

Introduction to Diabetes Self-management Education, Role of Diabetes Educator, Team Management and Mentorship

Postgraduate Diabetes Management and Education
Module 7102
Semester 1

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Learning Outcomes

At the end of this lecture, the students are able to:

A DSME/S

- ☐ Define and discuss evidenced of Diabetes Self-management Education/support (DSME/S)
- ☐ Discuss the AADE 7 self-care practices

B. Diabetes Educators

- ❖ Discuss how to become a diabetes educator, the roles of diabetes educator in professional practice and its expanding clinical role of advanced practitioner diabetes educator
- ❖ Discuss the importance of continuous professional and self-development and methods of updating skills and knowledge in the field



Learning Outcomes... Continue

B. Diabetes Educators

- ❖ Discuss issues of recognition or certification of diabetes educators as it applies in their country
- ❖ Discuss mentorship role and its importance in the development of new educators

C. DSME Programme

- Discuss the characteristics of an effective education program including the educator (therapeutic relationship and individual care) patient and healthcare system
- Discuss methods of collaboration with the interdisciplinary healthcare team and why an interdisciplinary and /or a multidisciplinary approach is needed in the management of diabetes



Content Outlines

- Introduction
- Aims/Objectives of diabetes self-management education and support (DSME/S)
- AADE 7 Self-care behaviours
- Evidence of DSME
- Criteria of effective DSME program
- Diabetes educators, definition, relinquish and roles
- Mentorship
- Team work in Diabetes Care
- Summary



Activity 1

Living in the life of People with Diabetes



You have Type 1 Diabetes

- You wake up this morning with a headache and your blood glucose reading is 16.7 mmol/L.
- Today is your 2nd day of your final university exam.
- What would you do?



Activity 2

Living in the life of People with Diabetes



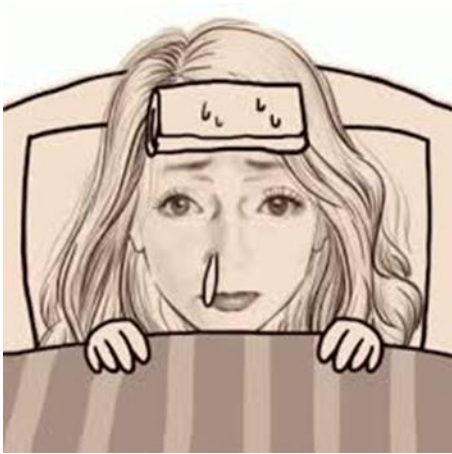
- You have T2DM on insulin Mixtard injection twice a day. Your house is about 20 mins (driving) from you office. You are told to inject 30 mins before meals. Your routine is to inject morning insulin mixtard at home then have breakfast at a coffee shop near the office.
- But this morning..... there is a long traffic jam because of an accident. You are already 60 mins in the traffic jam and start to feel sweaty and hungry

Q. What would you do?



Introduction to DSME

Diabetes Lifelong Disease



Self-management

- 24hrs x 7 days x 52 weeks a year living with diabetes
- <5% of their life are spent within the healthcare environment



Introduction

Daily Decision in Life



Daily Decision + Diab Decision



DSME/S equip People with Diabetes with Diab knowledge, technical and problem solving skills, correct attitude to self-manage daily self-care



Diabetes Self-management Education /Support:

Aims

- Achieve optimal health
- Minimize diabetes related complications
- Achieve good quality of life as desired by the individuals
- Reduce healthcare cost

Objectives

- Empower self-care behaviours
- Support informed decision making
- Facilitate problem solving skills
- Encourage collaborate with health care team to improve
 - clinical outcomes
 - quality of life



Definition

Diabetes Self-management Education (DSME)

- *“collaborative ongoing process through which people with or at risk for diabetes (caregivers or significant others) gain the knowledge and skills needed to implement and sustain the behaviour needed to successfully self-manage the disease and its related conditions. The type of support provided can be behavioural, educational, psychosocial, or clinical”*





Healthy eating
Being active
Monitoring
Taking medications
Problem solving
Healthy coping
Reducing risks



AADE 7 Self-care Behaviours

Self-care Behaviours	Description of Self-care
Healthy Eating	Promote making appropriate food choices
Being Active	Incorporating physical activity into daily life
Medication intake	Use medications for therapeutic effectiveness
Self-monitoring	Regular monitoring of blood glucose, blood pressure, body weight, urine ketone (T1DM) and using results to improve diabetes management
Risk reduction	Promote reducing risks of acute and chronic complications
Healthy coping	Assist people with diabetes to adapt diabetes in work, family and social roles
Problem solving	Managing high and low blood glucose levels, sick days, challenges of living with diabetes and during natural disasters



AADE 7 Self-Care

People with Diabetes

Guide understanding of disease process, treatment options to make informed health and lifestyle choices

Healthcare Providers

provide a framework for education to people with diabetes

Healthcare System

Research from 7 Self-care behaviours form evidence-based practices

Globally widely accepted as Standards for Diabetes Education



Diabetes Self-Management Education and Support for Adults with Type 2 Diabetes: ALGORITHM of CARE

ADA *Standards of Medical Care in Diabetes* recommends all patients be assessed and referred for:



FOUR CRITICAL TIMES TO ASSESS, PROVIDE, AND ADJUST DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT



WHEN PRIMARY CARE PROVIDER OR SPECIALIST SHOULD CONSIDER REFERRAL:

- ☐ Newly diagnosed. All newly diagnosed individuals with type 2 diabetes should receive DSME/S
- ☐ Ensure that both nutrition and emotional health are appropriately addressed in education or make separate referrals

- ☐ Needs review of knowledge, skills, and behaviors
- ☐ Long-standing diabetes with limited prior education
- ☐ Change in medication, activity, or nutritional intake
- ☐ HbA_{1c} out of target
- ☐ Maintain positive health outcomes
- ☐ Unexplained hypoglycemia or hyperglycemia
- ☐ Planning pregnancy or pregnant
- ☐ For support to attain or sustain behavior change(s)
- ☐ Weight or other nutrition concerns
- ☐ New life situations and competing demands

CHANGE IN:

- ☐ Health conditions such as renal disease and stroke, need for steroid or complicated medication regimen
- ☐ Physical limitations such as visual impairment, dexterity issues, movement restrictions
- ☐ Emotional factors such as anxiety and clinical depression
- ☐ Basic living needs such as access to food, financial limitations

CHANGE IN:

- ☐ Living situation such as inpatient or outpatient rehabilitation or now living alone
- ☐ Medical care team
- ☐ Insurance coverage that results in treatment change
- ☐ Age-related changes affecting cognition, self-care, etc.

Powers MA, Bardsley J, Cypress M, Duker P, Funnell MM, Fischl AH, Maryniuk MD, Stimlerio L, Vivian E. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *Diabetes Care* 2015; 38:1372-1382; *The Diabetes Educator* 2015;41:417-430; *Journal of the Academy of Nutrition and Dietetics* 2015;115:1323-1334. (Adapted August 2016)



Adapted from Margaret A. Powers et al. *Dia Care* 2015;38:1372-1382

Four critical times to assess, provide, and adjust diabetes self-management education and support

At diagnosis

Annual assessment of education, nutrition, and emotional needs

When new **complicating factors** influence self-management

When **transitions** in care occur

Primary care provider/endocrinologist/clinical care team: areas of focus and action steps

- ☐ Answer questions and provide emotional support regarding diagnosis
- ☐ Provide overview of treatment and treatment goals
- ☐ Teach survival skills to address immediate requirements (safe use of medication, hypoglycemia treatment if needed, introduction of eating guidelines)
- ☐ Identify and discuss resources for education and ongoing support
- ☐ Make referral for DSME/S and MNT

- ☐ Assess all areas of self-management
- ☐ Review problem-solving skills
- ☐ Identify strengths and challenges of living with diabetes

- ☐ Identify presence of factors that affect diabetes self-management and attain treatment and behavioral goals
- ☐ Discuss effect of complications and successes with treatment and self-management

- ☐ Develop diabetes transition plan
- ☐ Communicate transition plan to new health care team members
- ☐ Establish DSME/S regular follow-up care

Diabetes education: areas of focus and action steps

Assess cultural influences, health beliefs, current knowledge, physical limitations, family support, financial status, medical history, literacy, numeracy to determine content to provide and how:

- ☐ Medications—choices, action, titration, side effects
- ☐ Monitoring blood glucose—when to test, interpreting and using glucose pattern management for feedback
- ☐ Physical activity—safety, short-term vs. long-term goals/recommendations
- ☐ Preventing, detecting, and treating acute and chronic complications
- ☐ Nutrition—food plan, planning meals, purchasing food, preparing meals, portioning food
- ☐ Risk reduction—smoking cessation, foot care
- ☐ Developing personal strategies to address psychosocial issues and concerns
- ☐ Developing personal strategies to promote health and behavior change

- ☐ Review and reinforce treatment goals and self-management needs
- ☐ Emphasize preventing complications and promoting quality of life
- ☐ Discuss how to adapt diabetes treatment and self-management to new life situations and competing demands
- ☐ Support efforts to sustain initial behavior changes and cope with the ongoing burden of diabetes

- ☐ Provide support for the provision of self-care skills in an effort to delay progression of the disease and prevent new complications
- ☐ Provide/refer for emotional support for diabetes-related distress and depression
- ☐ Develop and support personal strategies for behavior change and healthy coping
- ☐ Develop personal strategies to accommodate sensory or physical limitation(s), adapting to new self-management demands, and promote health and behavior change

- ☐ Identify needed adaptations in diabetes self-management
- ☐ Provide support for independent self-management skills and self-efficacy
- ☐ Identify level of significant other involvement and facilitate education and support
- ☐ Assist with facing challenges affecting usual level of activity, ability to function, health beliefs, and feelings of well-being
- ☐ Maximize quality of life and emotional support for the patient (and family members)
- ☐ Provide education for others now involved in care
- ☐ Establish communication and follow-up plans with the provider, family, and others



DSME Outcomes Continuum

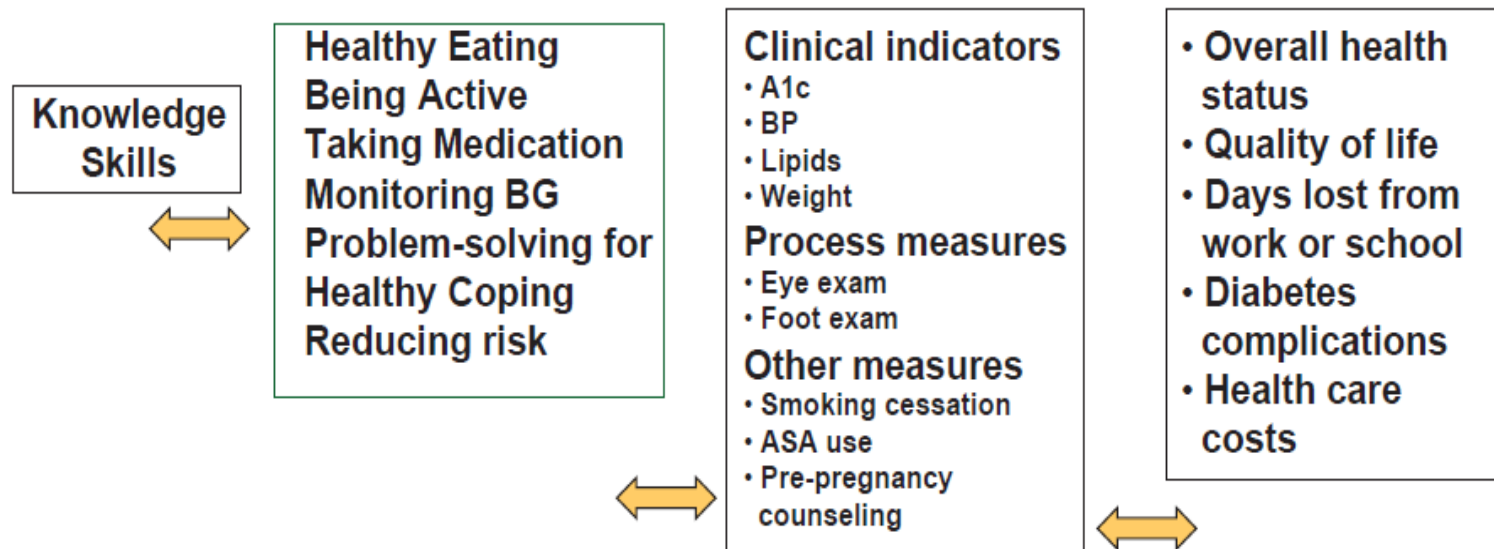
→ → → → → → Outcomes Phases → → → → → →

Immediate

Intermediate

Post-Intermediate

Long Term



Does Diabetes Education
provide Evidence-based
Outcomes ?



Evidence for Diabetes Education

- Traditional knowledge-based education is essential but not sufficient for sustaining behavior change

Brown SA. Nursing Research 1988

- Systematic and meta-analysis reported diabetes education improved glycaemic control (-0.43% to -0.76%) and psychosocial outcomes in short term

Norris, S.L. et al *Diabetes Care* 2002

Brwon SA. Research in Nursing & Health, 1992

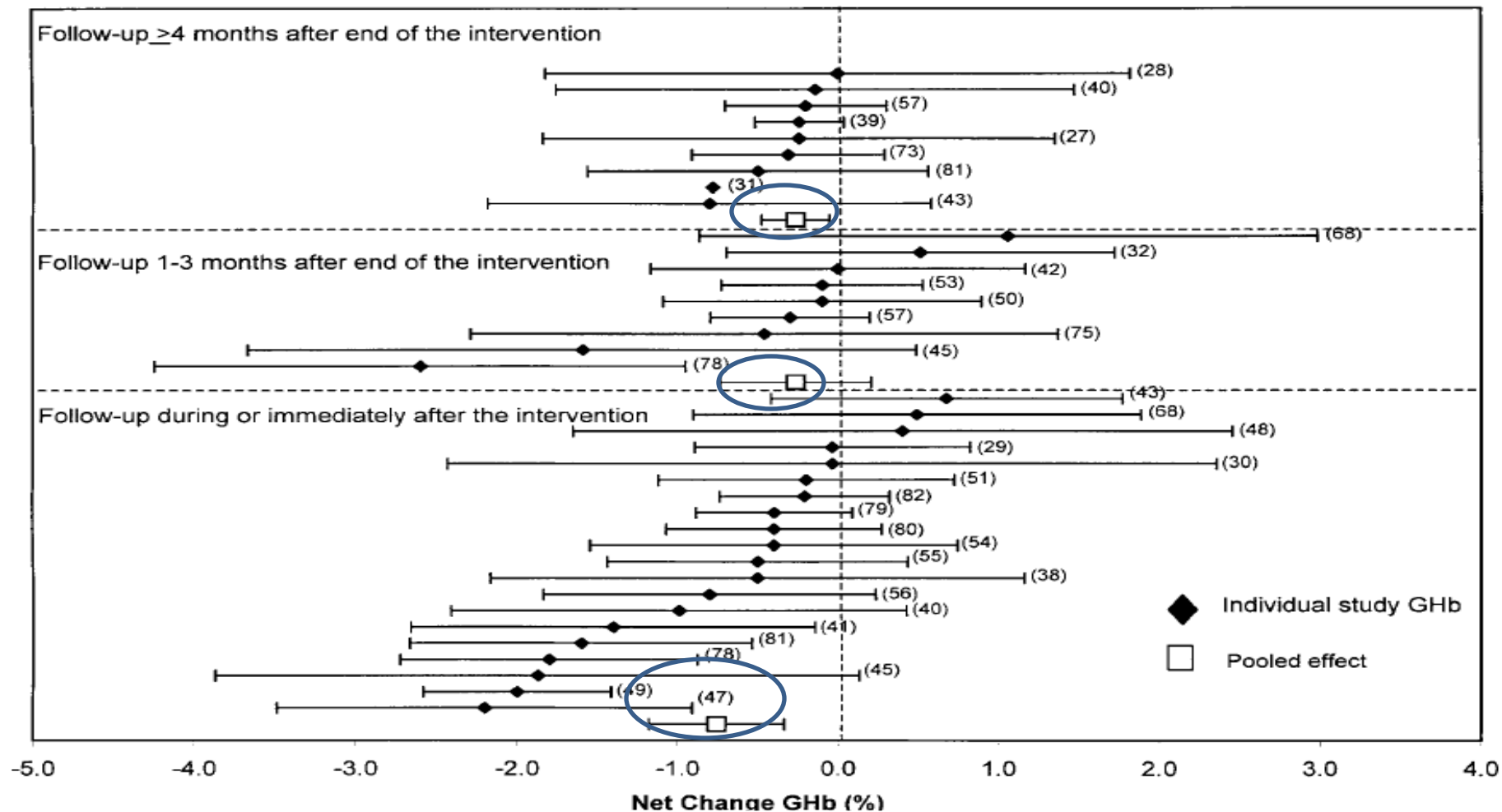
Chrvala CA et al. Patient Education and Counseling 2016

Gary TL et al. The Diabetes Educators 2003

National Standard for DSMES 2022



Meta-analysis of Effect of DSME on Glycaemic Control



Evidence for Diabetes Education

- High-level diabetes self-care behaviours have shown to be associated with prolonged life expectancy in patients with type 2 diabetes (11)
- No single strategy or program shows advantage or others studies that incorporated behavioral and affective components are more effective (12,13)

Laxy M. et al. Diabetes Care 2014

Barlow, J. et al Patient Educ Counseling 2002
Roter, DL . et al. Medical Care 1998



Evidence for Diabetes Education

- Ongoing education and support is critical in sustaining progress by participants during the DSME program (7,14,15)

Diabetes Education Programme

- International Diabetes Federation- Consultative Section on Diabetes Education (IDF-CSDE) published the 1st International Standards for Diabetes Education in 2003
- AADE in 2007 published 1st National Standards for Diabetes Self-management education and support for 10 guidelines
- These criteria are reviewed periodically.

International Standards for Diabetes Education, IDF 2003

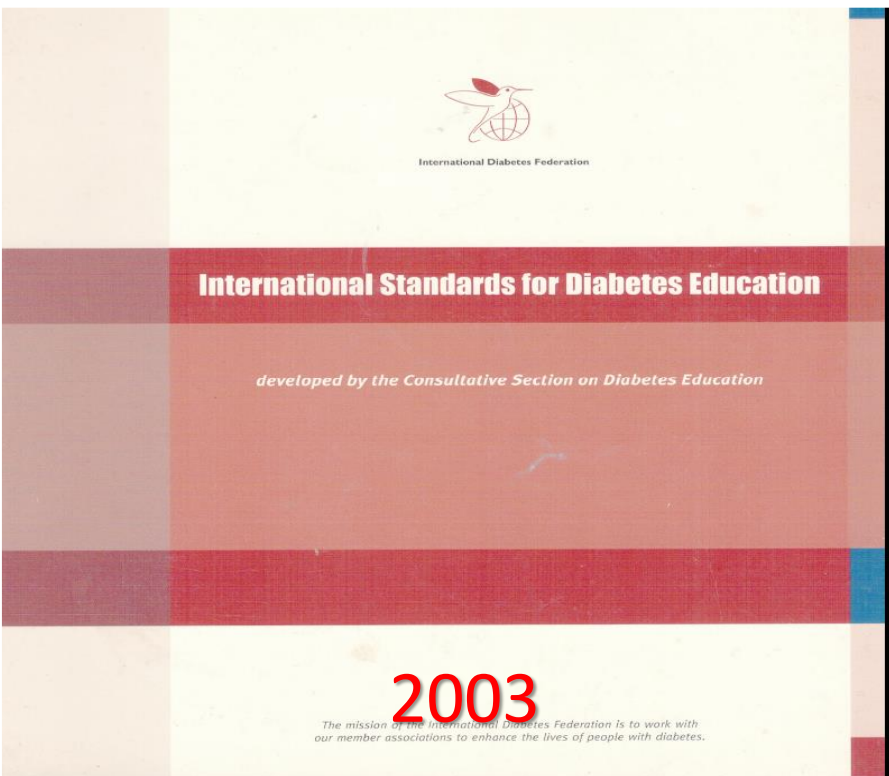
Beck J et al.. The Diabetes Educator 2017

Davis et al. The Science of Diabetes Self-Management and Care 2022

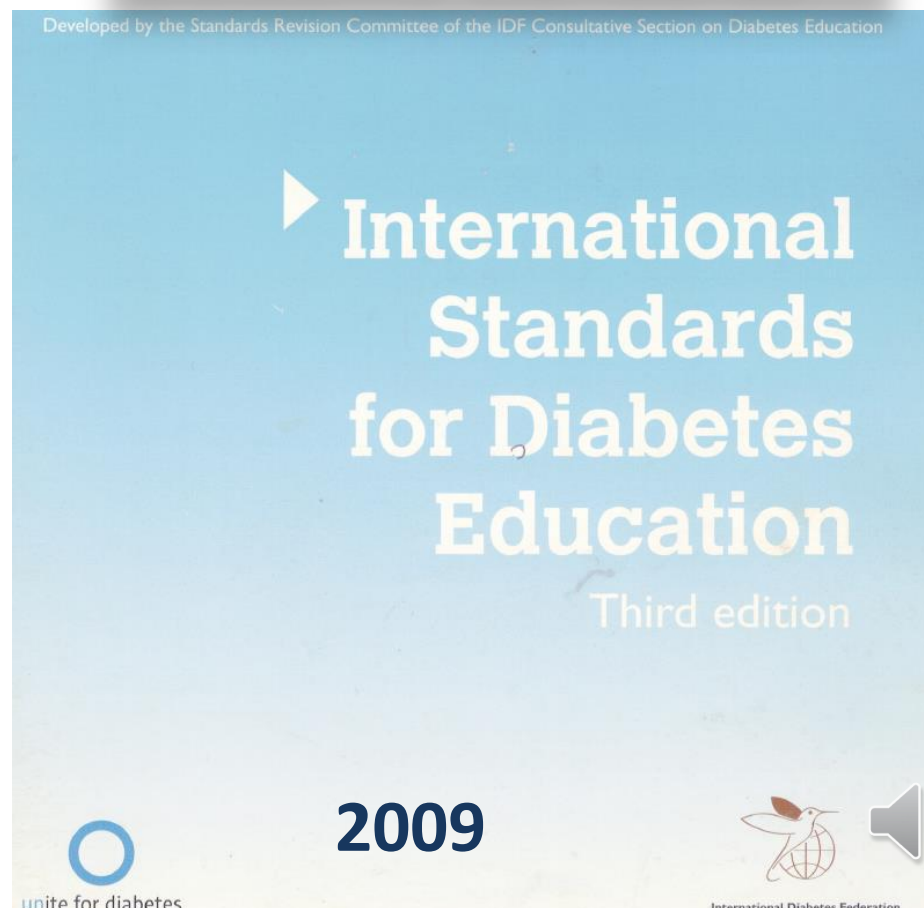


Effective Diabetes Education Programme

Structure standards
Process standards
Outcome standards



International Diabetes
Federation- Consultative
Section on Diabetes
Education (IDF-CSDE)



Effective Diabetes Education Program

2017 National Standards for Diabetes Self-Management Education and Support

- AADE 2007 published 1st National Standards for Diabetes Self-management education and support for 10 guidelines
- These criteria are reviewed periodically



National Standard of Diabetes Education Program

AADE

Organization support

- Documented evidence of organizational support for education as integral part of diabetes care

Stakeholder Input

- Seek stakeholders and experts inputs to promote quality

Evaluation of Population Served

- Evaluate the communities served to determine resources, design, and delivery methods that align with the population's need for DSMES services



National Standard of Diabetes Education Program

AADE

Program Coordinator

- Responsible to overseas DSME services and implement programme based on national standards

DSMES Team

- Team leader - DE/CDE (RN, RD, Pharmacist)
- Other team members contribute to DSME/S services with appropriate training and supervised and support by team leader.

Curriculum

- Written curriculum reflect current evidence and practice guidelines
- Curriculum content meet the specific population and cultural needs of the community served



National Standard of Diabetes Education Program

AADE

Individualization

- DSME/S team and people with diabetes (carer) develop mutual individualized DSMES plan

Ongoing Support

- DSME provided diagnosis, annually, when complication arises and during transition of care
- Provided with options and resources available for initial and ongoing support education.

Participant Progress

- Monitor, evaluate for effectiveness of the educational intervention with appropriate tools

Quality Improvement

- Measures the effectiveness of the DSMES services
- Conduct evaluation to Identify areas for improvement



2022 National Standards for Diabetes Self-Management Education and Support

Standard 1: Support for DSMES Services

- The DSMES team seeks leadership support for implementation and sustainability of DSMES services.
- The sponsor organization recognizes and supports quality DSMES services as an integral component of diabetes care

Standard 2: Population and Service Assessment

- The DSMES service will evaluate their chosen target population to determine, develop, and enhance the resources, design, and delivery methods that align with the target populations' needs and preferences.

Standard 3: DSMES Team

- All members of a DSMES team will uphold the National Standards of DSMES services, including evidence-based service design, delivery, evaluation, and continuous quality improvement.
- At least one team member will be identified as the DSMES quality coordinator to oversee effective implementation, evaluation, tracking, and reporting of DSMES service outcomes.



2022 National Standards for Diabetes Self-Management Education and Support

Standard 4: Delivery and Design of DSMES Services

- DSMES services will utilize a curriculum to guide evidence-based content and delivery as well as serve as resource for the team.
- DSMES teams will be responsive to emerging evidence, advances in all aspects of care and education strategies that is relevant to the population they serve.

Standard 5: Person-Centered DSMES

- DSMES plan will be unique and based on the person's concerns, needs, and priorities collaboratively determined as part of a DSMES assessment.
- The DSMES team will monitor and communicate the outcomes of the DSMES services to the diabetes care team and/or referring physician/other qualified healthcare professional as needed

Standard 6: Measuring and Demonstrating Outcomes of DSMES Services

DSMES services will have ongoing continuous quality improvement (CQI) strategies in place that measure the impact of the DSMES services. Systematic evaluation of process and outcome data will be conducted to identify areas for improvement and to guide services optimization and/or redesign.

Examples of DSME Outcomes Measurement

Outcome type	Example
Process outcomes	Referral process Attendance Education mapping Social determinants of health Timing of education sessions (eg, times that meet the PWD needs)
Clinical outcomes	A1C Time in hypoglycemia Pregnancy outcomes LDL-cholesterol levels BMI and body weight Blood pressure Time in range
Psychosocial and behavioral outcomes ⁵⁷	Healthy coping Healthy eating Being active Taking medication Monitoring Reducing risk Problem-solving
Patient-reported outcomes	Health-related quality of life Diabetes-related quality of life Diabetes distress Self-efficacy Functional status Patient satisfaction
Patient-generated health data	Blood glucose trends CGM glucose management indicator Weight, activity, steps Food/beverage intake Sleep Blood pressure



Activity 3- Reflection

- What are your roles in diabetes education?
- What do you want your roles to be?
- What are the challenges you face?
- What are the opportunities you have?



Preparation to Become a Diabetes Health Professional

1. Core knowledge and skills in biological and basic pathophysiology
2. Core knowledge in social sciences that include psychological, spiritual, and social aspects
3. Understanding chronic disease and associated model of care
4. Teaching and learning skills
5. Communication skills
6. Understand Behavioural and psychological strategies
7. Application of research findings
8. Experiential learning
9. Received Structured training



Roles of Diabetes Health Professionals

It is the responsibility of all health professionals working in the field of diabetes to acquire the knowledge, skills and competencies to provide evidence-based high quality diabetes education by continuous profession growth.



Diabetes Education

Interdisciplinary Roles

- Various health professionals can assume the diabetes educator role including, but not limited to:

- Nurses
- Dietitians
- Pharmacists
- Physicians
- Psychologists
- Exercise physiologists
- Podiatrist
- Social workers
- Physiotherapist



Diabetes Educator/Certified Diabetes Educator (DE/CDE)

DE/CDE is a healthcare professional who has:

- pass examination for Diabetes Educators (certification-based on country requirement)
- completed a minimum numbers of hours in clinical diabetes practice*
- has responsibilities that include the direct provision of diabetes education

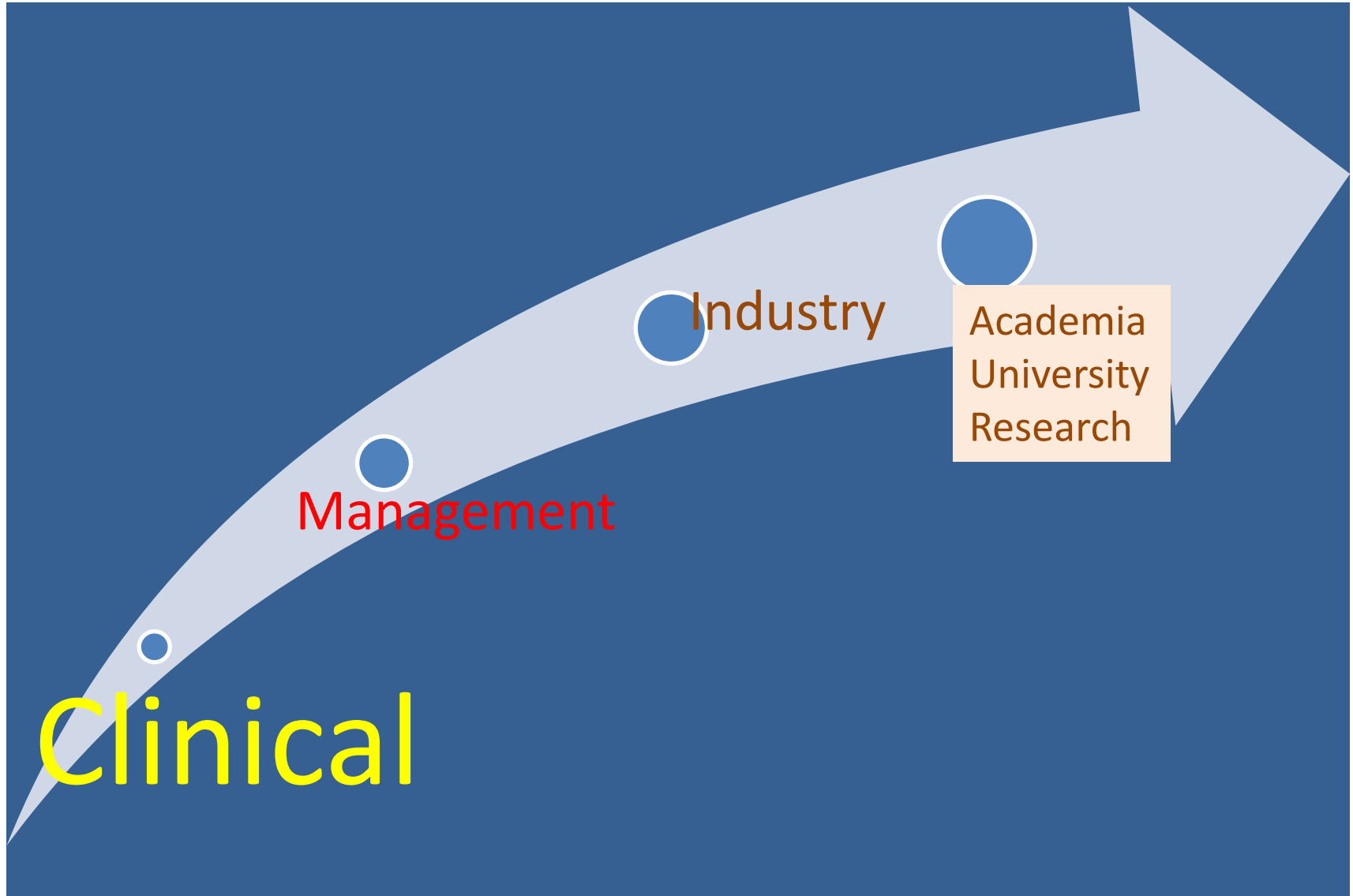


Transition Role for Diabetes Educators- Advanced Practice

- In some countries e.g. USA the roles of Diabetes has evolved to include medical management from Certified Diabetes Educator (CDE) to Board Certified- Advance Diabetes Manager (BC-ADM) with additional certifications.
 - Medication adjustment (OAD, insulin)
 - Physical examination
 - Order diagnostic and complication investigations
- Australia and Singapore also offered some transitional roles for diabetes educator with additional certifications



Career Advancement



Main Roles of Diabetes Educator (DE)

Promote optimal health and wellbeing for
individuals
communities
populations
at risk of and affected by
diabetes using a range of
SPECIALISED knowledge and
skills.

- ***Intergrade*** diabetes self-management education with clinical care as therapeutic intervention
- Work with ***Diabetes Team*** to promote physical, social, spiritual and psychological wellbeing.



Roles of Diabetes Educator/Certified Diabetes Educator (CDE)



Roles of Diabetes Educator/ Certified Diabetes Educator (CDE)

Clinical Care

Provide direct clinical care based on individual professional scope of practice

Care cognizant with regulatory and decision making frameworks

Patient Education

Provide education based on individualized comprehensive assessment

Apply behaviour and education theory to support self-care behaviour

Counseling

Use empowerment approach for self-care

Use impartial, reflective and empathetic listening to clarify issues

Use validated tools for assessment



Roles of Diabetes Educator/ Certified Diabetes Educator (CDE)

Professional Growth

Constant update knowledge and skill via technology to promote DSME and psychosocial well being of people with diabetes

Team work

Diabetes care best managed by multidisciplinary team
In Clinical care refer to other team members as needed
In community, liase with other HCP/services to promote comprehensive intergrated care

Mentorship

Role model and mentor for peers, assist in training a wide range of health care providers, in a variety of settings and at a variety of levels.



Roles of Diabetes Educator/ Certified Diabetes Educator (CDE)

Research

- Evidence based practice underpins diabetes management and education practice
- Undertake research and quality management programmes as one important approach to professional growth

Management Leadership

- Manage departments budgets, and service planning
- Ensure service(s) provided meets recognized professional standards

Advocacy

- DE joins respective professional bodies e.g. MDES, MDA, Pharmacist, MEMS, international professional associations to continuously advocating for people affected by diabetes and their right to comprehensive diabetes self-management education, clinical care and support services



Mentorship in Diabetes Care

- Mentorship is an important aspect of diabetes care and education.
- Mentorship can be formal or informal
- The advantages are:
 - ✓ Enables collaboration
 - ✓ Opportunities for reflection
 - ✓ Mutually beneficial
 - ✓ Facilitate growth and development



Team Work in Diabetes Care

- Effective Diabetes Care:
 - ✓ medical management
 - ✓ diabetes education
 - ✓ policy development
 - ✓ implementation and monitoring
- By the diabetes team members.
- Diabetes team members consist of various health professionals discussed in slide 31



Team Work in Diabetes Care

Criteria for
successful team
work

Respect
expertise of
each team
members

Communication
among team
members

Open
discussion in
management
decision
making
problem
solving

Collaboration
approach to
pursuit
programme
goals and
outcomes

**Together Everyone Achieves More, People Living
with Diabetes have better quality of life**



Competency Levels of Diabetes Educators

- There are different competency levels of Diabetes Educators
- AADE has published a position statement describing the three competency levels of diabetes educators

Basic Level	Intermediate Level	Advanced Level
Beginner Advanced Beginner	Competent and proficient in knowledge and skills	Expert in the field of Diabetes Management and Education

- <https://www.diabeteseducator.org/docs/default-source/practice/practice-resources/comp003.pdf?sfvrsn=2>



Activity 4

- At the end of the Postgraduate Diploma in Diabetes Management and Education Program what will be your level of competency based on the AADE Level of competency for Diabetes Educators?
- You may answer this question when you have completed the program.



Summary

- DSME/S is the cornerstone of successful Diabetes management
- AADE 7 self-care behaviours forms the framework for successful DSME/S.
- Effective Diabetes Care is team work with the person with diabetes as the most important player
- Diabetes Educations are evidenced based



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THANKS FOR
LISTENING..
ANY QUESTIONS?

