabetes experienced the disease in the same way.Time interval for the articles' year of publication was limited to ten years in order to discover articles of updated information and relevance to how care is structured in the present.

Result discussion

The purpose of this study was to describe elderly patient's experiences of living with type 2 diabetes. The various experiences presented in the result part of the literature study in form of interviews will be discussed below basing on the two nursing concepts presented in the background.

Emotional challenges of living with T2D

The results of the literature study showed that suffering from T2D can lead to emotional fears, that involve a painful confrontation and demands to change the way of life based on the new situation.The results also showed that patients experience negative psychological effects, such as stigma, frustration, guilt, depression in relation to T2D. Negative psychological effects are explained by Gonçalves de Brito et al. (2012, p. 587) as barriers that lead to patients' inability to carry out self-care and lower their motivation for lifestyle changes. Difficulties in coping with self-care can lead to depression as it is presented in the results of literature study. Dos Reis et al., (2020, p. 2) describes the importance of preventive self-care to prevent worsening of illness and complications. The goal of self-care is for the person to regain their well-being. Diabetes is a progressive chronic disease that can be experienced as mentally and emotionally draining for example stress can cause blood sugar to rise, but at the same time, the disease itself can also cause stress (Gonçalves de Brito et al., 2012, p.589). These psychological reactions

can affect glycemic control, treatment, and latent complications. This demonstrates the importance of a nurse to show compassion when the patient discusses their suffering with the disease (Svenska sjuksköterskeförening, 2017). Through listening, the nurse can relieve the patient from feelings of guilt and shame. The authors think that this can create opportunities for patients to come out of their suffering which in turn increase their quality of life. The results showed that the nurses have a tendance of only focusing on concrete problems and not on the patient's own questions and concerns, which creates a negative impression on the patients. Svensk sjuksköterskeförening, (2017) explains that it is not primarily the disease that is in focus in nursing but the individual who seeks care. At the same time as the disease is being treated, the focus should still be on understanding how the patient's well-being can be strengthened and supported (Svensk sjuksköterskeförening, 2017). The result also showed how patients' experiences of the disease are crucial for success with self-care and lifestyle changes. This is supported by Areshtanab, Moonaghi, Jouybari, Zamanzadeh and Ebrahimi (2018, p. 733) who emphasizes that patients who experience a negative psychological impact in relation to the disease have always difficulties in changing their lifestyle and implementing self-care (Areshtanab et al., 2018, p.729). Areshtanab et al. (2018, p. 732) demonstrates that positive psychological health may sustain long-term coping efforts and protect patients with T2D from the negative consequences of prolonged emotional disorders, illness perception and thus facilitating diabetes self-management behaviours and better physical health. According to Yundarini, Noorhamdani & Kristianto, (2018, p.374) if a person is found to have a good self-concept, that person has a form of acceptance and high self-esteem. Self-acceptance helps individuals to adapt to the problems faced and being able to bounce back to their normal social wellbeing after accepting the problem (Yundarini et al., 2018, p. 377). Robinson, Hanna, Raine & Robertson (2017, p. 828) describes that someone who has poor self-acceptance tends to view the issue as a burden and choose to ignore the problem. In contrast, individuals with good self-acceptance tend to think positively and seek resolution of the problems (Robinson et al. 2017, p. 829). Eriksson (2015, p. 89) believes that healthcare should strive to eliminate unnecessary suffering providing care without violating the patient's dignity. Eriksson (2015, p.89) believes that the feeling of loss of self-identity in chronically ill people gives rise to suffering. This loss of identity is the result of a limited life, social isolation, the feeling of being a burden to others and a deteriorating reputation. According to Yundarini et al (2018, p. 377) elderly patients with T2D tend to have low coping strategies to self-care than young ones with T2D. This is because diabetes leads to a feeling of being vulnerable and fragile and elderly people see themselves as sick and not as the individuals they were before the disease. Yundarin et al. (2018, p. 378) states that it is important for the nurses to support these patients both physically and emotionally to be able to perform self-care by being able to take care of their medication and wellbeing.

Support to self-care

The support from family members and the health care staff was experienced by elderly patients as facilitating diabetes management. The result demonstrated that family support played a vital role in the disease management. It also showed that in families where relatives were not concerned about the patient’s condition, that patient felt lonely and hopeless, and the disease condition continued to deteriorate. This is supported by Compas de Sousa et al. (2020, p. 8) who demonstrates that social support is considered as a supporting factor in terms of disease management among vulnerable groups. Moreover, it makes a patient to feel secure after knowing that there is always support from the health service and the opportunity to call for advice. This then requires that the health care is easily accessible to the patients to enable this support (Rabelo et at., 2021, p.5). However, the result showed that not everyone experiences this accessibility and thus there were some patients that experienced inadequate support from the health services and families. According to Compas de Sousa et al. (2020, p. 6), one reason for this may be that there is a certain amount of discrimination against the elderly in society. Society strives for productivity and independence, which elderly people cannot achieve in the same way as middle-aged and younger people. Thus, the authors believe that by supporting elderly patients in achieving self-care will allow patients to be independent and autonomous. Compas de Sousa et al. (2020, p. 6) describes that older people find it more difficult to maintain their independence and the opportunity to do so deteriorates the older the person gets because both the physical and cognitive function deteriorates with age. Self- care in form of physical activities can be stimulated in elderly people by social interaction or pursuing a hobby that is manageable for the patient (Robinson et al., 2017, p. 839). The authors believe that this is an important part of the treatment plan in elderly people with T2D. Moreover, it is important that the nurse is aware of what own resources the patient has to be able to help that person in managing self-care and fulfill their goal of treatment. Rabelo et al. (2021, p. 7) claims that in order to understand how the patient experiences their everyday life with the disease, the nurse must ask the patient, how it is and how it feels. Robinson et al. (2017, p. 843) reveals that one of the basic factors for the patients to become an expert on their disease is a mutual relationship between the patient and the nurse (Robinson et al., 2017, p. 843). The authors apply this to a nursing concept suffering where Eriksson (2015, p. 90) claims that a nurse should create a warmly relation with the patient by raising awareness and creating meaning in the patients suffering. By daring to ask questions, listen and confirm the patient's expression of suffering as a nurse, the nurse can make the suffering bearable. Authors thus also address the relationship between nurse and patient as a central part in relieving suffering based on trust, openness, empathy and patience of which the patient might reflect it as support from the healthcare.

The importance of knowledge about T2D towards patients

Low health literacy has emerged in the result of this literature study as a strong barrier for eldely patients` ability to effectively manage the disease. The risks of developing diabetes-related complications in elderly patients are mostly influenced by the patient's knowledge and management of the disease (Sims Gould et al., 2019, p. 2). This is supported by Kellow, Palermo and Choi (2020, p. 2277) that claims that patients who lack sufficient knowledge about the disease tend to have difficulties in coping with it. The authors consider it worrying as Socialstyrelsen (2018) implies that an important aspect of being able to manage self-care by the patient is knowledge of the disease and what the individual can do to improve their care. The authors of the literature study believe that it is important that elderly people who are to manage their self-care receive sufficient information, as Kellow et al. (2020, p. 2277) describes that people need facts to be able to perform self-care and social groups are needed for learning self-care. It is important that the nurse has knowledge in the area he teaches, both theoretically and practically. Kellow et al. (2020, p. 2278) implies that by setting up different strategies including diabetes education programmes will improve self-confidence and the ability to manage their blood glucose levels on their own. This is because it provides opportunities for people with similar health challenge to reflect and learn from each other’s experience (Sims Gould et al., 2019, p. 4). The result of the literature study reported that participants who attended the education programme experienced social support and a sense of solidarity within the group, knowing that everyone was ‘in the same boat’, managing the same complex chronic condition. Moreover, it allows patients to feel comfortable and open to ask questions, concerning the disease and this openness facilitate discussions about current care, struggles, successes, concerns, and questions that participants would or could not have spoken openly about otherwise (Sims Gould et al., 2019, p. 6). The authors believe that the education program should cover important diabetes-related issues including nutritional information, lifestyle changes and how to manage psychological burden related with T2D.Through implying the nursing concept suffering, Eriksson (2015, p.80) states that preventing suffering is part of nursing, thus it’s important for a nurse to understand the patient experience of the disease. Being friendly, polite and helpful is the basis for a good attitude meaning that if the care staff have a condemning attitude towards the patient in connection with care, a healthcare suffering may arise (Eriksson, 2015, p. 82). From the results of the literature study, healthcare's attempt to alleviate the patient's suffering were primarily dedicated to the use of medical technology and medicines. The nurse's attention to the treatment occupied a greater interest than trying to understand what it was that made the patient suffer. According to Eriksson (2015, p. 10), the suffering person needs help to regain the ability to be himself. But then the nurse must dare to see the patient's suffering, dare to listen when the patient tries to express their suffering and dare to stay when the patient's emotional suffering arises.

CONCLUSION

The knowledge regarding how elderly patients experience of living with T2D has been enhanced throughout this study. Support from healthcare and other people plays a vital role in the treatment of the disease and self-care. Moreover, providing patients with education programs about T2D and counselling increase the patients' capabilities to take control over their state of health. Knowledge and understanding of the disease help the patient to prevent complications and have a positive psychological impact. Misunderstandings between the patient and healthcare professionals can cause mental health problems and create major barriers for the patient in relation to self-care and lifestyle changes. Therefore, it is important that healthcare professionals have an open approach to their work and mostly have the patient in focus and not the disease in order to be able to provide the best support and facilitate their management of the disease.

Clinical Implications

In this literature study, it has emerged that patients feel that they are not seen as individuals, but rather as a disease and that there is a lack of compliance in the dialogue between a nurse and the patient. One proposal is to continuously ensure that staff receive adequate guidance and training in patient-nurse meetings. They should also have the opportunity for reflection and be able to support and help each other when facing difficulties upon performing a certain task. The results of the literature study can also provide suggestions on how the nurses can improve their knowledge and support for elderly patient's living with type 2 diabetes.

Proposal for further research

Elderly people with T2D fall among the patient groups that the nurse meets during her professional journey, regardless of workplace. Research shows that patients' experiences with T2D are correlated to both physical and mental stress and these experiences are individual. This literature study explores experiences of living with T2D in the elderly population, but it would be interesting to find more research that looks at the differences in experiences between men and women with T2D. Furthermore, it would be interesting to investigate what resources these people have to cope with the illness depending in which country they live. This can provide an opportunity of improving the healthcare system by providing the care that is person-centred and equal.

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APPENDICES

Appendix I:1. *Quality review template for assessment of studies with qualitative methodology based on SBU (2020)*

Bedömning av studier med kvalitativ metodik

UPPDATERAD 2020-10-06

Författare: ______________________ År: ________________

Granskare: ____

Sammanvägd bedömning av metodologiska brister:
Obetydliga eller mindre ❑ Måttliga ❑
Stora brister, studien ingår inte i syntesen ❑

Kommentarer:

BEDÖMNING AV STUDIER MED KVALITATIV METODIK 1

Appendix I:2 *Quality review template for assessment of studies with qualitative methodology based on SBU (2020)*

1. Överensstämmelse mellan filosofisk hållning/teori och urval och metodik i studien[1]			
Vilken teori eller filosofisk hållning utgick författarna från?			
Hänger syfte och fråga ihop med teori/filosofisk hållning?	Ja ❑	Nej ❑	Oklart ❑
Kommentarer:			

2. Deltagare			
Hur gjordes urvalet?			
Stödfrågor för bedömning av brister i urvalsförfarandet:	**Ja**	**Nej**	**Oklart**
Är urvalet lämpligt för att besvara frågan?	❑	❑	❑
Är rekryteringsmetoden lämpligt vald och genomförd?	❑	❑	❑
Finns det allvarliga brister som kan påverka tillförlitligheten?	❑	❑	❑
Kommentarer:			

3. Datainsamling			
Vilka metoder användes för datainsamling?			
Finns det allvarliga brister i datainsamlingen som kan påverka tillförlitligheten?	Ja ❑	Nej ❑	Oklart ❑
Kommentarer:			

2 SBU – STATENS BEREDNING FÖR MEDICINSK OCH SOCIAL UTVÄRDERING

Appendix I:3 *Quality review template for assessment of studies with qualitative methodology based on SBU (2020)*

4. Analys

Vilka metoder användes för analys?

Stödfrågor för bedömning av brister i analyssteget:	**Ja**	**Nej**	**Oklart**
Är vald analysmetod lämplig och genomförd på ett lämpligt sätt?	❏	❏	❏
Var forskarna reflexiva vid tolkning av data?	❏	❏	❏
Validerades tolkningarna?	❏	❏	❏
Finns det allvarliga brister i analysen som kan påverka tillförlitligheten?	❏	❏	❏

Kommentarer:

5. Forskaren

Vilken bakgrund och kompetens hade forskarna?

Stödfrågor för bedömning av brister:	**Ja**	**Nej**	**Oklart**
Har forskarna någon relation till studiedeltagarna som kan påverka datainsamlingen?	❏	❏	❏
Har forskarna hanterat sin förförståelse på ett acceptabelt sätt?	❏	❏	❏
Var forskarna oberoende av finansiella eller andra förutsättningar som kunde påverka analysen?	❏	❏	❏
Finns det allvarliga brister som kan påverka tillförlitligheten?	❏	❏	❏

Kommentarer:

Gör en total bedömning av risken för att metodproblem påverkar resultaten.
För in det på sidan 1.

BEDÖMNING AV STUDIER MED KVALITATIV METODIK 3

Appendix I:4 *Quality review template for assessment of studies with qualitative methodology based on SBU (2020)*

Frågor som används i samband med bedömning i CERQual

Bedömningarna görs enbart för studier som ska ingå i syntesen.

6. Relevans	
Studien är relevant	❑
Studien har partiell relevans	❑
Studien har indirekt relevans	❑
Relevansen går inte att bedöma	❑

Kommentarer:

7. Koherens			
Stödfrågor:	**Ja**	**Nej**	**Oklart**
Användes huvuddelen av data i analysen?	❑	❑	❑
Hanterades motstridiga data på ett lämpligt sätt?	❑	❑	❑
Underbyggde insamlade data resultatet?	❑	❑	❑
Sammantaget, finns det allvarliga svagheter som kan leda till bristande koherens i det sammanvägda vetenskapliga underlaget?	❑	❑	❑

Kommentarer:

8. Tillräckliga data			
Stödfrågor:	**Ja**	**Nej**	**Oklart**
Var antalet studiedeltagare tillräckligt stort? (t.ex. om mättnad uppnåtts)	❑	❑	❑
Har formen för datainsamling varit sådan att den medger möjlighet till rika data?	❑	❑	❑

Kommentarer:

Appendix II *Article matrix for the 11 articles*

Article nr	Author/year /country	Title	Purpose	Participants	Method	Results	Study Quality
1	Arifin, B., Probandari, A.,Purba,A. K.R., Perwitasari, D.A., Schuiling-Veninga, C.C.M.,Atthobari,J., Potma, M.J. 2020 Indonesia	"Diabetes is a gift from god" a qualitative study coping with diabetes distress by Indonesian outpatients.	To explore distress and coping strategies in Indonesian T2DM outpatients in a Primary Healthcare Centre	43	Qualitative study with descriptive and semi-structured interviews	Two main themes were emerged: internal and external diabetes distress and coping strategies. Internal diabetes distress consists of disease burden, fatigue due to T2DM, fatigue not due to T2DM, emotional burden (fear, anxiety, etc.) and lack of knowledge	High
2	Brobeck, E., Odencrants, S., Bergh, H., & Hildingh, C. 2014 Sweden	Patients' experiences of lifestyle discussions based on motivational interviewing	To describe how patients in primary healthcare settings experience lifestyle discussions based on motivational interviewing.	16	Qualitative method using. a descriptive design	The results show that the lifestyle discussions could enable self-determination in the process of lifestyle change but that certain conditions were required. Mutual interaction between the patient and the nurse that contributes to a sense of well-being in the patients was a necessary condition for the lifestyle discussion to be helpful.	High
3	Bukhsh, A., Goh, B.H., Zimbudzi, E., Lo, C., Zoungas, S., Chan, KG., Khan, TM. 2020 Pakistan	Type2 Diabetes Patients' Perspectives, Experiences, and Barriers Toward Diabetes-Related Self-Care	To explore explore perspectives, practices, and barriers to self-care practices in urban Pakistani adults with type 2 diabetes mellitus (T2DM).	32	Qualitative method using a semi-structured interviews	Six themes were identified: role of family and friends, role of doctors and healthcare, patients' understanding about diabetes, complication of diabetes and other comorbidities, burden of self-care, and life circumstances	High
4	Chen, J., Jing, X., Liu, X., Volkmann., A-M., Chen, Y., Liu, Y., ... Ma, J. 2019 China	Assessment of factors affecting diabetes management in the City Changing Diabetes (CCD)	To identify the local levels of vulnerabilities among patients with Type II diabetes (T2D) in Tianjin.	229	Qualitative method with semi-structured interviews	Twelve themes involving 29 factors were associated with diabetes patients' vulnerability:Financial constraints, Severity of disease, Health literacy, Health beliefs, Medical environment, Lifestyle change, Time poverty Healthcare-seeking behaviours were limited by	

		study in Tianjin				work, Healthcare-seeking behaviours were limited by family issues, Mental Condition, Levels of Support, Social integration and Experience of transitions.	
5	Dahl, M., Søndergaard ,S.F.,Diederichsen,A., Pouwer, F., Pedersen, S. S.,Søndergard,J.& Lindholt, J. 2021 Danmark	Facilitating participation in cardiovascular preventive initiatives among 22 people with diabetes	To explore how people experienced living with T2D to understand how to improve the uptake in initiatives targeting the prevention of CVD.	17	Qualitative method using semi-structured interviews	The participants' experiences of living with T2D fell along two continuums, from an emotional to a cognitive expression and from reactive to proactive disease management. This led to identification of four archetypal characteristics: powerlessness, empowerment, health literacy,and self-efficacy.	
6	de Lima Santos, A., Mantelo Cecilio, H. P., & Silva Marcon, S. 2015. Brazil	Perception of people with type 2 diabetes mellitus concerning an educational health process	To understand the perception of people with type 2 diabetes mellitus about the participation in an educational health process	26	Qualitative method with descriptive design	Two thematic units emerged: Being in group: space for embracement and construction of knowledge; and Realizing changes resulting from being in a group. Participatory meetings proved to be efficient, as they were configured as support network, space for motivation, construction of knowledge about the disease.	High
7	Husdal, R., Thors Adolfsson, E., Leksell, J.,& Nordgren, L. 2021 Sweden	Diabetes care provided by national standards can improve patients' self-management skills	To gain a deeper understanding of how people with T2D perceive Swedish primary diabetes care and self-management support	28	Qualitative research design	The main theme emerging from the focus group data was that diabetes care provided by national standards improved self-management skills. Two themes were emerged: the importance of a clarification of structures and procedures in primary diabetes care and health-care staff 'being there' and providing support enables trust and co-operation to enhance self-management.	medium
8	Lv, X., Yu, D., Cao, Y. & Xia, L 2021. China	Self-Care Experiences of Empty-Nest Elderly Living with Type 2Diabetes Mellitus	To explore self-care experiences for a chronic disease among empty-nest elderly patients with T2DM in mainland China	15	A descriptive phenomenological design and semi-	The participants were poorly adept with monitoring their blood glucose and lacked the ability to deal with abnormal blood glucose levels. Most participants had a good relationship with medication and physical activity. Elderly empty-nesters also	medium

					structured interviews	lacked knowledge about diabetes and paid little attention to potential complications	
9	Mwila, KF., Bwembya, PA.& Jacobs,C. (2019). Zambia	Experiences and challenges of adults living with type 2 diabetes mellitus presenting at the University Teaching Hospital in Lusaka, Zambia.	The study explored the experiences and challenges of adults living with type 2 diabetes mellitus (T2DM)	28	A qualitative descriptive study was conducted	Results showed that some participants living with T2DM experienced physical and mental illnesses. Participants' views reflected that their livelihood with T2DM was influenced by family support, poor or non-adherence to treatment guidelines and access to information, education and communication materials. The most important challenges reported were psychosocial and financial.	Medium
10	Peltola, M., Isotalus, P., Åsted- Kurki , P. 2018 Finland	Patients Interpersonal Communications Experiences in the Context of Type 2 Diabetes Care	To determine the relational communication characteristics of professional–patient communication situations that have either facilitated or impeded patients' self-management	25	A descriptive qualitative design with semi-structured interviews were used	The results show that both positive and negative experiences described by patients were connected to four multidimensional relational communication characteristics: (a) building trust in the other party in the professional–patient relationship, (b) willingness to communicate, (c) emotional presence, and (d) appropriateness	Medium
11	Sørensen M, Groven KS, Gjelsvik B, Almendingen K, Garnweidner - Holme L. 2020 Norway	Experiences of self-management support in patients with diabetes and multimorbidity	To explore how patients with diabetes and multimorbidity experience self-management support by general practitioners (GPs), nurses and medical secretaries in Norwegian general practice	11	A qualitative method with semi-structured interviews	Four themes were identified: HCPs provide diabetes specific competence and personalised care', A desire to be heard', 'Perceived inadequate shared decision-making in T2DM' and 'Patient autonomy Patients experienced HCPs as particularly attentive towards the psychological and emotional aspects of living with diabetes.	Medium