

F E N D

Foundation of European Nurses in Diabetes

21st Annual Conference

9-10 Sept 2016
Munich Germany



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We thank the pharmaceutical industries for their participation in the exhibition during the conference and International Diabetes Nursing (the official journal of FEND) for reporting this conference.

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CONFERENCE WEBCASTS

Please note that the keynote presentations will be available to view on the FEND website shortly after the conference. (slides plus presenter video).

Therefore you are courteously requested not to take photos or recordings of presentations.



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FEND Mission Statement

The objects for which FEND is established are:

- To promote for the public benefit improvements in the health and treatment of sufferers from diabetes by the development and promotion of the role of the diabetes nurse specialist throughout Europe.
- To promote for the public benefit the education and training of nurses working in diabetes care throughout Europe, by the development and support of training programmes, including the organisation of conferences and symposia, to further such programmes and the dissemination of information relating to the proceedings at such conferences or symposia.

Welcome

Dear Participants

On behalf of the Executive committee of FEND it is our pleasure to welcome you most warmly to the FEND 21st Annual Conference and the city of Munich.

The conference reflects the complexities and continuing challenges of the diabetes epidemic in Europe. The patient experience is centre stage in this year's programme and marks the significant contribution that people with diabetes make in influencing the provision of care and the characteristics of care. The patient narrative will be of profound interest to all.

FEND continues to play an active role in advocacy, policy development and implementation. To this end as a member of European Coalition on Diabetes (ECD) we are engaged with EU Parliamentarians and also national parliamentarians through the Global Network of Parliamentary Champions.

The contribution of diabetes nurses in meeting the many challenges of the diabetes epidemic is not fully realised in all countries of Europe. To meet this challenge FEND continues to provide an academically accredited training programme led by Prof Angus Forbes, FEND Professor in diabetes nursing, research and education. This programme is available to all members of FEND and it is noteworthy that the cost of this unique programme is funded by FEND.

FEND continues to work with key pan-European organisations within the European Coalition on Diabetes (ECD) comprising EURADIA, FEND, IDF Europe and PCDE.

We thank our distinguished international speakers for their commitment and generosity of time. We thank Prof Juleen Zierath, President EASD for her courtesy and support in permitting this conference to be included in the programme of meetings on the occasion of 51st Annual Meeting of EASD.

We acknowledge with deep appreciation the continuing support of our key sponsors for all of FEND's activities.

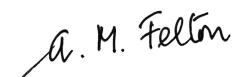
Your attendance at this conference represents diabetes nursing from Europe and beyond – a truly international gathering and evidence of the commitment of the nursing profession to people with diabetes.

We thank you for your presence and active participation – the conference is now in your hands.

Kristin de Backer
FEND Chairman



Anne-Marie Felton
FEND President



Friday 9 September 2016		
0730	Registration and Coffee	
0845	Welcome and Opening Remarks	<i>FEND Chairman</i> Kristin de Backer <i>FEND President</i> Anne-Marie Felton
		<i>Session Chairs</i> Prof Regina Wredling Kristin de Backer
0900	SPECTRUM Education Programme	Ulrike Thurm
0930	Developing Preventative Interventions for Women with a History of Gestation Diabetes Mellitus (GDM)	Prof Angus Forbes
1000	The Role of the Pharmacist in the Diabetes Team in Supporting Patients and HCPs	Sander Ketzner
1030	Refreshments & Exhibition	
		<i>Session Chairs</i> Linda Cann Anne-Marie Wangel
1100	A Portrait of the Polish Diabetes Nursing Organisation	Ania Stefanowicz
1130	Management of Complex Therapies in T2 Diabetes	Prof Ralf Schiel
1200	Diabetes: Immunotherapy and Vaccination	Prof Anette Ziegler
1230	Lunch & Exhibition	
		<i>Session Chairs</i> Chris Delicata Linda Horsted Raimond Debbie Jones
1400	Diabetes and Political Advocacy	Hon Dr Simon Busuttill Adrian Sanders
1430	The MyQuest Consultation Tool from Concept to Dissemination - An Example of Diabetes Nurse Research	Dr Gillian Hood
1500	Oral Presentations: 19. (see page 42) 20. (see page 43) 24. (see page 49)	Sukriye Sahin Rita Forde Sarah Gane
1530	Refreshments & Exhibition	
		<i>Session Chairs</i> Sarah Hills
1615	Joint Action on Chronic Diseases - Diabetes as the Exemplar	Dr Marina Magini
1930 2000	Pre Dinner Cocktails Conference Dinner Altes Rathaus (Old Town Hall), Marienplatz 15, Munich	

Saturday 10 September 2016		
0845	Welcome Address	Dr Monika Gruesser <i>EASD MD & CEO</i>
		<i>Session Chairs</i> Simon O'Neil Linda Cann
0900	Diabetes and Cardiovascular Disease	Prof Sally Marshall
0930	Co-creation of Wellness : New Models of Interaction Between People Living with Diabetes and HCPs	Dr Petra Wilson
1000	The Translation of Diabetes Research to Care and Education - an AADE Perspective	Hope Warshaw
1030	Refreshments & Exhibition	
		<i>Session Chairs</i> Arja Halkoaho Birtha Hansen
1100	Let's talk about it.... Type 2 Diabetes and the Need to Plan for Pregnancy	Rita Forde <i>FEND Doctoral Fellow</i>
1130	Life Interrupted: Adult Onset Type 1 Diabetes	Mette Due-Christensen <i>FEND Doctoral Fellow</i>
1200	1. Narrative Medicine in Practice 2. Narrative Medicine - Patient and Professionals	1. Dr Natalia Piana 2a John Grumitt 2b Dr Tuula-Maria Rintala 2c Walter Bube
1300	Lunch & Exhibition	
		<i>Session Chairs</i> Ana Paiva Deirdre Kyne-Grzebalski
1415	Masterclass: Do the Write Thing! Publish Your Work in Various Media	Prof Angus Forbes et al
parallel	Guided Poster Tour	<i>facilitators: Tineke Dijkstra & Claudia Leippert</i>
1500	Refreshments & Exhibition	
1530	Masterclass (repeat): Do the Write Thing! Publish Your Work in Various Media)	Prof Angus Forbes et al
parallel	Guided Poster Tour (repeat)	<i>facilitators: Claudia Leippert & Tineke Dijkstra</i>
		<i>Session Chairs</i> Mette Due-Christensen
1615	The Evolving Role of the Diabetes Specialist Nurse	Anne-Marie Felton
1630	FEND Award Ceremony & Closing Remarks	Kristin de Backer

SPECTRUM – THE WORLDWIDE FIRST MANUFACTURER INDEPENDENT EDUCATION PROGRAM FOR CONTINUOUS GLUCOSE MONITORING (CGM) FOR ALL AGE GROUPS

Ulrike Thurm

Diabetes Specialist Nurse, Berlin

Continuous glucose monitoring (CGM) is used by an increasing number of children, adolescents and adults with type-1 diabetes in Germany, however the total number is still small. Limited uptake of CGM in Germany includes economic and behavioural barriers, but also the lack of a manufacturer independent structured education program for all age groups.

Based on intensive experiences in education for decades we therefore developed such a program called SPECTRUM (“Structured patient education and treatment program for self-reliant continuous glucose monitoring”). It combines technical understanding with appropriate therapeutic test interpretations. It is available in 3 versions: one for adults and two adapted for pediatric patients (parents with their children and adolescents).

In several modules (each is intended to last 90 min with a detailed curriculum) all aspects of CGM use will be discussed interactively with the users. Module 0 (introduction) informs the patients and /or their parents about positive and possible negative experiences in long-term CGM use to provide them a realistic view of the benefits of this technology beforehand. The main modules 1 to 6 cover basic knowledge about CGM, alarm-settings, glucose trend arrows, CGM usage in everyday life and CGM software. The patients get trained how to assess and download CGM data, improve CGM use and implement it in their daily life.

Spectrum provides patients and their diabetes-teams with the opportunity to optimize CGM use in an independent and effective way. Important conditions of this new education program are independency of manufacturers and product-neutrality enabling certification after formal evaluation within the framework of large clinical trial.

**Adult Spectrum Group:* B. Gehr (leadership), B. Kulzer, U. Thurm, T. Siegmund, C. Sahn, E. Biermann, S. Carstensen, G. Freckmann, L. Heinemann, E. Kerth, R. Kolassa, A. Liebl, R. Lohr, B. Maier, K. Remus, S. Schlüter, M. Schulz-Braun, M. Wernsing

**Pediatric Spectrum Group:* M. Holder (leadership), S. von Sengbusch, R. Ziegler, D. Deiss, B. Heidtmann, C. Ludwig-Seibold, T. Wadien, K. Remus, K. Lange

DEVELOPING PREVENTATIVE INTERVENTIONS FOR WOMEN WITH A HISTORY OF GESTATION DIABETES MELLITUS (GDM)

Prof Angus Forbes

King's College London

Gestational diabetes mellitus (GDM) is the most common form of diabetes in pregnancy. The incidence in GDM is increasing following the trend for higher levels of obesity in women of childbearing age. Women with GDM are a high risk population for developing Type 2 diabetes and are likely to have further GDM pregnancies. Type 2 diabetes and further GDM can be prevented with lifestyle intervention to increase physical activity and achieve weight loss.

However, delivering preventative interventions in this population can be challenging due to the changing needs of women in pregnancy and into the postpartum period. This talk will explore current evidence for preventing diabetes and consider how best to deliver diabetes interventions in the GDM population. The talk will include some new qualitative data reporting the experiences and views of women in relation to GDM and diabetes prevention.

THE ROLE OF THE PHARMACIST IN THE DIABETES TEAM IN SUPPORTING PATIENTS AND HCPS

Sander Ketzer

Zaans Medical Centre and Leiden University Medical Center

In this address the role of the pharmacist in the diabetes team will be discussed. Different tasks of pharmacists in the Netherlands will be reviewed in light of diabetes care. The various activities will be illustrated by means of a fictive example patient. Good communication with patients and other health care practitioners is becoming more and more important. This applies definitely to the role of pharmacists in medication reconciliation and the care of polypharmacy in the elderly. These tasks have gotten more attention over the last few years and will be discussed in a little more detail

A PORTRAIT OF THE POLISH DIABETES NURSING ORGANISATION

Ania Stefanowicz¹, Alicja Szewczyk²

¹ Member of the Board of the Polish Federation for Diabetes Education, Warsaw, Poland

² Chairman of the Polish Federation for Diabetes Education, Warsaw, Poland

Polish Federation for Diabetes Education (PFED) was founded in 2005 on the initiative of medical professionals (nurses, midwives, dieticians) dealing with patients with diabetes and their families. PFED has over 500 members.

PFED was created to fill a gap in diabetes care and provide patients with education. PFED has the following long-term objectives:

- 1. Improving the health of children, adolescents, young adults and adults.
- 2. Training medical personnel in the field of the education of people with diabetes, which includes health seeking behaviour, healthy nutrition, and diabetes treatment.
- 3. Intensifying educational activities in rural areas.
- 4. Improving the knowledge of diabetes in the educational environment.
- 5. Improving the knowledge of diabetes among patients with diabetes.
- 6. Performing information activities about the possibilities of preventing diabetes with the extensive use of the media.
- 7. Defining and propagating the system of team work with a patient with diabetes.
- 8. Implementing the documentation of educational and therapeutic activities.
- 9. Conducting educational and publishing work.

Since its beginning, PFED conducts intensive training and academic activities.

As part of the activities aimed at the diabetes preventive healthcare, PFED actively participates in various educational activities related to the prevention of diabetes, which include campaigns conducted by governmental and non-governmental organizations, associations and pharmaceutical companies. The organizers of such actions aimed at the public seek the patronage and cooperation of PFED.

The activity of PFED members also contributed to the creation of 2 textbooks for nurses, midwives, nursing and midwifery students - "Diabetes Nursing" and "Personal Insulin Pump Treatment".

MANAGEMENT OF COMPLEX THERAPIES IN T2 DIABETES

Prof Ralph Schiel

MEDIGREIF-Inselklinik Heringsdorf GmbH, Department of Diabetes and Metabolic Diseases, Ostseebad Heringsdorf, Germany

During the last decades the treatment of type 2 diabetes mellitus has become increasingly complex and in some aspects controversial too. Both the prevalence and incidence of type 2 diabetes increase worldwide. This increase is closely associated with lifestyle, i.e. physical activity and nutrition. Worldwide type 2 diabetes mellitus has established as a leading cause for blindness, end-stage renal failure, amputations and cardiovascular complications. The risk for all these disorders is related to glycaemic control, as measured by blood-glucose values and HbA1c. A plenty of prospective trials have documented reduced rates of micro- and macrovascular complications in type 2 diabetic patients treated to lower glycaemic targets.

Following the recently published guidelines (Inzucchi et al. Management of hyperglycaemia in type 2 diabetes: A patient-centered approach. Position statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetologia* 2012; 55: 1577-1596) treatment of type 2 diabetes mellitus consist in the following therapeutic options:

a. Lifestyle:

One goal of therapy should be weight reduction achieved through personalized dietary advices. Moreover daily nutrition should contain healthy foods on the background of individual's preferences and culture. The recommendations emphasize foods high in fibre (vegetables, fruits, wholegrains and legumes), low-fat products and fresh fish. Along this dietary advices individual's physical activity should be promoted (aiming for at least 150 min/week of moderate activity).

b. Oral agents and non-insulin injectables:

For good glycaemic management in type 2 diabetes mellitus a wide array of pharmacological agents is available today. Although there is some controversy about the use and efficacy of the different drugs the recommendations of ADA and EASD (Inzucchi et al. Management of hyperglycaemia in type 2 diabetes: A patient-centered approach. Position statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetologia* 2012; 55: 1577-1596) are: "Unless there are prevalent contraindications, metformin is the optimal first-line drug. After metformin, there are limited data to guide us. Combination therapy with an additional 1-2 oral or injectable agents is reasonable, aiming to minimize side effects where possible"

c. Insulin therapy

Insulin therapy is effective in respect of lowering blood-glucose and HbA1c. But, frequently insulin therapy is associated with weight gain and the risk for hypoglycaemia. Generally, after some time therapy with lifestyle changes and oral agents and/or non-insulin injectables, many patients will require insulin therapy alone or in combination with other antidiabetic agents. For insulin treatment different

strategies (using short-acting insulin pre meals, using long-acting insulin alone, using pre-mixed insulin, using a combination of short- and long-acting insulin) are available. However a personalized treatment strategy should be used. *(contd next page)*

d. Structured treatment and teaching programs (STTP's)

To guarantee an optimal metabolic control with the prevention of long-term complications and best quality of life patients with diabetes mellitus need a complex therapy. This therapy consist in lifestyle changes, oral antidiabetic agents, non-insulin injectables and/or insulin. Each therapeutic regimen should avoid major restrictions, but it should emphasize frequent metabolic self-monitoring and self-adaption of drugs and insulin dosages. Moreover, patient education is a pre-requisite for avoiding major side effects like severe hyper- and hypoglycaemia or diabetic foot complications. Patients with diabetes mellitus learn these skills during participation in structured treatment and teaching program (STTP). Since more than 30 years participation in a STTP is an essential component of diabetes therapy. The content of a STTP depend on the type of diabetes, form of therapy, age, abilities, and motivation of an individual.

CO-CREATION OF WELLNESS: NEW MODELS OF INTERACTION BETWEEN PEOPLE LIVING WITH DIABETES AND HEALTHCARE PROFESSIONALS

Dr Petra Wilson

Health Connect Partners

Co-creation of health and wellness sees the role of a person with diabetes extending well beyond being a passive patient, or even active participant in her own care; to being a key player in innovation and value creation in health care — from being a “user and chooser” to becoming a “maker and shaper” of services.

In diabetes care the emergence of wearable and implanted devices for continuous glucose monitoring (CGM) has been a key driver of new ideas about co-creation of health for people with diabetes. But it is not only costly CGM that can play a role in co-creation of health and wellness by and for people with diabetes. Relatively inexpensive tools for ambient data collection such as pedometers, social media records of mood and situation and geo-location devices provide multiple opportunities for people with diabetes (and those at risk) to better understand their own health and interact differently with healthcare providers.

In this session we will explore what is needed to make the most of the new technologies, and how nurses and patients can be real partners in co-creation of better health outcomes for people with diabetes. We will look at how co-creation can add value not only to the individual, but also development of health systems.

DIABETES AND POLITICAL ADVOCACY -1

Hon Dr Simon Busuttil

Leader of the Nationalist Party, Malta

Two years ago, the House of Representatives in Malta established, for the first time, an informal Working Group on diabetes. It attracted the participation of eleven members from both sides of the House. That level of participation speaks volumes because it represents more than 15% of the total Members of Parliament.

But then Malta is afflicted by diabetes which hits around 10% of the entire population.

The Diabetes Working Group set down to work in earnest and soon became a catalyst in pushing diabetes up the political agenda and in nudging the Executive to adopt and implement a national diabetes strategy.

Throughout, the DWG has been able to rely on the constant presence and expertise of various stakeholders, from healthcare professionals to patients and from NGOs to industry. Their active participation has been instrumental in developing a framework document on Health Choices bringing together a set of proposals on health promotion, risk-factor reduction, prevention, early diagnosis and the optimisation of healthcare resources.

The momentum also triggered the presentation of a new legislative bill on the promotion of a Healthy Lifestyle which has since been unanimously adopted by the House. This is a first in Europe.

I have never seen this level of co-operation between policy-makers and stakeholders coming together on a specific objective and achieving concrete results in such a short span of time. But the fight must continue relentlessly. Every person who succumbs to diabetes is a person who should have been saved.

DIABETES AND POLITICAL ADVOCACY -2

Adrian Sanders

The Melbourne Declaration on Diabetes, signed by Parliamentarians from 50 countries in December 2013 set up the first global network of parliamentarians for a specific medical condition. It has created a platform to raise the profile of diabetes within governments across the world.

This was endorsed two years later with the signing of the Vancouver Protocol that committed the Parliamentary Diabetes Global Network (PDGN) to “Raise awareness and demand that all governments prioritise the United Nations Global Health Targets for diabetes to improve prevention, diagnosis and the expensive and unnecessary complications and early deaths of those with the condition.”

Through the communication of ideas and best practice and the encouragement of action within parliaments around the world we can move towards that tipping point where the allocation of resources and effort to prevent, diagnose and treat diabetes is no longer questioned.

In human as well as financial terms, the burden of diabetes is enormous, provoking over 5 million deaths and taking up some USD 673 billion dollars in health spending (12% of the total spent world-wide) in 2015. *(contd next page)*

The need for greater action is obvious to us but not always to the decision makers of the world. This is why PDGN is so important as a prompt to legislators to notice diabetes and tailor policies and budgets to better meet its challenges. As voters you can help put pressure on your politicians to engage with PDGN and become advocates for diabetes.

THE MYQUEST CONSULTATION TOOL FROM CONCEPT TO DISSEMINATION - AN EXAMPLE OF DIABETES NURSE RESEARCH

Dr Gillian Hood

Queen Mary, University of London

The above entitled presentation has a dual purpose. Firstly we report formally on the findings of a pilot study on the Diabetes MyQuest Consultation Tool© (DMCT©). The DMCT© is a questionnaire designed in collaboration with both patients and nurses to improve the consultation between nurses and people with diabetes in primary care. We used a mixed methods approach of qualitative interviews and 3 measures: a diabetes knowledge questionnaire (DKQ); satisfaction with the consultation questionnaire (DCPNI) and a diabetes empowerment scale (DES-SF). All participants were given the WHO-5 Well Being Index to complete. 56 patients were randomised to use the DMCT© tool as part of their consultation and we will share the findings of the study in the presentation and recommend the DMCT© as a feasible, practical tool to use for both patients and nurses.

Secondly, we wish to take the audience “behind the scenes” of this research study and explore how each diabetes nurse has the potential to conduct similar research. The presentation will explore how we can be inspired as nurses to work further towards evidence based change, and how as nurses we are the best advocates for discerning research priorities amongst our patients. The presentation will give practical tips on developing research skills, planning a study, and how to enrich our research work and make it relevant and acceptable to our patients. Using the unfolding story of DMCT© we will share both good results and also the problems associated with running the study to inspire all diabetes nurses everywhere to undertake more research for improved patient outcomes.

JOINT ACTION ON CHRONIC DISEASES - DIABETES AS THE EXEMPLAR

Dr Marina Maggini

Senior epidemiologist at the National Centre for Epidemiology, Italian National Institute of Health

The launch, in 2014, of the European Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS) is a response to the European Commission's encouragement to join forces towards prevention and care of major

chronic diseases. Diabetes was selected as a case study to strengthen health care for people with chronic diseases.

A mapping of national diabetes plans in Europe was undertaken, and formed the basis for a policy brief aimed at the identification of factors that can facilitate development, implementation, and sustainability of national diabetes plans. European countries made progress, even if with different approaches, in their systematic policy response to diabetes burden. The lessons learnt from these experiences may support countries' efforts to build a successful and comprehensive strategy for the prevention and care of diabetes and, more broadly, chronic diseases.

An extensive process was carried out to identify quality criteria and formulate recommendations to improve prevention and quality of care for people with diabetes. The process followed a structured methodology involving the WP7 community, and experts from a wide number of organizations across Europe and from a variety of professional background. The objective was to define a core set of quality criteria that may be applied to various domains (prevention, care, health promotion, education, and training), are general enough to be applied in countries with different political, administrative, social and health care organization, and could also be used in other chronic diseases.

DIABETES AND CARDIOVASCULAR DISEASE

Prof Sally Marshall

Newcastle University and Newcastle upon Tyne Hospitals NHS Trust

Life expectancy is reduced by approximately 12 years in Type 1 diabetes and at least 3 years in Type 2 diabetes. The main cause of lost years is cardiovascular disease (CVD). Younger women with diabetes are particularly vulnerable to CVD. In diabetes, CVD is more extensive and affects smaller arteries than in the non-diabetic person, making it more difficult to treat by stenting or by-pass surgery. Changes in the blood vessel walls and “stickier” blood make drug management less effective. The same factors which increase the risk of CVD in the non-diabetic population are also risk factors in people with diabetes: family history, smoking, lipids, blood pressure, weight, kidney disease and inflammation. In addition, diabetes per se and hyperglycaemia also increase the risk. CVD may present with atypical or non-specific symptoms in an individual with diabetes, so that a high index of suspicion is important. Prevention of CVD demands appropriate management of all CVD risk factors, not just glucose. Non-smoking is a priority. Intensive blood glucose control (without hypoglycaemia) reduces the risk of CVD in Type 1 diabetes, but the benefits in Type 2 diabetes are less clear and may be confined to younger people with short duration diabetes and no co-morbidities. The lower the blood pressure, the lower the risk of CVD. The benefits and risks of statin therapy should be discussed with all adults with diabetes. The newer glucose-lowering agents SGLT2 inhibitors and GLP1 analogues may have particular benefits in Type 2 diabetes, but further data is needed.

DIABETES: IMMUNOTHERAPY AND VACCINATION

Prof Anette Ziegler

Director, Institute of Diabetes Research, Helmholtz Zentrum München, and Klinikum rechts der Isar, Technische Universität München, Munich, Germany

It is widely held that if tolerance to beta-cell antigens could be enhanced, this could prevent or delay the onset of type 1 diabetes. Antigen-specific tolerance approaches for prevention and early treatment of pre-symptomatic type 1 diabetes will be presented. They indicate that antigen-specific prevention is safe, and engages the immune system in a manner that is consistent with immune-mediated, tolerogenic protection.

GPPAD is a newly formed Global Platform for the Prevention of Autoimmune Diabetes, with the intention to establish an infrastructure for prevention trials in type 1 diabetes in Europe. More specifically, it aims to develop and launch the first randomized controlled phase II trial (RCT) using autoantigen-based therapy and to consider other approaches that might inhibit or prevent the earliest events in newborns that lead to multiple anti-islet autoantibodies. GPPAD will also investigate the feasibility, practicalities, and acceptability of recruitment of newborn children into mechanistic studies and third generation natural history studies.

THE TRANSLATION OF DIABETES RESEARCH TO CARE AND EDUCATION - AN AADE PERSPECTIVE

Hope Warsaw

Hope Warsaw Associates, LLC, Washington DC, US

Building the evidence has long been a mantra of the American Association of Diabetes Educators (AADE). The organization's 2015 Joint Statement on Diabetes Self-Management Education and Support (DSMES) in Type 2 Diabetes (T2D) published by AADE, American Diabetes Association (ADA) and the Academy of Nutrition and Dietetics (AND) and its more recent systematic review, of the positive effect of DSME in T2D on glycemia are recent milestones in the organization's ongoing effort to use research to evolve practice. Since the publication of these documents AADE, along with ADA and AND, have leveraged these pivotal evidence-based papers to translate key messages about the effectiveness of DSME, a woefully underutilized service, to diabetes and primary care health providers, regulators and policy makers. Simultaneously, AADE also has been working under a cooperative agreement grant with the US Centers for Disease Control and Prevention (CDC) to build the research base to support the effectiveness of having diabetes educators deliver the Diabetes Prevention Program (DPP) - a yearlong intervention within DSMES programs. In mid-2016 Medicare, the US health plan for seniors and citizens with some disabilities, has published proposed regulations for covering the DPP. At the same time Medicare published proposed regulations for covering the DPP as well as input on revisions to the nearly twenty year old DSMES Medicare benefit. Ms. Warsaw will discuss the value and challenges associated with this evidence based approach and preview the potential for changes in the US healthcare system's coverage for these services.

LET'S TALK ABOUT IT.... TYPE 2 DIABETES AND THE NEED TO PLAN FOR PREGNANCY

Rita Forde

FEND Doctoral Fellow, King's College London

Diabetes is one of the most common medical conditions affecting pregnancy and is associated with adverse fetal, infant and maternal outcomes. Pre-pregnancy care (PPC) can significantly reduce the adverse pregnancy outcomes however, the uptake of this care is limited, particularly among women with type 2 diabetes (T2DM). To develop an understanding of the aspects which influence engagement with this care 30 women with T2DM of reproductive age with varying experiences of PPC and 22 healthcare professionals (HCPs) from both primary and secondary care settings were interviewed. The influences on uptake of PPC were multi-dimensional. For women with T2DM their awareness of PPC, orientation towards pregnancy, personal and health beliefs and self-efficacy were influential. For HCPs their professional competencies and biases as well as limitations within the structures of the healthcare system were significant. Meaningful interactions between the women with T2DM and the HCPs were shaped by the structures and processes of the healthcare system in the UK.

Women with T2DM need to be supported to understand the benefits of PPC in a manner that is congruent with their personal needs and beliefs. There is a requirement for HCPs to incorporate PPC into the care of all women with T2DM who have pregnancy potential and facilitate timely access to appropriate services. Novel mechanisms for awareness raising and navigating the healthcare system need to be considered.

LIFE INTERRUPTED: ADULT ONSET TYPE 1 DIABETES

Mette Due-Christensen

FEND Doctoral Fellow, King's College London

Half of all cases of type 1 diabetes are diagnosed in adulthood, however, little is known about how adults experience and adapt to living with diabetes. The fact that many people with diabetes do not achieve the recommended target for blood glucose levels and experience high levels of psychological distress, suggests that adapting to diabetes can be challenging. Therefore, a better understanding of views and experiences of adults around the time of diagnosis associated with the process of adaptation into a life with diabetes may help us understand why diabetes is so challenging. Understanding some of these challenges could reveal some important areas for supportive intervention to enhance adaptation.

To address this gap interviews were conducted with 30 adults (16 from the UK and 14 from Denmark), mean age 36 years, diagnosed with type 1 diabetes within the past three years. The findings indicate that the diabetes diagnosis is experienced as an interruption to usual life demanding responsive adaptation.

(contd next page)

The interruption is perceived both on a macro level as potentially having a significant impact on employment, economic well-being and relationships and on a micro level with interruptions in mundane day to day activities such as i.e. going shopping or having a meal. To support adults with newly diagnosed type I diabetes in the process of adapting to a life with diabetes it is important to address the perception of interruptions on both levels and equip them to manage ways of dealing with the interruptions caused by diabetes.

NARRATIVE MEDICINE IN PRACTICE

Natalia Piana

Senior lecturer in social psychiatry in the Department of Social Work at Malmö University

Diabetes is a complex disease. It's the disease of technical skills and psychological barriers. It's the disease of family, work and social relationships. It's the disease of ignorance and discrimination. It's the disease of lifestyle change, which is today for us, as carers, one of the most difficult challenges to face up to.

Diabetes, with its irreversible advance, its chronic nature and the constant implications that it brings to a person's daily life, emphasizes that we need to change our approach looking at the problem from a different perspective, in order to understand its complexity. And we are not capable of this because we have grown up in a "culture of dissociation" which, in the last two centuries, has led to a separation between the scientific and humanistic components of knowledge.

The introduction of Narrative Medicine accompanied an evolution in the way of thinking about care of ill people. The dominant scientific paradigm of knowledge based on quantitative approach, is then integrated by a new paradigm (qualitative approach) that enables us to interpret complexity and to deeply understand the human being. Narrative Medicine represents an effective way in helping patients to realize and interpret their life related to the disease, and in developing self-awareness, self-training and the continued discovery of one's innermost feelings.

Furthermore, the person's experience becomes an important tool that allows health professionals to better understand their patients' disease and treat it.

Narrative Medicine is proposed and recognized as a model for humane and effective medical practice.

NARRATIVE MEDICINE - PATIENT AND PROFESSIONALS

John Grumitt

John will offer his personal reflections on living with type I diabetes, leading an active lifestyle and dealing with hypo unawareness.

He will draw upon his experiences and those gathered from others as an advocate in the UK and internationally, to highlight the key elements that are greatly valued by patients as well as the untapped opportunities. Critically, John contends that most of the opportunities for

improvement cost little, can ease pressure on services and deliver better outcomes. He'll evidence this with examples from within and beyond existing health systems.

This promises to be a provocative session and discussion.

NARRATIVE MEDICINE - PATIENT AND PROFESSIONALS

Tuula-Maria Rintala

Lecturer at Tampere University of Applied Sciences

"Every Day Life in a Family of an Adult with Diabetes"

The purpose of the study was to develop a substantive theory of everyday life in a family with an adult with type I diabetes.

Based on the results, diabetes is visibly or invisibly present in the everyday life. Diabetes must be taken into consideration in everything, and it is constantly in the family's thoughts. Because of diabetes, life must be carefully scheduled. Managing with hypoglycemia touches the everyday life of the whole family. Episodes of hypoglycemia occur often, and the family members are prepared for them in numerous ways.

The family lives with changing feelings. Different fears, such as the fear of hypoglycemia and of long-term complications, are present in the everyday life. Furthermore, the family members have additional worries because of diabetes. Keeping the balance with self-management is demanding for a diabetic person, and the family members' support is needed. The family's contribution to self-management varies: the family members participate in the care of diabetes for example by injecting the insulin or by encouraging the person with diabetes. On the other hand, there are families that do not participate in self-management and only watch it from the sidelines.

Based on the results, it is recommended to take the significance of the family members into consideration in the care and education of people with diabetes. It is also recommended to develop family-centered interventions. The family members should also be provided with different opportunities to discuss their feelings and fears related to diabetes.

THE EVOLVING ROLE OF THE DIABETES SPECIALIST NURSE

Anne-Marie Felton

FEND President

The presentation will address the evolution of the increasing complexity and multifaceted role of the Diabetes Specialist Nurse.

Simon Busuttil

Hon. Dr. Simon Busuttil was born on the 20th March 1969. From 1999 to 2004 Dr. Busuttil played a key role in Malta's accession to the European Union, heading the Malta-EU Information Centre (MIC).

After being elected to the European Parliament in 2004, in 2012 he was appointed Deputy Leader of the Nationalist Party and in May 2013 he was elected Leader of the Nationalist Party and subsequently sworn in as Leader of the Opposition.

Mette Due-Christensen

After working clinically as a diabetes specialist nurse for several years Mette undertook her MSc at the University of Copenhagen. After completion she worked as a research assistant while also working clinically. Her main interest has been psycho-social issues around living with type 1 diabetes. She has been involved in developing and testing peer support and psycho-social interventions for people with type 1 diabetes.

In 2013 Mette was awarded a scholarship from FEND to undertake her PhD study at Faculty of Nursing and Midwifery King's College London. Her PhD study explores adaptation to life with diabetes in adults who have recently been diagnosed with the condition. The study is transnational and she is collaborating with Steno Diabetes Centre in Copenhagen, Denmark.

Anne-Marie Felton

Anne-Marie Felton was a diabetes specialist nurse for over 20 years. She is currently working within the voluntary sector pro bono, nationally and internationally. She is President and co-founder of FEND.

In 1999 she was appointed as a Vice President of Diabetes UK. In addition, Anne-Marie is an Honorary consultant at Queen Mary's Hospital, Roehampton, London, UK; immediate past Vice President IDF and past Chair of the

IDF Global Advocacy Task Force; a member of the IDF Steering Group for the 'Unite for Diabetes' campaign that resulted in the passage of the United Nations Resolution on diabetes in December 2006; a member of the Alliance for European Diabetes Research (EURADIA); was co-chair of European Coalition for Diabetes 2012 (ECD).

Anne-Marie was Chair of the Organising Committee for IDF World Diabetes Congress (WDC) 2013 in Melbourne and also IDF WDC 2015 in Vancouver. She was an invited speaker to the European Commission DG Sanco summit on Chronic Disease April 2014. She is co-chair of the Policy Puzzle 4th edition.

In September 2015 she was appointed an Honorary member of EASD (European Association for the Study of Diabetes). This is the first time EASD has bestowed this honour on a nurse.

Anne has a special interest in political advocacy for people with diabetes and the recognition of Diabetes Specialist Nurses.

Angus Forbes

Professor Forbes holds the FEND Chair of Diabetes Nursing at King's College London and holds an honorary post as a specialist diabetes nurse at King's College Hospital.

Prof Forbes is an active researcher in diabetes, recent projects include: diabetes prevention in women with GDM; factors contributing to mortality in older people; preconception care in women with Type 2 diabetes; a national scoping project on diabetes care and organisation; the relationship between cognitive impairment and diabetic retinopathy; supporting patients in insulin intensification; eye screening uptake; structured education uptake; evaluating a telecare intervention to support weight loss in type 2 diabetes; the bio-psychosocial impact of new onset Type 1 diabetes in adults; and a trial of virtual clinics

to improve primary care based diabetes outcomes.

Angus has also led the diabetes work for the South London HIEC and was the NHS Diabetes London regional champion for older people with diabetes. Angus also co-ordinates a wide range of different courses for health professionals in diabetes. He has an interest in E-health and psychological interventions in diabetes. Angus was previously: a senior lecturer in diabetes at King's College London; a lecturer in health services research at University College London Medical School; and a health visitor and district nurse in East London.

Rita Forde

Following completion of General Nursing and Midwifery training Rita joined the diabetes team at the Mater Misericordiae University Hospital, Dublin. She held various positions there including the inaugural Advanced Nurse Practitioner post for diabetes nursing in Ireland. She completed a B.Sc., MSc (ANP) and Higher Diploma (Diabetes Nursing) at University College Dublin and has contributed to local and national working groups on diabetes care.

In 2013 she was awarded a Foundation of European Nurses in Diabetes (FEND) Doctoral Fellowship to undertake a PhD at King's College London, to explore the experiences among women with type 2 diabetes in relation to pre-pregnancy care.

John Grumitt

John has type 1 diabetes and otherwise leads a full and active lifestyle, completing numerous international endurance cycling events. He is a Vice President of the International Diabetes Federation and Vice President of Diabetes UK. Having built a number of consumer centred businesses across Europe, John is CEO of Changing Health (www.changinghealth.com), which was spun out of Newcastle University

to provide evidence based on-line patient and HCP education coupled with behaviour change coaching and decision support.

John is also advises a range of stakeholders, including NHS England, on health policy and provision via www.Metapathsolutions.com and holds several non exec. director positions.

Gillian Hood

Gill Hood PhD has been involved in diabetes care since qualifying as a nurse in 1984 and from 1997 began working in diabetes research. She managed the NE London Diabetes Research Network from 2007-2013 and continues to manage diabetes research at Queen Mary, University of London. Gill is also the Workforce Development and Patient and Public Involvement and Engagement Lead for the North West London Clinical Research Network hosted at Imperial Healthcare NHS. She is a member of the Foundation of European Nurses in Diabetes (FEND), DIAMAP (EURADIA) and the Novo Nordisk Research Foundation for Nurses and Allied Health Professionals. Gill's diabetes research interests are in ethnic minorities, older adults, health professional education, and patient and public involvement.

Sander Ketzer

Sander Ketzer is a pharmacist from the Netherlands. In 2011 he obtained his Master in Science in Pharmacy at Utrecht University. Thereafter he worked on different projects in hospitals in Gouda and Leiden.

In 2015 he started his further study to specialize in hospital pharmacy. As hospital pharmacist in training he works and learns in Zaans Medical Centre and Leiden University Medical Center. Furthermore, he occasionally gives presentations to Dutch nurses in diabetes about pharmacodynamics and pharmacokinetics.

Marina Maggini

Marina Maggini - DBiol. Senior epidemiologist at the National Centre for Epidemiology, Italian National Institute of Health.

Her activity includes national surveys on the quality of care for people with diabetes, epidemiological studies on diabetes, definition of national guidance on the management of type 2 diabetes. She led the National diabetes disease management project (IGEA), and the National project on chronic diseases (www.epicentro.iss.it/igea) in collaboration with the Ministry of Health.

From 2014, she leads the work package "Diabetes: a case study on strengthening health care for people with chronic diseases" within the European Joint Action on Chronic Diseases (JA-CHRODIS).

Sally Marshall

Educated at University of Glasgow (BSc 1975, MB 1978, MD 1990).

Currently, Professor of Diabetes, Institute of Cellular Medicine, Newcastle University and Consultant Physician, Newcastle upon Tyne Hospitals NHS Trust.

Research interests in diabetes and the kidney, particularly the natural history, genetics and the links with cardiovascular disease and hypertension. Lead diabetes clinician for management of cystic fibrosis related diabetes.

- Editor, *Diabetic Medicine* 2005-2009.
- Editor-in Chief, *Diabetologia* 2016 onwards
- Chair, Management Committee, Diabetes UK Clinical Study Groups
- Past Vice-President, European Diabetic Nephropathy Study Group

Natalia Piana

Expert in Therapeutic Education of people affected by chronic diseases (in particular Diabetes type 1 and type 2, Cancer, Obesity, Non-Communicable Diseases NCDs) and in the training of Health Care Professionals in Therapeutic Patient Education.

Since 2003, she has introduced Narrative Medicine and the Autobiographical Approach into Therapeutic Patient Education.

Since 2010 she has been working as a Pedagogist at Healthy Lifestyle Institute C.U.R.I.A.M.O, University of Perugia, Italy, (www.unipg.it/curiamo) where she runs groups of patients with obesity and type 2 diabetes to facilitate healthy lifestyle changes and collaborates at the EURO BIS project to prevent and contrast childhood obesity.

Tuula-Maria Rintala

Tuula-Maria Rintala, PhD, RN, work as a Lecturer at Tampere University of Applied Sciences. She has done research concerning the diabetes education, injecting insulin and the treatment satisfaction of the persons with diabetes. She has acted in many workgroups of the Development Programme for the Prevention and Care of Diabetes. She has completed her doctoral studies at School of Health Sciences in the University of Tampere. The title of her doctoral thesis is *The Visible and Invisible Presence of Diabetes - A Substantive Theory of Everyday Life in a Family with an Adult Person with Diabetes*.

Adrian Sanders

Adrian Sanders was born Paignton, Devon and was a Member of the UK Parliament for 18 years between 1997 and 2015 representing the Torbay constituency. He currently Chairs the ticketing industry trade body: 'Society of Ticket Agents & Retailers' (STAR) and acts as Secretary General to the Parliamentary Diabetes Global Network.

In 1990 Adrian was diagnosed with Type 1 diabetes and has campaigned strongly for issues surrounding the condition ever since.

In Parliament Adrian chaired the All Party Diabetes Group between 1998 and 2015 where he helped raise the profile of diabetes and changes to policies affecting access to medicines and technology, improved employment rights and social care.

Adrian helped establish an embryonic collaborative network of MPs from Parliaments across the world. He served as the first President of the Global Diabetes Parliamentary Network from 2013 to 2015 that has established itself as a unique trans-national group of elected representatives and decision makers who advocate for better prevention and earlier diagnosis of diabetes, alongside access to the best treatment for people wherever they live.

His political interests include, animal welfare, transport and health care. His personal interests include, soccer, travel and music.

Ralph Schiel

Born in Dudweiler, Germany, on May 11, 1967. From 1886 to 1993 he studied at the University of Saarland and at the University of Rostock, Germany. He qualified in Internal Medicine and Diabetology at the University of Jena, Medical School. In 1997 he performed research at Yale University, Section of Endocrinology, New Haven, USA, with a stipendium of the European Association for the Study of Diabetes (EASD).

He received his Ph.D. in 2004 at the University of Jena, Medical School, Jena, Germany. Since 2004 he is Head and Medical Director of the MEDIGREIF-Inselklinik Heringsdorf GmbH, Department of Diabetes and Metabolic Diseases, Ostseebad Heringsdorf, Germany. 2010-2014 he was Chair for Diabetes and Health Management at the Mathias Hochschule Rheine, University of Applied Sciences, Rheine, Germany. Since 1994 he is Member of the European Association for Study of Diabetes, Deutsche Diabetes (EASD) and the German Diabetes Association. Currently he published over 130 articles in National and International journals.

Ania Stefanowicz

Board member of the Polish Federation for Diabetes Education and a member of the Foundation of European Nurses in Diabetes; specialist of the diabetological and pediatric nursing; student of the Diploma program (Postgraduate) - Diabetes - Clinical Care and Management Module Clinical Research in Diabetes (7KNIM755) King's College London; author and co-author educational programs of the postgraduate courses about diabetes nursing for nurses and midwives; author and co-author of the publications about diabetes.

She works in the Department of Pediatrics, Diabetology and Endocrinology, University Clinical Centre in Gdansk and in the Chair of Nursing of the Medical University of Gdańsk.

Alicja Szewczyk

Chair of the Polish Federation for Diabetes Education, specialist of the diabetological and pediatric nursing; editor and co-editor of the books: *Nursing Diabetes* (PZWL 2013), *Treatment of personal insulin pump - book for nurses and midwives* (PZWL 2015); author and co-author of the publications about diabetes; co-author programs about diabetes nursing for nurses and midwives.

She is National Consultant of the Diabetes Nursing. She works in the Department Endocrinology and Diabetology of the Children's Memorial Health Institute in the Warsaw.

Ulrike Thurm

Curriculum vitae Ulrike Thurm (28.04.1964) Diabetes specialist nurse DDG

1983-1987 study at the University of Münster sports and education

1987 scientific assistant at the Heinrich Heine University

Düsseldorf Department of metabolism and nutrition of Professor Dr.med. Michael Berger

Mai 1990 Founding the IDAA (International Diabetic Athletes Association) section Germany, president since then.

1991 author of the book *Insulinpumpentherapie (ABC of Insulin Pump Therapy)*

1994 research at the Royal Prince Alfred Hospital, Sydney, Australia two studies regarding diabetes and exercise

1995-2001 scientific assistant at the Ludwig Maximilian University in Munich at the department of Professor Dr. med. R. Landgraf

2001 author of the book: „Diabetes- und Sportfibel“, ISBN 3-87409-338-7 (Diabetes and Exercise) together with Dr. med. Bernhard Gehr

2011 author of the book “CGM- und Insulinpumpentherapie” (CGM- and insulin pump therapy) ISBN 978-3-87409-535-8 together with Dr. med. Bernhard Gehr (Fachklinik Bad Heilbrunn, Department for Internal Medicine, Center for Diabetes and Metabolism of Andreas Liebl, MD)

2014 personal systemic coach ECA (European Coaching Association)

2015 member of the published CGM education program “Spectrum” together with the team of Dr. med. Bernhard Gehr

from 2001 till now Diabetes specialist nurse in Berlin since then.

Hope Warsaw

Hope Warsaw, MMSc, RD, CDE, has been a dietitian and diabetes educator for nearly forty years. She operates a consulting practice, Hope Warsaw Associates, LLC, near Washington DC. Her work today spans from corporate consulting to freelance writing and individual diabetes education and weight management. Hope has authored many consumer-focused books published by American Diabetes Association including *Diabetes Meal Planning Made Easy* and *Eat Out Eat Well*. She's the contributing editor for *Diabetic Living* magazine and writes the Nutrition Q&A column in *The Washington Post*. During 2016 Warsaw is serving as President of the American Association of Diabetes Educators.

Petra Wilson

Health Connect Partners

Following completion of doctoral research on public health law at Oxford University, Petra has worked in health policy across academia, civil service, corporate and NGO sectors. She is currently providing consultancy services to non-governmental, state and corporate sectors in healthcare, focussing on new technologies, access to care, and governance. She has previously held the posts of CEO of the International Diabetes Federation, and Senior Director of Connected Health in Cisco. Prior to that she was Director of the European Health Management Association, Scientific Officer at the European Commission and Senior Lecturer in healthcare law at Nottingham University in the UK.

Anette Ziegler

Anette-Gabriele Ziegler studied medicine in München. After working as a physician in München, Klinikum Schwabing, she received postdoctoral training at the Joslin Diabetes Center and the Harvard Medical School.

In 1989 she returned to the Klinikum Schwabing München, and started her independent laboratory at the Forschergruppe Diabetes e.V. In 1993 she was awarded the prestigious Heisenberg Career Development Award of the Deutsche Forschungsgemeinschaft. She received her specialization in Internal Medicine (1991) and Endocrinology (1994), and became Adjunct Professor at the Ludwig-Maximilians-Universität in München (1998). From 2007 to 2009 she was Director of the Department of Endocrinology at the Klinikum Schwabing in München. In 2010 she was recruited to the Helmholtz Zentrum München and the Technische Universität München to establish the Institute of Diabetes Research. From 2008 until 2015 she was Speaker of the Competence Network of Diabetes in Germany. In 2014 she has been awarded a Brownlee Visiting Professor Lectureship at Harvard Medical School.

Her primary research focus lays in the understanding of the natural history of type 1 diabetes in man, in the identification of mechanisms and predictive markers of the disease, and the translation of findings into trials to prevent type 1 diabetes in man.

1

THE VALIDITY AND RELIABILITY STUDY OF THE TURKISH VERSION OF THE FUNCTIONAL ASSESSMENT CHRONIC ILLNESSES OF THERAPY- FATIGUE SCALE IN PATIENTS WITH TYPE II DIABETES

Çınar D.¹, Yava A.²

¹ Military Hospital Balıkesir – Turkey

² Hasan Kalyoncu University, Faculty of Health Science, Gaziantep-Turkey

Background

Fatigue is a common and distressing complaint among people with diabetes, and likely to hinder the ability to perform daily diabetes self-management tasks.

Aim

This study aims to adapt The Functional Assessment of Chronic Illnesses Therapy Fatigue Scale (FACIT Fatigue Scale) developed by Cella et al. into Turkish and determine its reliability and validity in patients with type 2 diabetes mellitus.

Methods

The study was conducted methodically with 133 type 2 diabetic patients referred to diabetes follow-up and education outpatient clinics of three hospitals in city centre of Balıkesir. Data collection instruments were Informative Form developed by researcher and FACIT Fatigue Scale while face to face interview method was performed. Turkish version of scale was obtained using forward-back translation techniques. Reliability of Turkish version of scale was assessed by using internal consistency and item analysis methods.

Results

Chronbach Alpha measurement was found to be 0.98 while item analysis revealed that all inter-item correlations were significantly high. Exploratory factor analysis methods were used in determination of construct validity and overall factor loadings were found in range of 0.61 and 0.81. Factor analysis results revealed a two-factor solution in Turkish version of scale different from original scale.

Conclusion

In conclusion; analyses carried out for the reliability and validity of FACIT Fatigue Scale resulted that it was a sufficient psychometric tool in determination of fatigue level in patients with type 2 diabetes in Turkish population.

2

EFFECT OF HOME BASED NURSING INTERVENTION FOR MOTHERS OF ADOLESCENTS HAVING TYPE 1 DIABETES: AN EXAMPLE FROM TURKEY

Boztepe H. PhD RN

Assistant Professor, Hacettepe University, Faculty of Nursing, Ankara, Turkey

Background

During the adolescence period, where developmental crises are extensively experienced by the individual, chronic illness such as Type 1 diabetes renders difficult the management of the disease and to achieve developmental tasks specific to this period.

Aim

To evaluate the effects of home-based nursing interventions by pediatric nurse for mothers of adolescents having Type 1 diabetes.

Method

This one-group pretest posttest study included 23 mothers of adolescents followed up with diagnosis of Type 1 Diabetes in two University Hospital in Ankara. Seven home visits were carried out with guidance of care plan focusing on solution of problems. Diabetes knowledge, ways of coping, perceived social support and problem solving scores were compared before and after home visits.

Result

As a result of nursing interventions, it was determined that mothers' problems experienced with adolescents were decreased and their knowledge on Type 1 Diabetes was increased. Furthermore, in The Ways of Coping Inventory, lower point averages of "self-confident", "optimistic approach" and "searching for social support" was significantly increased statistically between first and last home visit measurements.

Conclusion

It has been recommended to evaluate mothers of adolescents having Type 1 diabetes in terms of problems experienced during this period and to support them by providing consultancy and training through nurses. A home-visit intervention focused on problems experienced by mothers of adolescents with type 1 diabetes has the potential to positively impact mothers' social support, problem solving and coping with stress.

3**NURSING DRIVEN, GROUP EDUCATION FOR PATIENTS, A VITAL RESOURCE FOR SUSTAINED DIABETES SELF-MANAGEMENT****Sana Hassan ali,**

Outpatient Nursing Services & Department of Endocrinology, Aga Khan University, Karachi, Pakistan

Background

According to current figures in Pakistan 7.1 million people suffer from diabetes, making it the seventh highest population of diabetic patients in the world. Education is the cornerstone of diabetes care. Lack of awareness can lead to patients suffering from diabetes complications. This project was conducted to determine the knowledge and practices of the patients and make them independent through continue education so they can participate their Diabetes management programme.

Aim

To evaluate the impact and effectiveness of a structured multidisciplinary group education programme for diabetic patients about their disease; psychosocial factors and lifestyle measures.

Method

This data was collected from endocrine clinic at the Aga Khan University hospital from year 2014- 2015. A total number of 17 patients, 8 males and 9 females, 3 with type-1 and 14 with type-2 diabetes mellitus (DM) were included in the project. Data was retrieved from pre & post questionnaire sheets which were recorded during patients visit in the "Diabetes Modular Classes". The questionnaire was designed which contained 10 questions about of Diabetes, ranging from the correct knowledge about disease, misconception regarding dietary measures, sign & symptoms of hypo & hyperglycaemia & the normal values of their targets, foot inspection & insulin counselling.

Result

The comparison of pre and post knowledge assessment of approx. 17 patients, who attended all four modules, revealed that their pre knowledge score were 67.6% where as their post results after attended all sessions were 87.3%.

Conclusion

Comparison of pre & post quiz results shows that multidisciplinary well planned group education programme have better impact on patient's. The knowledge impart via these classes make patients independent regarding their self-management of disease process & life style modification.

4**THE USE OF HERBAL PRODUCTS AND FOOD SUPPLEMENTS IN TYPE 2 DIABETES PATIENTS****Çınar D.¹, Yava A.², Olgun N.², Koyuncu A.³, Eti Aslan F.⁴**¹ Military Hospital Balıkesir – Turkey² Hasan Kalyoncu University, Faculty of Health Science, Gaziantep-Turkey³ Gulhane Military Academic of Medicine, Cardiovascular Surgery Department, Ankara-Turkey⁴ Bahçeşehir University, Faculty of Health Science, İstanbul- Turkey**Background**

Type 2 diabetics have used different types of herbal product in daily life.

Aim

To investigate the use of herbal products and food supplements in Type 2 diabetics.

Methods

It is a descriptive study conducted in Diabetes education and follow-up polyclinics at three hospitals in Balıkesir in April 2015. Sampling included 118 voluntary Type 2 diabetes patients. The data were collected by face to face interviews using the Data Sheet which questioned the identifying characteristics and usage of herbal products / food supplements. Numbers, percentage (%), mean \pm standard deviation were used for the data display and $p < 0.05$ was considered significant.

Results

The average age of the patients was 56.09 ± 11.63 and the mean disease duration was 9.07 ± 5.00 years. It was determined that 59.3% of the participants had at least one chronic disease, 55.9% used oral antidiabetic and 42.4% of patients had at least one diabetes-related complications. It was determined that 28.8% of the participants used fresh or powdered herbal products for diabetes and the most widely used products were cinnamon, lemon, yogurt, olive leaf. 41.1% of patients used these products for their beliefs that it would bring benefits in addition to medical treatment. 67.6% of patients did not provide information to the health professionals and 70.5% of patients thought the used products contributing positively to the progression of the disease. It has been observed that women used the herbal products more than men ($70.6\%-29.4\%$; $= 5.677$, $p = 0.017$), however high school graduates or patients with higher education degree used the herbal products more than the patients with lower education level ($55.9\%-44.1\%$; $= 7.062$, $p = 0.008$).

Conclusion

Despite approximately one-third of the patients in the study using herbal products most of them do not provide information to health professionals. Women and patients with higher education degree use these products more than the others. It has been concluded that new studies for determining the effects of the herbal products to the disease / treatment process and giving education to the patients would be beneficial.

5

THE EFFECT OF DIETARY HABITS ON THE DIABETES-SPECIFIC QUALITY OF LIFE OF CHILDREN AND ADOLESCENTS WITH TYPE 1 DIABETES

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¹ Marmara University faculty of Health Sciences Department of Paediatric Nursing, Assist. Prof., Istanbul, Turkey

² Siyami Ersek Chest, Hearth Surgery Training and Research Hospital, Istanbul

³ Bezmialem Vakıf University Medical Faculty Hospital, Istanbul, Turkey

⁴ Maltepe Bölge Hospital, Istanbul, Turkey

Background: Individuals must adhere the diabetes management and change the life style and habits in order to improve quality of life and extend the life time in chronic diseases such as diabetes. Nutrition is an important part of this change. Diabetes nurse has a key role to affect dietary habits.

Aim: To determine the relationship between dietary habits and diabetes-specific quality of life of children and adolescents with type 1 diabetes in aged 8-18 and their parents.

Methods: This descriptive research was conducted on 127 children and adolescents and their parents in a state hospital's paediatric endocrinology outpatient clinic in İstanbul. Data collected with Information Form for Children and Adolescents with Type 1 Diabetes, Dietary Habits Assessment Form for Children and Adolescents with Type 1 Diabetes, PedsQL Diabetes Module V.3 Children and Parents Reports, PedsQL Diabetes Module V.3 Teen and Parents Reports.

Results: Mean age of participants was $12,8 \pm 2,83$. Of the children and adolescents 73,2% (n=93) were reported that they were educated about healthy nutrition in diabetes. Also of the educated population 33,6% (n=42) reported that they were educated by diabetes nurse. When compared with children/adolescents and DSQOL of children/adolescents were poor according to parents but DSQOL of children/adolescents were good according to children/adolescents ($p=0.000$). Children/adolescents reported that carbohydrate counting affects DSQOL positively ($p=0.001$). It was determined negatively significant relation between HbA1c and DSQOL of children/adolescents according to parents ($r=-0.23$ $p=0.012$). Conversely, there was no relation between HbA1c and DSQOL of children/adolescents according to children/adolescents ($p=0.596$).

Conclusion: It was found that DSQOL of children/adolescents were not affected negatively much even though inadequacy/mistakes in dietary habits. According to results, it was determined that knowledge of children/adolescents and their parents about healthy nutrition and relation with diabetes were inadequate/incorrect. It is suggested that the topic healthy nutrition in content of diabetes education should be more predominantly, and also educations about healthy nutrition and relation with diabetes should be repeated in once or twice a year.

6

(withdrawn)

7

DIABETES IS A CHALLENGE

How do individuals with diabetes in primary care in Heilbrigðisstofnun Suðurnesja stand regarding their disease over 10 years

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¹ Heilbrigðisstofnun Suðurnesja, Iceland

² University of Akureyri, Akureyri, Iceland

³ Regional Hospital Akureyri, Iceland

Background

The prevalence of diabetes is increasing in Iceland as around the world. It is important to respond to that with good and well organised diabetes care.

Aim: Is to look at the care and treatment individuals with diabetes receive in primary care and compare to international guidelines with the aim to improve the quality of care.

Method

A retrospective longitudinal cohort study where information was gathered from medical records and from the diabetes unit database at Heilbrigðisstofnun Suðurnesja in the years 2005, 2010 and 2015. The sample was everyone that was listed in the diabetes unit records in the beginning of 2005 (n=233) and two groups of individuals that were diagnosed with diabetes, one in 2010 (n=50) and one in 2015 (n=53).

Results

The average HbA1c when the longitudinal group first visited the diabetes unit was 8.16%, in 2005 it was 7.22%, a significant decrease, there was a significant increase in HbA1c to 7.43% in 2010 and still an increase but not significant to 7.56% in 2015. There was a significant decrease in diastolic blood pressure over the period. In comparison with international guidelines, most achieved HbA1c goals in 2005 (51%) HDL in 2010 (43.8%) LDL in 2015 (41.9%) TG in 2010 (79.8%), BMI, 2015 (44.2%), systolic blood pressure, 2010 (63.4%) and diastolic blood pressure, 2015 (74.2%). A significant association was found between neuropathic symptoms and higher HbA1c level. Average BMI was around 32 kg/m². Most used only tablets or insulin for lowering blood glucose. Over the 10 years 66 died, 22.7% because of complications. In the groups of newly diagnosed, average HbA1c was 8.13% in 2010 and 7.79% in 2015 and the average BMI was over 35 kg/m² both years.

Conclusion

It is obvious that we need to do better in lowering HbA1c levels. Documentation of data was lacking in many areas, which is important to improve.

8

INSULIN INITIATION EXPERIENCES IN PEOPLE WITH TYPE 2 DIABETES MELLITUS WITH DIFFERENT PATTERNS OF PERSISTENCE

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¹ Loyola University Maryland, Baltimore, USA

² Lilly Deutschland GmbH, Bad Homburg, Germany

³ Analysis Group, Inc., New York, USA

⁴ Analysis Group, Inc., Boston, USA

⁵ Eli Lilly and Company, Indianapolis, USA

Background: Insulin treatment is one of the most effective therapies for lowering blood glucose levels. However, people with type 2 diabetes mellitus (T2DM) are often non-adherent or non-persistent to their therapy.

Aim: This study assessed the challenges, concerns, resources available, and impact of insulin therapy among insulin-naïve people with T2DM who initiated basal insulin therapy within the prior 3 to 24 months with different patterns of persistence (continuers, interrupters, discontinuers).

Method: People (N=942) with T2DM from the United States (N=154), France (N=137), Germany (N=131), Spain (N=150), United Kingdom (N=131), Brazil (N=156), and Japan (N=83), identified from the Harris Panel and third party panels, completed an online survey. Respondents were classified as 'Continuers' if they reported no gaps of ≥7 days in basal insulin treatment, 'Interrupters' if they had at least one gap of ≥7 days in therapy and then restarted basal insulin, and 'Discontinuers' if they stopped using basal insulin for ≥7 days and had not restarted by the time of the survey.

Result: For the 3 groups, the proportion of patients agreeing/strongly agreeing with having specific concerns related to insulin (e.g., glycemic control, self-injections, inconvenience) demonstrated a trend of decreasing from initiation to one week post initiation; the proportion of continuers agreeing/strongly agreeing with having specific concerns was consistently lower compared to interrupters and discontinuers.

Furthermore, the continuers had lowest proportion of patients reporting specific challenges (e.g. checking blood sugars, adjusting dose, ability to treat hypoglycemia) during the first week of insulin initiation.

The majority of respondents across all three persistence groups had received training during initiation on self-injection, titration, insulin therapy in general, diet/exercise, and diabetes in general. Continuers and interrupters were more likely to report that insulin use had a somewhat or very positive impact on specific aspects of life compared to discontinuers, such as glycemic control, physical well-being and emotional well-being.

Conclusion: Understanding patient concerns, challenges, and feelings during basal insulin initiation may help clinicians provide individualized care and support, which may result in better persistence.

9

SELF-REPORTED KNOWLEDGE BY PATIENTS ATTENDING AN OUT-PATIENT CLINIC REGARDING INSULIN, INSULIN-INJECTION AND HYPOGLYCAEMIA

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Background

To obtain a good glycaemic control and avoid hypoglycaemia, it is crucial that patients have knowledge on different aspects. In order to better target our teaching, it is important to know the patients need for knowledge about diabetes. Injection technique and hypoglycaemia are main topics in a-nursing consultations in our clinic. We have however, never systematically studied the need for our teaching.

Aim

To identify patients knowledge of injection technique, insulin effects and, hypoglycaemia, all general basic knowledge for patients using insulin

Method

We constructed a questionnaire, consisting of 11 basic statements within the topic. Each statement should be answered by either "correct", "incorrect" or "don't know". The questionnaire was answered by 45 randomly selected in the waiting room before a nursing or doctor consultation. Patients invited to participate were a mixture of type 1 and type 2, all in the insulin treatment.

Result

56 % type 1 and 36 % type 2 participants participated. The average age was 54 years (range 23-82 years) and diabetes duration was on average 11 years (age range 1-38 years). Among the statements 39 % came with a correct answer on the whether the statement was wrong or not. 33% came with an incorrect answer and 28 % answered don't know.

There was generally good knowledge about the injection technique (50% correct), and alcohol and diabetes (56 % correct) whether the following statements had a high frequency of incorrect and don't know answer, how often to measure blood sugar when you are driving a car (27%) and when to measure post-prandial blood glucose (24 %).

Conclusion

There is a need for continuous updating for basic knowledge, even if they have had diabetes for many years. We may focus on identifying the patients need for education before starting teaching and maybe find better teaching methods.

10

EXPERIENCES ON SELF-CARE COUNSELLING OF DIABETIC ADULT PATIENTS WITH DIFFERENT CULTURAL CONTEXT: INTERVIEW OF DIABETES SPECIALIST NURSES

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Background

Globally increasing diabetes and immigration challenge self-care counselling for diabetic patients. Diabetes specialist nurses play a central role in counselling and, therefore, their perspective is important for improving culturally sensitive self-care in diabetes.

Aim

This study describes the experiences of diabetes specialist nurses (DSN) in providing counselling on self-care for diabetic adult patients with diverse cultural backgrounds.

Methods

Eleven diabetes specialist nurses participated in this study. The data were collected from individual and group interviews and analysed with content analysis.

Results

The interviewed nurses perceived knowledge of patients' background and support from the patients' family as facilitators of patients' self-care. The expertise of the diabetes nurses, the atmosphere of the care relationship and multidisciplinary cooperation supported the patients' self-care skills and motivation. Furthermore, the approach and content areas of counselling and used materials improved the patients' ability to receive information. In contrast, nurses perceived lack of multidisciplinary cooperation and resources and patients' poor commitment to self-care as preventing factors.

Conclusions

Having respect for patients and taking their cultural backgrounds into account are significant in assessing patients' needs for self-care. Furthermore, the recognition of individual differences between patients is crucial for the assessment.

Keywords: Diabetes specialist nurse, care counselling, multicultural context

11

DIABETES NURSE CAN EASILY CONTRIBUTE TO THE PREVENTION OF DIABETIC FOOT SYNDROME

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Background

Diabetic foot syndrome is a severe complication of diabetes. An active screening of risk factors associated with the development of diabetic foot syndrome is a routine part of diabetes patient care. A standard risk factors screening includes an annual assessment of peripheral neuropathy and peripheral artery disease. The question is, is there more that could be done?

Aim

Our aim was to evaluate the effect of nurse feet visual inspection in all patients at every visit (3 months) and to measure the incidence of detected problems and incipient defects.

Methods

For 3 years, we have visually examined the feet of all diabetes patients attending our clinic. Any discovered problems (bruising, blisters, cracks, swelling, redness) were treated accordingly and the time to healing was measured. All patients were provided a foot care education individually targeted at their specific problem. We have recorded patient age, duration of diabetes, duration of defect healing and patient awareness of their foot defect.

Results

A defect was found in 29 patients in 2013 (2,5% of 1164 examined patients), 15 patients in 2014 (1,2% of 1237) and 11 patients in 2015 (0,9% of 1192). Average age was 62 (+-9) years, mean diabetes duration was 10,4 (+-6) years, 75,5% were men. The most frequent problems were hemorrhagic hyperkeratosis with a defect underneath (43%), blister (38%), deep heel cracks (17%), less frequent were ingrown toenails, crackles between toes and open defects. The total of 76% patients were not aware of their defects. The 24% that were aware of the defect had not found it significant. The average time to healing was 8 (+-5) days.

Conclusion

Regular visual foot inspection should be included in the diabetes nurse agenda at every patient visit. It can detect an incipient defect, allowing an early proper treatment. This nurse intervention is not overly time consuming and it can help substantially reduce healing time and improve foot self-care of diabetes patients.

12

THE IMPACT OF GLUCOSE VALUES DURING HOSPITALIZATION ON LONG-TERM OUTCOME AFTER AN ISCHEMIC STROKE

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Background

Patients' glycemic profile is a crucial outcome factor after an ischemic stroke while admission glucose and in-hospital hyperglycemia during the first days after admission or during the hospitalization affect patient outcome after ischemic stroke.

The aim of this study is to evaluate the impact of glucose values (on admission, fasting, postprandial and mean values of glucose during hospitalization) on first year outcome.

Methods

125 patients who were admitted to Internal Medicine Department and discharged included in this longitudinal, prospective, observational, study. First-year end points were: death (of cardiovascular cause), ischemic stroke, and the aggravation of patient's clinical condition. To evaluate the impact of glucose measurements on first-year complications after the stroke, separate logistic regression models were performed for each measurement.

Results

Diabetes was previously diagnosed in 38 (30.4%) patients (Group A) and 87 (69.6%) were non-diabetes (Group B). The AUC of the ROC curves (each one adjusted to known confounding factors) for the admission glucose was 0.697 (95%CI: 0.565-0.712, p=0.001) and 0.578 (95%CI: 0.502-0.657, p=0.047) for Group A and B. The AUC for the fasting glucose was 0.635 (95%CI: 0.522-0.774, p=0.021), and 0.496 (95%CI: 0.418-0.674, p=0.580) for groups A and B respectively. The AUC for postprandial glucose was 0.611 (95%CI: 0.588-0.722, p=0.033) and 0.468 (95%CI: 0.399-0.626, p=0.343) for groups A and B while the AUC for the mean value of the glucose during hospitalization was 0.598 (95%CI: 0.531-0.696, p=0.024) and 0.413 (95%CI: 0.251-0.576, p=0.358) for Groups A and B.

Conclusion

Admission glucose in ischemic stroke shows a more significant correlation with endpoints a year after a stroke even for non-diabetes patients.

13

THE DIABETIC FOOT IN HOSPITALIZED STROKE PATIENTS: RISK, PREVELANCE AND NURSING ACTIONS

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Background: Complications in the foot is the most serious one of the diabetes. Often, this leads to expensive treatments and amputation. Stroke results in loss or limitation of previous physiological, psychological and social activities and including a reduced ability to protect their feet and perform self-care. Stroke patients with diabetes have a high risk of injury in the paralyzed side of the body. Impaired mobility is a risk factor that can cause patient harm. On the nursing ward for stroke patients the nurse can through good nursing intervention and preventive actions contribute to the risk of developing damage to their feet in stroke patients decreases.

Aim: The aim of the study is to explore the prevalence of diabetic foot at a neurological clinic and review the nursing documentation of preventions actions in stroke patients with diabetes with regard to the risk of developing foot ulcers.

Method: A retrospective medical record review study with quantitative and qualitative approach. The study was conducted at a neurological clinic at a university hospital in southern Sweden. All the records (n = 101) of stroke patients with diabetes who were treated at the clinic from 1 January 2015 to 20 December 2015. The examination was conducted using Global Trigger Tool (GTT). Data analysis was divided into two parts: the descriptive statistical analysis and manifest content analysis.

Results: Median age is 78 years (41-93). Women (n = 40), men (n = 61). Journal review showed insufficient documentation. Risk assessment for foot ulcers was not documented in any of the journals. Patients with documented foot ulcer (n= 3), the localization of ulcers is on the same side as the patient is paralyzed. Prevention and nursing actions, (n = 12) documented action in bed, (n = 0) documented actions in the chair. According IWGDF risk classification (n = 12) identified as having risk factors for foot problem and foot ulcer. Documentation of nursing process was not followed in the journals.

Conclusion: The patients had high age with multiple comorbidities and paralyzed in the whole or on one side of the body. The localization of foot ulcers is on the same side as the patient is paralyzed. Insufficiency in nursing documentation and prevention work result in risk to patient safety and impaired quality of care. The study provides more knowledge about the risk of the developing foot ulcer for patients with stroke and diabetes who treated in the neurological clinic. The study provide foundation to develop the clinic quality work and ensure patient safety through increasing knowledge to the clinic about diabetic complications and guidelines, nursing documentation in accordance with the nursing process and critical thinking of nursing. More studies of foot ulcers in stroke patients are recommended.

Keywords: diabetes mellitus, diabetes foot ulcers, documentation, Global Trigger Tool, journal examination, nursing, prevention, stroke.

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HYPOGLYCAEMIA AS FREQUENT UNRECOGNIZED COMPLICATION OF INSULIN THERAPY

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Introduction: Severe hypoglycemia can be life-threatening. Many patients, who have had diabetes for a long time, do not notice the signs of hypoglycaemia or they do not recognize the condition as it occurs without associated symptoms or during sleep.

Problem: Research shows that many patients do not notify their physicians about the occurrence of hypoglycemia. Among the reasons are: lack of time, not recognizing and not being aware of hypoglycemic conditions, and fear of losing their driving license. However, hypoglycemia can be prevented using proactive tools (questionnaires) for patients.

Methods: 38 type 1 and type 2 diabetes patients receiving insulin therapy answered the hypoglycemia questionnaire containing 13 questions. Questions and answers were statistically analyzed using Microsoft Office Excel.

Results: 66% of 38 respondents were male. 37% can always and sometimes detect low glucose concentrations, 10% rarely and 3% never. In half of the respondents hypoglycemia never occurs during their normal week, in 24% hypoglycemia occurs once a week, in 16% hypoglycemia occurs three times a week, and in 8% of patients hypoglycemia occurs four times a week. 39% of respondents replied they take action at a glucose level 4 mmol/l and 16% of respondents consider it necessary to treat hypoglycemia at a glucose level 3,0 mmol. Inadequate dietary intake is considered to be the main reason for hypoglycemia for 29% of respondents, unplanned physical exercise in 25%, and high insulin doses in 18%. In order to treat low glucose levels 24% of respondents drink juice/soft drinks or sweetened tea, 15% take bread and biscuits, and 13% take glucose tablets. 11% respondents experienced severe hypoglycaemia during the previous year; since their last follow-up at the diabetes clinic none of them experienced hypoglycemia, nor did they require assistance. 32% of respondents have glucagon at disposal and family members are trained to use it. 74% of respondents drive a car; 11% always measure their glucose levels before they get behind the wheel; however, 42% do not measure their glucose levels. The average glucose concentration of 3.9 mmol/l represents the threshold when they reconsider their abilities to drive a car.

Conclusion: It is important to teach patients about the signs of hypoglycemia and take appropriate action in due course. Nocturnal hypoglycemia represents a great challenge for both the patient and the healthcare professional; however, nocturnal hypoglycemia can be successfully managed. It only takes an open conversation to establish how to best treat the condition. The approach used should be individual and differs from person to person. The education should focus on hypoglycaemia prevention, identifying reasons for this condition and taking appropriate actions.

15

DEVELOPMENT OF THE INSULIN TREATMENT SELF-MANAGEMENT SCALE (IT-SMS)

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Background

The management of the insulin treatment by the individuals is very important in the success of diabetes control.

Aim

To develop a measurement tool regarding the self-management levels of people with diabetes on insulin treatment.

Method

The item pool included 63 items in a 5-likert type. Expert views were evaluated via Lawshe analysis. As a result, the draft scale with 58 items was formed. The sample of this methodological study consisted of 311 individuals with diabetes. The structural validity of the scale was performed via exploratory factor analysis (EFA) with the varimax perpendicular rotation technique. In the context of reliability analyses, the item-total score correlation, the splitting in half method, and the test-retest application were used.

Results

The Kaiser Meyer Olkin (KMO) value, used for determining whether the sample size was sufficient for factor analysis, was seen to be .856, while the Bartlett's value was seen to be $p=.000$. In EFA, 25 items that had item load values below 0.45 and received load from more than one item were excluded from the scale. The remaining 31 items were found to gather under 3 factors explaining 49.75% of the total variance of the scale; the affective, behavioral, and cognitive subdimensions. Additionally, item total correlations were examined in order to evaluate item validity. The correlations of all the items were found to vary between .258 and .578. The total Cronbach Alpha value of the scale was .89, while the Cronbach Alpha values of the sub dimensions varied between .83 and .88. According to the Pearson analysis performed for the test-retest analysis, results were found to be positive and significant for 3 subdimensions (r values between .935 and .962; $p=.000$).

Conclusion

The Insulin Treatment Self-Management Scale was found to be a valid and reliable tool in measuring the self-management levels of individuals with diabetes on insulin treatment.

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ADAPTATION OF WOMEN WITH GESTATIONAL DIABETES TO PREGNANCY AND THE EVALUATION THEIR FEAR OF CHILDBIRTH: A CASE CONTROL STUDY

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Background: Although pregnancy is a natural process in women's lives, it also involves physiological and psychological changes which necessitate adaptation. However, in risky situations, such as gestational diabetes during pregnancy, difficulties in adapting to pregnancy and fears concerning childbirth may occur.

Aim: This study was planned in order to evaluate the adaptation to pregnancy and fear of childbirth of women with Gestational Diabetes Mellitus (GDM).

Methods: This case control study was performed between January 15th and May 20th 2016 in a Women's and Children's Diseases Training and Research Hospital in the city of Istanbul. 102 pregnant women diagnosed with GDM comprised the study group, 204 pregnant women with natural pregnancy progression and without diabetes comprised the control group (CG), and a total of 306 pregnant women were included in the study. In data collection, a pregnancy identification form, the Prenatal Self-Evaluation Questionnaire (PSEQ), and the A version of the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ A) were used.

Results: The mean age of the pregnant women with gestational diabetes who agreed to participate in the study was $32,67 \pm 5,12$, and the mean age of the control group was $31,54 \pm 3,69$. The pregnant women in the GDM and CG were found to be similar with regard to age, education status, income level, gestational week, and parity ($p>0,05$). There was no significant difference between pregnant women with GDM ($128,46 \pm 22,0$) and pregnant women in the CG ($128,07 \pm 25,18$) in terms of mean PSEQ total scores. However, when the pregnant women in the GDM group ($51,76 \pm 25,86$) and the CG ($41,67 \pm 22,40$) were compared with regard to W-DEQ A total score averages, a statistically significant advanced difference was found between the groups ($p<0,001$).

Conclusion: Gestational diabetes was found not to affect adaptation to pregnancy, although diabetic pregnant women do experience fear of childbirth. According to this result, it would be beneficial to evaluate levels of adaptation to pregnancy and fear of childbirth during the antenatal follow ups of pregnant women with diabetes.

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ANALYSIS OF DATA COLLECTED DURING THE FIRST YEAR OF DIABETIC FOOT CLINIC IN CROATIA

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Background

There are almost 250,000 persons with diabetes registered in the Croatian Diabetes Registry. The total number of diseased persons in Croatia is estimated to be 400,000, indicating that more than 40% have not been diagnosed. Approximately 1.5% of patients undergo non-traumatic amputations of extremities. As Croatia has no podiatrists, this represents a major healthcare problem. To improve diabetes foot care, Croatia has joined the IDF „Step by step” programme in 2015 and founded a team providing education on foot care in diabetes centres on a national level.

Aim

Show preliminary results of diabetic foot out-patient unit.

Method

Descriptive statistics was used to present the results.

Result

The sample included 478 participants of mean age 66 years (21- 97) and HbA1c 7.51. Of all participants, 66% reported no history of foot changes, i.e. foot ulcer, amputation of toe, foot, or lower or upper limb, whereas 35% had previously had foot ulcer: 6% underwent toe amputation, 1% transmetatarsal amputation and 1% underwent lower limb amputation; 68% had neurologic symptoms and 90% foot deformities (40% halux valgus, 4% foot pad atrophy, 62% nail deformities, 7% Charcot arthropathy, 72% twisted toes and 46% pes planus). Foot examinations revealed maceration in 8% of the patients, oedema in 4%, foot ulcer in 27%, dry skin in 24%, foot callus in 19%, redness in 12% and no changes in 35% of participants. Pathologic finding of monofilament was seen in 35% of patients, and 8% of patients had non-palpable pulsations of dorsalis pedis and tibialis posterior arteries. According to the Texas classification, 70% of patients were classified to stage „0”, 27% to „1” and 1% to „3”. Education was provided to 95% of participants.

Conclusion

Preliminary results indicate a need for monitoring of feet in patients with diabetes and education of chiropodists on specifics of foot care in persons with diabetes. In addition, production of adequate orthopaedic implants should be facilitated to improve the care of deformed feet.

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IMPACT OF FLASH GLUCOSE MONITORING ON TREATMENT SATISFACTION IN ADULTS WITH TYPE 1 DIABETES AND HBA1C < 60 MMOL/MOL

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Background

Systematic glucose monitoring is essential to keep metabolic control, to adjust insulin doses, to prevent acute and long term complications and to feel safe in daily life. Thus, National Guidelines recommend systematic glucose monitoring for all people with insulin treatment. Flash glucose monitoring (FGM) is new technology to monitor glucose levels.

Aim

To evaluate the impact of FGM on treatment satisfaction measured with DTSQ (Diabetes Treatment Satisfaction Questionnaire) in people with type 1 diabetes and HbA1c < 60 mmol/mol.

Method

Patients completed DTSQs when FGM was introduced and DTSQc 3 months later. In DTSQc no difference is scored 0, more/improvement 1, 2 or 3 and less/worsening -1, -2 or -3. HbA1c was measured every third month.

Result

51 patients with HbA1c below 60 mmol/mol was introduced. HbA1c was similar before and during FGM (53 vs. 50,5 mmol/mol). Patients were more satisfied with the diabetes treatment after introduction of FGM (2.84), experienced too high blood glucose less often (-0.84) as well as too low blood glucose (-0.81). They were more comfortable with the treatment (2.74), would highly recommend FGM (2.87) and would appreciate continued FGM use (2.81).

Conclusion

Despite no change in HbA1c after introduction of FGM people with type 1 diabetes and HbA1c < 60 mmol/mol experienced a significant improvement in treatment satisfaction and 95% stated that they would appreciate to continue with FGM. Less time with too high or too low blood glucose levels, easier monitoring and better control of glucose fluctuations after introduction of FGM are probably contributing to this finding.

19 ORAL**THE RELIABILITY AND VALIDITY OF THE UNIVERSITY OF VIRGINIA CHILD/TEEN LOW BLOOD SUGAR SURVEY**Şahin Ş.¹ Çövenner Özçelik Ç.²¹ Marmara University Faculty of Health Sciences Department of Paediatric Nursing, Research Assist., Istanbul, Turkey² Marmara University faculty of Health Sciences Department of Paediatric Nursing, Assist. Prof., Istanbul, Turkey**Background**

Hypoglycaemia is the most common acute complication of type 1 diabetes.

Hypoglycaemia can trigger multiple negative physiological outcomes. These include unpleasant symptoms (sweating, dizziness, lethargy, slurred speech and mental confusion e.g.) caused by an inadequate supply of glucose to the brain. Severe hypoglycaemia can result in life threatening consequences, including loss of consciousness, seizure, accidents, coma and death. Adolescents with type 1 diabetes may develop a significant fear of hypoglycaemia in the view of hypoglycaemic episodes and the associated risks for harm.

Aim

The aim of the study was to examine the psychometric properties of the University of Virginia Child/Teen Low Blood Sugar Survey (C-LBSS) -which assessing fear of hypoglycaemia- in Turkish adolescents with type 1 diabetes.

Methods

Two hundred and fifty adolescents aged 12-17 years with type 1 diabetes who presented at a diabetes polyclinic participated in this study. Content and construct validities, internal consistency reliability, item-total correlations and test-retest reliability were analysed in order to determine the psychometric properties of the survey.

Results

The validity analyses: Content validity was performed in order to assess the content validity index (S-CVI). The S-CVI was 1.0 which showed that the survey has good content validity. Explanatory (EFA) and Confirmatory (CFA) factor analyses was conducted in order to assess construct validity. Two factors explained 32.1% of the variance in C-LBSS according to EFA as the original survey. According to CFA; RMSEA, SRMR and χ^2/df were respectively 0,084; 0,085 and 2,74 indicated that two factor model in the Turkish version of survey had a good fit.

The reliability analyses: Cronbach's alpha of the C-LBSS was 0,84 and item-total correlations ranged from 0,27 to 0,54. Test-retest reliability was 0,997. All of these analyses indicated that the survey has good reliability.

Conclusion

The psychometric analyses of the Turkish version University of Virginia Child/Teen Low Blood Sugar Survey indicated good content and construct validities and high reliability for measuring hypoglycaemia fear in Turkish adolescents with type 1 diabetes.

20 ORAL**WOMEN WITH TYPE 2 DIABETES - THE CIRCUITOUS ROUTE TO ACCESSING PRE-PREGNANCY CARE**

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Background

As Type 2 diabetes (T2DM) increasingly effects younger women of reproductive age there has been an increase in the prevalence of pregnancies in this population, a recent UK national audit (HQIP 2015) identified that nearly half of all pregnancies in diabetes are now in women with T2DM. Pre-pregnancy care (PPC) for women with diabetes is associated with improved maternal and fetal outcomes, however the uptake among women with T2DM is poor. One of the elements attributed to this is timely access to specific information and care. This study sort to gain an in-depth understanding of both women's and healthcare professionals' (HCPS) experience of PPC in the T2DM population.

Methods

Individual in-depth, semi-structured interviews were conducted with 30 women of reproductive age with T2DM who were from diverse socioeconomic and cultural backgrounds and 22 HCPs from both primary and secondary care settings. The women were stratified according to their exposure to PPC and pregnancy experiences. The data were analysed using Framework Analysis.

Results

Navigating healthcare services to access specific information and care about PPC was not a linear process and was influenced by individual and system level factors. Accessing PPC was influenced by their orientation towards pregnancy, personal and health beliefs and self-efficacy. For healthcare professionals (HCPs) their professional competency and biases were influential in facilitating this care. The architecture of the healthcare system is such that it infers an inherent bias against women with T2DM, as frequently accessing specific information and care required negotiating multiple levels of referral. A key factor in women's experiences of care variation was whether they had a prior pregnancy.

Conclusion

Women with T2DM and HCPs need to be sensitised to the need for PPC. Women with T2DM need to be supported to understand the benefits of PPC in a manner that is congruent with their personal needs and beliefs. Additionally, there is a requirement for HCPs to incorporate PPC into the care of all women with T2DM who have pregnancy potential and facilitate timely access to appropriate services.

Reference

Healthcare Quality Improvement Partnership (HQIP) NDA. National Pregnancy in Diabetes Audit 2014, England, Wales and the Isle of Man. 2015.

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DEVELOPMENT AND PSYCHOMETRIC TESTING OF THE SELF-CARE OF DIABETES INDEX©

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Background

Self-care is essential for patients with diabetes mellitus (DM). Both clinicians and researchers must be able to assess the quality of that self-care. Available tools are not based on theory.

Aim

To develop a new Self-Care of Diabetes Index (SCODI) based on the Middle-range Theory of Chronic Illness and test its psychometric performance.

Methods

The 40 SCODI items (5 points Likert type) were developed based on the most recent evidence-based clinical recommendations and grouped into 4 dimensions: self-care maintenance (12 items), self-care monitoring (8 items), self-care management (9 items) and self-care confidence (11 items) based on the theory. Content validity was assessed by a multidisciplinary panel of experts. A multi-centre cross-sectional study was conducted in a consecutive sample of 200 type 1 and type 2 diabetes patients from Italy. Construct validity was evaluated by explorative factor analysis. Single factor and multidimensional model based reliability was estimated for each scale. Multiple regression models estimating associations between SCODI scores and glycated haemoglobin (HbA1c), body mass index (BMI), and presence of diabetes complications, were used for criterion validity. Test-retest reliability was assessed in a sub-group of 20 patients.

Results

Content validity ratio was 100%. A multidimensional structure emerged for the 4 scales (fit indices range = 0.31 – 0.99). Single factor reliabilities were between 0.72 and 0.99. Multidimensional model based reliabilities were between 0.81 (maintenance) and 0.89 (confidence). Significant associations were found between self-care maintenance and HbA1c ($p = 0.02$) and between self-care monitoring and diabetes complications ($p = 0.04$). Self-care management was associated with BMI ($p = 0.004$) and diabetes complications ($p = 0.03$). Self-care confidence was a significant predictor of maintenance, monitoring and management (all $p < 0.0001$) confirming the theory. Intra-class correlation coefficient was > 0.9 for each of the 4 scales.

Conclusion

The SCODI is a valid and reliable theoretically-grounded tool to measure self-care in type 1 and type 2 DM patients. It can be used both in research and clinical practice. SCODI testing in US (English version) and Brazilian (Portuguese version) diabetes populations is ongoing.

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CLINICAL OUTCOMES ASSOCIATED TO SELF-CARE IN TYPE 2 DIABETES PATIENTS: A CROSS-SECTIONAL STUDY.

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Background

Self-care is relevant for diabetes patients to prevent complications and to maintain quality of life.

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Although several studies were conducted to explore outcomes associated to self-care in type 2 diabetes patients (T2DM), results were often conflicting and available evidence need to be strengthened.

Aim

The aims of this study were to describe self-care of T2DM patients and to evaluate its association with clinical outcomes.

Methods

A cross-sectional study was conducted on a cohort of 302 T2DM patients selected in a random sequence in two diabetes centres in Italy. Clinical and socio-demographic data were collected by medical records. The Summary of Diabetes Self-care Activities was used to measure self-care behaviours about diet, blood testing, exercise and foot care (score range for each dimension = 1-7; higher score = better self-care). The EQ-5D was used to measure perceived quality of life. Multiple regression models were performed to estimate associations between self-care and body mass index (BMI), glycated haemoglobin (HbA1c), presence of diabetes complications and quality of life. Results. Self-care was lower about exercise (median = 2.0; interquartile range Q1-Q3 = 0.5 – 3.5) and foot care (median = 3.5; interquartile range Q1-Q3 = 0.5 – 6.0) than about diet (median = 5.2; interquartile range Q1-Q3 = 4.2 - 6.0) and blood testing (median = 2.0; interquartile range Q1-Q3 = 2.0 – 7.0). Diet was associated to HbA1c ($p = 0.025$). Exercise was significantly associated to BMI ($p = 0.0071$), HbA1c ($p = 0.0017$), presence of diabetes complications ($p = 0.031$), and quality of life ($p < 0.0001$). Blood testing was associated to HbA1c ($p = 0.034$), presence of complications ($p < 0.0001$) and quality of life ($p = 0.032$). Foot care was significantly associated to quality of life ($p = 0.013$).

Conclusion

Self-care influences several clinical outcomes of T2DM patients. Although exercise is the most important determinant of positive outcomes, it is poor in T2DM patients. Any intervention aimed to improve exercise is strongly recommended. Further research is needed to explore barriers to exercise in T2DM patients.

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PATIENT PREFERENCE FOR THE USE OF STANDARDISED MEASURES TO CAPTURE ISSUES FACED BY ADULTS WITH NEW ONSET TYPE 1 DIABETES.

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Background

There are currently few specific interventions tailored to the needs of adults with new onset type 1 diabetes (T1D). In order to develop and evaluate interventions for this population it is useful to identify which psychosocial measures best reflect the impact of the diagnosis and resonate with the patient experience.

Aim

The aim of this preliminary study was to determine which standardised measures adults with new onset T1D rated most relevant to their experience.

Methods

Thirty patients, 16 men, mean age 36 (± 14.7) years with a mean duration of diabetes of 22 (± 12.3) months, were recruited to a qualitative study. Participants were asked to complete a batch of questionnaires that included: generic questionnaires (Functional & Structural Social Support (FSSS), Sense of Coherence (SOC), Brief Symptom Index (BSI), Resilience Scale (RS), Experience of Close Relationships (ECR), EQ-5D-5L, Overall Quality of Life (QOL)); and diabetes specific questionnaires (Hypoglycaemia section on Ipswich Diabetes Self-Management Questionnaire (IDSMQ), Diabetes Coping Measure (DCM), Brief Illness Perception Questionnaire (BIP), Acceptance & Action Diabetes Questionnaire (ACCEPT), Problem Areas in Diabetes (PAID)). In addition to completing the questionnaires they were asked to rate which three questionnaires most appropriately acknowledged their personal issues, these responses were aggregated to rank the measures by preference.

Results

Twenty-four participants returned the questionnaires, with all but three participants rating their preferences for the questionnaires. The table below summarises the rankings for each measure.

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Table: Questionnaire Rank According to Preference

Questionnaire	Response	Rank
DCM	23%	1
PAID	19%	2
BIP	14%	3
IDSMQ	12%	4
FSSS	9%	5
ECR	7%	6
BSI	7%	6
ACCEPT	4%	8
QOL	2%	9
RS	2%	9
SOC	2%	9
AQ-5D-5L	0%	12
Total	100%	

Conclusion

The results show that adults with new onset T1D are willing to state their preferences and that they regard the diabetes specific measures as being more reflective of the issues that they have to deal with following diagnosis.

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A FEASIBILITY STUDY OF SCREENING METHODS TO DETECT HYPERGLYCAEMIA IN PATIENTS RECEIVING HIGH DOSE DEXAMETHASONE DURING CHEMOTHERAPY

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Background

High dose dexamethasone given in chemotherapy can result in steroid induced hyperglycaemia. Little is known about the glucose profile or recovery time and there is no evidence-based guidance for screening for hyperglycaemia despite research demonstrating poorer outcomes in these patients. Diagnostic tests for diabetes such as fasting plasma glucose or glycated haemoglobin may not detect this specific hyperglycaemia. Therefore, it is important to consider alternative methods for assessing glycaemia in these patients.

Aims

A feasibility study of potential screening methods to detect hyperglycaemia in chemotherapy patients treated with high dose dexamethasone.

Method

Participants at risk of or with type 2 diabetes were recruited from a tertiary referral centre. Continuous glucose monitoring (CGM) was carried out to test the hypothesised glucose profile induced by high dose dexamethasone. Data were recorded for seven days before, during and after one or two cycles of chemotherapy in each participant. Potential screening methods were glycated haemoglobin (HbA1c), four point self-monitoring of blood glucose (SMBG), urine glucose testing and symptom reporting including nocturia. Patient opinion was collected.

Results

Five participants at risk of diabetes were recruited. All participants exhibited a rise in glucose in response to dexamethasone (SMBG ≥ 7.8 mmol/l) especially during evenings and overnight. This was particularly evident after the first dose of dexamethasone between 19:00 – 22:00 hours regardless of whether it was taken in the morning or afternoon, mean peak glucose level was 15.1mmol/l [SD +/-3.1mmol/l]. The time to rise was 2-4.5hrs, peak 7-12.5hrs after first dose and recovery after last dose varied between 6hrs and 39hrs. Urine testing for glucose was positive in 60% of participants and in 100% of those who reported nocturia, this correlated well with CGM results. Patients tolerated all monitoring methods with a higher preference for urine testing and CGM compared to SMBG.

Conclusions

Overall the findings suggest that SMBG and urine testing could be used as potential screening methods in a diagnostic accuracy study. CGM would be valuable in a proportion of participants to inform timings of these methods.

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QUALITY INDICATORS AND MEASURES FOR DIABETES EDUCATION PROVIDED BY A NURSE PERFORMING THE ROLE OF A DIABETES EDUCATOR

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Background

Diabetes education is a fundamental element of diabetes therapy. Therefore, the quality and effectiveness of diabetes education provided by a nurse serving as a Diabetes Educator (DE) has a significant impact on the effectiveness of treatment and the quality of care. Despite numerous guidelines available, there is no general consent on the optimised quality of diabetes education provided by DEs. Data from the Polish Federation of Diabetes Education (PFED) report ("Report Education in diabetes. The missing link to success") suggest that organisation and level of education vary across Poland. They are largely dependent on the standards of particular institutions and on their human and financial resources. Thus, there is an urgent need to develop standards and criteria necessary for initiating the process of improving the quality of diabetes education.

Aim

The aim of the study is to present a selection of indicators and measures for the quality of diabetes education provided by a nurse/midwife performing the role of a DE.

Method

Diabetes education indicators mentioned were developed on the basis of health care quality indicators used in practice, taking into account the specific character of diabetes education programmes and nursing care process.

Result

The following criteria were distinguished: individual approach, availability and continuity of education, effectiveness of education, safety of patients and personnel, education process documentation, effectiveness of communication within the therapeutic team, and qualifications of a nurse/midwife employed as a DE.

Conclusion

Due to its complexity, the issue of the quality of nursing care is defined and investigated in a variety of ways. Quality indicators are among key tools to monitor and evaluate the effectiveness of particular care components. It is crucial, however, that quality indicators for diabetes education provided by a nurse are appropriately selected and precisely defined.

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IMPACT OF THE PILOT USE OF A DEDICATED BOOKLET AS A TOOL TO SUPPORT SELF-MANAGEMENT EDUCATION IN ELDERLY PEOPLE WITH TYPE 2 DIABETES

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Background

MANAGE-CARE is an European project focused on innovative, patient-centred chronic care management for elderly people with type 2 diabetes (T2D).

Aim: To evaluate the impact of a newly developed booklet on health-related emotional distress, patient empowerment and level of diabetes patient self-care.

Methods

The study included 33 participants with T2D >65 years old, attending a diabetes outpatient clinic. Exclusion criteria included BMI > 40 kg/m² and major complications of diabetes. The booklet was given to all participants to use it over a period of one month. Participants were asked to complete three validated questionnaires addressing diabetes-related emotional distress (PAID, "Problem Areas in Diabetes Questionnaire"), empowerment (DESF, "Diabetes Empowerment Scale-Short Form") and diabetes self-management activities (SDSCA, "Summary of Diabetes Self-Care Activities") at baseline and after one month.

Results

Of the initial 33 recruited, 27 participants completed the study (15 male and 12 female, mean age 70.5±0.9 years, HbA1c 8.0±0.2 %, diabetes duration 19.7±1.7 years, and 67% having insulin therapy).

At baseline, female participants showed a greater intrusion of diabetes in self-reported quality of life (PAID 38.8±6.1 vs 23.4±5.5 in male, p<0.05) and lower empowerment (DES-SF: 4.2±0.1 vs 4.6±0.1, p<0.05). The use of the booklet for one month led to lower self-reported diabetes-related emotional distress in the study population (PAID 30.2±4.3 vs 23.9±3.6; p<0.05), but did not significantly impact on empowerment (DES-SF: 4.4±0.1 vs 4.3±0.1; p=0.2) or self-care activities (SDSCA: 3.5±0.5 vs 3.6±0.5; p=0.1). Observed gender differences were maintained at the end of the study.

Conclusion

An educational diabetes booklet, when integrated in a patient-centred approach, may contribute to the improvement of some aspects of diabetes self-management in the short term. Patient gender differences in the emotional burden of disease will require further attention.

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DIABETIC FOOT SCREENING: RISK LEVEL AND REFERRAL REASON TO A DIABETIC FOOT DEPARTMENT

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Background

A majority of patients referred to home care services are over 64 years. The projected increase of this age group and the increased prevalence of diabetes in older people, underscore the patient safety aspects in diabetes care in home care services.

Aim

- (1) Explore how studies of older persons with diabetes receiving care in the home from registered nurse, licensed practical nurses or nursing aides inform a patient safety perspective.
- (2) Investigate the relationship between components of patient safety and factors in persons with diabetes receiving home care services.

Method

Computerized search of literature was performed in the databases: CINAHL, Medline, Embase and Cochrane Library. The key words and MeSH-terms were: 'Diabetes Mellitus', 'type 1 diabetes', 'type 2 diabetes', 'Community health services', 'Community health nursing', 'Home health care', 'Home visits', 'Home nursing, professional', 'health services for the aged', 'community health service', 'community health nursing', 'home care services', 'home health nursing', 'home nursing', 'respite care', 'health care service for the aged', 'community care', 'community health nursing', 'home care', 'visiting nursing service', 'aged', 'geriatr', 'elderly', 'geronontol', 'all ages 65 years and older'. Inclusion criteria were:

1. Publications from 2000 and after.
2. Reporting persons with diabetes receiving professional care at home.
3. Reporting health care personnel delivering care in the home for a person.
4. Reporting risk factor in the patient situation or in the care management.
5. Reporting accidents, incidents or adverse events.

Whittemore and Knaff's theoretical framework was used to analyse the literature.

Result

2785 papers were identified by combination of the MeSH-words. 84 articles met the inclusion criteria. Preliminary analysis have identified three patient safety informing components in the retrieved articles: Management decision components (two sub-components); Components of the patients' condition (seven sub-components); and care components (nine sub-components).

Conclusion Preliminary analysis of studies among older persons with diabetes receiving home care services have been conducted inform a patient safety perspective. A further exploration of the material is needed to investigate the relationship between components of patient safety and diabetes care in home care services.

Conference Dinner

Friday 9 September

1930 Pre Dinner Cocktails

2000 Dinner

Venue:

Altes Rathaus (Old Town Hall),
 Marienplatz 15, Munich

Directions:

Metro U3 or U6 - Marienplatz



FEND Award		
1999	T. Birdsall	UK
2000	D. Weisman	Israel
	P. Nikkanen	Finland
2001	A. Joergensen	Denmark
2002	A. Munzinger	Germany
	B. Osterbrink	
	C. Nonn	
2003	M. Vidal	Spain
2004	P. Banck-Petersen	Denmark
2005	E. Turner	UK
2006	K. Alexandre	Switzerland
2007	S. Amsberg	Sweden
2008	M. Graue	Norway
2009	I. Lopes	Portugal
2010	A. Haugstvedt	Norway
2011	A. Faber	Netherlands
2012	S. Dereli Yilmaz	Turkey
2013	F. Bassin	Switzerland
2014	I. Tiberg	Sweden
2015	R. Forde	Ireland

First Announcement

22nd FEND Annual Conference

8-9 September 2017
Lisbon Portugal

On behalf of the Foundation of European Nurses in Diabetes we cordially invite you to attend the 22nd Annual Conference of FEND

Kristin de Backer
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More dates for your diary

53rd EASD Annual Meeting

11-15 September 2017
Lisbon Portugal

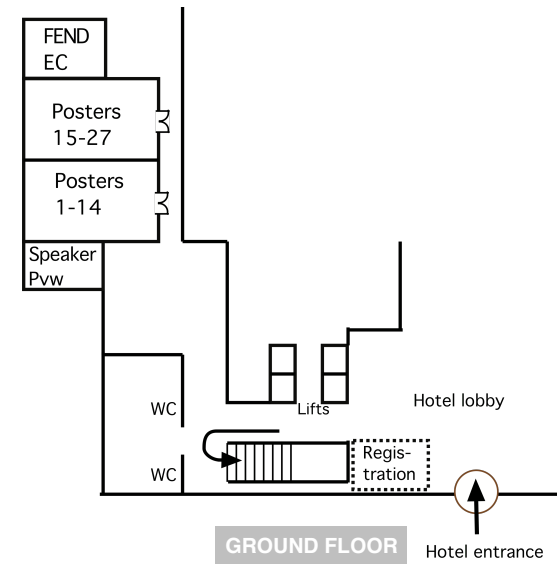
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IDF World Diabetes Congress

4-8 December 2017
Abu Dhabi

www.idf.org/congress

LOCATION PLAN



Pharmaceutical Exhibition

- A. Steno Centre
- B. Sanofi
- C. Taylor & Francis
- D. Novo Nordisk
- E. Owen Mumford
- F. Ascensia

