

F E N D

Federation of European Nurses in Diabetes

14th Annual Conference

25-26 September 2009

Austria Centre Vienna

Bruno-Kreisky-Platz

Vienna



“Declarations,
Recommendations,
Resolutions,
Action!”



unite for diabetes

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FEND Mission Statement

- To promote acceptable standards and equity of care of people with diabetes throughout Europe
- To develop and promote the professional role of the diabetes nurse in Europe
- To influence European health care policy relevant to diabetes care, education and research
- To cooperate and collaborate with national and international health care organisations

Welcome

Dear Participants

On behalf of the Executive committee of FEND it is our pleasure to welcome you to the FEND 14th Annual Conference and the city of Vienna. There will be a sense of 'deja vu' for some participants, as it was in Vienna in September 1996 that FEND held its first conference.

The theme of conference – “Declarations, Recommendations, Resolutions, Action!” will be reflected in keynote lectures and masterclasses.

The significant political recognition of the impact of the diabetes pandemic as manifest in the

- St Vincent Declaration of 1989
- the EU Parliamentary Declaration (April 2006)
- Austrian Presidency Conclusions (June 2006)
- the landmark UN Resolution 61/225 achieved in December 2006
- ECOSOC statement (June 2009)
- Lund Declaration (July 2009)

is not only to be celebrated but must ensure real meaning and value for people with diabetes worldwide by ensuring that these principles are implemented in national policies.

FEND has played and will continue to play an active role in advocacy, policy development and implementation. Co-operation with key pan-European organisations is imperative, hence the increased collaboration with EURADIA, PCDE, ISPAD and IDF Europe to achieve our shared objectives.

We thank our distinguished international speakers for their commitment and generosity of time.

We thank Prof Ulf Smith, President EASD and Prof Thomas Pieber, local organising Chairman of EASD, for their courtesy and support in permitting this conference to be included in the programme of meetings on the occasion of 45th Annual Meeting of EASD.

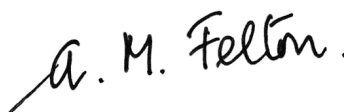
We acknowledge with deep appreciation the support of our sponsors for all of FEND's activities and special thanks also to our FEND volunteers from VOD Austria.

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.



Deirdre Kyne-Grzebalski
FEND Chairman



Anne-Marie Felton
FEND President

Friday 25th September 2009

0730	<i>Registration and Coffee</i>		
0845	Welcome and opening remarks	Deirdre Kyne-Grzebalski <i>Chairman</i> Anne-Marie Felton <i>President</i>	UK UK
	<i>Session Chairs</i>	Prof Regina Wredling Marianne Lundberg	Sweden Sweden
0905	An Overview of Diabetes in Austria	Prof Thomas Pieber	Austria
0930	Hypoglycaemia Unawareness – Effective Interventions	Prof Stephanie Amiel	UK
1000	Oral Presentations: 1. (see page 12) 2. (see page 13) 3. (see page 14) 4. (see page 15)	Dr Bodil Rasmussen Claudia Huber Gillian Kreugel Gillian Morrison	Australia Switzerland Netherlands UK
1100	<i>Coffee & Exhibition</i>		
	<i>Session Chairs</i>	Anne-Marie Felton Els Denis	UK Netherlands
1130	European Nurses in Diabetes – “What are you doing?”	Prof Dr Bert Vrijhoef	Netherlands
1215	Insulin for Life	Claudia Leippert	Germany
1225	<i>Lunch & Exhibition</i>		
	<i>Session Chairs</i>	Rita Forde Claudia Lieppert	Ireland Germany
1400	Diabetes in the Elderly – the Dream of Gerontius	Dr Simon Croxson	UK
1430	The Challenging Patient: Understanding Resistance to Change	Dr Susan Clever	Germany
1500	<i>Tea & Exhibition</i>		
	<i>Session Chairs</i>	Deirdre Kyne-Grzebalski Nadine van Campenhout	UK Belgium
1530	Type 2 Diabetes in The Young - Do We Have an Age Appropriate Approach?	Prof Tadej Battelino	Slovenia
1600	Vienna ‘Déjà Vu’ – Four Reflections from Founders of FEND	Prof Regina Wredling Sue Hamilton Deirdre Cregan Anne-Marie Felton	FEND
2000	Conference Dinner Vienna Konzerthaus Lothringerstrasse 20		

Saturday 26th September 2009

		<i>Session Chairs</i>	Vivien Aldridge Angelika Muenzinger	UK Germany
0900	WHO Advocacy – Establishing Effective Alliances for Diabetes		Dr Ala Alwan	Switzerland
0930	“Preventing the Worst Fear” Effective Screening for Retinopathy		Prof Roy Taylor	UK
1000	Masterclasses:			
	1. Diabetes Nursing Care in Europe: Lessons from SEND <i>facilitator Nadine van Campenhout</i>		1. Dr Sofia Llahana Prod Dr Bert Vrijhoef	UK Netherlands
	2. Benchmarking the Capacity and Quality of Diabetes Nursing Care in Europe <i>facilitator Selda Gedik</i>		2. Magdalena Annersten Gershater Margarida Jansa	Sweden Spain
	3. Defining the Scope of Practice, Standards of Practice, and Standards of Professional Performance for European Nurses in Diabetes <i>facilitator Lurdes Serrabulho</i>		3. Rita Forde Maite Valverde	Ireland Spain
	Guided Poster Tour 1 (parallel)		Rosana Cisic Birtha Hansen	Croatia Denmark
1115	<i>Coffee break & Exhibition</i>			
1145	Masterclasses (Repeated):			
	1. (see above)		1. Dr Sofia Llahana Dr Seyda Ozcan	UK Turkey
	2. (see above)		2. Magdalena Annersten Gershater Prof Dr Bert Vrijhoef	Sweden Netherlands
	3. (see above)		3. Rita Forde Maite Valverde	Ireland Spain
	Guided Poster Tour 2 (parallel)		Chantal Montreuil Marianne Lundberg	Switzerland Sweden
1300	<i>Lunch & Exhibition</i>			
		<i>Session Chairs</i>	Johanna Rosenberg Kristin de Backer	Finland Netherlands
1415	Oral Presentations:			
	5. (see page 16)		Marie Olsen	Sweden
	6. (see page 17)		Milka Zeljkovic	Croatia
	7. (see page 18)		Karen Stenner	UK
	8. (see page 19)		Trisha Dunning	Australia
1515	<i>Tea & Exhibition</i>			
		<i>Session Chairs</i>	Unn-Britt Johanssen Rita Forde	Sweden Ireland
1545	Plenary Session: Feedback from Masterclasses		Masterclass leaders	
1645	Awards ceremony: FEND and DESG		Deirdre Kyne-Grzebalski Anne-Marie Felton	UK UK
1700	Closing remarks		Deirdre Kyne-Grzebalski	UK

HYPOGLYCAEMIA UNAWARENESS – EFFECTIVE INTERVENTIONS

Prof Stephanie Amiel

King's College London School of Medicine

The ability to feel the beginnings of a falling blood glucose concentration and make a coordinated response by eating carbohydrate is the diabetic patient's main defence against hypoglycaemia severe enough to cause cognitive impairment. Failure of such subjective awareness (hypoglycaemia unawareness or HU) increases risk of severe hypoglycaemia 6-fold and is experienced by ~25% of people with long-standing Type 1, and an as yet unknown proportion of people with insulin deficient Type 2, diabetes. HU is accompanied by defects in the physiological responses to incipient glucose deficiency, but failure of symptom perception also involves changes in the brain's responses to hypoglycaemia outside the hypothalamic-pituitary-adrenal axis, such as abnormal responses in appetite control and reward pathways.

Counterregulatory defects and HU can be reversed at least partially by hypoglycaemia avoidance. This can, and should, be achieved without significant deterioration in overall glucose control – “loosening control” is not an acceptable treatment for HU. The target is “hypoglycaemia avoidance” alone. Structured education in insulin use can both restore awareness in ~50% of people with Type 1 diabetes and HU and substantially reduces severe hypoglycaemia. Insulin pump therapy is also proven to reduce severe hypoglycaemia risk.

For patients whose problems remain resistant to these interventions, addressing the abnormal cortical brain responses to hypoglycaemia, which may be preventing behavioural change supporting hypoglycaemia avoidance, may be helpful, but remain to be tested. Meanwhile, restoring some degree of endogenous insulin secretion by transplantation successfully protects against severe hypoglycaemia but the current risk:benefit ratio makes this a limited option.

EUROPEAN NURSES IN DIABETES – “WHAT ARE YOU DOING?”

Prof Bert Vrijhoef

Department of Integrated Care, Maastricht University Medical Centre, The Netherlands

The majority of European countries are concerned with the future sustainability of care for people with a chronic disease. Failing access, rising costs, and uncertain quality are considered as mindbreakers by various stakeholders. The increasing demand for diabetes care represents a policy challenge for many European countries as current supply is considered to be insufficient and inadequate in terms of meeting current and future needs of people with diabetes. Related and equally important is the issue of the chronic care workforce.

Adequately recruiting, training, and retraining of workers remains a challenge for many countries. Nurses working in the field of diabetes care contribute in a significant way to diabetes care. That said, the roles of nurses in diabetes seem to vary both within and between European countries. Considering the importance of defined standards of nursing practice for assuring high quality and cost-effective delivery of patient care, the Study on European Nurses in Diabetes (SEND) was launched in 2007 to describe the function of nurses in diabetes care in eight European countries from a cross-national perspective.

By means of a systematic review of the literature, a two day expert meeting, and a survey among among nurses in diabetes care from Germany, Ireland, the Netherlands, Poland, Spain, Sweden, Turkey, and the United Kingdom data were collected. The results of SEND will exclusively be presented at the FEND 2009 Conference in Vienna.

DIABETES IN THE ELDERLY – THE DREAM OF GERONTIUS

Simon Croxson

University Hospital Bristol

Diabetes prevalence in European elderly is 10-25% depending on nationality, ethnicity, residence and screening method; approximately 30-50% are undiagnosed. Older diabetic people tend to have isolated post-challenge hyperglycaemia which is associated with increased mortality; a normal fasting plasma glucose does not exclude diabetes. Although predominantly type 2, type 1 and secondary diabetes do occur.

The aim of glycaemic control is to improve cognition and well being, and to avoid metabolic decompensation. There are no randomised controlled trials to guide glycaemic targets in older people. Elderly people appreciate hypoglycaemia poorly, as do their medical staff. I aim for glycaemic control as good as safely possible. One needs to know anti-diabetic drugs well, since comorbidity and frailty are common.

Evidence supports a <140 systolic blood pressure target in septuagenarians (HOT) and a <150 target in octogenarians (HYVET); apart from β -blockers, one can use any agent, but one must understand them.

HPS and PROSPER show cholesterol reduction in free range elderly up to age 82 is beneficial.

Dementia is 2-3 times increased by diabetes; exclude hypoglycaemia and vitamin B12 deficiency as causes; good blood pressure control may decrease future dementia risk. Once established, good social support, relaxing glycaemic targets and using agents that do not cause hypoglycaemia are important.

Falls are more common in older diabetic people, due to poor vision, neuropathy, hypoglycaemia, hypotension, and cognitive impairment; multidisciplinary assessment and balance classes can help.

Residential care is more common in diabetes; adequate nutrition, education of care home staff, and medical review are problems.

THE CHALLENGING PATIENT

Susan Clever

Diabetespraxis Blankenese, Blankeneser Bahnhofstrasse 23,
22587 Hamburg, Germany

The “challenging patient” is used here to mean the person who, despite advice, teaching and empathy on the part of the health care professional (HCP), continues to behave as he always has done. This lack of health-related behaviour change may elicit feelings of helplessness, frustration, anger, self-doubt in the HCP, which may affect their reactions to the patient, often ending in a mutual emotional and therapeutic cul-de-sac. In order to understand better the motivation of patients who do not change, who, despite advice as to the health risks, leave their HbA1c at 12%, walk around on their ulcers, continue to gain weight, it is necessary to explore the often very plausible reasons why people make apparently illogical decisions. In diagnosing these self-management problems, issues of subjective self-efficacy and shame play an important role.

Often personal motivation for change is hidden behind the fears of what change might mean for the individual, and can be completely overlooked if the HCP continues to focus on the positive aspects of change behaviour. An understanding of the reasons for change resistance can reduce stress for the HCP and open up new avenues of communication with the person with diabetes.

“PREVENTING THE WORST FEAR” – EFFECTIVE SCREENING FOR RETINOPATHY

Prof Roy Taylor

University of Newcastle upon Tyne, UK

Blindness in diabetes can be prevented by screening. Research in Newcastle over 20 years ago showed that the retinal camera was very good at detecting retinal problems which required immediate laser treatment. A mobile unit, which was actually a second hand ambulance, visited diabetes clinics in and around Newcastle, and the study ran for 2 years. It showed that the screening was much better than expected and also that mobile eye screening units were cost-effective and practical. Prof Taylor who led this research was then awarded £150,000 from the Allied Dunbar Foundation to fund 11 further mobile retinal screening vans. These provided retinal screening in areas from Hemel Hempstead to Dundee, and Belfast to Norwich.

This groundbreaking clinical development, directed from Newcastle, has led to the creation of a National eye screening programme throughout the UK. 10 years ago less than half of Health Districts in England and Wales had any organised eye screening for people with diabetes. As of autumn 2008, all Districts have screening programmes to the national standards. The benefits of year-on-year retinal screening will be seen nationwide in a few years time. Recently, data from Newcastle has shown that diabetes is no longer the commonest cause of blindness in the working age population.

Dr Ala Alwan

Dr Ala Alwan is Assistant Director-General for Noncommunicable Diseases and Mental Health since 1 February 2008. Dr Alwan graduated in Medicine from the University of Alexandria. He practiced medicine in Scotland and obtained his postgraduate training and qualifications in the United Kingdom. Following his return to Iraq, his home country, he held several positions in clinical and academic medicine and public health. He was Professor and Dean of the Faculty of Medicine, Mustansiriyah University, Baghdad.

In 1992, he joined WHO as Regional Adviser for Noncommunicable Diseases in the Regional Office for the Eastern Mediterranean. He then served as WHO Representative in Oman, and Director, Division of Health Systems Development in the Eastern Mediterranean Region. In 1998, Dr Alwan was reassigned to WHO headquarters as Director for Noncommunicable Diseases Prevention and then Director of the Department of Noncommunicable Diseases Management. In 2001, he became WHO Representative in Jordan. From 2003 to 2005, he was Minister of Education and Minister of Health in the Government of Iraq. From 2005 to January 2008, he was Representative of the Director-General and Assistant Director-General for Health Action in Crises.

Prof Stephanie Amiel

Stephanie Amiel is the RD Lawrence Professor of Diabetic Medicine at King's College London. Trained clinically by Harry Keen at Guy's, Prof Amiel's research career began at Yale. With Robert Sherwin and Bill Tamborlane, she demonstrated the impact of intensified insulin therapy, as then run in the DCCT, on hypoglycaemia responses in diabetes. Returning to the UK, her collaborative programme of metabolic neuroimaging has shed new light on therapeutic problems of hypoglycaemia avoidance and is exploring links between insulin resistance

and obesity. King's has one of the UK's largest insulin pump services; mentors for the NHS' National Technology Adoption Centre for pump therapy; has a pregnancy service with fetal outcomes not different from the local non-diabetic population and is a lead centre in the UK's clinical islet transplantation service.

Prof Amiel is currently chairman of the UK's DAFNE programme, bringing a structured education in insulin management to patients at over 70 UK diabetes centres, reducing hypoglycaemia unawareness while improving diabetic control. She is delighted that King's College will be host to a new FEND Chair in Diabetes Nursing.

Susan Clever

Dipl. Psych. Susan Clever works as a psychotherapist in a Diabetes Clinic in Germany. Since 1996 she has been working solely in the area of Diabetes, both in in- and outpatient settings. Her particular interest is the relationship between the nurse or doctor and the person with diabetes. She runs workshops to help health care professionals deal with the frustration of trying to help people who cannot follow their advice. She has published several articles on this subject, in particular in the area of chronic weight gain and patients with diabetic foot syndrome.

Deirdre Cregan

Deirdre Cregan is a founder member of FEND and served as Membership Secretary until 2006. She is a diabetes specialist nurse and was Nurse Manager of the diabetes service at the Mater hospital Dublin until her recent retirement. She was formerly Chair of the Irish diabetes nurses association. She now serves on the Advisory board of FEND and facilitates the FEND ENDCUP programme.

Simon Croxson

Simon Croxson qualified at Southampton in 1981, and trained in general, geriatric and diabetic medicine at Leicester and Sheffield. He was appointed consultant at Bristol in 1994; his clinical work focuses on the elderly diabetic person. Previous research has been very epidemiologically biased, performing the Melton Mowbray screening survey which showed the prevalence and mortality of diabetes in elderly. His particular interests in elderly diabetes are screening, epidemiology, care homes and clinical management. He has been on the editorial boards of several journals and at present is co-editor of Practical Diabetes. He has chaired the British Geriatrics Society Diabetes group and lectures widely on diabetes in the elderly. He has won several awards for his work on the elderly diabetic person, as well as the Red Cardinal award from the Florida Fish and Wildlife Conservation Commission, and the Printemps 2008 photo mystere competition from L'Oiseau mag of the LPO.

Anne-Marie Felton

Anne-Marie Felton is a co-Founder and President of the Federation of European Nurses in Diabetes (FEND) and a Vice-President of the International Diabetes Federation (IDF).

Mrs Felton was a diabetes specialist nurse for over 20 years followed by Director of Care at BDA (DUK). In 1999, she was appointed Vice-President of Diabetes UK and has been a member of the Diabetes UK Advisory Council since 2002. She currently works within the voluntary sector pro bono and serves as a Trustee for a number of organisations, including the Beta Cell Trust. She is also Honorary Consultant at Queen Mary's hospital Roehampton.

She has been involved in several IDF initiatives. She is co-Chair of the joint IDF Europe/FEND project to establish a European Framework for diabetes, a member of the IDF Consultative Section on Diabetes Education

and a member of the Steering Group for the Unite for Diabetes campaign that resulted in the passage of the UN Resolution on diabetes in December 2006.

She also serves on the Editorial Board of Practical Diabetes International and European Diabetes Nursing, and is on the Review Board of the International Diabetes Monitor.

Sue Hamilton RN

Sue has been a Diabetes Nurse Specialist (DSN) since 1986. She initially worked at St Helier Hospital in Carshalton Surrey UK, where she was an integral member of the planning and implementation group for the establishment of a diabetes centre.

In 1996, Sue moved to her current post at Queen Mary's Hospital. Between 2003 and 2007, she was also employed by Warwick University as a Regional Teaching Fellow for the Diabetes Programmes, which involved teaching health care professionals.

Sue has had a wealth of experience in the diabetes field. She was involved in the setting up and running of many nationally recognised diabetes courses. She has spoken at meetings both nationally and internationally, and has been on several advisory boards for the Pharmaceutical Industry.

Sue was a founder member of the Federation of European Nurses in Diabetes (FEND), and is delighted to be an honorary member following 10 years as Secretary.

Prof Thomas Pieber

Thomas Pieber is Head of Division of Endocrinology and Nuclear Medicine, Department of Internal Medicine at the Medical University Graz, and Head of the Institute of Medical Technologies and Health Management, Joanneum Research. Professor Pieber has received a number of national and international awards including the Dr Walter Herzig Award and the Max Kade Fellowship of the Austrian Academy of Sciences.

Professor Pieber's research focuses on basic and clinical investigations into diabetes and metabolism, and outcome R&D of quality management systems. In addition to producing his own publications, Professor Pieber is a reviewer for several journals including *Diabetologia*, *Diabetes* and *Diabetes Care*. He is also a member of the Cochrane Review Group for Endocrine and Metabolic Diseases and will be the President of the Annual Meeting of the European Association for the Study of Diabetes (EASD) in Vienna in 2009.

Prof Roy Taylor

Blindness is the most feared complication of diabetes, and visual loss does not occur until it is too late for effective treatment. In 1985 Professor Taylor initiated the Newcastle diabetes eye screening programme which has demonstrated the effectiveness of retinal photography in detecting sight threatening diabetic retinopathy. He has since introduced a quality assurance programme as part of routine population screening, and blindness due to diabetes is now rare in the working age population of Newcastle. This work has contributed to the current UK national retinopathy screening programme for all PEOPLE with diabetes.

Roy Taylor is Professor of Medicine and Metabolism at the University of Newcastle upon Tyne in the UK and is also honorary consultant physician at the Royal Victoria Infirmary in Newcastle upon Tyne, UK.

Prof H.J.M Vrijhoef

Bert Vrijhoef is professor Chronic Care at the scientific centre for care and welfare (TRANZO), Tilburg University. He is also scientific director at the Department of Integrated Care, Maastricht University Medical Centre, The Netherlands. In addition, he is leading the research program Redesigning Health Care at the Maastricht Care and Public Health Research Institute (Caphrhi), and is a

board member of the International Disease Management Association (IDMA).

In 2007, he was awarded Leading Researcher in Faculty of Health Sciences, and he has previously received awards from the Federation of Patients and Consumer Organizations in the Netherlands and the Dutch National Organization for Health Research and Development. From August 2008- September 2009 he was working at the MacColl Institute for Healthcare Innovation in Seattle (US), as the first Dutch Commonwealth Fund Harkness Fellow ('08-'09) in Health Care Policy and Practice. As such, he conducted an international study regarding fragmentation, coordination and integration of chronic care. He is the principal investigator of several studies including the Study on European Nurses in Diabetes (SEND).

Bert is co-editor of the journal *European Diabetes Nursing*, reviewer of international scientific journals, (co-)author of papers in for example the *British Medical Journal*, *Diabetic Medicine*, *Journal of Advanced Nursing*, *Journal of Telemedicine and Telemonitoring*, and *Health Expectations*, and acts as policy advisor to the Ministry of Health in several countries. He holds a MSc in Health Policy & Management from the Erasmus University Rotterdam and a PhD in Medical Sociology from the Maastricht University.

Prof Regina Wredling

I have worked as diabetes nurse from 1973. Parallel to my work with patients I started my research. I got my doctoral degree in 1991. Since 2003 I am Professor in Nursing at Karolinska Institutet. My research deals about hypoglycemia and the consequence of that state, treatment with CSII, long term follow up and criteria for using CSII and new pedagogical education of type I diabetes patients using KBT.

1

STRATEGIES FOR MANAGING LIFE TRANSITIONS IN YOUNG ADULTS WITH TYPE 1 DIABETES

B. Rasmussen¹ RN, MEdSt, PhD, T. Dunning² AM, RN, PhD, G. Ward³ .Sc, M.B.B.S., D.Phil (oxon), A.Jenkins³, MB BS MD

¹ School of Nursing, Deakin University, Burwood, VIC, Australia

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³ Department of Endocrinology and Diabetes, St. Vincent s Hospital and University of Melbourne, VIC, Australia

Background

The study aimed to identify key life transition issues likely to impact on diabetes self-care among young adults with Type I diabetes. The relationship among psychosocial stress, adjustment, coping and metabolic control has a key effect on diabetes clinical outcomes and mental health. Life transitions are peak times of major change within personal and social contexts, which adds stress that affects peoples' problem solving abilities. For young people with Type I diabetes, the added stress often makes controlling blood glucose levels difficult during transitions. Specific strategies to assist young people with diabetes dealing with issues during transitions are not currently available.

Method

Data were collected using taped interviews, which were transcribed and systematically analysed using constant comparative analysis and a coding system to identify key categories.

Result

The findings showed that transitions were particularly related to social changes for example, moving out of home, commencing study, entering the workforce or when preparing for and entering motherhood. Transitional changes resulted in high levels of uncertainty, vulnerability, a sense of lack of control, difficulties associated with when to disclose diabetes, and fear of judgmental responses from people in their social networks, including health professionals. The main strategies young people used to overcome these difficulties were taking control of diabetes management and self-care, connecting with other people with diabetes, staying positive, putting diabetes in perspective and being organised.

Conclusion

The study outcome demonstrates the importance of an individualised and collaborative approach to facilitate meaningful communication between health professionals and young people. The presentation will focus on the strategies used to manage transitions and highlight some of the recommendations to clinical practice when striving to improve health service delivery for young people with Type I diabetes.

2**DIABETES CARE OF THE ASSISTED OLDER PERSON IN SWITZERLAND****Huber C.¹ Diabetes Education; Shaha M.² PhD Nurse Researcher; Huber J.³ PhD Psychologist**¹ Duedingen² University Hospital, Berne, Switzerland;³ Roehampton University, London, UK**Background**

Older people with diabetes not only have an increased risk of premature death but also a higher risk becoming dependent in their activities-of-daily-living and a threefold elevated risk for admission to nursing homes. Diabetes care contributes to prevention or postponement of the following factors of the geriatric syndrome: cognitive decline, depression, inappropriate use of medications, risk of falling, incontinence, chronic pain. Diabetes care is complex and its quality determines the outcome. The study purpose was to explore Swiss nurses' perspectives about diabetes care in nursing homes or in home healthcare services.

Method

A qualitative study with Dunning's diabetes care model as a frame of reference and employing semi-structured focus group interviews with nurses was conducted. With purposive sampling a total of 23 nurses were interviewed from nursing homes and home healthcare settings. Informed consent was obtained. Thematic content analysis was used to analyze the interview transcripts. Ethical approval was obtained from the respective healthcare institutions and Academic Ethics Board.

Results

Analysis elicited four themes describing Swiss nurses' perspectives on diabetes care: (1) actual situation in diabetes care, (2) nurses' experiences, (3) barriers to diabetes care, and (4) resources for diabetes care. Dependency from primary care physicians and lack of accessibility to the healthcare team were highlighted. Personal interest, accuracy of assessments, current knowledge, and individual resources were found to influence setting of healthcare goals. Loneliness, co-morbidities, lack of understanding, prejudices, non-acceptance of disease led to deterioration. Social support, practical handling of the disease, transferring theoretical knowledge into practice, maintaining regular activities, adapting care to personal needs led to improvements.

Conclusion

A number of areas for improvement emerged from the interviews: intra- and interdisciplinary discourse, diabetes education to homebound individuals, activity programmes in nursing homes, and discussion forums for older people. Nurses' level of expertise was found to be heterogeneous; thereby contributing to overall variable quality of diabetes care.

3

THE INFLUENCE OF NEEDLE LENGTH ON GLYCEMIC CONTROL AND PATIENT PREFERENCE IN OBESE PATIENTS WITH DIABETES

Kreugel G.¹ RN MSc; Keers J.C.¹ PhD; Jongbloed A.¹ RN; Verweij-Gjaltema A.H.² RN; Wolffenbuttel B.H.R.¹ MD, PhD

¹ University Medical Centre Groningen, Groningen, The Netherlands

² Refaja Hospital, Stadskanaal, The Netherlands

Background

Obese patients are often advised to use 8-12mm needles when injecting insulin. This study investigated the effects of 5mm x 31G needles vs 8mm x 31G needles in obese DM patients.

Method

In this multicenter, open-label, cross-over study, 130 patients with either type 1 or type 2 DM, injecting insulin with a pen, with a BMI ≥ 30 kg/m² were randomized into 2 groups. Group A used a 5mm needle in the first period and an 8mm needle in the second period; group B used the reverse order. Each period was 3 months. The effects on HbA_{1c}, fructosamine, I.5 Anhydroglucitol (I,5 AG) and patient-reported complaints were compared.

Result

126 patients, mean BMI 36.4 (range 30-62), completed the study. There was no significant change in HbA_{1c} while using either needle length, in either group. For all patients, mean HbA_{1c} decreased from 7.6 to 7.5 (p=0.03) when using the 5mm needle, and stayed 7.6 % with the 8mm needle. Group B showed a minor decrease of insulin with the 5mm needle. The I,5 AG and fructosamine assays are pending.

There were no differences in hypoglycemic events, bruising and pain in either group during both periods. Patients reported less bleeding (p=0.04) with the 5mm needle, and less insulin backflow with the 8mm needle (p=0.01). The 5mm needle was preferred by 46% of patients, the 8mm needle by 41%; 13% had no preference. Needle length before inclusion and BMI were not correlated to preference. No correlation was found between backflow of insulin and BMI, WHR, HbA_{1c}, amount of used insulin units, skinfold or injection site. There was a strong correlation (p<0.01) between bleeding and bruising.

Results of hypoglycemic events, bleeding, bruising, backflow of insulin and pain with the first-period questionnaire were strongly correlated (p<0.01) with the outcomes of the second-period questionnaire

Conclusion

5mm needles can be safely used in obese DM patients without negative effects on HbA_{1c} and without differences in local injection-related complaints, compared to 8mm needles. Injection complaints in obese patients appear more patient-dependent than needle-length dependent.

4

**INDEPENDENT NURSE PRESCRIBING –
CAN IT HAVE A POSITIVE IMPACT ON GLYCAEMIC AND
CARDIOVASCULAR TARGETS?****G. Morrison, Dr T. S. Purewal & Dr P. J. Weston**

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Background

Following the UK nurse prescribing initiative, nurses who have undertaken specialist training are legally able to independently prescribe licensed medications for any medical condition.

Diabetes (DM) is associated with the development of microvascular and macrovascular complications. Current evidence demonstrates that proactive management of glycaemic control and other key factors such as blood pressure (BP) and dyslipidaemia can reduce morbidity and mortality in DM. As this proactive strategy inevitably results in pharmaceutical intervention, independent nurse prescribing is a mechanism that will ensure that patients have immediate access to evidence-based practice.

This study aimed to assess the impact of, independent nurse prescribing on HbA1c, BP and cholesterol targets in patients using continuous subcutaneous insulin infusion (CSII) within a secondary care outpatient setting.

Method

Retrospective analysis, of two years of independent nurse prescribing was undertaken. Patients were reviewed ≥ 3 monthly with the nurse prescriber aiming for targets of HbA1c $\leq 7\%$, BP $\leq 130/80$ and cholesterol ≤ 4 .

Results

The cohort consisted of 129 patients, 114 type 1, DM duration 19 years (mean (SD, range)) ($\pm 13.2, 1-67$), utilising CSII 29.3 months ($\pm 20.2, 3-117$), age 44 years ($\pm 13.51, 17-73$), Basal rate 23.1 units ($\pm 22.1, 3.6-147.2$), 50 with psychological/learning barriers. Complications included 66 retinopathy, 36 peripheral neuropathy, 17 autonomic neuropathy, 5 nephropathy (5 utilising dialysis) and 15 microalbuminuria.

At baseline HbA1c 7.7% ($\pm 1.26, 4.8-12$), Cholesterol 4.26 ($\pm 1.02, 2-8.9$), and systolic BP 129.4 mmHg ($\pm 15.8, 90-166$). Following independent nurse prescribing mean HbA1c was 7.1% ($\pm 0.87, 5.2-10.6$), Cholesterol 3.8 ($\pm 0.81, 1.8-6.5$), and systolic BP 121 mmHg ($\pm 10.89, 89-155$), all parameters $P < 0.05$.

Conclusion

Proactive independent prescribing by appropriately trained nurses who work in partnership with physicians and patients enhances care provision. This model of care provides a safe and effective mechanism, which assists with the maintenance of glycaemic goals and the attainment of cardiovascular targets. Ultimately this positive effect will reduce morbidity and mortality for people with diabetes.

5

ELDERLY AND DIABETES

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Background

Diabetes is a common chronic disease among the elderly. The growth of an aging population will have a direct impact regarding the complex care needs among this group of patients. Therefore, it is evident that the implementation of evidence based care and education will guarantee a higher degree of patient safety and optimal care for elderly persons with multiple diseases and diabetes.

Aim

The aim of this literature review was to investigate what research has been conducted relating to evidence-based care and education among elderly persons with multiple diseases and diabetes.

Methods

Search strategy

A comprehensive search of the databases ELIN@Dalarna, PubMed and WileyInter Science was undertaken. The search included both qualitative and quantitative scientific articles.

Inclusions criteria: adult > 65 years, type 2 diabetes, studies from 2000 written in English or Scandinavian language was included.

Exclusions criteria participants < 65 years studies published before 2000.

Key words: diabetes, elderly, nursing, self-management, geriatric, physical, treatment and education.

Data analysis

In order to ensure that the articles had a good quality they were assessed according to (Forsberg & Wengström, 2008; Willman, Stoltz & Bahtsevani, 2006), modified review templates for quantitative and qualitative research studies. Studies with average quality, and over average were included. Totally 20 articles were included in this literature review. All 20 articles were assessed with average quality.

Main results

The results showed that there is a lack of RCT and CCT studies making it impossible to develop guidelines based upon evidence-based care. However, the results showed there are obstacles for implementing diabetes self-care among these group of patients. The most common obstacles were: cognitive impairment, physical disabilities and depression. Furthermore, there is a lack of studies concerning patient education designed for elderly persons diabetes.

Conclusions

We concluded that there is a lack of RCT and CCT studies. Therefore there is a great need of well designed studies within this area.

6

CAUSES OF REPEATED HOSPITALISATIONS FOR DIABETIC KETOACIDOSIS AT THE VUK VRHOVAC CLINIC**Zeljko M.; Car N.; Gaćina S.; Britvar I.**

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Background

To analyse causes of repeated hospitalisations for diabetic ketoacidosis (DKA) in patients treated at the Vuk Vrhovac University Clinic between 2002 and 2006, and compare them to those from 1981-1986.

Methods

Out of the total of 6907 patients treated from 2002 till 2006 there were 62 patients with DKA. Age, sex, type and duration of diabetes (DM), level of education, social history, hospital referral method and causes of DKA were analysed.

Result

Patients hospitalised for DKA at least twice were considered as rehospitalised. The latter were older, with longer diabetes duration, more men, but not women, greater proportion of type I, but not type II DM, single life, and secondary education in comparison with the first hospitalised patients (mean age 49.73 yrs, DM duration 19.18 yrs, 72.70% of men and 27.30% of women, 81.80% of type I and 18.20% of type II DM, 63.64% single and 36.36% living in a family, 100% with secondary education vs. 40.25 yrs, 9.45 yrs., 51% and 49% ; 70.60% and 29.40%, 17.65% and 82.35%, 92.20%, respectively). In 90.90% of the rehospitalised DKA was caused by treatment error (patient), and in 9.10% by infection, whereas in 37.40% of the first hospitalised it was due to newly-detected DM, in 33.30% to treatment errors (patient), and in 29.30% to infection. The most frequent causes of DKA in patients with known DM were treatment error (70.37%), alcohol (18.52%), or a combination (11.11%). Social history correlated with DKA recurrence ($p=0.002$), but not education ($p=0.7$). In comparison with 1981-1986, rehospitalised patients showed 9-yr. longer DM duration and 50% less women. The proportion of patients with type I decreased among the rehospitalised, but increased among the first hospitalised. The percentage of rehospitalised patients living in a family was reduced by 50%.

Conclusion

Single life, sex and DM duration were directly associated with rehospitalisations for DK. The most frequent mistakes by patients were treatment errors and alcohol consumption.

7

HOW NURSE PRESCRIBING EFFECTS THE CARE PATIENTS RECEIVE: A CASE STUDY IN DIABETES

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Background

Education and support for self-care in people with diabetes is as equally important as the medical management of this condition. Primary care teams in the UK provide routine care for about 75% of diabetic patients and approximately 80% of general practices have a nurse with training in diabetes. Support and education are core areas of care for these nurses. However, the introduction of nurse prescribing has meant that nurses are increasingly becoming involved in the medical management of diabetes. Evidence suggests that combining nursing skills with prescribing results in shared decision-making and increased medicines concordance. Although about 4000 nurses across the UK prescribe medicines for people with diabetes, little is known about the effect of this role on patient care. This study explores the effect of nurse prescribing on the care received by these patients.

Method

A collective case study design was used to collect data from 9 practice settings across England in which nurses prescribed medicines for people with diabetes. Data comprised semi structured interviews (n=31), patient questionnaires (n=131) and video-taped observations of nurse consultations (n=35). Data analysis included thematic analysis, descriptive statistics, Chi-square and non-parametric tests. Data were collected between October 2007 and September 2008.

Results

Combining nurses' skills with prescribing meant that patients received consistent and uninterrupted information about the importance of self-care alongside information about medicines. Decisions about care were often made in partnership with patients. In some cases, prescribing improved access to nurse advice, kept waiting times down and improved safety. Nurses were inconsistent in explaining the risks and benefits of treatments and side-effects and exploring the use of non-prescribed herbal or over-the-counter medicine.

Conclusion

Prescribing optimises nursing care in people with diabetes. Further evidence is required from the patient's perspective. Our findings will be of interest to those keen to develop the prescribing role for nurses involved in diabetes service delivery.

8**THE EDUCATION NEEDS OF YOUNG ADULTS WITH TYPE 2 DIABETES**

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Background

The prevalence of type 2 diabetes (T2DM) in young people is increasing. These people may have different diabetes education requirements from younger and older people.

Aim

To establish the education needs and preferred information delivery mode of people with T2DM aged 25–45 years.

Method

A two phase study was undertaken: 1) a structured literature review, 2) qualitative study involving a focus group (FG) (n = 9) and interviews (n= 4) with people with T2DM.

Results

There is limited literature about the education needs of young people with T2DM. Available literature and anecdotal evidence suggests these people need information about new developments, travel, drugs and alcohol, and pregnancy. Literature about learning styles of people aged 25–45 suggests they prefer new technologies, stimulating materials and information that can be read or scanned quickly. The FG and interview participants indicated they expect to actively participate in their care and want clear, consistent individual information combined with age-specific group education and peer-support programs. They want information not routinely covered such as pregnancy, menopause, diabetes management during surgery, and specific, structured individualised medicines education. Preferred delivery modes included written and electronic information. The Internet was valued but often contained confusing, outdated inconsistent information, was difficult to navigate and precise information was often difficult to locate.

Conclusions

People with T2DM aged 25–45 have specific diabetes education needs and preferred information delivery modes. Participants felt current diabetes education programs do not cater specifically to their age group.

9

OVERCOMING MISDIAGNOSIS IN YOUNG ADULT DIABETES: SUCCESSFUL TRANSFER FROM INSULIN TO SULPHONYLUREAS IN HNF1A-MODY

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Introduction

Hepatocyte Nuclear Factor-1 α (HNF1A) mutations are the commonest form of monogenic diabetes in the UK, but patients are frequently misdiagnosed as type 1 diabetes mellitus (T1DM). Diagnosing HNF1A-MODY has therapeutic implications as patients may transfer from insulin to low-dose sulphonylureas.

Case Study

Leanne was diagnosed opportunistically with diabetes in 2001 aged 21. T1DM was diagnosed and basal-bolus insulin commenced. Her mother had type 2 diabetes mellitus (T2DM) diagnosed during pregnancy aged 24 years and treated with oral hypoglycaemic agents.

Subsequently Leanne's attendance at clinic was sporadic with moderate HbA1c levels (7.6-9.2%) on an insulin dose of 0.8 units/kg. She was depressed about her erratic control and her weight increased by 18kg.

In 2007 her brother was diagnosed with T2DM aged 25 years. The striking family history led to the aetiology of Leanne's diabetes being questioned. Investigations revealed a normal C-peptide level at 0.49 nmol/L (reference range 0.27-1.28 nmol/L), indicating endogenous insulin secretion and making T1DM unlikely. Leanne's primary care provider was unwilling to question the cause of diabetes in the family, but when molecular genetic testing was arranged, a mutation in HNF1A was revealed in all diabetic family members.

Insulin was discontinued and gliclazide 40mg daily commenced. Stopping insulin caused great anxiety so she received daily contact from our diabetic specialist nurse and 24 hour phone support was available through the on-call clinical team. The treatment change progressed without problems and a recent HbA1c was 5.8%. Weight returned to baseline. Leanne now has regular follow-up in our Monogenic Diabetes Clinic.

Conclusion

HNF1A-MODY may masquerade as common forms of diabetes, with important implications for treatment. There can be reluctance from health care professionals to challenge established diagnostic labels. In this case the strong family history and presence of C-peptide suggested the diagnosis of T1DM was incorrect. Patients with HNF1A-MODY can stop insulin treatment with improved control, but require appropriate support during the transition.

10

INSULIN PUMP THERAPY IN CHILDREN AND ADOLESCENTS WITH TYPE I DIABETES

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Background

We present clinical characteristics of children and adolescents with type I diabetes mellitus (T1DM) before and during the continuous subcutaneous insulin infusion (CSII) therapy at Department of Pediatrics, University Hospital Rebro, Zagreb, Croatia.

Method

Medical charts of children and adolescents with T1DM using CSII were reviewed for age, sex, duration of diabetes, acute complications [severe hypoglycaemia and diabetic ketoacidosis (DKA)/per patient/per year] and technical problems. Annual mean HbA1c and body mass index (BMI) z-scores were reviewed for the period of one year prior and one to two years after introducing CSII.

Results

CSII therapy was started in 67 children and adolescents (30 males and 37 females), aged $10,5 \pm 4,3$ years (range 2,1-17,9) with mean disease duration of 3,5 years (range 0,4-11,1). In 55 of patients (82%) treatment regiment prior to CSII was conventional insulin therapy and in 12 (18%) it was multiple daily injections. Patients who are using CSII less than one year (20/67) were not included in further statistical analysis. Forty seven patients are using CSII more than one year, and 29 of them more than two years. HbA1c improved significantly from $8,30 \pm 1,34\%$ prior to CSII, to $7,53 \pm 0,82\%$, at one year ($p < 0,001$) and $7,49 \pm 0,98\%$ ($p < 0,001$) at two years post CSII. Significant increase in annual mean BMI z-score ($0,034 \pm 0,8$ pre-CSII, vs. $0,30 \pm 0,75$ post CSII, $p = 0,01$) was found 1 year post- CSII, compared to the BMI z-score prior to CSII. The incidence of severe hypoglycaemia was reduced from 0,12 events per patient/per year pre-CSII to 0,02 events per patient/per year during CSII. Five episodes of DKA occurred in the CSII period and none in the pre-CSII period. Forty six patients (68%) experienced infusion set obstruction and 10 (15%) the leakage from the infusion site.

Conclusion

CSII improves control and reduces severe hypoglycemia events. On account of increased number of DKA, the risk of gaining weight and technical problems, during the education for transition to CSII the need for frequent blood glucose monitoring, sustained caloric intake and caution on technical problems should be underlined.

11

THE IMPLEMENTATION OF A NICE COMPLIANT PATHWAY OF CARE FOR THE INITIATION OF INSULIN, IN PEOPLE WITH TYPE 2 DIABETES

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Background

In 2005 a diabetes service delivery plan was implemented to deliver the majority of diabetes care, for people with Type 2 diabetes, in primary care. They would receive care locally according to their needs, provided by appropriately trained and skilled health care professionals. This plan included initiation of insulin in groups using a structured education programme as recommended by NICE (2008).

Method

People with diabetes requiring insulin, as assessed by the Community Assessment Clinic (CAC), were invited to a four week structured group programme encompassing education, dose titration of insulin, dietary aspects, management of hypoglycaemia and acute changes in glucose control, with telephone support throughout and immediately post programme.

After the programme they were discharged to their GP, with further access to CAC as required. Regular updates, for management of insulin treatment and adjustment of doses, were provided for GP's and Practice Nurses to improve their confidence in providing this ongoing care for their patients.

Results

132 people were invited, 94 (71%) completed, during a one year period. Improvement was seen in HbA1c (%) post programme mean 9.6(range 7.4-13.5) vs 8.0 (range 6.8-13.6) with minimal weight (kgs) gain mean 93.05 (range 55.7-137.7) vs 93.9 (range 58-139.4). Satisfaction with treatment increased [mean 27.48 (SD 7.39)

vs 33.44 (SD 3.27) $p = 0.013$] anxiety scores decreased [mean 6.25 (SD 4.83) vs 4.92 (SD 4.1) $p = 0.009$] and depression scores did not change [mean 3.5 (SD 4.03) vs 2.75 (SD 3.1) $p = 0.991$] post programme.

Conclusion

Initiation of insulin for people with Type 2 diabetes, in line with NICE guidelines, is effective and an efficient use of professionals' time.

12

SPOUSE'S SELF-REPORTED NEED FOR DIABETES EDUCATION AND THEIR PERCEPTION OF CHANGES IN HEALTH IN PATIENTS WITH TYPE-DIABETES DURING A 2-YEARS DISEASE TRAJECTORY

A sub-study of the Aker and Baerum cardiovascular diabetes study

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Background

Type 2 diabetes mellitus (T2DM) treatment is multifaceted and influenced by many factors, amongst being family support. Spouses are however seldom integrated in the patient management. This study evaluates prospectively the spouses' self-reported need for information and education about T2DM and the spouse's ability of assessing patient's changes in general health.

Methods

Through a 2-year disease trajectory we followed 52 spouses and their T2DM partners. Questions concerning self-reported need for information, education and perception of own and spouses with T2DM general health were administrated bi-annually. Change in perception of partner's with T2DM health were classified as "Improved", "Worsened" or "No change" and compared with 2-year changes in objective and subjective parameters.

Results

Spouses (mean age 58 years, 42 female) self-reported need for information and education about T2DM seemed to increase, respectively from 61.5% to 76.7% and 46.2% to 63.0%, and evaluation of partners with T2DM (mean age 60 years, 42 male) general health were "Improved" in five (10%) whereas 14 (27%) "Worsened" and 33 (63%) "Not changed". Those patients perceived to "Improve" had significant beneficial alterations in subjective (euroqolVAS 0-100 ($p=0.037$)) and objective (10-year Framingham coronary heart disease risk ($p= 0.049$)) parameters.

Conclusion

Spouse's need for information and education about T2DM is high and do not abate in a 2-year disease trajectory. Furthermore, there is a high degree of concordance between changes in partner's health and spouses evaluation. This could become a future parameter on integrated quality of patient care, but needs confirmation.

13

THE EXPERIENCE OF BEING DIAGNOSED WITH DIABETES TYPE 2 IN CONNECTION TO A MYOCARDIAL INFARCTION

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Background

Diabetes is a condition of a chronic high level of glucose in the blood. This is either caused by an inadequate production of insulin and or effect of insulin. When patients are diagnosed with type 2 diabetes almost half of them already suffer from complications caused by diabetes. Just over 20 % of those who receive care for a myocardial infarction or instable angina have diabetes or impaired glucose tolerance. In order for them to understand how their life is affected by their disease they need constant work. The purpose of the study was to investigate how individuals experience receiving the diagnosis of type 2 diabetes in relation to a myocardial infarction.

Methods

Seven individuals were interviewed on the basis of an interview guide. Data was analyzed with a qualitative method in order to be able to describe the variations in the individuals' experiences.

Results

From the interviews emerged that some of the individuals had not been informed of their type 2 diabetes while others were bothered by the diagnosis since they did not feel ill. Some experienced the fear of dying from the myocardial infarction as their biggest concern while others described the fear of complications from their diabetes as their main worry. Individuals' experiences of suffering from type 2 diabetes in relation to a myocardial infarction could be categorized into four subcategories: fear, understanding, control and knowledge.

Conclusion

In order to appropriately meet the patients' demands regarding information during a difficult period, it is important to be sensitive to their needs and to coordinate efforts between different institutions of care.

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SELF-MONITORING OF BLOOD GLUCOSE IN PATIENTS WITH TYPE 2 DIABETES NOT USING INSULIN: A 1-YEAR RANDOMISED CONTROLLED TRIAL

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Background

The use of self-monitoring of blood glucose (SMBG) for patients with type 2 diabetes mellitus (T2DM) not using insulin is questionable. Our aim was to investigate the effects of SMBG (fasting and postprandial values) without specific education on HRQoL, treatment satisfaction and glycemetic control in patients with T2DM not using insulin who are in persistent moderate glycemetic control.

Method

Forty patients were randomly assigned to receive either SMBG added to usual care or to continue usual care during 1 year. All participants were instructed about acceptable glucose values and no specific (dietary) advice was given. Blood glucose lowering therapy was intensified when

HbA1c was $\geq 8.5\%$.

At baseline, after 6 and after 12 months, HRQoL, treatment satisfaction and diabetes related symptoms were assessed using questionnaires. HbA1c was measured every 3 months.

Results

At the end of the study, there were only significant changes on the SF-36 dimension 'health change': it was lower in the SBMG-group (mean difference: -12 (95%CI: -20.9, -3.1; $p=0.008$)). There was no significant change in HbA1c. Mean HbA1c at baseline was 7.6%. After 1 year HbA1c was on average 7.5% in the intervention group and in the control group (mean difference: -0.05% (95%CI: -0.51, 0.41; $p=0.507$)).

Conclusion

This study cannot fully exclude a possible clinical relevant change in HbA1c caused by SMBG in patients on oral therapy. The patients experienced a worsening on the dimension 'health change' when performing SMBG. Our study adds data on patients with T2DM in persistent moderate control, performing fasting and postprandial SMBG without specific education. Based on this study and the results of the DIGEM and ESMON trials, the use of SMBG in this patient group should be reconsidered.

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DETERMINING THE NEEDS ASSESSMENT OF IRANIAN PATIENTS ABOUT PREVENTION OF DIABETIC EFFECTS IN THE YEAR 2008.

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Introduction

Diabetes as a metabolic disease has a lot of physical, psychological, social and economical effects to the patients. So, the aim of present study is determining the needs assessment of Iranian patients about prevention of diabetic effects in the year 2008 for using its results in appropriate educational programs.

Method & Material

This is a descriptive-analytic study which has done in 376 patients who have been referred to Tehran medical university diabetes clinics. Samples chose via simple access sampling method and their needs assessment measured with a self-administered questionnaire, after validity and reliability, and then data analyzed with SPSS version 11.5.

Findings

Results showed that the majority of patients (81/1%), had low knowledge, (85/9%) positive attitude and (70/2%) low practice about prevention of diabetic complications and they (86/4%) knew about their educational needs about prevention of diabetic effects. Findings showed that there was relationship between patients' knowledge and attitude ($p>0/001$, $r=0/241$), knowledge and practice ($p<0/001$, $r=0/604$), attitude and practice ($p>0/001$, $r=0/182$). Findings showed that there was relationship between patients' knowledge, attitude and practice and some demographic characteristics.

Conclusion

Finding of this research showed that diabetic patients had low knowledge, low practice and high educational needs about prevention of diabetic effects. So, it is important to take appropriate action for educational programs.

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PATIENT-REPORTED BARRIERS IN DIABETES MANAGEMENT AND AREAS OF OPPORTUNITY FOR HEALTHCARE PROFESSIONALS

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Background

This survey intended to identify reasons for non-adherence (NAD) to insulin injection and Self-Monitoring-of-Blood-Glucose (SMBG) that could be addressed by healthcare professionals (HCP) to improve patient's adherence.

Method

150 telephone-interviews were performed with insulin-treated people with diabetes (itPwD) in the Netherlands. 11 categories of barriers to proper insulin therapy and SMBG were defined. Patients were grouped into flexible (adjusting insulin doses themselves) or fixed insulin therapy (HCP determines insulin doses). NAD was defined as: derived (less frequent than recommended or self-rating below 6 on a 7-point scale (7-ps) (7=full adherence)) and Guideline (less than the 2009 ADA clinical practice recommendations of 3 tests/day-flexible therapy). Shapley values were calculated to analyze the contribution of problem categories to SMBG NAD.

Results

Average age was 52.4 years with mean 15.4 years since diabetes diagnosis. Shares of itPwD on flexible and fixed insulin therapy were 41%/59%. Overall stated NAD to insulin therapy was 11%. 41% of PwDs on flexible therapy were Guideline NAD to SMBG. Among these, 60% measured 1x/day and 40% tested 2x/day. Derived SMBG NAD was 39%/44%. Average daily measurements performed by adherent 3.9/2.4 (flexible/fixed) and by NAD PwDs 2.2/2.4. Major reasons for NAD are non-awareness of testing 21%/23%, no need to test 25%/23% and lack of time 21%/26%. Most prevalent problems with SMBG were teststrip handling issues-88%, lifestyle alignment-69%, educated decision making-47%, pain-45%, discreteness-40%, motivation-39%, coding-36%, safe waste-handling-31%, sense for need of testing-30%, cost-22%, SMBG meter-17%. NAD was highly connected with problems (Shapley values, declining order) using teststrips, lifestyle alignment, coding and making educated decisions. Patient's satisfaction with available knowledge/training about managing diabetes to make monitoring and treatment decisions was rated 28% (1-3 on 7-ps) lower by NAD vs. adherent flexible PwDs (67% vs. 95%). Overall satisfaction with diabetes management was (flexible/fixed) 89%/94% (7-5 on 7-ps).

Conclusion

SMBG adherence is still challenging to a large share of itPwD. An intensified training on self-management in insulin therapy is needed to reduce existing barriers and to increase patients' adherence. In this context teststrip handling (strip contamination/storage/temperature/expiry) and lifestyle alignment (time/situation) require particular attention.

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THE PAID

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Background

Diabetes is described as one of the most complex and demanding of all chronic illnesses. The blood glucose levels and the need for insulin is affected by many aspects of daily living. Diabetes has a major impact on both the person living with the illness as well as his family. Diabetes-related psychosocial problems may be of importance of both metabolic control and quality of life.

There are several screening measures of psychosocial problem areas. Problem Areas In Diabetes scale (PAID) is one of the most used measures in screening for diabetes-specific problem areas. The purpose of this literature study is to give an introduction to the PAID and sum up some of the experiences made in research and clinical work.

Method

Literature searches in the databases Medline and PsycINFO shows that PAID is a widely used measure. A reference list from the authors of PAID confirms this and contains 70 published articles and 40 published presentations.

Result

The PAID comprises of 20 questions on commonly reported diabetes-related problem areas in both type 1 and type 2 diabetes. It measures a wide range of feelings related to living with diabetes. It was developed for clinical use and as an outcome measure in clinical trials.

Psychological well-being is an important aspect in managing life with diabetes. Studies have shown that as few as 20-30 % of patients with diabetes and emotional problems are registered by health care personnel. Communication about emotional and psychosocial problems requires time, good communicational skills and knowledge about diabetes-specific problems. The PAID serve as a useful catalyst in starting a dialog with patients about their diabetes-related problems. It may also be used in assessment of clinical and subclinical depression. Studies have shown that use of the PAID has resulted in improved quality of life and less psychological problems.

Conclusion

The PAID is brief and easy-to-score instrument. It may help to improve the identification of psychosocial problems in clinical practice and also contribute in prevention of serious psychological illness.

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QUALITY OF LIFE EVALUATION IN TYPE 1 DIABETIC PATIENTS

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Background

Nowadays, the increase number of people with Type I Diabetes and the new intensive treatments let to an increase of life expectancy. That implies the necessity of improving the patient's decisions in the health care context, to assess the life quality of the people who have the disease.

Aims

To assess the perception of the life quality related with the health of the people with Type I Diabetes.

To determine if the kind of treatment and the clinical and social demographic characteristics induces the perception of quality of life in type I Diabetes patients.

Methods

A group of patients with Type I Diabetes treated intensively (MDII and CSII) and followed in the Outpatient Clinic of Diabetes of our Department was studied. The sample was totally randomized.

To evaluate the quality of life of people with Type I Diabetes two different questionnaires were performed: SF-36 and DHP

Results

The data analysis didn't suggests any significantly correlation between the kind of treatment and the life quality ($p > 0.05$)

About the gender and comparing both intensive treatments (MDII and CSII), a lower quality of life was found in the female s ($p < 0.05$). Regarding school qualification statically relevant differences for social and physical function at the SF36 were noted ($p < 0.05$). The patients with higher school qualifications had better life quality.

Conclusion

Analysing the results in the context of the investigation is possible to conclude that some social-demographic features have an affect on the perception of life quality, such as gender and school qualifications.

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HOW DO PATIENTS WITH DIABETES VIEW NURSE PRESCRIBING?

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Background

Studies indicate that prescribing enables nurses to adopt a more holistic approach with greater opportunity for patient involvement. Health professionals believe that nurse prescribers are adept at providing advice and building therapeutic relationships with patients. The communication skills of nurses prescribing for patients with diabetes are highly rated by patients and have observed to be consistent in practice, however, principles of concordance and shared-decision making appear less consistent. There is little evidence exploring the patients' perspective on nurse prescribing specific to diabetes.

Method

A qualitative study involving semi-structured interviews with 35 patients with diabetes. Patients were recruited from seven primary care sites across England where patients were managed by a nurse prescriber. Data was collected in 2009 and was subject to thematic analysis.

Results

Patients were happy to be prescribed medicine by an appropriately trained nurse prescriber. It was said to be quicker to get an appointment with a nurse prescriber than a doctor and that the longer consultation time was beneficial to the therapeutic relationship. Being able to see the same nurse on different occasions enhanced the personal care received and improved the consistency of advice. Patients were happy with the amount of advice and information given by the nurse and were impressed by the comprehensiveness of consultations, with many nurses taking into account patients co-morbidities. Examples were given where joint-decision making had taken place, particularly around change of medication and insulin initiation. While happy with nurse prescribing, there was an assumption that nurses consulted with doctors over changes in medication and a preference was expressed to see a doctor for undiagnosed symptoms.

Conclusion

The views of diabetic patients concur with those of health professionals about the benefits of nurse prescribing. Nurses' ability to communicate well and promote joint decision-making is enhanced by the long-term nature of relationships and flexibility over the length of appointments.

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CONCORDANCE BETWEEN CHRONIC CONDITIONS (CC) REFERRED BY PATIENTS VERSUS THOSE DETECTED IN HOSPITAL DISCHARGE REPORTS

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Introduction A fundamental aspect of therapeutic education is to know whether patients identify CC. Few studies have evaluated this in patients with one or multiple CC and their concordance with the healthcare team registries.

Objective To determine the degree of concordance between the CC referred by the patients versus those detected in hospital discharge reports.

Patients and Methods A transversal study was performed in a randomized sample of 19,192 patients > 14 years of age, with > 1 CC, discharged from the Hospital Clinic during 2004. Exclusion criteria included: patients with neurological disorders or linguistic barriers. The patients were interviewed from 6 to 12 months following discharge using validated questionnaires, structured interviews and hospital databases to determine sociodemographic data, types and frequency of CC and treatment. To detect the CC referred by patients, the Catalonia Healthcare Survey (Enquesta de Salut de Catalunya (ESCA- 2002)) list of CC was used adding the corresponding "International Classification of Diseases v 9 Clinical Modification" (ICD9-CM). These CC were compared with those in the discharge report. Descriptive statistics and the Kappa index were used for concordance between CC:

Results 301 patients (62±15 years, 59 % males) were interviewed. The mean CC perceived by the patients was higher than that detected in the discharge report (6.22±3.37 vs. 3.10±1.95). Good concordance (I. Kappa > 0.4) was found among: acute myocardial infarction (AMI), diabetes, other heart diseases, hypertension (AHT), tumours and chronic obstructive pulmonary disease (COPD). The CC perceived by the patients and not detected on the hospital discharge report were: lumbar pain (36.4%), cervical pain (36.2%), arthrosis (34.6%), varicose veins (32.4%), poor circulation (28.7%), and depression (26.8%). The CC detected in the discharge report and not observed by the patients were: tumours (8.8%), AHT (8.1%), cholesterol (7.9%) other heart diseases (7.6%) AMI (6.1%), and allergies (3.3%).

Conclusions Hospital discharge reports detect half the CC which patients refer with clear under-detection of motor system diseases. Acute myocardial infarction and diabetes showed the best concordance between the CC of hospital discharge reports and patient perception.

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SPIRITUALITY, TRANSFORMATION AND DIABETES CARE; THE PERSPECTIVE OF HEALTH PROFESSIONALS AND YOUNG ADULTS WITH DIABETES

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Background Spirituality is an important aspect of wellbeing and helps people with diabetes cope with stressful situations and health problems. Study aims to explore: 1) how young adults with diabetes and health professionals define spirituality, 2) the relationship between spirituality and coping in young adults with diabetes and 3) how spirituality can be integrated into diabetes care.

Methods The study was conducted in three phases:

- Survey of 100 young adults with diabetes (YAD) aged 18-30 year who completed the coping questionnaire for YAD (CQYAD) and the spirituality questionnaire (SQ); and 92 health professionals (HPs) who completed the SQ.
- Interviews with 15 YAD.
- Focus groups with five YAD and six HPs.

Findings Survey: Females were more spiritual ($p < 0.01$). There was no significant difference in spiritual concepts between religious and non-religious YAD. YAD with shorter duration of diabetes had higher scores on spiritual needs ($p < 0.02$). There was a significant relationship between coping and spirituality ($p < 0.01$); self-awareness and lower HbA1c ($p < 0.01$); spirituality and lower HbA1c ($p < 0.04$). YAD and HPs had similar perspectives of spirituality. Self-awareness and sense of self were key aspects of spirituality in both groups.

Interviews: Four themes emerged from YAD interviews: 'sense of self', 'connectedness with people and nature', 'meaning in life'. YAD felt spirituality and coping were closely related because spirituality was an essential aspect of life', 'a key part of the diabetes journey' and 'essential to holistic care'.

Focus groups: Significantly, the data were confirmed in the focus group; but the group discussion enriched the data and the definition. Participants felt spirituality encompassed 'body, mind, soul and connections to health,' that 'diabetes was a transformational journey,' and that 'health professionals treat diabetes rather than the whole person'.

HPs suggested some strategies integrating spirituality: 'make a connection with the patient,' 'address spirituality in care,' 'provide support services,' 'reflect on 'self' and 'one's personal performance.'

Conclusions YAD defined spirituality as an essential to holistic care and a transformational journey. Spirituality is important coping strategy for young adults with diabetes and helps them cope with stressful situations and self-manage diabetes. HPs felt spirituality is an important aspect of diabetes care and although difficult needs to be incorporated in care plans for people with diabetes.

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HOW NURSE PRESCRIBING IS BEING UTILISED IN DIABETES SERVICES: VIEWS OF NURSES AND TEAM MEMBERS

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Background

Policy surrounding the prescription of medicines by nurses in the UK has undergone several recent changes; this has effectively provided around 14,000 nurses virtually the same prescribing rights as doctors. It is recognised that nurses play a central role in providing services to patients with diabetes. Recent evidence suggests that nearly a third of these nurses prescribe for patients with diabetes.

Research indicates that care delivered by nurse prescribers can improve efficiency and support new ways of working. There is no evidence available which explores nurses and team member views on how nurse prescribing is being utilised in diabetes services. This is important given the need to improve services for this group of patients, and the large number of nurses prescribing for this complex condition. This study explores nurses and team member views on how nurse prescribing is being utilised in diabetes services.

Method

A collective case-study of 9 practice settings across England where nurses prescribed medicines for patients with diabetes. A thematic analysis of semi-structured interview data collected during 2007 and 2008. Participants were qualified nurse prescribers, administrative staff, doctors and non-nurse prescribers.

Findings

Nurse prescribing was reported to enhance and support a variety of models of diabetes care. It enabled nurses to work more independently, develop diabetes services around the needs of the individual, and introduce new ways of working. Maintaining a team approach and good relations with doctors was considered important. Individual and organizational factors, as well as the interpretation of policy initiatives were reported to influence how prescribing is used in practice.

Conclusion

Nurse prescribing is being successfully used to support and develop more streamlined services for patients with diabetes. Adopting a strategic approach to workforce planning and preparation, whereby roles and responsibilities are clarified, should help ensure that the prescribing role meets the expectations of both individuals and their organisations.

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SUMMER CAMPS FOR ADOLESCENTS WITH TYPE 1 DIABETES: HCPs' PERSPECTIVES OF BENEFITS AND GAINS

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Background

This institution organizes camps since 1998.

Summer camps are considered very useful by adolescents relating to diabetes management, specially in what concerns with autonomy development and skills' improvement. They also refer that this experience contributes to their satisfaction and motivation to deal better with their disease.

It seems also important to know multidisciplinary team's satisfaction relating to their participation in summer camps. HCPs develop activities related to Therapeutic Patient Education, but in a different context, more demanding and more intensive than routine consultations' context.

The aim of this study is to identify the gains and benefits considered more important by HCPs according to summer camps experience.

Method

This research included a qualitative study, carried out with the multidisciplinary team who participated in 11 summer camps (5 doctors, 5 nurses, 3 dietitians, 1 psychologist and 1 auxiliaire). We asked the 15 professionals to write about the 5 aspects they considered more important during their experiences.

Result

The collected data were analysed qualitatively and we analysed several categories related to HCPs' opinions. The main categories identified were:

Development of personal skills, namely professional behaviour improvement, motivation, experience in a different context.

Development of interpersonal relationships in multidisciplinary team, including common goals and relationship management.

Development of interpersonal relationships with multidisciplinary team and youngsters, with a better knowledge about each participant and the relationships' improvement .

Conclusion

The results of this study enabled the identification of the gains and benefits considered more important by summer camps multidisciplinary team regarding their experience.

They consider essentially the improvement of : personal skills, interpersonal relationship with the colleagues

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PROPOSAL FOR A DIABETES EDUCATION PROGRAMME

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Background

To identify factors that influence knowledge of patients with diabetes mellitus (DM) with respect to age, sex, body mass index (BMI), therapy and county of residence, and establish whether diabetes regulation depends on disease duration and patient knowledge as determined by a knowledge questionnaire.

Method

The study included 101 patients hospitalized at the clinical department of the Vuk Vrhovac University Clinic from December 1, 2008 till February 20, 2009. Knowledge questionnaire used in this study included 3 topics: nutrition, therapy and self-monitoring. ANOVA and Student t-test were used to test whether knowledge depended on patients' clinical characteristics.

Result

The studied sample included 63% of men and 37% of women, with the largest proportion being 46-65 years old (54%) and coming from the Split-Dalmatia county (25%). Mean BMI was 28.57, and mean HbA1c was 6.8%. Based on p value <0.01, it can be concluded that the age of patients on insulin therapy affects the level of knowledge, but same cannot be said for patients on oral hypoglycaemic agents (OHA). The highest level of knowledge was observed in the 31-45-yr. group. Women had a larger total number of correct answers in comparison with men. The knowledge of patients from the Split-Dalmatia county was not shown to be greater than that of patients from the City of Zagreb (p=0.05).

The knowledge of insulin-treated respondents was not shown to depend on either BMI or HbA1c. These respondents revealed greater knowledge before and after education than the patients on OHA (p<0.0005). Mean success rate of all respondents was 68.18%, with a best score (87.93%) obtained by women on insulin aged 31-45 yrs., and with diabetes duration of 6-10 yrs. The lowest score (47.41%) was observed in men on insulin aged 31-45 yrs., with diabetes duration between 11 and 15 yrs.

Conclusion

Frail elderly, cognitively impaired, terminally ill, male and OHA-treated persons should be paid special attention. Standardised material for a structured education that would observe the obtained results should be created.

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EVALUATION OF THE QUALITY OF LIFE OF DIABETIC PATIENTS WITH URINARY INCONTINENCE

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Background

To establish clinical characteristics of patients with incontinence and compare their quality of life self-assessments.

Method

Thirty patients hospitalised at the Vuk Vrhovac Clinic from November till December 2008 were included in the study. A questionnaire for the assessment of incontinence type and WHOQOL-BREF, the quality of life self-assessment questionnaire were used.

Result

There were 84% of women and 16% of men, with the highest proportion of those between 70 and 74 years of age and a mean HbA1c of 6.73. Uncontrolled urine leakage was reported by 77% of the respondents. In 80% of them urine loss occurred with cough and sneezing, while only 50% reported feeling a strong urge to urinate before the leakage. In 80% of the respondents urine loss occurred up to 5 times a day, 80% urinated 10 times a day, and the same percentage reported urinating at night. Over 33% of patients experienced pain and burning sensation when urinating. More than 86% of patients drank less than 1 litre of fluid a day, more than 96% drank tea or coffee, and 53% used diuretics and/or beta blockers. On a 1-5-item scale, quality of life was scored an average of 3.17, respondents' feelings 3, intensity of experiences 3.3, ability to perform daily activities 3.09, satisfaction with individual parts of patients' lives 3.19, and frequency of experiencing certain things 2.7. Quality of life in patients with urinary incontinence was rated 3.07, whereas the lowest score (2.7) was found in patients who experienced urine loss more than 10 times a day.

Conclusion

Among the inpatients with diabetes and urinary incontinence, one-third showed signs of urinary tract infection. Special attention in the prevention of urinary tract infections should be devoted to increase in fluid intake and diabetes regulation, especially in the elderly. Incontinence management is necessary when attempting to improve quality of life of patients with urinary incontinence.

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APPLYING INSULIN – THE NEED FOR CONTINUING PATIENT EDUCATION.

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Background

Although coaching patients on the optimal way of injecting insulin is an integral part of patient education, clinical observations suggest that a significant number of patients do not change the site of insulin injection. This puts them at an increased risk of lipodystrophy, a dermatological complication of insulin use, which can impair insulin absorption through the affected tissues.

Method

The sample included 120 patients (mean age=66.3, SD=10.19; 55% female), irrespective of diabetes type (90% type 2 diabetes) and duration of insulin treatment (C=5, interquartile range = 8.6). Nurses collected data in a structured interview. Patients were asked about their diabetes-related and general health, about their insulin therapy, and the way they apply insulin.

Result

Average HbA1c of patients was 7.4% (SD=1.32%). 27% patients had BMI lesser than 25 kg/m², while 26% had BMI>30 kg/m². 82% regularly monitor blood glucose.

The majority of patients (69%) are on two doses of insulin per day; 65% of patients are on pre-mixed insulin analogues. The vast majority (93%) apply insulin only to one part of the body, mostly the abdomen (72%). Less than half (41%) change the area of applying insulin regularly, and a quarter (23%) inject at an angle other than 90 degrees. More than one fifth of patients (23%) report skin or tissue changes in the areas where they usually inject.

Conclusion

The data demonstrate that a relatively small proportion of patients apply insulin in an optimal way (both the right degree of injecting and changing sites), while a relatively large number of patients experience adverse effects of not changing the sites of injection. However, these data were collected through patient self-reports, rather than assessment of medical staff, which is a limitation of this study. A need for on-going re-education of patients on the appropriate ways of applying insulin is indicated.

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COMPARISON THE EFFECT OF NURSE TELEPHONE FOLLOW-UP AND SHORT MESSAGE SERVICE (SMS) ON ADHERENCE TO DIABETIC THERAPEUTIC REGIMEN IN PATIENTS WITH TYPE 2 DIABETES

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Introduction

Diabetes is a challenging disease that affects 7.2% of the population in the Iran. Through diabetes self management education, people with diabetes can take steps to control the disease and lower the risk of complications. Therefore cost effective follow up plan is necessary.

Methodology

This semi experimental study with 77 diabetic patients was done. First participant attended in three day diabetes self care education then randomly were assigned to two groups: telephone interventions was applied for 3 months, twice a week for first month and weekly for second and third month and SMS group that received message about adherence to therapeutic regimen daily for 80 days(12 week except holiday). Data gathering instrument include data sheet to record glycosylated haemoglobin and questionnaire that contain three parts: demographic characteristic, disease characteristic and question related adherence therapeutic regimen in diabetic diet, exercise, taking medication. Data gathering was performed at two points: initial the study and after 12 weeks. Questionnaire was completed in interview method. Data will analyze using descriptive and inferential statistics methods (chi-square, fisher exact, homogeneity, paired t-test and independent t-test) with SPSS version 16.

Findings

Demographic variables were compared and all of them were homogenous. Results of this study showed that both interventions had significant mean changes in glycosylated haemoglobin(HbA1C); for the telephone group($p=0/000$),with a mean change of $-0/93$ (8/51% at post-test and 9/44% at pre-test) and for the SMS group($p=0/000$),with a mean change of $-1/01$ (7/96% at post-test and 8/97% at pre-test). There was no significant difference in diet adherence ($p=0/000$), physical exercise ($p=0/000$) and medication taking ($p=0/000$) adherence in two groups.

Conclusion

Finding of this research showed that the effect of nurse-led-telephone follow up and follow up by SMS to improve adherence to diabetes therapeutic regimen in diabetic diet, exercise, taking medication in patient with diabetic type 2.

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APPLYING THE TRANSTHEORETICAL MODEL TO PHYSICAL ACTIVITY ON HEALTH INDEXES OF DIABETIC TYPE 2 PATIENTS

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Background

There are about 3 million diabetic patients in Iran. This study was conducted to investigate the impact of physical activity training on the participants' health indexes (FBS, HBA1c, BMI, lipids of blood, pulse rate and Bp) based on the Tran theoretical model (a kind of behaviour change model) among type 2 diabetic patients .

Materials and methods

The present study is a quasi-experimental research (before & after) among 32 type 2 diabetic patients who were the member of the Iranian Diabetes Federation and selected according to the inclusion criteria by non-probable (simple) sampling. Data in regard the participants' health indexes and physical activity were collected based on questionnaire, interview and observation methods before and after 1.5 and 3 months physical activity training sessions.

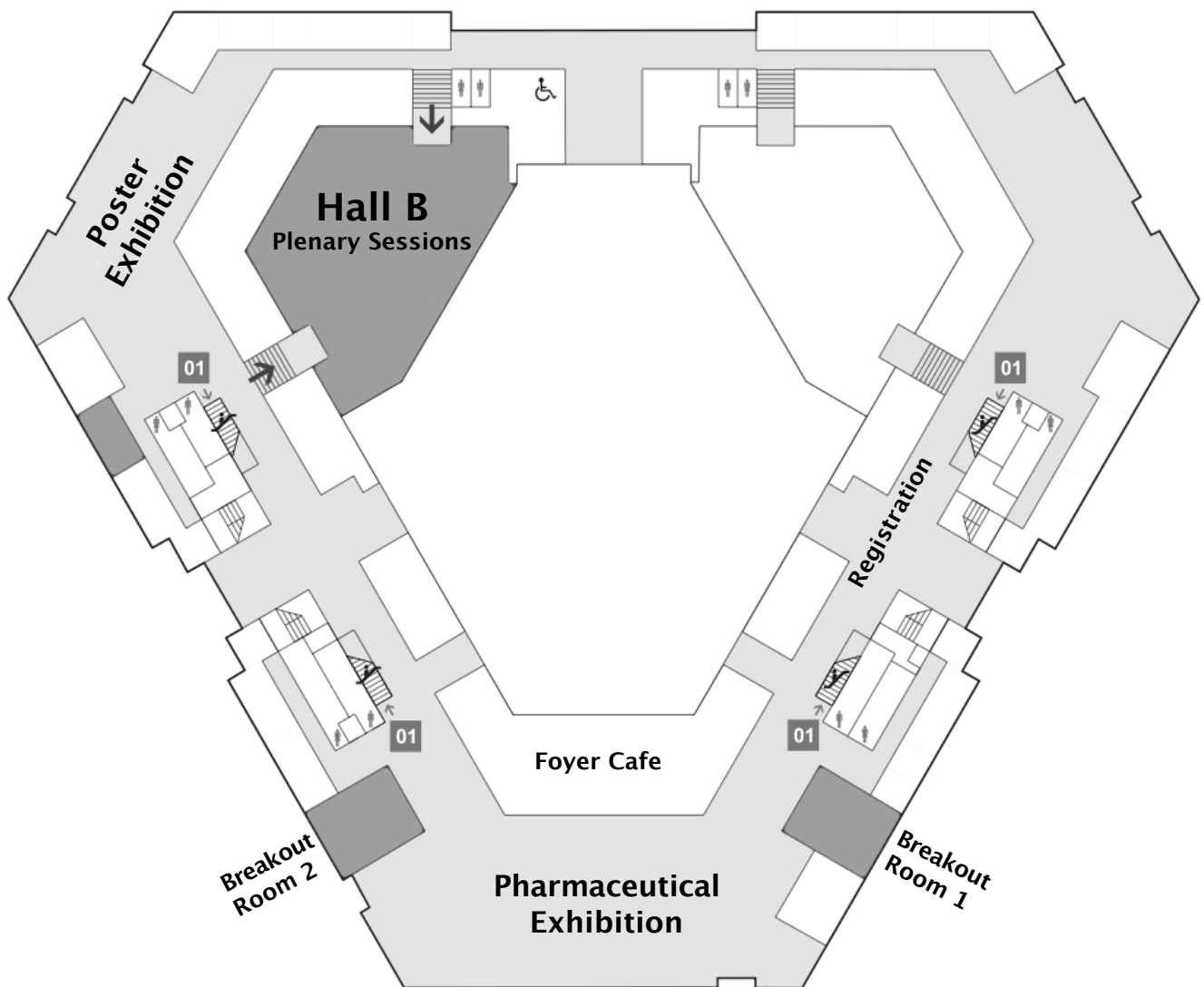
Results

The results of this study has been shown that some health indexes of the participants (FBS, HBA1c, TG, LDL) were changed and improved significantly after 3 months of the study by the McNamara test ($P < 0.05$) which demonstrates the positive effect of doing exercises on patients. Moreover, for determining the quality of doing each exercise, the Wilcox on test was done and demonstrates the significant result ($P < 0.05$). the stage of patients' physical activity were improved and after 3 months most of them were categorized in the maintenance stage.

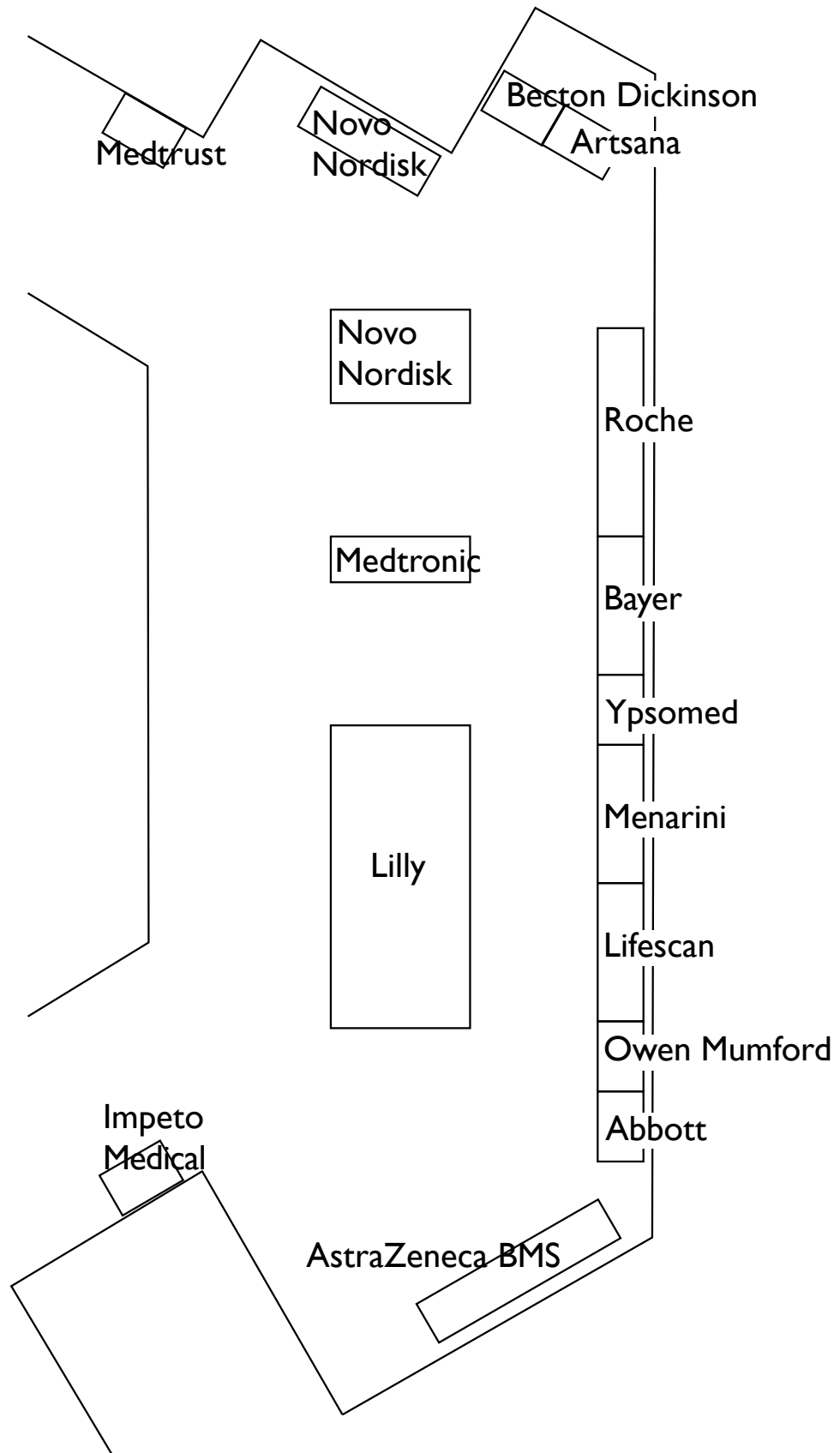
Conclusion

This study confirm the positive impact of physical activity training on the participants' health indexes based on the Trans theoretical model among type 2 diabetic patients and recommends doing exercise regularly.

Location Plan



Exhibition Layout



FEND AWARDS

1999	T. Birdsall	UK
2000	D. Weisman P. Nikkanen	Israel Finland
2001	A. Joergensen	Denmark
2002	A. Munzinger B. Osterbrink C. Nonn	Germany
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

DESG AWARDS

2001	J. Leksell	Sweden
2002	J. Charlton	Scotland
2003	M. Vidal	Spain
2004	B. Osterbrink R. Jackie G. Lange M. Nichting M. Wernsing E. Donath C. Nonn A. Munzinger	Germany
2005	L. Feulner-Krakow	Germany
2006	M. Jansa	Spain
2007	L. Serrabulho	Portugal
2008	M. Glindorf	Denmark

FEND CONFERENCE DINNER

Friday 25 September

1930 - Pre dinner drinks
2015 - Conference Dinner

Venue

Vienna Konzerthaus
Lothringerstrasse 20
1030 Vienna



Musical entertainment
Ambassade Quartet
Vienna

INVITATION

to the Novo Nordisk Symposium

**“GLP-1: a new treatment option
in Type 2 diabetes”**

in Hall B
after FEND Conference

Saturday 26 September

1700 Pre-symposium cocktails

1730-1855 Symposium

First Announcement

15th FEND Annual Conference

19-20 September 2010

Stockholm Sweden

On behalf of the Federation of European Nurses in Diabetes we cordially invite you to attend the 15th Annual Conference of FEND

Deirdre Kyne-Grzebalski
FEND Chairman

Anne-Marie Felton
FEND President

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46th EASD Annual Meeting
20-24 September 2010
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