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Teaching and Evaluating critical thinking in dietetics using NCP/T:

OSCE'S, KAHOOTS AND SOCRATIVE

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EF Myers Consulting, Inc

Overview of today's webinar

- Learn about exciting new ways to make case based approaches to teaching NCP and dietetics come alive for students.
- Hear about the development and use of the Objective Structured Clinical Examination (OSCE) for dietetics. The OSCE is currently being used in other medical professions but not yet widely used in dietetics
- Experience two free types of on-line teaching tools (Kahoot and Socrative).

Objective Structured Clinical Examination (OSCE) for dietetics

- Identify benefits and challenges of using an objective structured clinical examination (OSCE) for dietetics
- Evaluate whether their educational program can/should pursue development of an objective structured clinical examination (OSCE) for dietetics

Making case based learning realistic (and fun!!)

- Identify various types of free interactive game/quiz products that support using case-based simulations in dietetics education
- Select or create activities to teach students how to apply the Nutrition Care Process in a case based approach

OSCE for assessing Nutrition Care Process

Winnie Chee, PhD, FNSM, FMDA
Professor, Nutrition & Dietetics
International Medical University
Kuala Lumpur, Malaysia





Learning Objectives

- Identify benefits and challenges of using an objective structured clinical examination (OSCE) for dietetics
- Evaluate whether their educational program can/should pursue development of an objective structured clinical examination (OSCE) for dietetics

Identify the process for developing OSCE at IMU
 Describe benefits and challenges
 Describe results from OSCE at IMU

Background

IMU : 1 of 6 top ranking universities in Malaysia

4 years Bachelor's program in Dietetics

Graduated 245 alumni with good employer feedback in the past 10 years

Pioneers in new employment areas – *pharmacies, long term care facilities, international schools, web-based companies*

Curriculum benchmark – ICDA

Internship rotation

TOTAL 1200 hours

Food Service Placement (160 hours)

Community Dietetics Placement (160 hours)

Clinical Placement (800 hours)

Nutrition Care Process and Standardised Language

All students and faculty have FREE access to eNCPT as subscribed by Malaysian Dietitians' Association

Why adopt the NCP in teaching & practice?

We were already performing components of the Nutrition Care Process – Assessment (ABCD), Implementation, Monitoring.

It provided an opportunity and framework to standardised practice by local dietitians

Nutrition Diagnosis helps to focus/prioritise the nutrition problem and intervention

Elevate the status of dietetics practice

How do we teach NCP in IMU's curriculum?

1. Theory

Semester 2 : Nutrition Assessment Methods

Semester 5: Medical Nutrition Therapy 1 Education & counselling in dietetics

Semester 6 : Medical Nutrition Therapy 2

Nutrition Care Process for Dietetics Practice

Nutrition Care Process for Dietetics Practice

Students will learn the framework to provide nutrition care following the steps in nutrition care process (NCP) and its practical application for various clinical conditions in dietetics practice.

The use of standardized language or nutrition care process terminologies (NCPT) for each step of the NCP will also be introduced.

Emphasis will be placed on the assessment and monitoring & evaluation domains within the NCP and labelling of the nutrition problem called nutrition diagnosis.

This module enhances applications of medical nutrition therapy (MNT) 1 and 2 and nutrition counselling and education.

How do we teach NCP in IMU's curriculum?

2. Case-based

3. Simulation

4. Real setting

Clinical Practice : NCP worksheets for all cases

NUTRITION CARE PROCESS CASE NOTE	
<p>Medical Diagnosis</p> <p>Client History</p> <p>Anthropometry, Biochemistry, NFPE, Comparative Standards</p>	<p>Goals</p> <p>Nutrition Prescription</p> <p>Nutrition Plan</p> <p>Rationale & justification</p> <p>Monitoring & evaluation</p>

A
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E

Final Year Assessment on Clinical Competence

- Clinical Competency
- Case Portfolio
- Professional conduct
- OSCE**

Mini Clinical Evaluation Exercise (Mini-CEX) in Dietetics (OPDA, IPD)

Student's Name: _____ (ID No): _____

Assessor's name: _____ (Institution): _____

Setting (circle): Inpatient / Outpatient / Clinic / (specify): _____

Patient (circle): New / Follow-up: _____

Medical Diagnosis: _____ Age: _____ Sex: _____

Case complexity (circle): Low / Average / High

Focus of clinical encounter (circle): Assessment / Intervention / Counselling / Monitoring

Please grade the following areas using the scale:

1. Poor - student performs below expectations
 2. Satisfactory - student performs at baseline
 3. Good - student meets expectations
 4. Excellent - student performs above expectations

Area	1	2	3	4	Not observed
1. Communication Skills					
2. Nutrition Assessment Skills					
3. Nutrition intervention and counseling skills					
4. Counseling skills					
5. Clinical judgement					
6. Professionalism					
7. Overall clinical competence					

Anything especially good? _____ Suggestions for development: _____

Assessor's signature: _____ Date: _____

Mini-CEX: components of NCP

Objective Structured Clinical Examination (OSCE)


- IMU is the first in Malaysia to implement OSCE as an exit exam for clinical dietetics skills
- Objective Structured Clinical Examination (OSCE) is well established method of assessing clinical competence in medicine.
- The aim of the OSCE was to assess clinical skills performance.

The competence pyramid

Miller's Pyramid

What is an OSCE?


Objective – all candidates are presented with the same stimuli



What is an OSCE?

Objective


- Structured – Specific foundational and functional competencies are tested at each station and the marking schema for each station is structured



What is an OSCE?

Objective


- Structured
- Clinical Examination – Test of performance of clinical competencies, with an emphasis on skills and attitudes



Why Use the OSCE?

Problems in use of routine clinical practice as assessments include variability in difficulty level of cases, patients may be uncooperative or too ill to interact fully with the student – introduce bias and subjectivity to students assessment

- OSCE provides standardised assessment:
 - Use standardised patients
 - Structured & objective assessment of the process of delivering nutrition care
 - Test not only knowledge and skills, but also attitudes
 - Test how students are able to integrate knowledge, skills and communication with patients



The OSCE Design

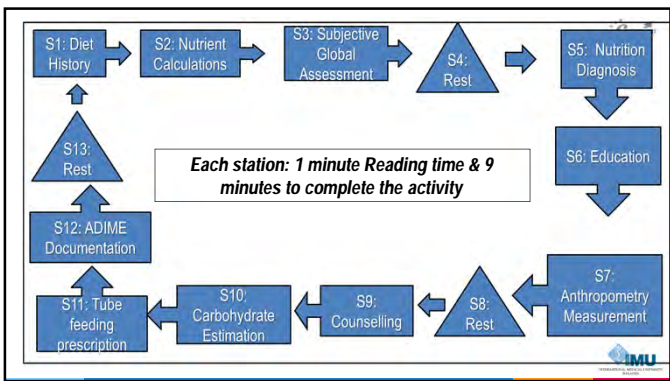


Multi-station arrangement: every station assess a different competency in Nutrition care Process

Use standardised patient and watched by an examiner in each station

Students rotate through a number of stations & allocated equal time in each 10 minute station

Each student performs the same set of tasks and mark according to the same criteria on the examiner's mark sheet

Steps in designing an OSCE

- A complete OSCE station includes
- a construct,
 - a mark scheme,
 - candidate instructions,
 - examiner instructions,
 - instructions for simulated patient and
 - an equipment list



Example of Counselling Station

- Station 7 INSTRUCTIONS TO STUDENTS** Pg 1/2
- This is a 10 minute station.
 - You have 1 minute to read the case scenario.
 - You have 9 minutes to complete your task.
 - Read the following case scenario.
 - Your task is to counsel the patient to change her habit of **eating high fat foods during lunch** and assist her to choose **suitable alternatives** which have lower fat content.
 - During the counselling session, you are expected to take into consideration the patient's stage of behavior change.
 - Please execute your task in English.
 - You will be evaluated for respect, empathy and rapport-building by the patient at the end of the task.

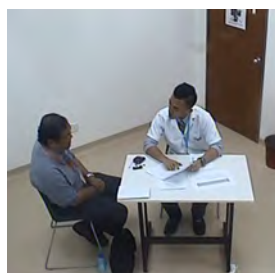
Station 7 INSTRUCTIONS TO STUDENTS Pg 2/2

Case scenario (Exam Copy)
 Ms Tang is a 45 year old Chinese lady with hyperlipidemia on diet control only. She has a 16-year old daughter and works as a bank clerk from 9am to 7pm from Mondays to Saturdays.
 She was referred to the dietitian for Therapeutic Lifestyle Changes to lower her blood cholesterol levels.
 After the first visit to the dietitian, Ms Tang can successfully reduce her fat intake for most meals except lunch.
 This station is a follow-up visit to the dietitian.
 A copy of her diet history is set attached.

Patient diet history (3 days)			
Time	Food	Portion Size	Frequency
7:30 am	Breakfast cereal	2 pieces	1/1
	• Oats or cornfl	1 cup	1/1
	• Milk	1 cup	1/1
	• Apple or Orange	1 medium fruit	1/1
1:30 pm	First tea	1 Chinese dish or 1 medium meat	4/7
	• Curry	1 medium meat	4/7
	• Fried rice	1 medium rice	4/7
	• Oil	1 medium bowl	4/7
	• Fatsoy	5 Suetballs	4/7
	• Vegetables	1 cup	4/7
	• Stir-fry	1 cup	4/7
4:30 pm	Second tea	2-3 ice-creams	1/1
	• Vegetables soup	1 cup	1/1
	• Chinese dumplings with 100 g pork	1 medium bowl	1/1
	• Stir-fry	1 cup	1/1

End of Case Scenario

Example of counselling station



Student ID:

Items indicated at asterisk mean the following:
 *1 - Observe non-verbal cues
 *2 - Demonstrate task equipment, equipment, or piece of the line
 *3 - Demonstrate task equipment, equipment, or piece of the line

Items 1 to 15 scored by examiner
 Items 16 to 18 scored by patient

Assessment Criteria	Mark
Invoking Phase (2 marks)	
1. Greets patient by name, introduces self (full name and role)	0 1 2
2. Appropriate demeanor (e.g. smile, confident, eye contact, relaxation, body posture)	0 1 2
3. Explains the task and obtains consent	0 1 2
Explanation/Education Phase (2 marks)	
4. Clarifies that the patient's goals for dietary change is to eat a lower-fat lunch. (This should be done at the beginning of the counselling session)	0 1 2
Resolving Phase (11 marks)	
5. Presents the patient's possible changes that has been done so far meals (Eg of possible changes: the patient eating a low fat breakfast and using low fat cooking methods during dinner)	0 1 2
6. Discusses suitable alternatives for low fat foods or eating plan (e.g. according to MNT available food, with whom the patient eats, patient's food preferences)	0 1 2
7. Asks the patient if there are any concerns about the patient choosing lower fat food choices as discussed	0 1 2
8. Addresses / Resolves the patient's concerns about the lower fat food choices	0 1 2

Marking rubric

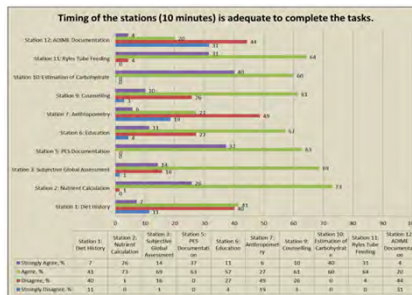
Advantages of OSCEs

- Measures clinical competence cross-sectionally using standardized means
- Focuses on observable behaviors : measure attitudes, patient-centeredness
- Enables fairer peer comparison
- Allows for assessing complex competencies without endangering patients' well-being
- Encourages a collaborative assessment approach
- Has the potential for peer feedback and assessment
- Has been extensively researched and found to be valuable for summative assessment. However, not extensively used in dietetics

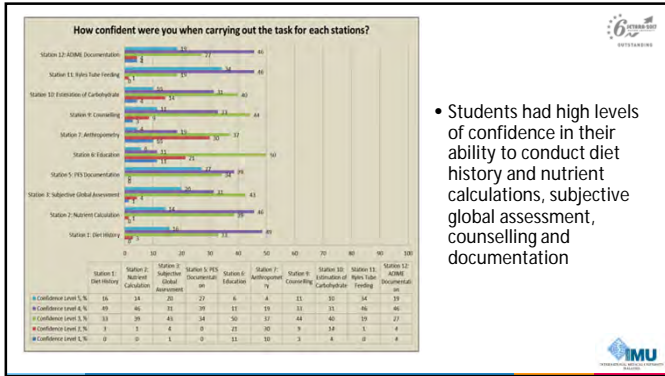
Challenges of OSCEs

- Challenging to create and administer
- Labor intensive
- Costly
 - Only cost-effective when many individuals are examined at one administration
- Requires high demand of other resources
 - Simulated patients
 - Assessors/Examiners
 - Time commitment
 - Physical resources – clinical skills center
- Doesn't adequately assess complex skills requiring integrated professional judgment

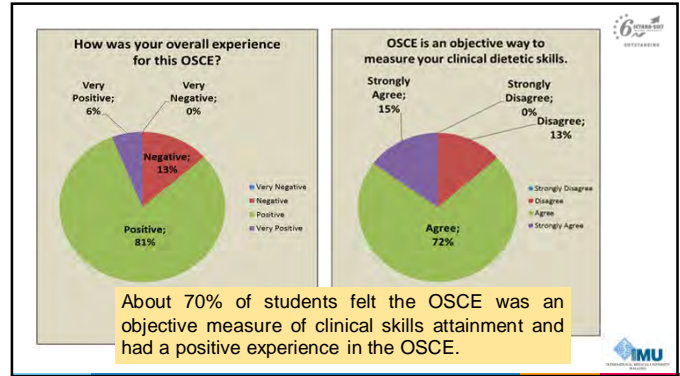
Students' feedback on OSCE



- Majority of students agreed that 10 minutes were adequate for most stations.
- Challenging for diet history and documentation



• Students had high levels of confidence in their ability to conduct diet history and nutrient calculations, subjective global assessment, counselling and documentation



About 70% of students felt the OSCE was an objective measure of clinical skills attainment and had a positive experience in the OSCE.

Summary

- The OSCE exams were found to be a valuable assessment method for competency in executing nutrition care process in dietetics
- It allowed direct observation of skills acquired and also the ability to assess the attitudes towards patient care
- The OSCE adds value along with other methods i.e viva portfolio and mini-CEX to assess clinical competencies in dietetics students after placements

THANK YOU

Making case based learning realistic (and fun!!)

Esther F Myers, PhD, RDN, FAND
 President-Elect, IAAND
 EF Myers Consulting Inc
 Nutrition Care Professionals, Pty Ltd

Disclosure slide

- No financial conflict of interest with two free interactive applications demonstrated today
- Co-owner of Nutrition Care Professionals, Pty. Ltd, Australian company that provides NCP Workbook for educating dietitians
- Owner, EF Myers Consulting, Inc which provides research and educational services, including NCP Lectures
- Intellectual bias due to ~12 years employed at the Academy of Nutrition and Dietetics as Chief Science Officer

Overview

- Background on use of games in teaching
- Description of two free on-line applications
- Demonstration of use in a case-based approach

Background

- Adoption of games in classrooms appear to be related to 2 factors
 - Previous experience of educator
 - Curriculum relatedness¹
- Systematic review of 143 articles between 2009 and 2014 ²
 - Most frequently outcome was knowledge acquisition
 - Entertainment games addressed a broader range of affective, behavior change, perceptual and cognitive and physiological outcomes.
 - Games for learning were found across varied topics
 - STEM subjects and health the most popular.

DeGrove, et al. Digital games in the classroom? A contextual approach to teachers' adoption intention of digital games in formal education. Computers in Human Behavior. 2012;28(6): p 2023-2033

Boyle et al. An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games. Computers and Education. 2016;94: p 178-192

Kahoot

- Competitive Game (individual or group)
 - TF or Multiple choice
 - Up to 4 Answers options
 - Color and shape coded
 - Must be able to read question on screen in classroom (not phone)
 - Displays "cumulative score"
 - Based on accuracy and speed
 - Complete with music and sound effects

Socrative

- Quizzes which can be anonymous or with names
 - Various types of questions
 - T or F, Multiple Choice (one or multiple choices,) Open ended
 - Can view questions on phone AND on screen in classroom
 - Displays total responses for each option
 - Can provide reports with names
 - Depends on what options you choose

Examples of use of games today

Assign students to review NCPT terms listed for Nutrition Assessment/Monitoring and Evaluation in preparation for game. Have them bring the NA/ME Term list to class

Assign students to review Mr Garcia's case and View videos

Student Objectives	Game
<ul style="list-style-type: none"> • Apply NCPT to describe Nutrition Assessment Data <ul style="list-style-type: none"> • Understand what type of data fits into Nutrition Assessment Domains • KRDN 3.1 Use NCP and NCPT 	KAHOOT

Examples of use of games today

Assign students to review NCPT terms listed for Nutrition Assessment/Monitoring and Evaluation in preparation for game. Have them bring the NA/ME Term list to class

Assign students to review Mr Garcia's case and View videos

Student Objectives	Game
<ul style="list-style-type: none"> • Evaluate Mr Garcia's knowledge and attitudes of key information related to T2DM <ul style="list-style-type: none"> Principles of Diabetes, carbohydrate containing foods, readiness to change, perceived susceptibility, benefits outweigh effort, stage of readiness to change, ability to use social network. KRDN 1.3 Apply critical thinking skills KRDN 3.2 Use of NCP and standardized language 	Socrative

Examples of use of games today

Assign students to review NCPT terms listed for Nutrition Diagnosis in preparation for game. Have them bring the ND Term list to class

Assign students to review Mr Garcia's case and View videos

Student Objectives	Game
<ul style="list-style-type: none"> Identify potential nutrition diagnoses KDRN 1.3 Apply critical thinking skills KDRN 3.1 Use NCP and standardized languages 	Socrative

Examples of use of games today

Assign students to review NCPT terms listed for Nutrition Diagnoses in preparation for game. Have them bring the ND Term list to class (requires eNCPT subscription)

Assign students to review Mr Garcia's case and View videos

Student Objectives	Game
<ul style="list-style-type: none"> Identify current status of previous nutrition diagnosis KDRN 1.3 Apply critical thinking skills KDRN 3.1 Use of NCP and standardized language 	Kahoot

Other Examples

Objective	Example of Interactive Tool
Develop Nutrition Prescription	Socrative - Multiple choice and Open ended quiz
Identify nutrition intervention activities based on Nutrition Prescription and Nutrition Diagnoses	Socrative - Multiple choice
Identify Nutrition monitoring and evaluation indicators based on nutrition diagnoses and nutrition intervention	Socrative - Multiple choice
Re-Assessment in subsequent visit- Determine if M&E were met	KAHOOT-Game
Determine status of Nutrition Diagnosis	KAHOOT-Game

Nutrition Care Process: What's in it for my patients (and me)

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 efmyers@efmyersconsulting.com


Dialogue on Nutrition Care Process:
 esthermyers@blogspot.com

Use NCP and NCPT

- In this case the Nutrition Assessment information was subdivided into 8 different pieces (slides)
- Each piece has a separate Kahoot, allowing students multiple opportunities to select data categories
- Can use Kahoot alone and then discuss afterwards OR
- Use Kahoot, but then discuss each afterwards
 - At least for the first one or two to allow for more learning and application during the class period

Information in Consultation Request

- Mr Garcia newly diagnosed Type 2 DM, is 5'6" and weighs 179 lbs and has a Hemoglobin A1C of 8.0 % mg/dl (64 mmol/L). The lipid panel shows LDL 77 mg/dL (2.0 mmol), HDL 70 mg/dL, and Triglycerides 129 mg/dL (1.45 mmol)
- He is starting oral hypoglycemic agents today (**Sulfonylureas**)



What type of Nutrition Assessment data is provided?

Information in Consultation Request

86

0 Answers

Skip

• Mr Garcia newly diagnosed Type 2 DM, is 5'6" and weighs 179 lbs and has a Hemoglobin A1C of 8.0 mg/dl (64 mmol/L). The lipid panel shows LDL 77 mg/dL (2.0 mmol), HDL 70 mg/dL, and Triglycerides 129 mg/dL (1.45 mmol). He is starting oral hypoglycemic agent today (Sulfonylureas).

• He is taking metformin 500mg (twice a day) and Tricyclic antidepressant (20mg qd).

• He is taking metformin 500mg (twice a day) and Tricyclic antidepressant (20mg qd).

▲ Food and nutrition history

◆ Comparative Standards

● Biochemical data, medical tests and procedures

■ Nutrition focused physical examination


Information in Consultation Request

- Mr Garcia newly diagnosed Type 2 DM, is 5'6" and weighs 179 lbs and has a Hemoglobin A1C of 8.0 mg/dl (64 mmol/L). The lipid panel shows LDL 77 mg/dL (2.0 mmol), HDL 70 mg/dL, and Triglycerides 129 mg/dL (1.45 mmol). He is starting oral hypoglycemic agent today (Sulfonylureas).
- Anthropometric Measurements: Body Composition/growth/weight history (Measured height, Measured weight)
- Biochemical Data, Medical Procedures and Tests: Glucose/endocrine profile (Hemoglobin A1C), Lipid Profile (Cholesterol HDL, Cholesterol LDL, Triglycerides, serum)
- Client History: Pt nutrition-related medical/health history (P:Endocrine/metabolism); Medical Treatment/therapy (oral hypoglycemic agent)

Show Video of Kahoot

Mr Garcia

- Mr Garcia is a 71 year old retiree who has made an appointment to see you in the outpatient nutrition clinic. He has never seen a dietitian before. At his last physician visit he was diagnosed with Type 2 DM and Obesity.



What type of Nutrition Assessment data is included?

Mr Garcia

59

0 Answers

Skip

• Mr Garcia is a 71 year old retiree who has made an appointment to see you in the outpatient nutrition clinic. He has never seen a dietitian before. At his last physician visit he was diagnosed with Type 2 DM and Obesity.

▲ Food and nutrition related history

◆ Anthropometric measures

● Biochemical data, medical tests and procedures

■ Comparative standards

What type of Nutrition Assessment data is included?

Mr Garcia

51

0 Answers

Skip

• Mr Garcia is a 71 year old retiree who has made an appointment to see you in the outpatient nutrition clinic. He has never seen a dietitian before. At his last physician visit he was diagnosed with Type 2 DM and Obesity.

▲ Food and nutrition related history


◆ Anthropometric measures

● Biochemical data, medical tests and procedures

■ Comparative standards

Mr Garcia

- Mr Garcia is a 71 year old retiree who has made an appointment to see you in the outpatient nutrition clinic. He has never seen a dietitian before. At his last physician visit he was diagnosed with Type 2 DM and Obesity.
- Food and Nutrient Administration, Personal history, patient medical history, social history.
- Personal History, Patient Medical History
- Patient Medical History, Social History
- Patient Medical History, Personal History, Social History, Physical Activity and Function



What type of Nutrition Assessment data is included?

Mr. Garcia

87

0 Answers

Skip

- Food and nutrition history
- Anthropometric measurements
- Biochemical data, medical tests and procedures
- Nutrition focused physical findings

Mr Garcia has been experiencing tiredness starting about 6 months ago along with being very thirsty and experiencing frequent urination during the day and also at nighttime.

Mr. Garcia

- Mr Garcia has been experiencing tiredness starting about 6 months ago along with being very thirsty and experiencing frequent urination during the day and also at nighttime.
- Which of the domains are represented in these two sentences:
 - NFPE: Overall Findings (lethargic), Mouth (Excessive thirst), Genitourinary system (polyuria),

What type of Nutrition Assessment data is included?

Interview- Tell me about your weight

56

0 Answers

Skip

- Food and nutrition history
- Biochemical data, medical tests and procedures
- Client History
- Nutrition focused physical findings

Mr Garcia tells you he used to work in construction, but after he retired 3 years ago, he gained about 30 lbs. He always used to weigh 149 lbs when he was working.

Interview- Tell me about your weight

- Mr Garcia tells you he used to work in construction, but after he retired 3 years ago, he gained about 30 lbs. He always used to weigh 149 lbs when he was working.
- Client History: Occupation (retired from construction work)
- Anthropometric Measurements: Weight (Usual stated weight) Weight change (weight gain)

What type of Nutrition Assessment data is included?

Tell me about your social activities

56

0 Answers

Skip

- Food and nutrition history
- Anthropometric measurements
- Comparative standards
- Nutrition focused physical findings

He enjoys meeting with his lifelong friends, having several bottles of beer with some snacks (chips, Korma (corn nuts), Chicharon (Pork Rinds), Bato ng Kalabasa (Squash Seeds), or Adobong Mami (Adobo Peanuts)) each afternoon.

Tell me about your social activities

- He enjoys meeting with his lifelong friends, having several bottles of beer with some snacks (chips, Kornik (corn nuts), Chicharon (Pork Rinds), Buto ng Kalabasa (Squash Seeds), or Adobong Mani (Adobo Peanuts)) each afternoon.
- Food and Nutrition History - Alcohol intake, Types of food/meals (take-out, high sodium, high energy snacks)
- Client History; Social and medical support (Life long friends)

What type of Nutrition Assessment data is included?

Tell me about your meals

60

0 Answers

Skip

• He often skips breakfast and gets a sandwich for lunch from corner grocery. His wife is not yet retired and works in a office job 6 days per week. She often picks up food at the market on the way home or prepares supper when she gets home. Usually it is stir fried rice and chicken, pork or chicken adobo, or pancit.

▲ Nutrition focused physical examination	◆ Anthropometric measurements
● Biochemical data, medical tests and procedures	■ Client History

Tell me about your meals

- He often skips breakfast and gets a sandwich for lunch from corner grocery. His wife is not yet retired and works in a office job 6 days per week. She often picks up food at the market on the way home or prepares supper when she gets home. Usually it is stir fried rice and chicken, pork or chicken adobo, or pancit.
- Food and Nutrition History: Types of foods (often carry out or sandwiches) Meal/snack pattern (2 meals plus snacks per day)
- Client History: Domestic issues (married) Social and medical support (wife works and provides/cooks evening meals)

What type of Nutrition Assessment data is included?

Describe what you do to keep active

29

0 Answers

Skip

• Mr Garcia has recently been more active than he was after he first retired about 3 years ago.
• After increasing his activity his weight has been stable for the past 6 months.
• He currently includes a 20 minute bicycle ride in the morning and afternoon 3 days per week, goes shopping one day per week, and works in the garden for about 15 minutes each day.

▲ Biochemical data, medical tests and procedures	◆ Anthropometric measurements
● Comparative standards	■ Nutrition focused physical findings

Describe what you do to be active

- Mr Garcia has recently been more active than he was after he first retired about 3 years ago. After increasing his activity his weight has been stable for the past 6 months. He currently includes a 20 minute bicycle ride in the morning and afternoon 3 days per week, goes shopping one day per week, and works in the garden for about 15 minutes each day.
- Food and Nutrition-Related History - Physical Activity and Function (frequency, duration, intensity, or type of physical activity)
- Anthropometric Measures: Weight (stated peak weight)
- Client History: Occupation (retired)

What type of Nutrition Assessment data is included?

Interview about knowledge of DM

26

0 Answers

Skip

• When you ask Mr Garcia what he knows about diabetes, he says that both his mother and father had diabetes when they were older. He remembers that they had to cut down on rice and desserts.
• He also states that he really doesn't eat that much rice and eats hardly any desserts. He states that he thinks his current diet is pretty healthy, especially since he has stopped gaining weight.

▲ Food/nutrition-related history	◆ Anthropometric measurements
● Biochemical data, medical tests and procedures	■ Nutrition focused physical examination

Interview about knowledge of DM

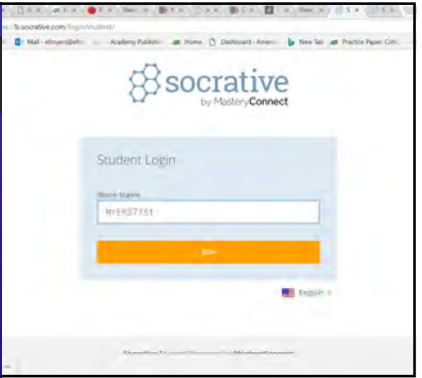
- When you ask Mr Garcia what he knows about diabetes, he states that both his mother and father had diabetes when they were older. He remembers that they had to cut down on rice and desserts. He also states that he really doesn't eat that much rice and eats hardly any desserts. He states that he thinks his current diet is pretty healthy, especially since he has stopped gaining weight.
- Food and Nutrition History- Knowledge, attitudes and beliefs (Area and level of knowledge), Food Intake- Types of foods/meals (desserts and rice)
- Client History: Family nutrition-oriented medical/health history (F: Endocrine/metabolism: T2DM x 2 parents)

Student log in to Socrative for rest of case

<https://socrative.com/>

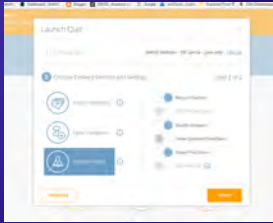
Enter Classroom

MYERS7751



Instructor View to start quiz

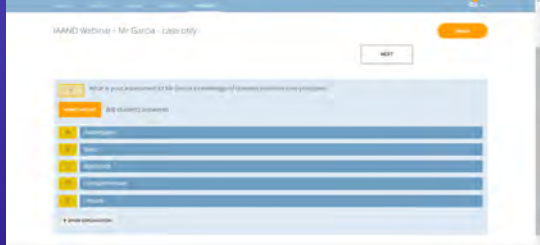
- Teacher paced
- Require names
- Shuffle answers
- Show final score



What is your assessment of Mr Garcia's knowledge?

<p>Diabetes principles</p> <ul style="list-style-type: none"> Inadequate Basic Moderate Comprehensive Unsure 	<p>Carbohydrate containing foods</p> <ul style="list-style-type: none"> Inadequate Basic Moderate Comprehensive Unsure
------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Question View (same on student phone)



Show video

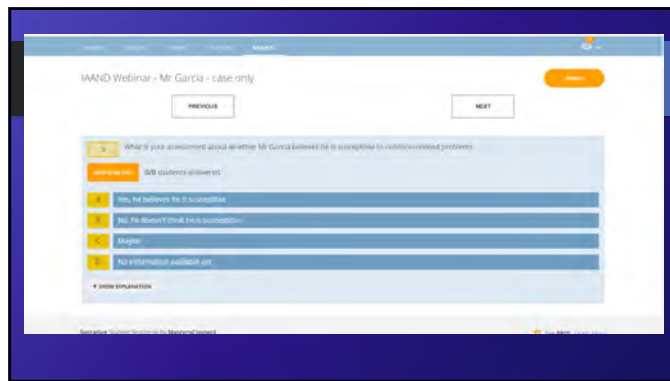
What is your assessment of Mr Garcia's motivation to change

Perceived susceptibility to nutrition-related problems

- Yes
- No
- Maybe
- No information available yet

Belief that benefits of diet change outweigh barriers

- Yes
- No
- Maybe
- No information available yet



Readiness and Support Assessment

Select the Stage of Change based on Mr Garcia's comments

- Precontemplation
- Contemplation
- Preparation
- Action
- Maintenance
- Unsure

Is he able to use social networks to support his behaviors

- Yes
- No
- Maybe
- No information available yet

Estimated Dietary Intake in Exchanges

Meal	Starch	Fruit	Veg	Dairy	Meat (HF)	Fat	Alcohol	CHO
Breakfast								
Noon	2				3	2		30
Afternoon	5					2	3	75
Evening	2	1	1		4	2		50
Total Kcal	9:80	1:60	1:25		7:100	6:45	3:100	
-2075 kcal	720	60	25		700	270	300	

-26% of kcal from carbohydrate

Your Assessment

- Estimate his intake to be -2100 kcal per day
- BMI 28
- Carbohydrate distribution of current intake:
 - 30 g - noon meal
 - 75 g - afternoon
 - 50 g - evening meal

Comparative Standards

- Estimated physical activity levels and Estimated Total Energy Needs
- Estimated physical activity levels to be mild
- Mifflin St Jeor estimates his energy needs to be 2106 kcal (using on-line calculator)

What categories of data would your record from Nutrition Assessment?

Could also ask more specific from each type of data within categories?

Status of Previous Nutrition Diagnosis (IF not first consultation)

What is the status of Nutrition Diagnosis from previous consultation?

PHYSICAL INACTIVITY

20

0 ANSWERS

Problem Continues - Worsened

Problem Continues - No Change

Problem Continues - Improved

Problem Resolved

What nutrition diagnoses are selected for today's consultation?

Use open ended question for PES Statements

	PROBLEM	ETIOLOGY	SIGNS AND SYMPTOMS

Switch to Socrative for rest of case

What components would be included in Nutrition Prescription?

What components should be included in the Nutrition Prescription

- Energy
- Macronutrient distribution
- Carbohydrate distribution
- Physical activity

Nutrition Intervention (Broad categories)

• Which would you include in the nutrition intervention?

- Food and/or Nutrient Delivery
- Nutrition Education
- Nutrition Counseling
- Coordination of Nutrition Care by a Nutrition Professional
- Population Based Nutrition

Which Nutrition Education would you use? (Specific items)

<p>Content</p> <ul style="list-style-type: none"> • Purpose of the Ntr Ed • Priority Modifications • Survival Information • Nutrition Relationship to health/disease • Recommended modifications • Other or related topics • Other • Physical Activity guidance 	<p>Application</p> <ul style="list-style-type: none"> • Results Interpretation • Skill Development • Other
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Which Theory and Which Strategies (Specific choices)

<p>Theory/Approach</p> <ul style="list-style-type: none"> • Cognitive behavioral theory • Health belief model • Social learning theory • Transtheoretical model/stages of change • Other 	<p>Strategies</p> <ul style="list-style-type: none"> • Motivational Interviewing • Goal setting • Self-monitoring • Problem solving • Social support • Stress management • Stimulus control • Cognitive restructuring • Relapse prevention • Rewards/contingency management • Other
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Coordination of Nutrition Care by a Nutrition Professional

Collaboration and Referral of Nutrition Care

- Team meeting
- Referral to RDN with different expertise
- Collab with other nutrition professionals
- Collab with other providers
- Referral to community agencies/programs

Discharge and Transfer of Nutrition Care to new setting or provider

- Discharge and transfer to other providers
- Discharge and transfer to community agencies/programs
- Discharge and transfer to another nutrition professional

More complex - "Best" sequence of activities

Which of the following would be the best sequence of activities?

1. Discharge and transfer to another provider
2. Discharge and transfer to another nutrition professional
3. Discharge and transfer to community agencies/programs
4. Discharge and transfer to other providers

Nutrition Monitoring and Evaluation

Domain	Parameter (what)	Indicator (how much)	Timeframe (when)
Food & Nutr			
Known/Att/Beliefs			
Behavior			
Anthropometrics			

Open ended for Monitoring and Evaluation Indicators

Software interface showing a list of indicators for monitoring and evaluation, including parameters like 'Parameter (what)' and 'Indicator (how much)'.

Next consultation with dietitian

Nutrition Re-Assessment

- Re-assessment starts with M&E Indicators
- Determine whether intervention is being successful
- Determine other changes that need to be assessed

Nutrition Diagnoses

- Determine status of previous nutrition diagnoses
- Keep or add new nutrition diagnoses to guide care
- If problems resolved, then discharge patients

Nutrition Intervention

- Adjust nutrition prescription if needed
- Provide intervention to sustain positive changes and achieve new changes

Nutrition Monitoring and Evaluation

- Determine if changes are needed to indicators to reflect new intervention or criteria adjusted for maintenance

Summaries

- Used Kahoot! to practice taking information from consultation and interview and capture as data (speed and accuracy)
- Use Socrative (open ended) to identify nutrition diagnoses and write PES statement
- Use Socrative (open ended) to develop Nutrition Prescription for Mr Garcia
- Use Socrative (multiple choice) to identify nutrition intervention activities based on Nutrition Prescription and Nutrition Diagnoses (focused on more detail)
- Use Socrative (open ended) to identify Nutrition monitoring and evaluation indicators based on nutrition diagnoses and nutrition interventions

Resources used for this presentation

- KAHOOT. Available at www.kahoot.com
- SOCRATIVE. Available at www.Socrative.com
- E Nutrition Care Process Manual. Academy of Nutrition and Dietetics. Available at www.ncpro.org
- Nutrition Care Process and Terminology: A Practical Approach. Nutrition Care Professionals, Pty. Ltd. Available at www.nutritioncarepro.com

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