DIABETES SELF-MANAGEMENT EDUCATION IN PSYCHOSOCIAL CONTEXT

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LESSON OUTCOMES

At the end of this session, students should be able to:

Discuss aspects of the DSMES including assessment, goal setting, planning, implementation, evaluation, and the importance of continuous support.

HISTORICAL PERSPECTIVE - QUOTES FROM ELLIOT JOSLIN FOUNDER OF THE FIRST DIABETES CLINIC

- "The diabetic who knows the most, lives the longest"
- "Learn as if you have to learn forever, live as if you die tomorrow"
- "We can only scratch one back at a time, but we can teach many patients together and each is likely to teach another"
- "A well-trained nurse is of more value than the patient's doctor"

DEFINITIONS

Self-management education

An intervention that involves

active patient participation

in self-monitoring and/or

decision-making with the application of knowledge and skills

Diabetes Self-Management Education (DSMES)

- Is the ongoing process of facilitating the knowledge, skills, and ability necessary for diabetes self-care
- This process incorporates the needs, goals, and life experiences of the person with diabetes and is guided by evidence-based standards
- The overall objectives of DSME are to support informed decision-making, self-care behaviours, problem-solving and active collaboration with the health care team and to improve clinical outcomes, health status, and quality of life

WHY DO WE NEED DSMES?

- 24 hours x 365.25 days = 8,766 hours
- Attending health care professional appointments over 1 year:
  - 30 minute new and 3 x 15-20 minute review appointments with doctor
  - 1 hour new and 2 x 30 minute review appointments with dietitian
  - 1 hour new 4 x 30 minute review appointments with diabetes educator
  - 1 hour new and 4 x 30 minute review appointments with the podiatrist
  - 1 hour optometrist
  - 2 dental review appointments

That leaves 8,754 hours for the person with diabetes to manage on their own

KEY CONCEPTS BEFORE WE BEGIN:

- Health Belief Model
- Person-centred principles
- When do we implement DSMES
- Finding the story ….
- Where is the patient currently on their journey of diabetes?
- Models of care

HEALTH BELIEF MODEL

For successful self-management to occur the person with diabetes needs to:

1. Be convinced that they have diabetes
2. Think that diabetes and its consequences can be serious
3. Think that the treatments you and other team members are recommending will be beneficial
4. Think that the benefits of treatment will outweigh the side effects (physical, psychological, social, financial, cultural)

ASSUMPTIONS HELD BY HEALTH CARE PROFESSIONALS

- Patients should change
- Patients want to change
- Patients' health is their prime motivator
- Patients are either motivated to change or not
- Now is the right time for change
- A tough approach is a good approach
- If the patient does not change then our intervention has failed
- I am the expert therefore the patient must follow my advice

PERSON-CENTRED CARE PRINCIPLES

1. I focus on the person and their goals and overall wellbeing
2. I'm respectful of the person's culture and health beliefs
3. I respect the person's decisions about their healthcare and include carers and family members (with the person's consent)
4. I proactively outline care options and known health benefits, risks, access and costs
5. I check each person has understood, agreed with and can action their self-managed care
6. I review outcomes and use the person's experiences, needs, preferences and values as the basis for planning the next period of self-management and professional care

PERSON-CENTRED CARE PRINCIPLES

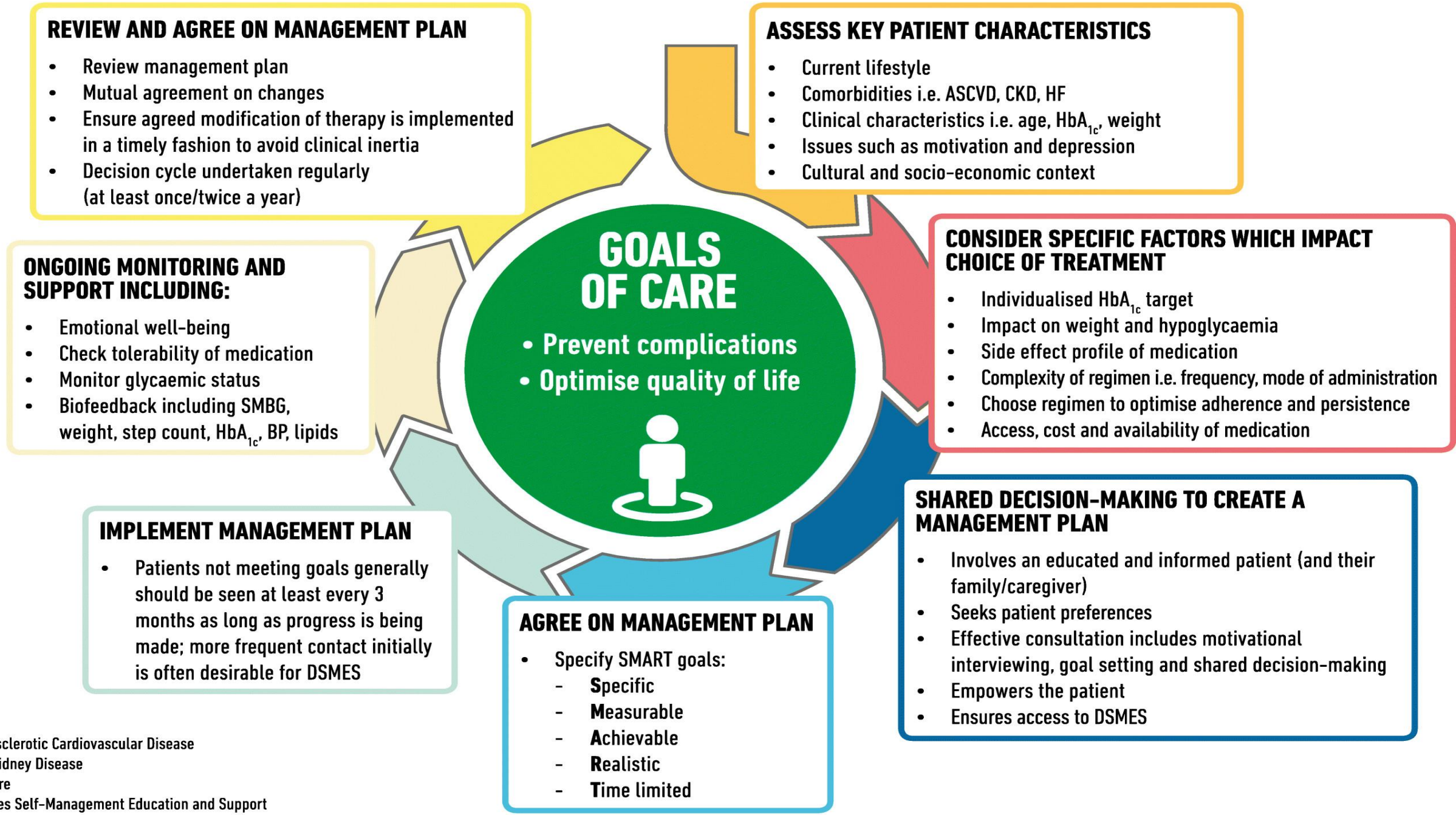
7. I communicate with the person's other health providers to facilitate holistic care (with the person's consent)
8. I partner with the person so they can communicate with key people in their life to support environments that are non-discriminatory, safe and supportive
9. I partner with consumers and consumer representatives to educate colleagues and the wider community about, and advocate for, supportive and inclusive environments for people living with diabetes
10. I partner with consumers and consumer representatives in policy and service development and ongoing quality assurance

ADEA/Diabetes Australia/NDSS (2016) Person-Centred Care Toolkit

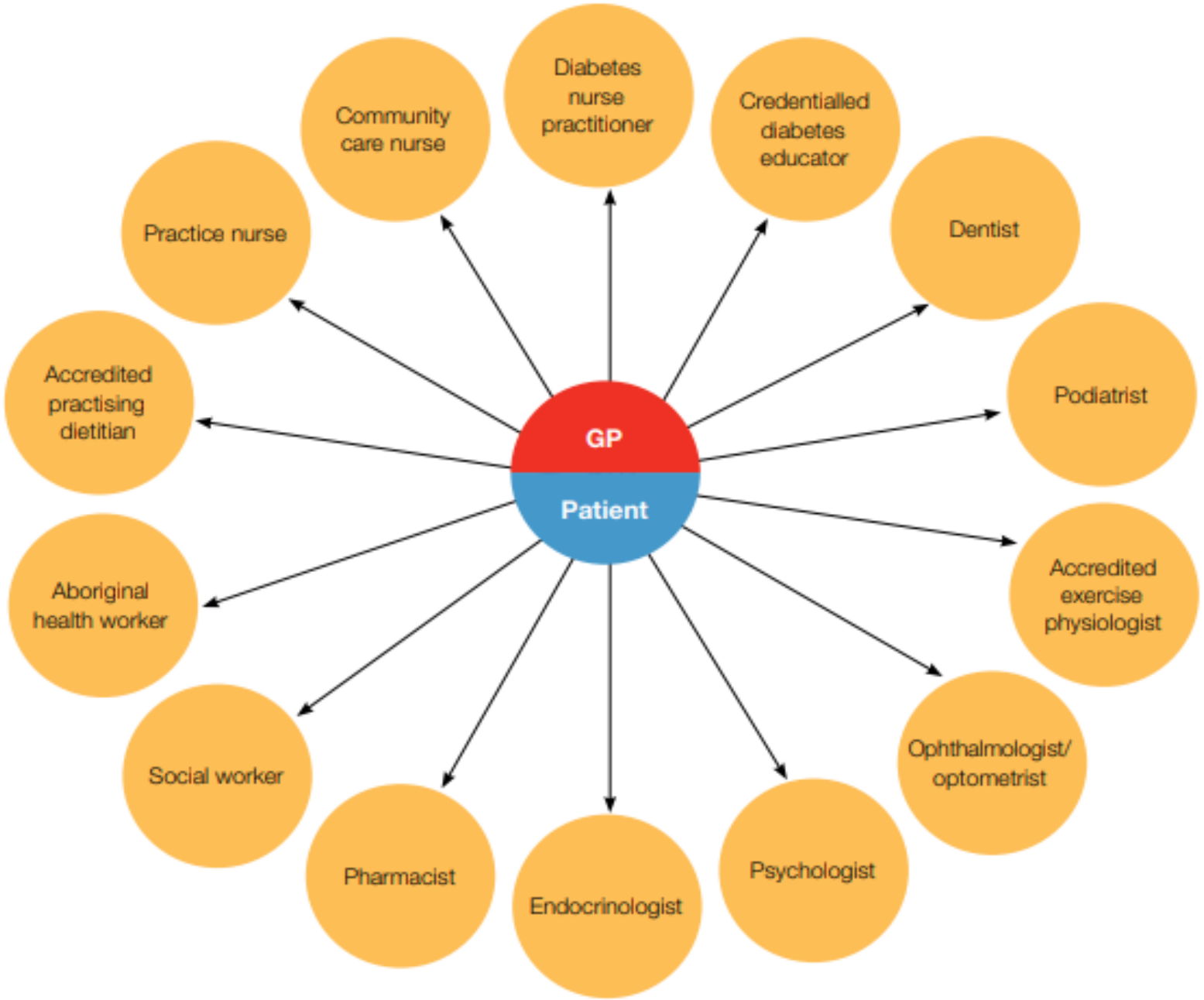
FACILITATING BEHAVIOUR CHANGE AND WELL-BEING TO IMPROVE HEALTH OUTCOMES *STANDARDS OF MEDICAL CARE IN DIABETES 2020*

- Diabetes self-management education and support
- Medical nutritional therapy
- Routine physical activity
- Smoking cessation counselling
- Psychosocial care
- Following a comprehensive medical evaluation and assessment of co-morbidities
  "patients and providers are encouraged to engage in person-centred collaboration which is guided by shared decision-making in treatment regimen selection, facilitation of obtaining medical and psychosocial resources, and shared monitoring of agreed-upon regimen and lifestyle. Re-evaluation during routine care should include not only assessment of medical health but also behavioural and mental health outcomes, especially during times of deterioration in health and wellbeing".

DECISION CYCLE FOR PATIENT-CENTRED GLYCAEMIC MANAGEMENT IN TYPE 2 DIABETES



ASCVD = Atherosclerotic Cardiovascular Disease
CKD = Chronic Kidney Disease
HF = Heart Failure
DSMES = Diabetes Self-Management Education and Support
SMBG = Self-Monitored Blood Glucose


Diabetes nurse practitioner
Community care nurse
Credentialled diabetes educator
Practice nurse
Dentist
Accredited practising dietitian
Podiatrist
GP
Patient
Aboriginal health worker
Accredited exercise physiologist
Social worker
Ophthalmologist/ optometrist
Pharmacist
Endocrinologist
Psychologist

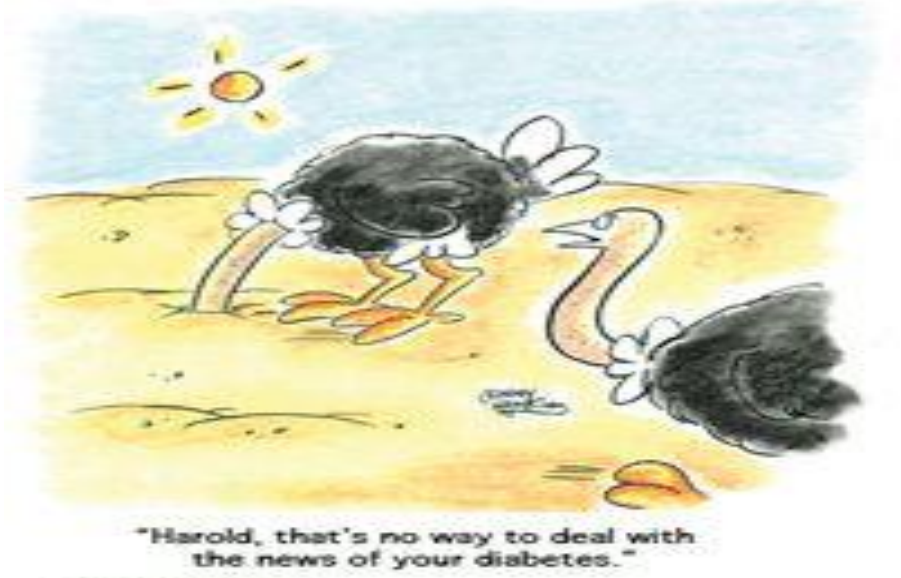
4 CRITICAL TIMES TO EVALUATE THE NEED FOR DSMES

1. Diagnosis
2. Annually for assessment of education, nutrition and emotional needs
3. When complications arise (health conditions, physical limitations, emotional factors, or basic living needs)
4. When transitions in care occur

FIND THE STORY

Two of the most helpful questions to ask:

1. Were you surprised by the diagnosis of diabetes?
2. What is your family experience of diabetes?



"Harold, that's no way to deal with the news of your diabetes."

"I beg your pardon, but I am not a diabetic... I am what you should refer to as 'Pancreatically-Disadvantaged.'"

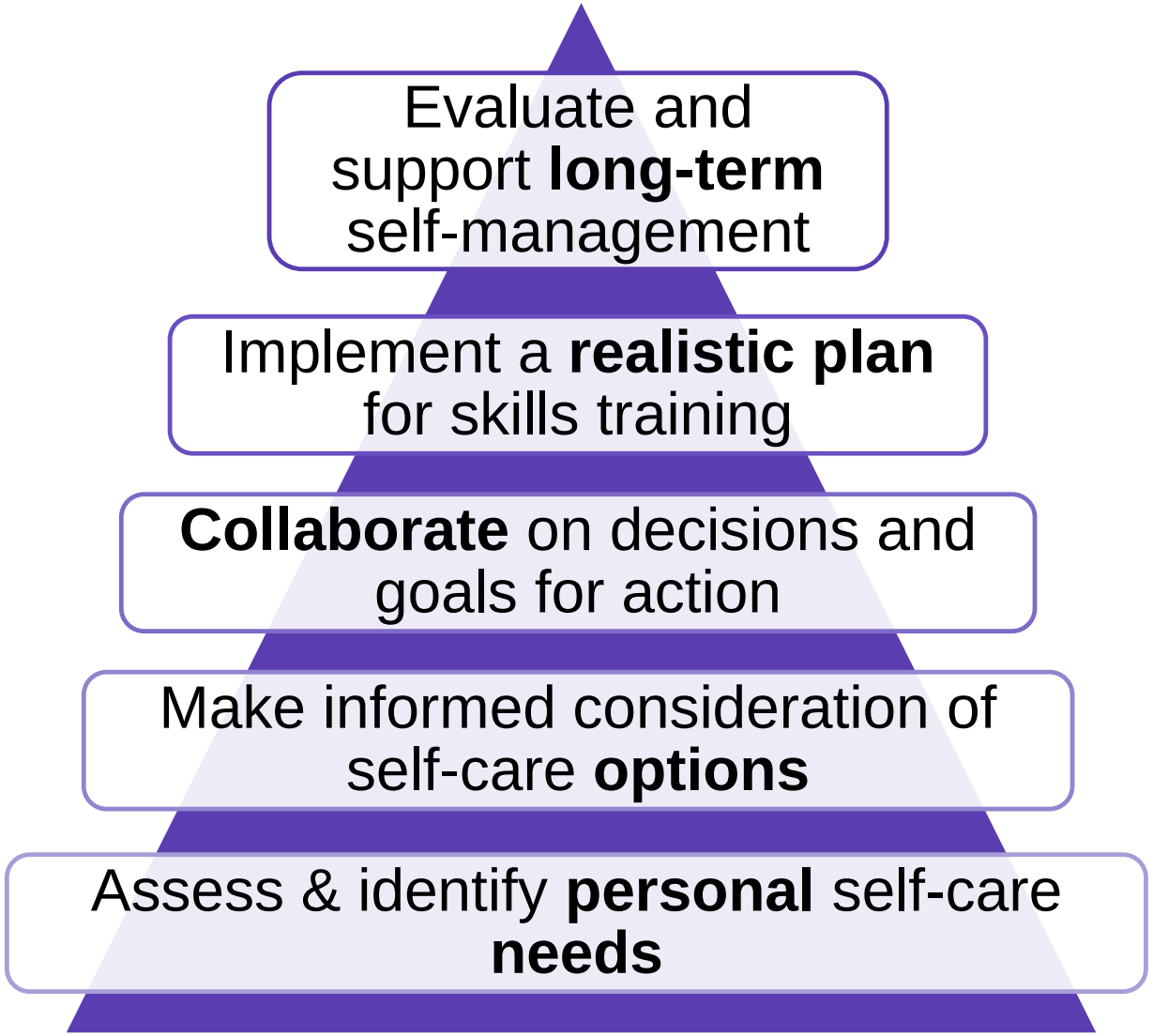
WHERE IS THE PATIENT IN THE JOURNEY?

- Initial shock following diagnosis
- Denial
- Revolt and injustice of having diabetes
- Bargaining over treatment strategies
- Sadness or withdrawal (not clinical depression) where they cannot see how to face the future with diabetes only the past without it
- Acceptance
- Remembering this process can be repeated when a diabetes complication occurs

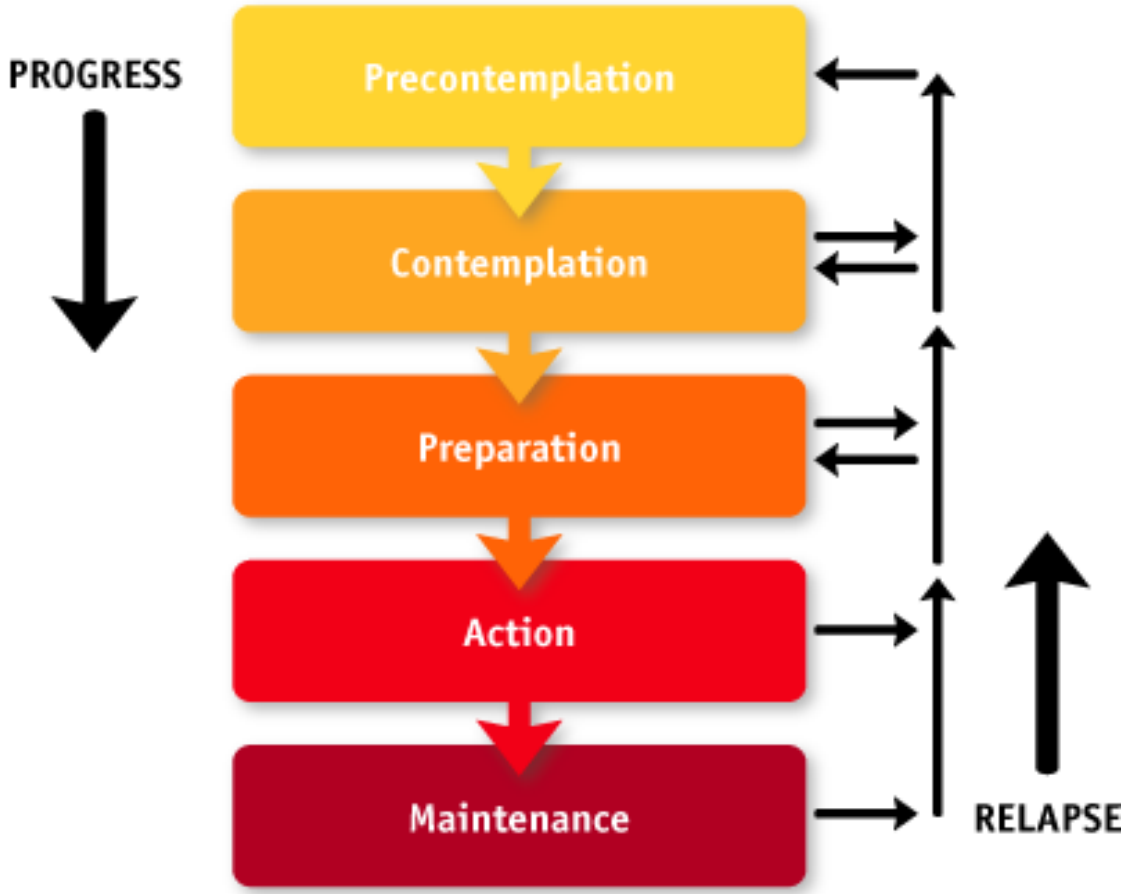
KEY CONCEPTS TO CONSIDER

- Organisation and patient support systems
- Steps to success
- Readiness to change
- Motivation
- Motivational interviewing
- How should DSMES be delivered
- Interaction techniques

STEPS TO SUCCESS



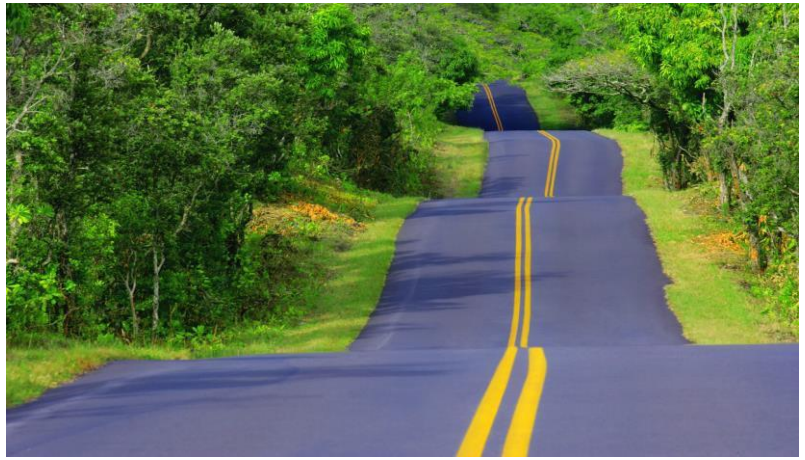
READINESS TO CHANGE STAGES AND WHAT IS IMPORTANT AT EACH STAGE



Precontemplation—information
Contemplation—information on options on how to change behaviours
Preparation—setting goals and timelines
Action—implementing the plan
Maintenance—continuing goal directed behaviour/choices
Relapse—reaffirming goals and commitment to change

THE MOTIVATIONAL INTERVIEWING SHIFT

- From feeling responsible for changing a patient's behaviour to supporting them in thinking and talking about their own reasons and means for behaviour change
- As HCP we are also part of the change we want to see:
  - Roll with resistance
  - Develop discrepancy
  - Offer information/advice/choice
  - Normalise



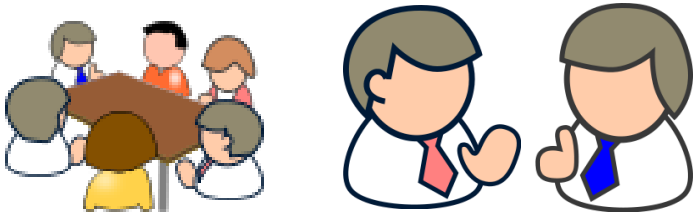
THE MOTIVATION CONUNDRUM

- Internal motivation is required for lasting change; all patients have something internal that is important to them
- External push/pull strategies prevail and do more harm than good. Patient responses:
  - Either: Feel violated, so resist further and do nothing
  - Or: Make a very temporary effort at change and experience failure for the relapse

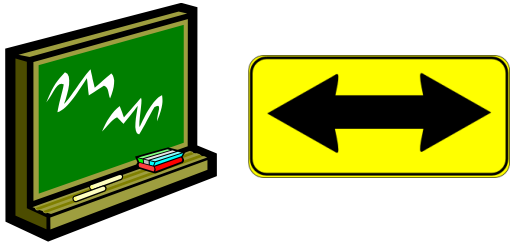
HOW SHOULD DSMES BE DELIVERED?

Interprofessional team and/or peer-education

Personal contact with health-care workers



Combination of group and individual sessions



Combination of didactic and interactive

INTERACTION TECHNIQUES (OARS)

- **O**pen-ended questions- elicit information from the client instead not yes/no responses
- **A**ffirmations- Favorable comment on a strength or trait of a client. Must be congruent and genuine
- **R**eflective listening listen carefully and attentively to clients is the key part of empathy which facilitates change
- **S**ummaries- reflect back to the client what he or she has been telling you

-Begins with "Let me stop and summarise ..."

-It's an invitation for the client to add or correct any information missed

SUMMARY OF DIABETES ASSESSMENT AND EVALUATION TOOLS

Name of tool	Aspect of care assessed
Problem areas in diabetes (PAID)	Diabetes specific emotional distress
PAID – Paediatric version (PAID – Peds)	Ages 8-17
PAID – Parent revised version (PAID – PR)	
Diabetes care profile (DCP)	Social & psych factors assoc with diabetes & its treatments
Diabetes – 39 questionnaire (D-39)	QoL in people with diabetes
Diabetes health profile (DHP)	Eating, activity & psychological distress
Diabetes impact measurement scales (DIMS)	Symptoms, well-being, moral and social life
Diabetes QoL clinical trial questionnaire (DQLCTQ)	Changes on QoL for people with diabetes in clinical trials
Diabetes quality of life measure (DQOL)	Life satisfaction, diabetes impact, worries about diabetes
Diabetes specific quality of life scale (DSQOLS)	Treatment goals, burden of diabetes care & management
Questionnaire on stress in patients with diabetes (QSD-R)	Treatment goals, treatment success & burden
Well-being for diabetics (WED)	Quality of life

SUMMARY OF DIABETES ASSESSMENT AND EVALUATION TOOLS

Name of tool	Aspect of care assessed
Diabetes self-efficacy scale	Self-efficacy of diabetes self-care
Diabetes self-efficacy scale for adolescents	
Diabetes knowledge questionnaire (DKQ)	General knowledge of diabetes
Confidence in diabetes self-care scale (CIDS)	Confidence in diabetes-specific self-care behaviours
Summary of diabetes self-care activities measure (SDSCA)	Activities associated with diabetes self-management
LMS skills, confidence and preparedness index (SCPI)	Measures knowledge, confidence and preparedness
Diabetes treatment satisfaction questionnaire (DTSQ)	Treatment satisfaction
Audit of diabetes-dependent quality of life (ADDQoL)	Impact of diabetes & its treatment on QoL
Diabetes empowerment scale	Psychosocial self-efficacy
Diabetes knowledge test	General knowledge in diabetes
Barriers to diabetes adherence	Ages 12-17

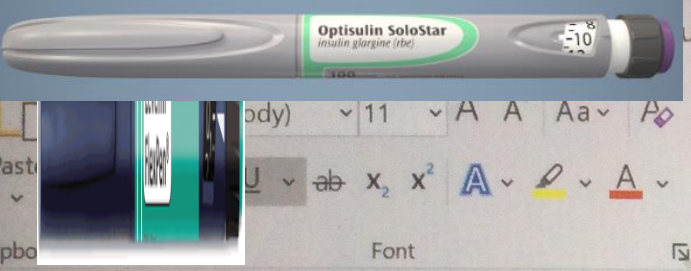
HEALTH LITERACY

- An individual's ability to:
  - Read
  - Understand
  - Use healthcare information
  - To make decisions and follow instructions for treatment
- The National Health and Hospitals Reform Commission identified improving health literacy as a national health reform direction for Australia
- Poor health literacy is 'a stronger predictor of a person's health than age, income, employment status, education and race'

American Med Assoc

HEALTH LITERACY

- Studies reveal that up to half of patients cannot understand basic healthcare information translating into:
  - Higher risk of hospitalisations
  - Longer length of stay
  - Less likely to comply with treatment
  - More likely to make errors with medication
  - More ill when they seek medical care



Northern Health

DIABETES GESTATIONAL INSULIN GUIDE

AFFIX PATIENT IDENTIFICATION LABEL HERE

U.R. NUMBER: _____

SURNAME: _____

GIVEN NAME: _____

DATE OF BIRTH: ____/____/____ SEX: _____

<#barcode FNH XXXXXX, CODE_128>

These instructions are for pregnant women only. Use this plan to adjust your insulin doses if your blood glucose levels are above targets as described below:

NOTE: DO NOT ADJUST YOUR INSULIN IF YOU HAVE ANY READINGS UNDER 4.0 – TREAT LOW BLOOD GLUCOSE FIRST, THEN CONTACT THE DIABETES EDUCATORS.

Long acting insulin: helps reduce the before breakfast blood glucose reading

Your insulin		Starting dose	When to take insulin
			
			
			

If your before breakfast blood glucose reading is **above 5.0 for 2 days in a row** increase your evening dose of insulin by ..... units.

Only increase your insulin dose every 2 days (if needed).

****If your fasting glucose readings are 5.0 or less continue on the same dose of insulin****

Please phone the Diabetes Educator weekly on the below phone numbers for review of your glucose levels and insulin doses. Contact details: Weekdays 8.30am – 4pm

❑ The Northern Hospital – 8405 8669 ❑ Broadmeadows Hospital – 0418 336 502

❑ Craigieburn Centre – 0439 187 975 / 0418 336 502

Out of hours contact: (urgent only) call The Northern Hospital 8405 8000 and ask for Endocrinologist on call.

DIABETES – GESTATIONAL INSULIN GUIDE

HEALTH NORTHERN XXXXXX

Northern Health

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Before meal insulin (short acting) helps reduce your blood glucose levels 2 hours after eating

Your insulin		Starting dose	When to take insulin
			
			
			

If your after (meal) blood glucose reading is **above 6.7 for the same meal 2 days in a row,** increase your before meal dose of insulin by ..... units for that meal.

If you take insulin for more than one meal (e.g. breakfast and dinner) only increase the one dose of insulin for the meal where the blood sugar was above 6.7mmol/L

Only increase your insulin dose every 2 days (if needed).

****If your after meal glucose readings are 6.7 or less continue on the same dose of insulin****

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NOTE: DO NOT ADJUST YOUR INSULIN IF YOU HAVE ANY READINGS UNDER 4.0 – TREAT LOW BLOOD GLUCOSE FIRST, THEN CONTACT THE DIABETES EDUCATORS.

Premixed insulin: Mixture of short and long acting insulin in the same pen

Your insulin		Starting dose	When to take insulin
			
			
			

1. If your FBG (fasting blood glucose – first reading in the morning) is **more than 5.0 or** your reading 2 hours after your evening meal is **more than 6.7, increase your before dinner** dose of the above insulin by ..... units every 2 days
2. If your reading **2 hours after breakfast or lunch is more than 6.7, increase your before breakfast** dose of the above insulin by ..... units every 2 days

Only increase your insulin dose every 2 days (if needed).

****If your fasting glucose reading is 5.0 or less or if your after meal glucose readings are 6.7 or less continue on the same dose of insulin****

Please phone the Diabetes Educator weekly on the below phone numbers for review of your glucose levels and insulin doses. Contact details: Weekdays 8.30am – 4pm

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DIABETES – GESTATIONAL INSULIN GUIDE

HEALTH NORTHERN XXXXXX

GOALS NEED TO BE SMARTER NOT JUST SMART

- **S**pecific
- **M**easurable
- **A**ction-orientated
- **R**ealistic
- **T**ime limited
- **E**xpect problems
- **R**eview and **R**eiterate

- Issues that will affect goal setting:
  - How important the goal is
  - How urgent the goal's outcomes are
  - Limited resources and support
  - Timing

SMARTER

Identifying a goal

- Helping the person break down their goal into specific actions such as what, when, how often, and how long
- It is important to move away from vague goals "going to be more active" to a specific goal "I will walk for 30 minutes every Tuesday, Thursday and Saturday as soon as I get home from work"

Being realistic

- Setting a goal that a person is unlikely to achieve is setting them up to fail, even if they set the goals themselves
- "Do you think you can achieve your goal in 3 months?"
- "On a scale of 1 to 10 how likely will you achieve your goal in 3 months time?"
- Burdon

SMARTER

Monitoring

- Focus is on how the person will monitor how well they are managing to achieve their goal. Questions to ask include "How well it is going?" "How many times did you manage to walk last week?"

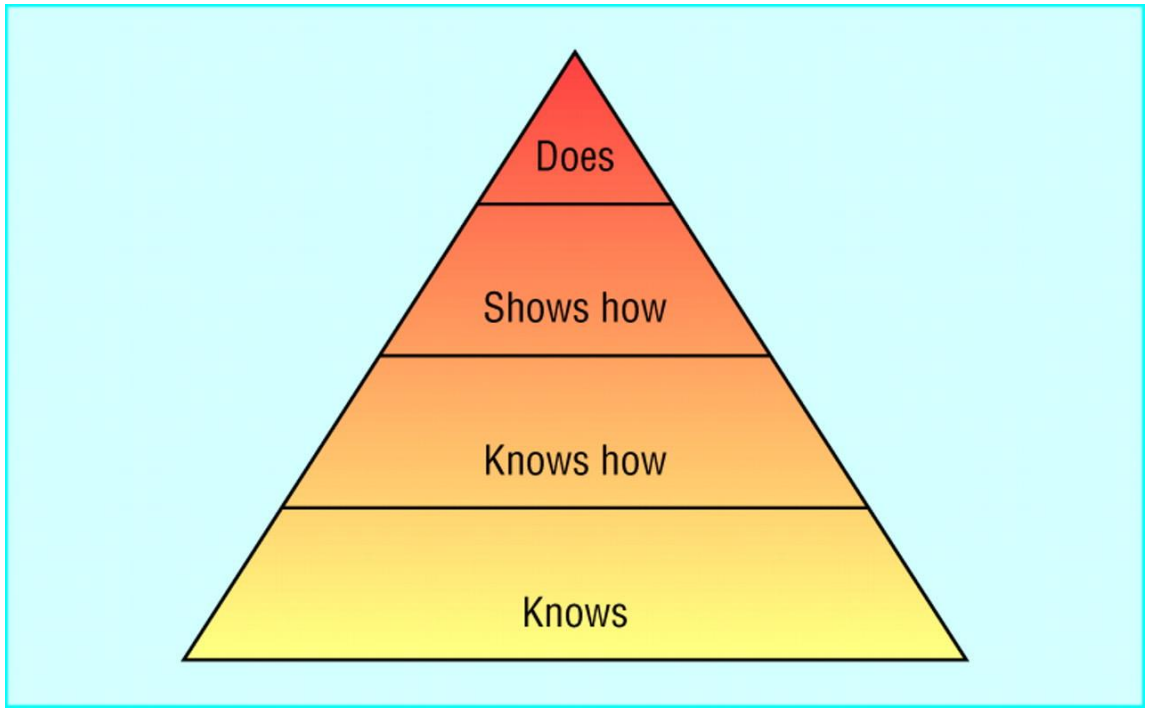
Expect problems

- Help clients think about what things are likely to stop them from achieving their goal, help them find solutions to the biggest barriers so that they are prepared and can problem-solve more effectively when such problems arise

DOES YOUR WORKPLACE SUPPORT DSMES?

BUT WE DON'T HAVE THE TIME AND FACILITIES TO KEEP PROVIDING ONGOING SUPPORT

Miller's Pyramid of Competence



Rather than tell people with diabetes WHAT to do, tell them WHY they should do something in a particular way

NORCINI, J. J BMJ 2003;326:753-755

BUT WE DON'T HAVE THE TIME AND FACILITIES TO KEEP PROVIDING ONGOING SUPPORT

- Telephone coaching and SMS notifications
- Peer support
- Social media
- Apps
- Online learning
- Involving "Team Diabetes"

IMPLEMENTATION – AN EXAMPLE OF FOLLOW UP USING SMS

Role	Primary Care Physician	Patient	Nurse	Clinical Care Manager	Nutritionist PT & OT	Clerical Staff
Introduce SMS and patient role	√					
Set visit agenda	√	√	√		√	
Collaboratively set goals	√	√	√		√	
Provide information and training to patients	√		√		√	
Ensure patient understands information and instructions	√		√		√	
Create an Action Plan	√	√	√		√	
Link patients with system and community resources		√		√		√
Proactive follow-up				√		√

USING TECHNOLOGY

- Brief automated messages can significantly improve chronic disease management for T2DM patients. Using specialist diabetes apps allowed patients to enter data, track medication, set reminders, plan meals, find recipes and plan for doctor's appointments and blood tests **Diabetes UK**
- Another trial used video-messages to relay health information and reported that 47% did not even view the videos or stopped watching the videos after 2 months
- A recent review of free apps found that most do not integrate the main tasks of diabetes self management (Mobile App Rating Scale) **Chavez S et al Diabetes Care 2017**
- Frequent secured internet communication in addition to usual HCP appointments improve diabetes outcomes **Chung. S et al Diabetes Care 2017**

Medtronic

Pattern Snapshot for **Patient Example**

Mar 3 - Mar 8, 2017
(6 days)

Avg SG: **149 mg/dL**

Estimated A1C [1]: **6.8%** calculated from SG values

Time in range: **58%** **Above** 140 mg/dL
35% in target range
7% **Below** 70 mg/dL

OBSERVED PATTERNS & SOME POSSIBLE CAUSES [2]

1 Variable SG - Overnight
11:00 PM - 6:00 AM

Glucose variability during overnight for 6 days

- Erratic food intake day before?
- Erratic exercise schedule day before?
- Erratic sleep pattern?
- Oral medication(s) day before omitted or incorrectly timed?
- Basal insulin injection missed?
- Pre-meal insulin in prior evening(s) incorrectly timed or omitted?

2 Variable SG - Post-breakfast
6:00 AM - 10:00 AM

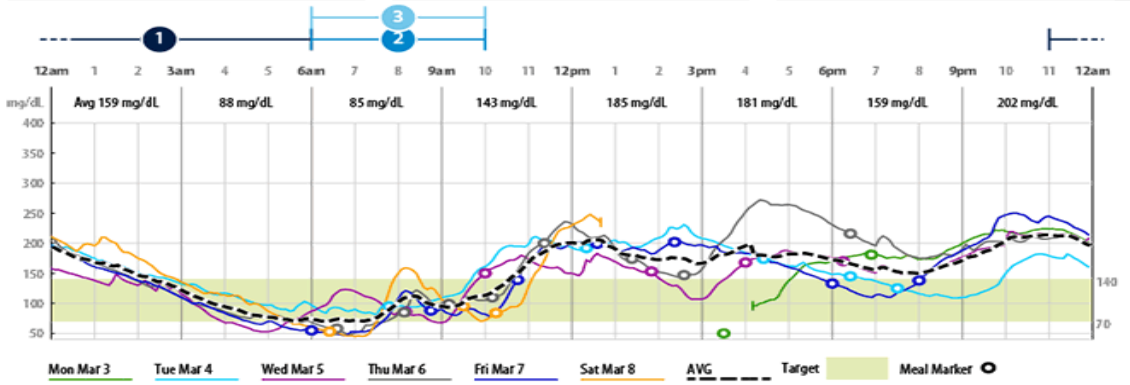
Glucose variability during post-breakfast for 6 days

- Variable food intake?
- Oral medication(s) too high or incorrectly timed?
- Pre-breakfast insulin incorrectly timed, too low, too high, or omitted?
- Insulin to carbohydrate ratio not optimal for pre-meal insulin?

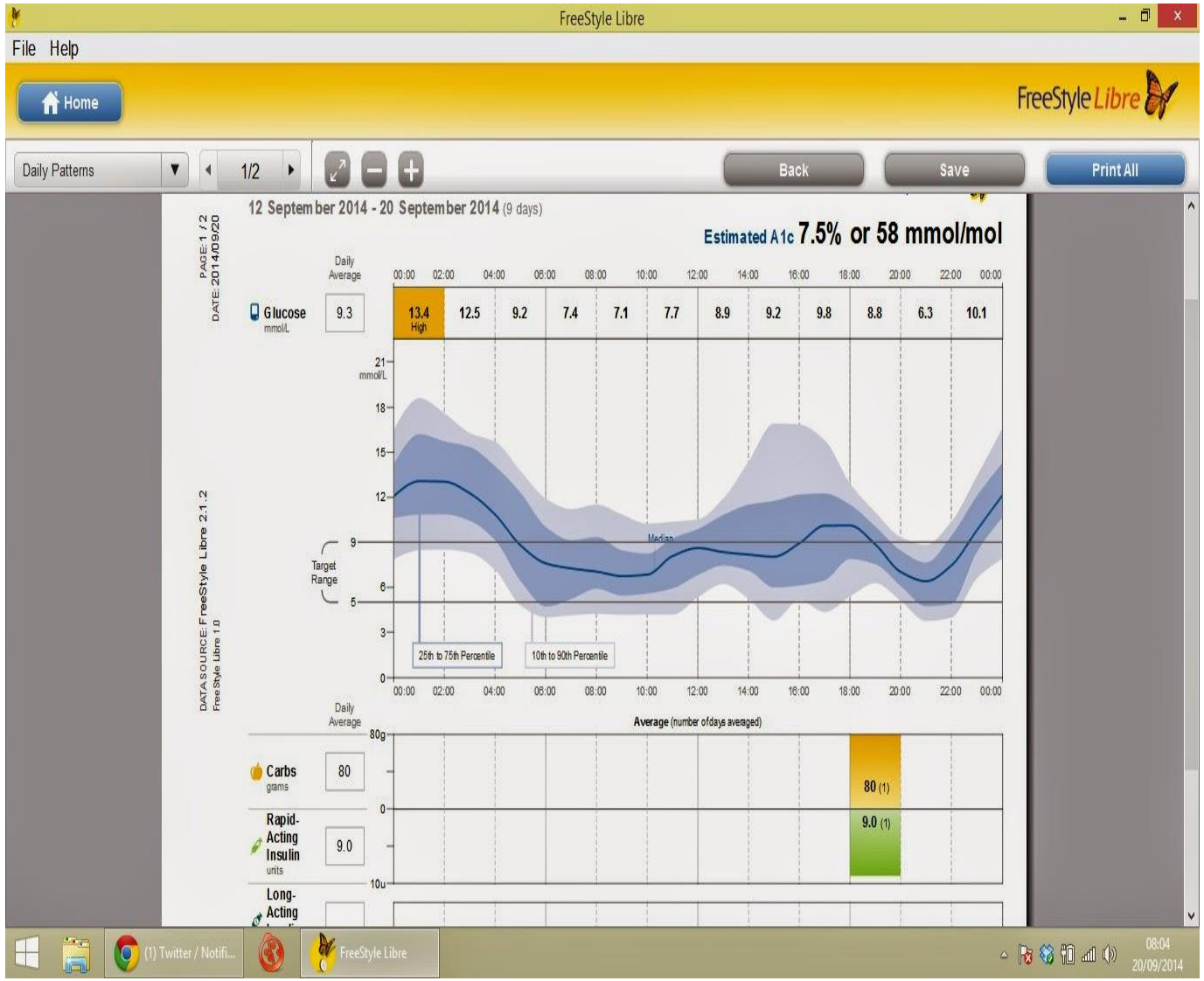
3 Low SG - Pre-breakfast
6:00 AM - 10:00 AM

3 out of 6 days excursions observed:
3 day(s) **50 - 70** mg/dL
0 day(s) **< 50** mg/dL

- Less food intake in prior evening(s)?
- Breakfast delayed?
- More exercise in prior evening(s)?
- Oral medication(s) too high or incorrectly timed?
- Basal insulin injection in evening(s) too high?
- Alcohol consumed in prior evening(s)?



(1) Estimated A1C does not replace Lab measurement and is calculated from limited SG data.
(2) Suggested considerations are limited and do not replace the opinion or advice of the healthcare provider. Please see User Guide on how patterns and possible causes are identified.

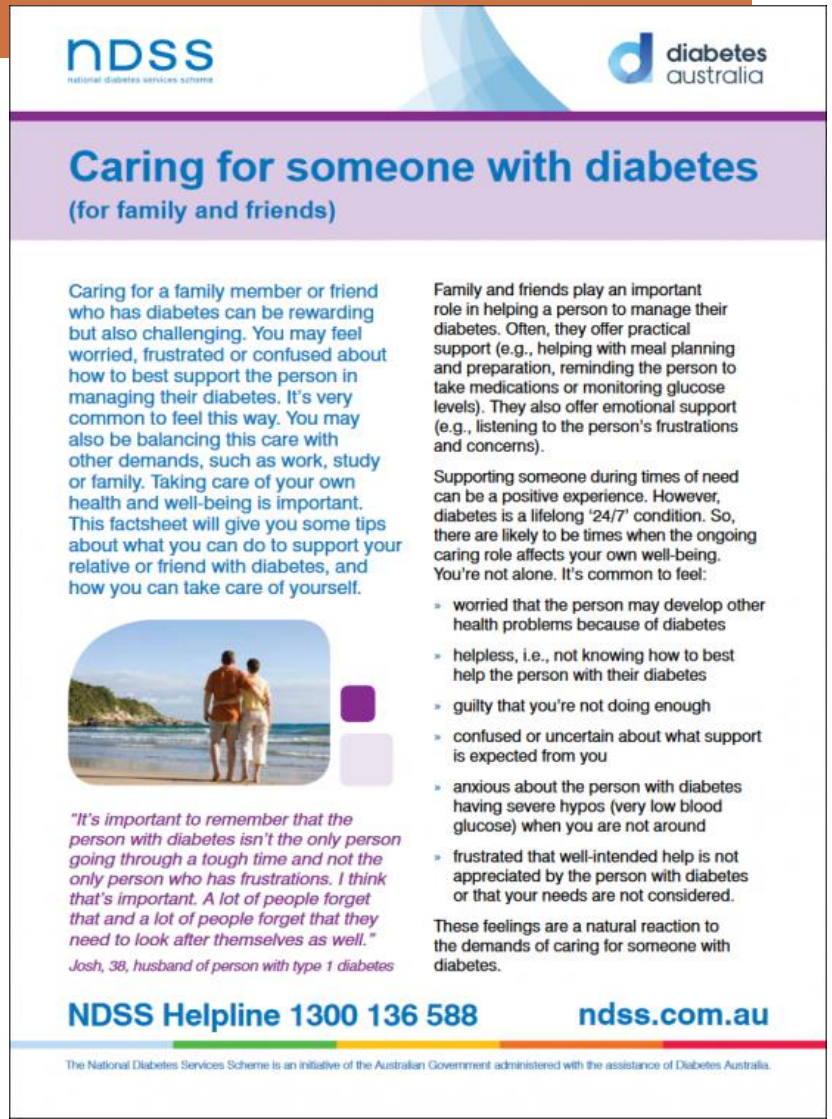


AUSTRALIAN CONTEXT: DIABETES APPS ARE NOT ALWAYS USEFUL

- Only 8% of people with T2D in Australia use apps
- Apps that are used are often not diabetes specific
- Apps should be seen as providing additional support **AND NOT** replacing education or support
- Current diabetes specific apps are not useful
- Nearly all apps in trial will never reach market (often academic endeavours) **Trawley. S et al Diabetes Technology & Therapeutics 2017**
- "Patients are the most under-used resource in healthcare" Dr Warner Slack – informatics pioneer since 1970's

EDUCATION DONE IN A DIFFERENT WAY?

- Involving partners with education will improve HbA1c
  "Benefits of a couples intervention may result from social support and from having a partner "coach" to reinforce healthy behaviours, and/or from the direct effect of reduced relationship stress on health outcomes" **Tucker. M Diabetes Care 2016**
- The COACH Program – Coaching patients On Achieving Cardiovascular Health (Qld, NSW, VIC, Tas)
  - ↓ readmissions and bed days in Victoria by 16% and 20%
  - ↓ HbA1c from 8.2% to 7.5% ($p<0.001$) in Qld



ndss national diabetes services scheme

diabetes australia

Caring for someone with diabetes

(for family and friends)

Caring for a family member or friend who has diabetes can be rewarding but also challenging. You may feel worried, frustrated or confused about how to best support the person in managing their diabetes. It's very common to feel this way. You may also be balancing this care with other demands, such as work, study or family. Taking care of your own health and well-being is important. This factsheet will give you some tips about what you can do to support your relative or friend with diabetes, and how you can take care of yourself.

"It's important to remember that the person with diabetes isn't the only person going through a tough time and not the only person who has frustrations. I think that's important. A lot of people forget that and a lot of people forget that they need to look after themselves as well."

Josh, 38, husband of person with type 1 diabetes

Family and friends play an important role in helping a person to manage their diabetes. Often, they offer practical support (e.g., helping with meal planning and preparation, reminding the person to take medications or monitoring glucose levels). They also offer emotional support (e.g., listening to the person's frustrations and concerns).

Supporting someone during times of need can be a positive experience. However, diabetes is a lifelong '24/7' condition. So, there are likely to be times when the ongoing caring role affects your own well-being. You're not alone. It's common to feel:

- worried that the person may develop other health problems because of diabetes
- helpless, i.e., not knowing how to best help the person with their diabetes
- guilty that you're not doing enough
- confused or uncertain about what support is expected from you
- anxious about the person with diabetes having severe hypos (very low blood glucose) when you are not around
- frustrated that well-intended help is not appreciated by the person with diabetes or that your needs are not considered.

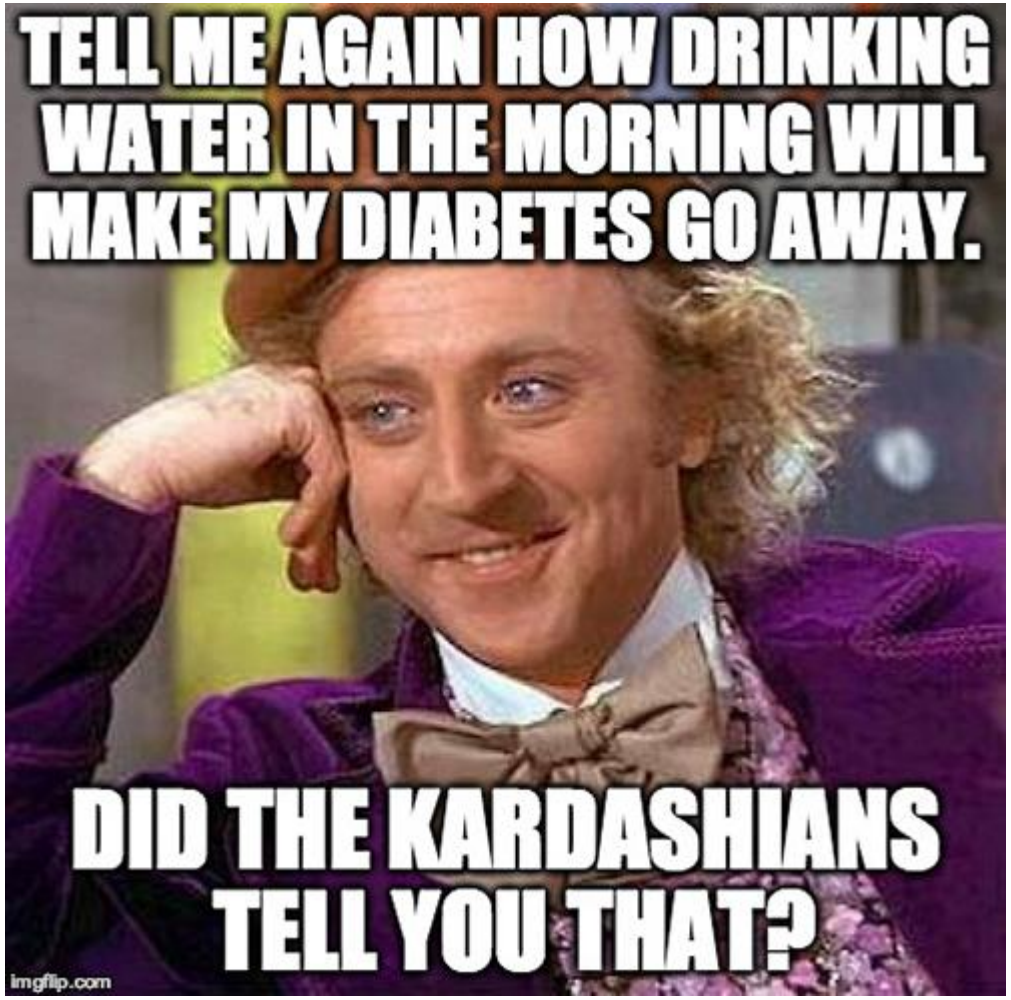
These feelings are a natural reaction to the demands of caring for someone with diabetes.

NDSS Helpline 1300 136 588 **ndss.com.au**

The National Diabetes Services Scheme is an initiative of the Australian Government administered with the assistance of Diabetes Australia.

GETTING INFORMATION OFF THE INTERNET IS LIKE TAKING A DRINK FROM A FIRE HYDRANT

MITCHELL KAPOR



Understanding food labels

Labels on packaged foods provide information that can help you make healthier food choices.

Understanding how to read food labels can help you choose foods with less saturated fat, salt (sodium) and kilojoules, and with more fibre. They can also provide information on the amount of carbohydrate in the food you eat, to help manage your blood glucose levels.

Information on food labels must meet Australian food labelling laws. Labels must:

- be written in English
- be clearly presented
- show the 'use by' or 'best before' date
- include an ingredients list
- include a nutrition information panel
- clearly identify food allergens and additives.

Nutrition information on food labels

When shopping for healthy foods, the two most useful tools are the nutrition information panel and the ingredients list.

Nutrition information panel

You will find a nutrition information panel on most packaged foods, as it is compulsory for manufacturers to include this. This panel provides useful information to help you compare similar products and choose the healthiest options for you.

Here is an example of a nutrition information panel.

Nutrition information			
Servings per package: 10 Serving size: 35g (Approx 3 biscuits)			
		Quantity per serving	Quantity per 100g
Energy		522KJ	1490KJ
Protein		1.8g	5.1g
Fat	– Total	1.0g	2.9g
	– Saturated	0.2g	0.7g
Carbohydrate	– Total	26.5g	75.6g
	– Sugars	16.3g	46.5g
Sodium		53mg	150mg

When you read the nutrition information panel, chec
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Carbohydrate counting and diabetes

Foods that contain carbohydrate are an important source of fuel for your body. These foods include bread, pasta, rice, grains and cereals, legumes, fruits, starchy vegetables, milk and yoghurt. Your body breaks down carbohydrates into glucose in the bloodstream. Glucose is used by the body's cells for energy.

It's important to know how much carbohydrate is in the food you eat to understand the effects on your blood glucose levels. This can help you with managing your diabetes. Carbohydrate counting is a way of estimating the amount of carbohydrate in different foods.

Why is the amount of carbohydrate important?

All carbohydrates are converted to glucose within about two hours of eating, directly affecting your blood glucose levels. Spreading carbohydrate foods evenly across the day can help maintain energy levels and keep your blood glucose levels within your target range.

- Eating too much carbohydrate at one time can result in high blood glucose levels after meals.
- Eating too little carbohydrate can result in low energy levels. If you use insulin or certain types of blood glucose lowering medications, eating too little carbohydrate or skipping a meal can make your blood glucose level drop too low and cause hypoglycaemia (a hypo).

How to count carbohydrates

The amount of carbohydrate in food can be counted using a number of different methods. Counting carbohydrate exchanges is one way of estimating the amount of carbohydrate in food.

A carbohydrate exchange is an amount of food that contains approximately 15 grams of carbohydrate. Exchanges don't refer to the weight of a food – for example, a slice bread can weigh 40 grams but only conta 15 grams of carbohydrate (one exchange

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Eating out

Eating out is an enjoyable part of life, and having diabetes shouldn't stop you from sharing a meal with family and friends.

If you only eat out occasionally, the choices you make are less likely to affect your overall diabetes management than if you eat out regularly. If eating out is a regular part of your life, it's important to try and choose healthy options.

Making healthy food choices

Healthy eating includes choosing from a variety of foods, such as vegetables, wholegrains, fruit, lean meats, fish and low-fat dairy foods. Where possible, try to choose high-fibre, low glycemic index (GI) carbohydrate foods. Low-GI foods are more slowly digested and absorbed, resulting in a gradual rise in blood glucose levels.

It's also important to limit foods that are high in saturated fat, added sugars and salt (sodium). A dietitian can help you with information on the best food choices when eating out.

Dining at a restaurant

Many restaurants serve food that easily fits into a healthy eating plan. Some restaurants have menus online so you can see what healthier choices are available. It's a good idea to ask restaurant staff about the dish of your choice and the way it has been cooked. You can then request simple changes if you need to.

Tips for dining out

What to choose

- Choose clear or vegetable-based soups rather than creamy soups.
- Order salad or steamed vegetables as a side dish.
- Choose olive oil or vinegar-based dressings for salads.

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Healthy meal ideas

Planning and preparing nutritious meals is important for good health. Getting the right balance of healthy foods and choosing serving sizes to suit your needs can help you manage your diabetes and weight.

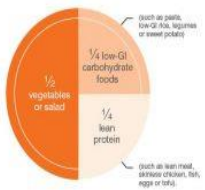
Putting together a healthy meal

When planning what to eat on a daily basis, it's important to eat a wide variety of nutritious foods in the right amounts.

As a general guide for lunch and dinner:

- fill half of your plate with a variety of non-starchy vegetables or salad
- fill a quarter of your plate with a lean protein source, such as lean meat (beef, lamb, pork), skinless chicken, fish/seafood, tofu, legumes or eggs
- fill a quarter of your plate with a carbohydrate food that has a lower glycemic index (GI) such as pasta, basmati/Doongara™ rice, quinoa, rice noodles, legumes (such as chickpeas, kidney beans, lentils) corn cob, low-GI potato/sweet potato.

Include healthy fats and oils as part of a balanced diet. These include avocado, unsalted nuts and seeds, oils such as olive, sunflower, canola, grapeseed, rice bran and polyunsaturated or monounsaturated margarines.



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Hints for healthy cooking

Healthy eating for people with diabetes is no different from what is recommended for everyone.

There is no need to prepare separate meals or buy special foods. By choosing ingredients and recipes that are low in saturated fat and salt, high in fibre and contain less added sugar, you can make healthy and nutritious meals suitable for everyone.

Choosing healthy ingredients

When preparing meals or following recipes at home, try using some of these healthier swaps.

Fats and oils

Instead of:	Choose:
Butter	Polyunsaturated or monounsaturated fats such as olive/canola/sunflower oils or margarine
Cream	Low-fat yoghurt, reduced fat evaporated milk, buttermilk, reduced fat ricotta or low-fat milk
Sour cream	Light sour cream or low-fat plain yoghurt
Cream-based dressings	Olive oil mixed with balsamic vinegar or lemon juice
Coconut milk/cream	Reduced fat coconut milk, coconut-flavoured light evaporated milk or coconut essence mixed with low-fat milk thickened with a small amount of cornflour

Dairy foods

Instead of:	Choose:
Full-fat milk	Low-fat or skim milk, calcium-fortified soy milk
Cream cheese	Reduced fat ricotta, low-fat cottage cheese or extra light cream cheeses
Hard cheese	Reduced fat cheese or small amounts of a stronger flavoured cheese (such as parmesan)
Yoghurt	Low-fat or diet yoghurts

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7 A'S CHRONIC CARE

- be AWARE that PWD might have emotional or mental health problems
- ASK about these problems, using open-ended questions
- ASSESS for emotional or mental health problems using a validated tool
- ADVISE patients about identified problems
- ASSIST them with developing an achievable action plan
- ASSIGN care, where appropriate, to another HCP
- ARRANGE follow-up care

EVALUATION

- Evidence for the benefits of DSMES
  - Improved diabetes knowledge
  - Changes in self-care behaviours
  - Lower HbA1c
  - Lower self-reported weight
  - Improved quality of life
  - Reduced all-cause mortality risk
  - Healthy coping
  - Reduced healthcare costs

QUESTION 1:

The premise of the health belief model is that the health care professional is the only expert the person with diabetes needs to listen to and the patient should be grateful that they have the opportunity to listen to the health care professional.

True or false

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The premise of the health belief model is that the health care professional is the only expert the person with diabetes needs to listen to and the patient should be grateful that they have the opportunity to listen to the health care professional.

True or false

False

QUESTION 2:

What are the 4 critical time to evaluate the need for DSMES?

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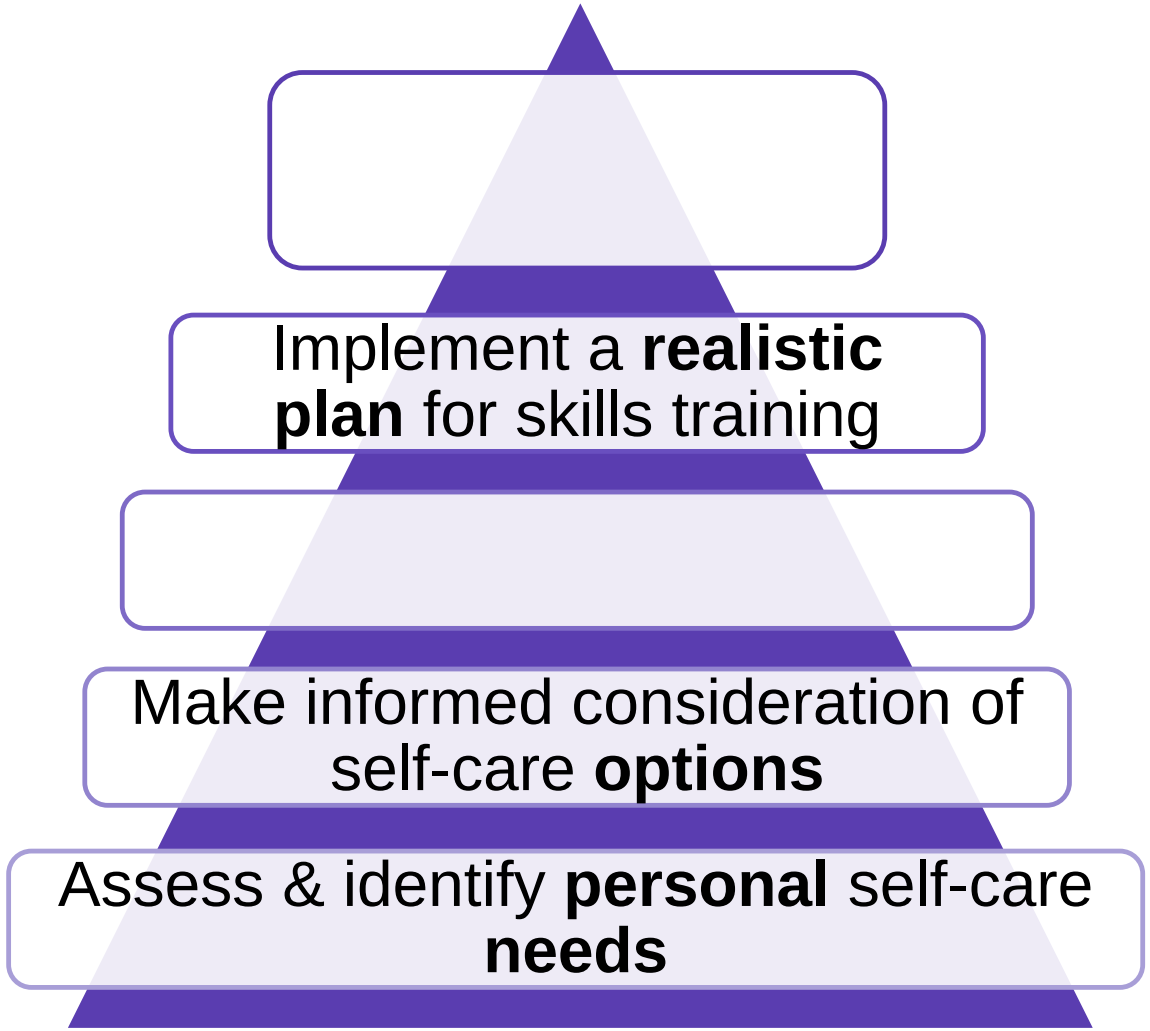
What are the 4 critical time to evaluate the need for DSMES?

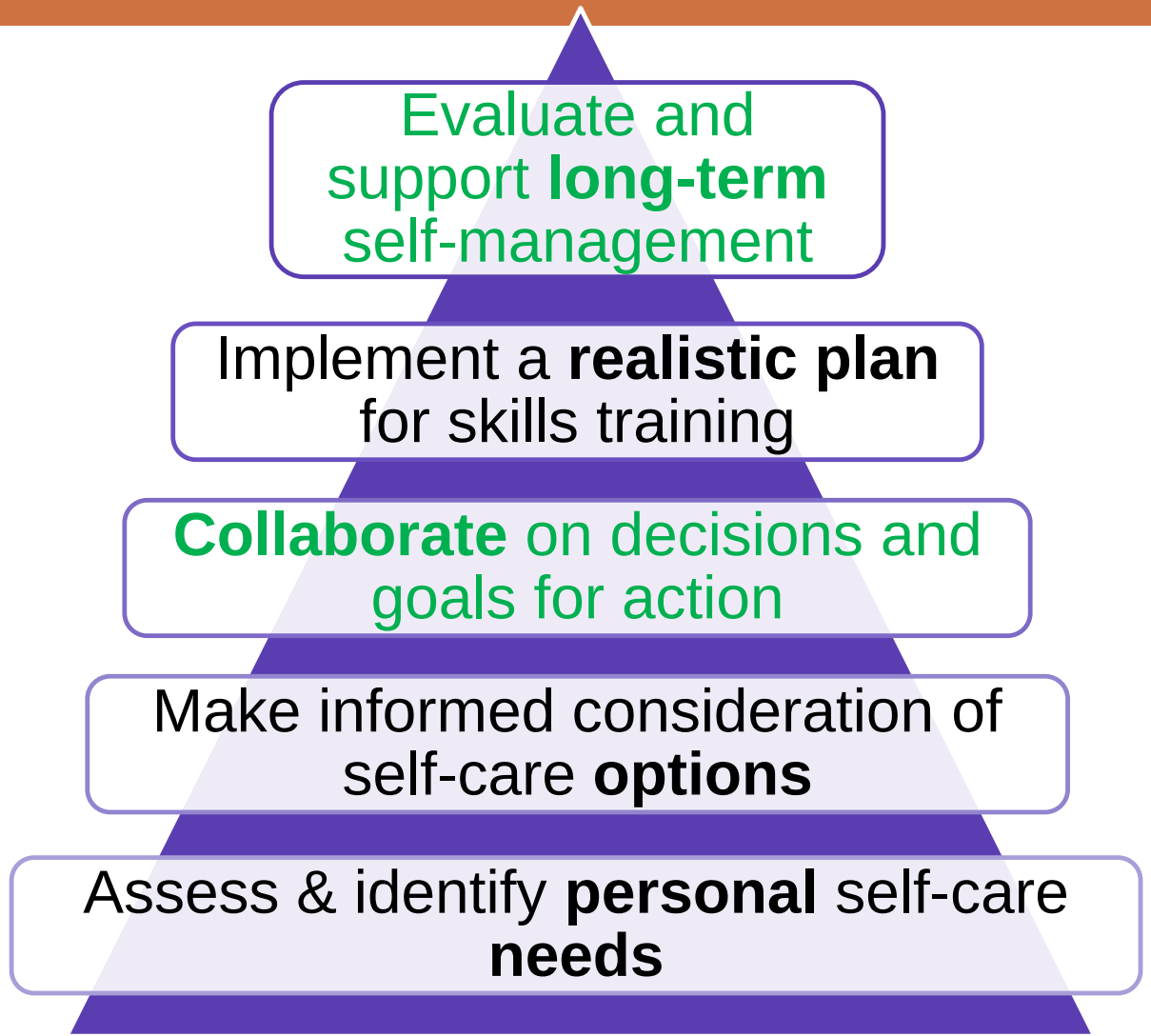
Answer:

1. Diagnosis
2. Annually for assessment of education, nutrition and emotional needs
3. When complications arise (health conditions, physical limitations, emotional factors, or basic living needs)
4. When transitions in care occur

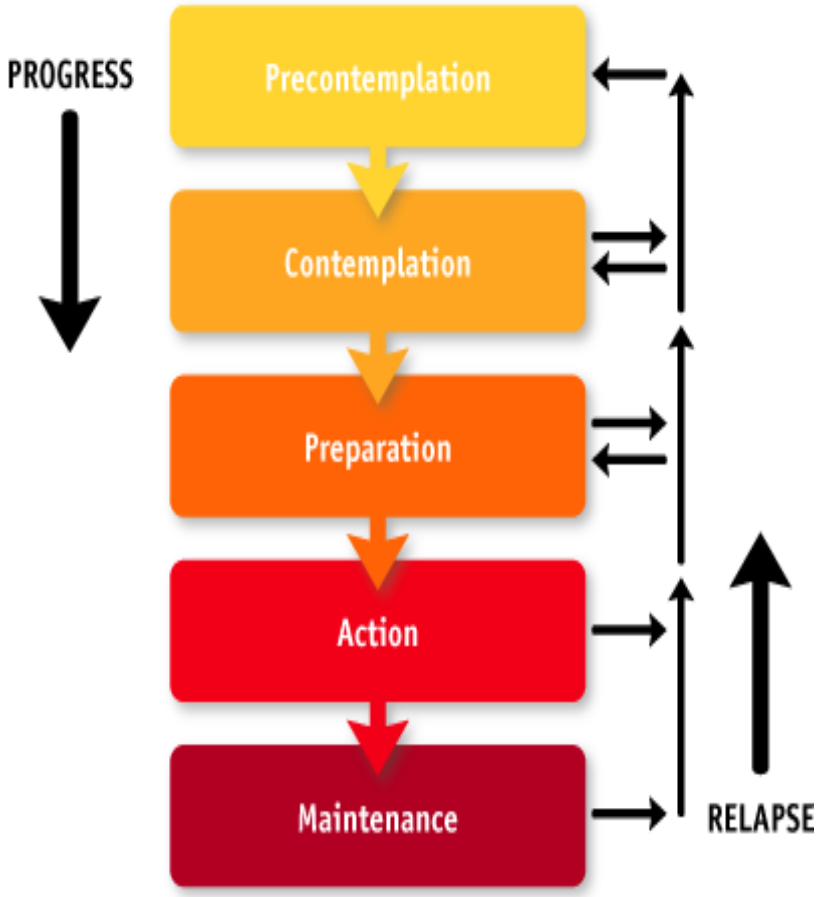
QUESTION 3: WHAT ARE THE 2 KEY STEPS MISSING IN THE 5 STEPS TO SUCCESS



QUESTION 3: ANSWER

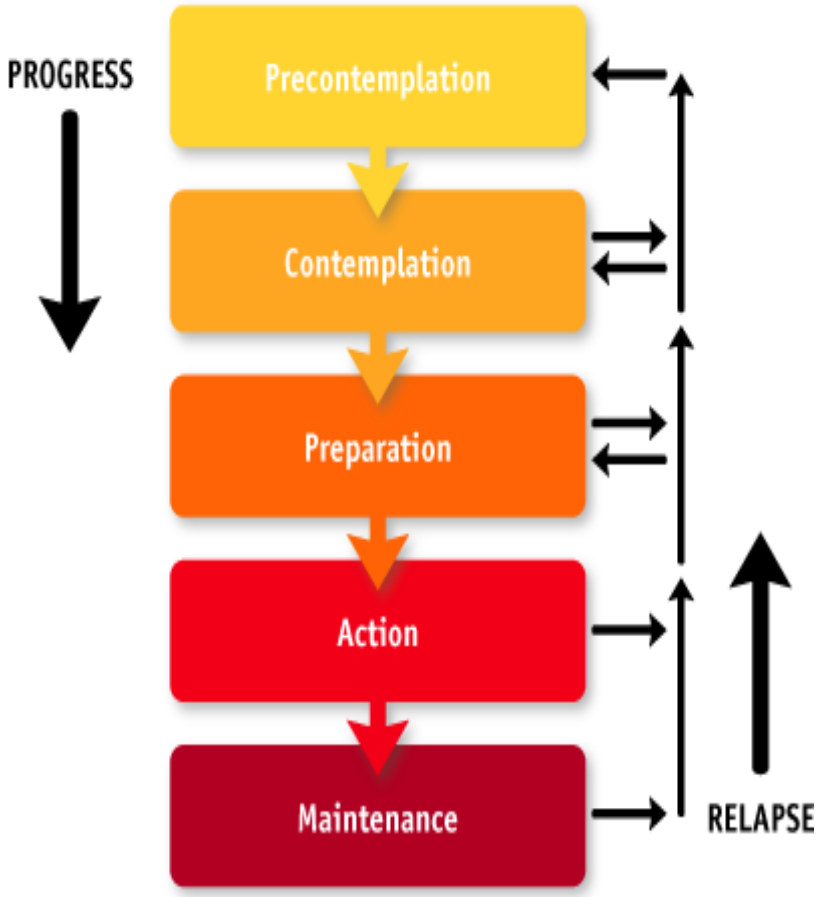


QUESTION 4: MATCH READINESS TO CHANGE STAGES WITH ITS DEFINITION



- Setting goals and timelines
- Reaffirming goals and commitment to change
- Information
- Implementing the plan
- Continuing goal directed behaviour/choices
- Information on options on how to change behaviours

QUESTION 4: MATCH READINESS TO CHANGE STAGES WITH ITS DEFINITION



- Setting goals and timelines
- Reaffirming goals and commitment to change
- Information
- Implementing the plan
- Continuing goal directed behaviour/choices
- Information on options on how to change behaviours

Precontemplation

Contemplation

Preparation

Action

Maintenance

Relapse

QUESTION 5: WHAT DOES SMARTER GOALS STAND FOR?

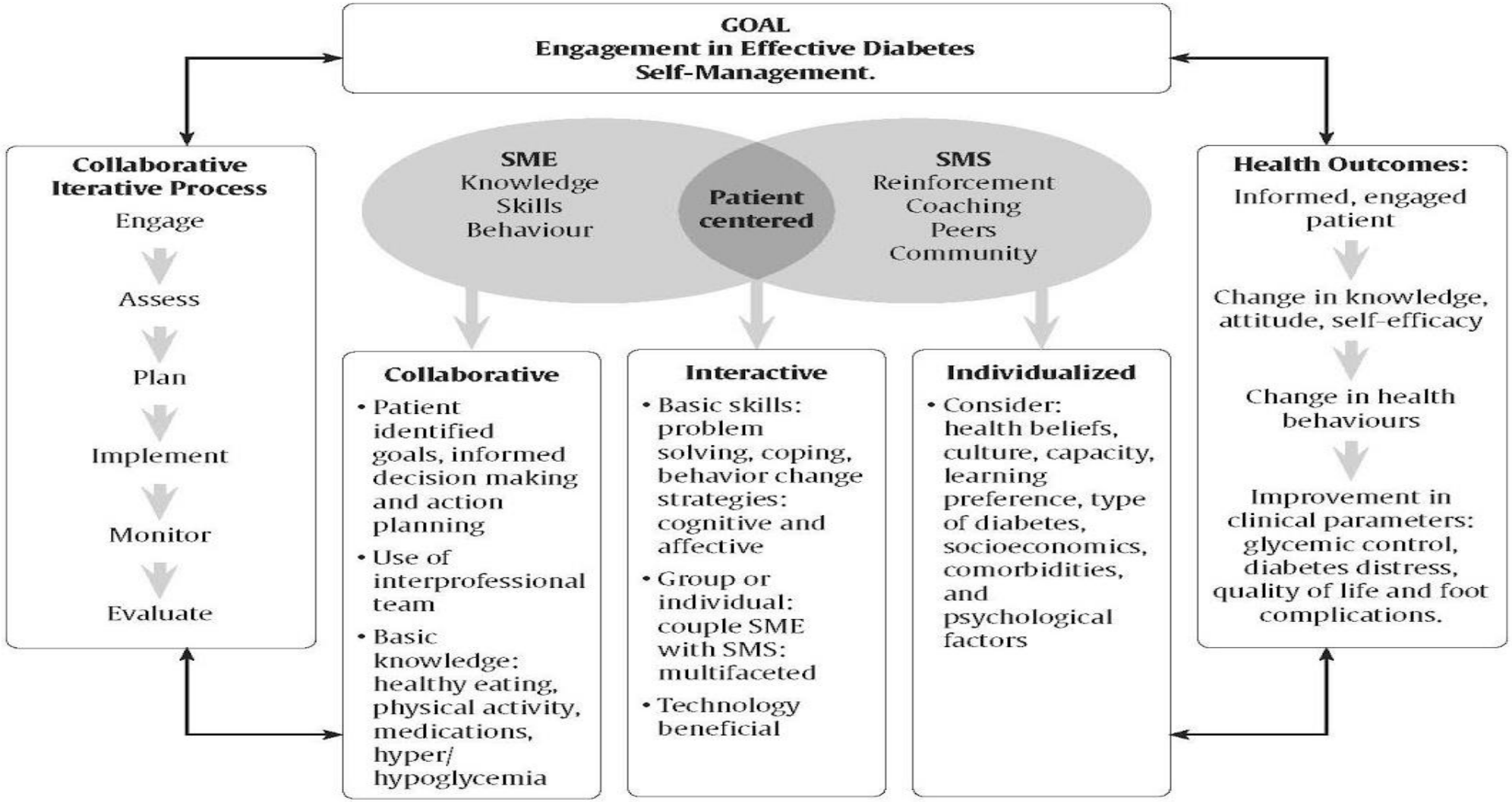
- **S**
- **M**
- **A**
- **R**
- **T**
- **E**
- **R** and **R**

QUESTION 5: WHAT DOES SMARTER GOALS STAND FOR?

- **S**pecific
- **M**easurable
- **A**ction-orientated
- **R**ealistic
- **T**ime limited
- **E**xpect problems
- **R**eview and **R**eiterate

REFERENCE MODELS OF CARE AND ALGORITHMS

A MODEL FOR SELF-MANAGEMENT EDUCATION AND SUPPORT



SME, self-management education; *SMS*, self-management support

Behavior Change Protocol31.

Table 1. Behavior Change Protocol[31]

Step I: Explore the Problem or Issue (Past)

- What is the hardest thing about caring for your diabetes?
- Please tell me more about that.
- Are there some specific examples you can give me?

Step II: Clarify Feelings and Meaning (Present)

- What are your thoughts about this?
- Are you feeling (insert feeling) because (insert meaning)?

Step III: Develop a Plan (Future)

- What do you want?
- How would this situation have to change for you to feel better about it?
- Where would you like to be regarding this situation in (insert specific time, e.g., 1 month, 3 months, 1 year)?
- What are your options?
- What are barriers for you?
- Who could help you?
- What are the costs and benefits for each of your choices?
- What would happen if you do not do anything about it?
- How important is it, on a scale of 1 to 10, for you to do something about this?
- Let's develop a plan.

Step IV: Commit to Action (Future)

- Are you willing to do what you need to do to solve this problem?
- What are some steps you could take?
- What are you going to do?
- When are you going to do it?
- How confident are you that you can accomplish this plan, on a scale of 1 to 10?
- How will you know if you have succeeded?
- What is one thing you will do when you leave here today?

Step V: Experience and Evaluate the Plan (Future)

- How did it go?
- What did you learn?
- What barriers did you encounter?
- What, if anything, would you do differently next time?
- What will you do when you leave here today?

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Structure of the Lifetime DSMS Intervention35.

Table 2. Structure of the Lifetime DSMS Intervention[35]

Component 1: Reflecting on Relevant Experiences (~ 10 minutes)

Purpose: At the end of each session, group patients have identified a goal and action plan related to their self-management. At the beginning of the subsequent session, patients are invited to reflect on their experience of working on their self-selected goals.

- Invite group patients to comment on goals identified and implemented (plan of action) since the last session.
- Do the patients view their experience as positive or negative?
- What did patients learn from this experience?
- What did patients learn about their diabetes self-management?
- Can they incorporate what they learned into their overall self-management plans?

Component 2: Discussing the Role of Emotion (~ 10 minutes)

Purpose: Living with diabetes raises emotional issues related to relationships, work, family, economic circumstances, overall health, physical functioning, and other life events. We provide this time to have group patients discuss important events that have occurred since the previous meeting and how these events have affected their self-management.

- Invite group patients to talk about something that happened since the last session and what feelings it raised for them.
- How can these feelings influence self-management decisions?

Component 3: Engaging in Systematic Problem Solving (~ 30 minutes)

Purpose: The problem-solving component is based on the fundamental principle that patients' concerns and needs are the highest priority. Topics and issues discussed are ones patients have self-identified or generated. The problems addressed include interacting with health care providers as well as self-management and psychosocial issues. The flexibility of the group structure is guided directly by patients' needs.

- Invite a group patient to raise a problem or concern he or she is encountering.
- Generate possible solutions to the problem.
- Identify facilitators and barriers to implementing possible solutions.
- The individual patient determines the "goodness of fit" of the solution based on his or her experience.
- The individual patient outlines a plan of action based on the identified problem and goals for self-management.
- Each week, patients will be invited to conduct a self-care experiment by trying to achieve a self-selected short-term goal. However, patients will not be pressured to set a goal if they do not wish to do so.

Component 4: Answering Clinical Questions (~ 20 minutes)

Purpose: This component provides the opportunity for patients to inquire about diabetes self-management–related issues. We have an identified topic about which people can ask questions. These general topics areas are drawn from the National Standards for Diabetes Self-Management Education listing of required content areas.[13]

- Address diabetes-related clinical and health inquires raised.
- Participants share and exchange knowledge among the group.
- Participants are encouraged to seek consultation from health care providers when necessary.
- Psychosocial and behavioral aspects are addressed for each of the clinical areas identified as a way to integrate content with the patients' behavior and life experiences.

Component 5: Providing Feedback (~ 20 minutes)

Purpose: We actively solicit feedback from patients at the end of each session so the community-based group intervention can be tailored and modified to the needs of the patients.

- What are some things you found helpful about this session?
- Is there anything we can do to make future sessions better?
- What are future discussions or topics you would like to raise for next week?

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Helpful Hints for Facilitating an Empowerment-Based DSMS Program.

Table 3. Helpful Hints for Facilitating an Empowerment-Based DSMS Program

Do:

- Actively look for opportunities to turn the question back to the group. If it is a purely clinical question, then answer it. If not, ask the group to respond.
- Actively look for opportunities to ask questions that will help integrate psychosocial and behavioral aspects with clinical content.
- Clarify that you have been understood.
- Ask questions to stimulate discussions rather than just starting to lecture. For example, "What do you think of the sodium content of this food?" rather than telling the group it is too high in sodium.
- Provide positive feedback for effort, not results. Use experiences to help the group: "What is different about your exercise plan this time that is helping you to follow through? How were you able to get past your feelings of denial?"
- Listen. Allow a few minutes of quiet before responding unless it is clear that a question has been posed that requires a response.
- Include participants' words in your response or feedback.
- Refrain from formulating your response based on the advice you want to give. Respond to what the patient has said.
- Redefine patients' statements by putting it back to them: "What do you think?" or "How can you make that better?" or "What have you done in the past that has worked?"
- Be patient.

Avoid:

- Giving a 20-minute lecture in response to a question. Answer the question and then wait for the response. Think of it as an interview.
- Making judgments, including positive judgments.
- Using judgment words (e.g., good, bad, great, positive, negative, better, success, failure, control, out-of-control, must, should).
- Trying to direct the conversation. Remember that non-diabetes–related conversations help the group get to know each other and bond.

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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:

Nutrition
Registered dietitian for medical nutrition therapy

⟺

Education
Diabetes self-management education and support

⟺

Emotional Health
Mental health professional, if needed

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

1	2	3	4
At diagnosis	***Annual*** assessment of education, nutrition, and emotional needs	When new ***complicating factors*** influence self-management	When ***transitions*** in care occur
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 and 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.

Diabetes Self-management Education and Support Algorithm: Action Steps

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 adaptions 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

THANK YOU TERIMA KASIH