

*TRANSDISCIPLINARY LEARNING IN HEALTHCARE EDUCATION*

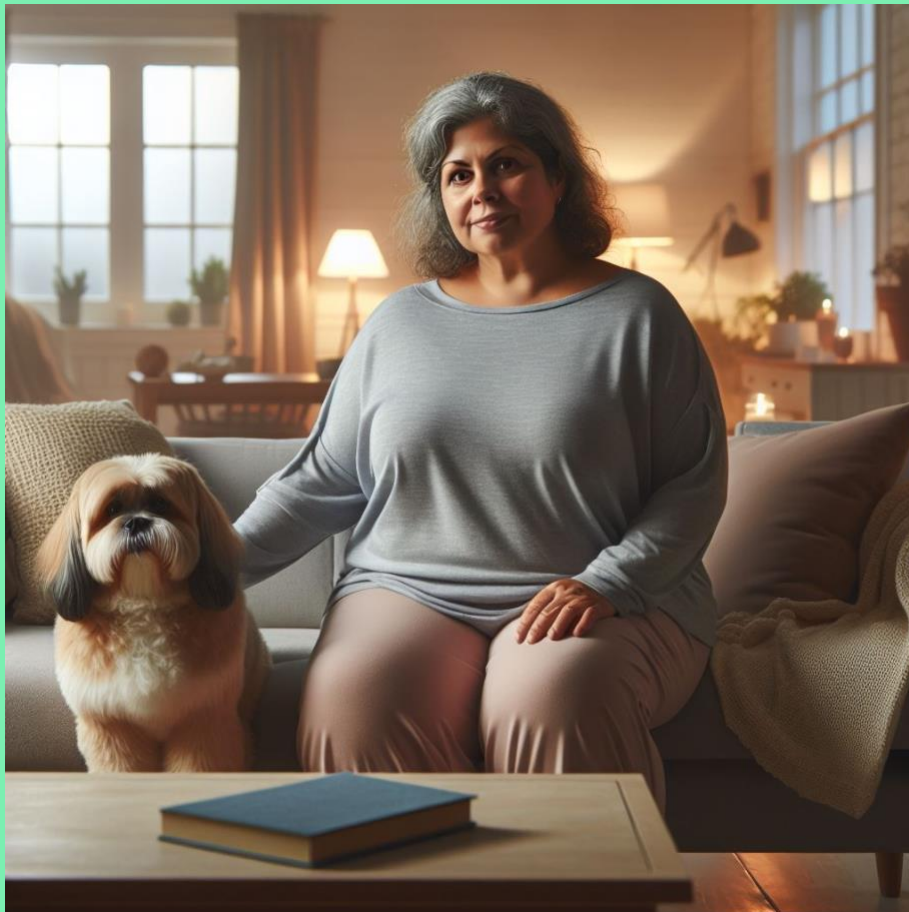
*Nurse Assistant / Dietitian / Oral hygienist / Nurse*

**Duration:** 9 hours

**International teams**

# Maria – Challenge

(teacher version)



## CHALLENGE

**Start date:** 20/05/2025  
**Finish date:** 22/05/2025

**Duration:** 3h (Tuesday)  
4h (Wednesday)  
2h (Thursday)

Student information is written in BLUE

Teacher preparation is written in RED

## OBJECTIVES / LEARNING OUTCOMES

### TECHNICAL SKILLS

#### ANATOMY AND PHYSIOLOGY

- Importance of knowledge related to the physiology of the functioning of the pancreas and glucose metabolism, as well as the influence of diet/nutrition/physical activities on the situation described
- To know the risk factors for high blood pressure, high cholesterol, diabetes and the interaction of these diseases

#### TECHNICAL NURSING INTERVENTIONS

- Know normal blood glucose values to identify metabolic imbalance
- Recognize the signs and symptoms of hypoglycemia and hyperglycemia
- Reference values for blood pressure, cholesterol and diabetes
- Good knowledge of the use medications
- Good care and knowledge about health education in the context of healthy lifestyles

#### PSYCHOLOGY

- As a healthcare provider, it is important to have a basic understanding of the psychological impact of illness and personal changes in your daily life.
- As a healthcare professional it is important to know how to organize transdisciplinary care

## SOFT SKILLS

### INDIVIDUAL SKILLS

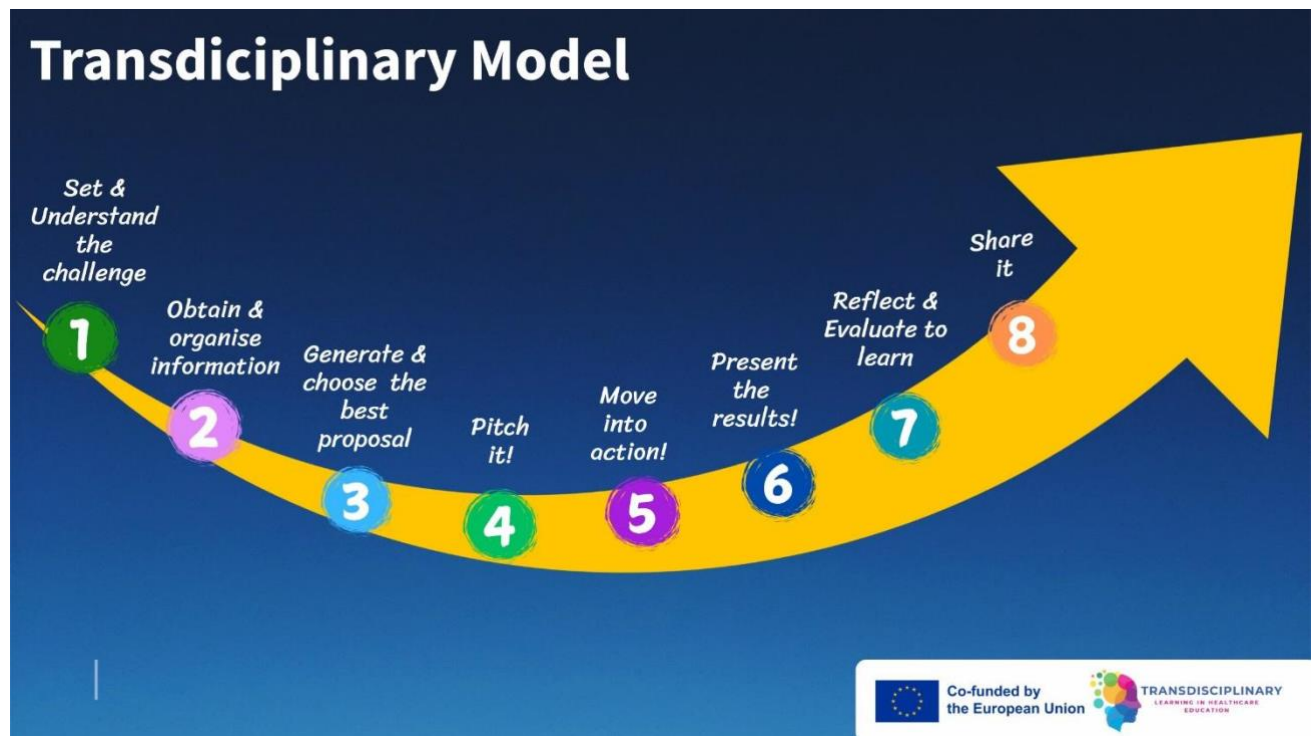
- Autonomy, involvement and problem solving skills

### COMMUNICATION SKILLS

- Oral and written communication

### COLLABORATIVE COMPETENCE

- Teamwork and leadership



## ACTIVATE THE TEAM

Expected duration: 30' dividing groups

In case, it was needed, the Dynamic of colours could be used.

## 1. SET & UNDERSTAND THE CHALLENGE (Tuesday)

**Expected duration:** 60 minutes

Maria misses her children and wants her former active lifestyle back.

Help Maria organizing getting her life back on track and re-establish contact with her children.

While helping Maria, think in a transdisciplinary way...

RESULTS	
<b>PRODUCT 1</b>	Make a list of all the problems Maria can face in her daily life
<b>PRODUCT 2</b>	Find a solution for all the problems Maria can face in her daily life
<b>PRODUCT 3</b>	Make a presentation that contains Maria her problems and your transdisciplinary solution
<b>PRODUCT 4</b>	Make a short abstract about the technical AND the soft skills you learned about solving this challenge (integrate this in your presentation)

**Make sure that the learners have understood what they have to do.**

- Dynamic 1: Each person writes on 1 post-it what they have understood to do in the challenge (maximum 10 words).

## 2. OBTAIN & ORGANISE INFORMATION (Tuesday)

**Expected duration:** 45 minutes

- Read the case-study carefully
- Ask the supervisors for additional information if necessary
- Look up things that are unclear to you or that you do not understand (you can use a computer, ipad, phone or every other information source you find appropriate)

In this section, students should come up with the knowledge needs they have in order to solve the challenge.

They have to write questions that need to be answered in order to solve the challenge.

If students don't come up with any questions, teachers should guide them into making the right questions.

## Examples:

- What is the distance between her home and work?
- Does she have activities near home that can help her improve her health?
  - Check google maps, you can find out yourself
- What organizations or specialists can she get help from in her change process?
- Where can she contact them in or near Santarem?
- How can she improve her eating habits?
- Are there green areas near Maria's house where she can take long walks?
- What are the legal and insurance implications for Maria ?
- Does Maria have support from her family?
- Is there an organization to support her in terms of diabetes and all that comes with it?
- Could it be that she is in her menopause so this is affecting her physical and psychological well-being?
- What about her hormonal balance?
- Perhaps it would be appropriate to consult a gynecologist?
- What is Maria's medical history?
  - Check case-study
- Are there local services for Maria that can provide emotional support during this period and processing diagnosis and limitations
- <https://apdp.pt/> - Associação Protetora dos Diabéticos de Portugal
- <https://sphta.org.pt/> - Sociedade Portuguesa de Hipertensão
- <https://www.dgs.pt/programa-nacional-para-a-diabetes/materiais-de-divulgacao.aspx> - Direção Geral da Saúde - Documentos de suporte e divulgação
- <https://app.seq-social.pt>
- <https://www.sns24.gov.pt/servico/aconselhamento-psicologico-no-sns-24/> - Linha de apoio psicológico

There will be different ways of obtaining that information such as: students find it themselves, teachers give lectures, there are external professionals who give masterclasses...

### 3. GENERATE & CHOOSE THE BEST PROPOSAL (Tuesday)

**Expected duration:** 45 minutes

- Think *individually* about how you will solve the challenge and what resources you will need to do so
- Decide in your *group* which is the best option to solve the challenge (you can combine several options if the group thinks this is the best option)
- Think about your pitch!

Each student has to think about how he/she will solve the challenge and what resources he/she will use to do so.

In a small group of 3-4 people, students choose the best option to solve the challenge.

#### 4. PITCH IT! (Tuesday)

**Expected duration:** 2 minutes per group / 20 minutes in total

- Explain in the international group how your group is going to solve the challenge, ideas,...
- Listen to the ideas of the other groups

Each team explains what they have decided to do, how they are going to approach the challenge and they listen to other people's ideas. Make it short: each team has **2 minutes** to explain the proposal.

**A timer will be projected.**

<https://www.google.com/search?client=firefox-b-d&q=timer+online>

#### 5. MOVE INTO ACTION! (Tuesday)

**Expected duration:** 100 minutes

- Make a list of all the problems Maria can face
- Try to find a solution for these problems (*think in a transdisciplinary way!*)
- Make a presentation about your work and how you are going to help Maria

They have to make a small draft of the steps they are going to take to solve the challenge, the resources they'll use, the ideas...

Students have to organise themselves to solve the challenge in an effective and efficient way.

This step could be developed further with more time and using tools like Trello or Excel but in this case, it is not applicable.

#### 6. PRESENT THE RESULTS (Wednesday)

**Expected duration:** 15 minutes per group / 90 minutes in total

- Present your groupwork to the international group

Students present their results in front of the rest of the class. Each team will have 15 minutes to present.

#### 7. REFLECT & EVALUATE TO LEARN (Wednesday)

**Expected duration:** 10 minutes per group / 5' change group / 30' general FB /  $\pm$ 120 minutes in total

- Receive feedback on your work and answer possible questions
- Reflect on your work

Students and teachers receive feedback on the work done among international teams. Check out the

rubric on the next page for more evaluation information.

## 8. SHARE IT (Wednesday)

**Expected duration: xxxx**

Students have to share some of the content of the challenge on their social media, blogs, school boards.

PRODUCT RUBRIC				
	4	3	2	1
TECHNICAL SKILLS				
Understanding and Follow-up results (product 1-3)	Analysis is insightful, comprehensive, and demonstrates a deep understanding of patient perspectives and barriers to adherence	Analysis is accurate and informative, but may lack some depth or detail	Analysis is generally accurate but may contain minor errors or omissions	Analysis is incomplete or inaccurate, and does not adequately address the issue
Anatomy and Physiology	Anatomy and physiology of pancreas and knowledge of glucose metabolism is well known on a professional level (use of medical terminology)	Anatomy and physiology of pancreas and knowledge of glucose metabolism is sufficient at patient level	Anatomy and physiology of pancreas and knowledge of glucose metabolism is known but contains minor errors or omissions	Anatomy and physiology of pancreas and knowledge of glucose metabolism is insufficient or missing from the presentation
Technical nursing interventions	Knowledge of medication and healthy habits is sufficient and performed at professional level	Knowledge of medication and healthy habits is sufficient, max 1 minor error is made	Knowledge of medication and healthy habits is sufficient but contains multiple minor errors, guidance is necessary	Knowledge of medication and healthy habits is insufficient, sterility errors are made or missing from the presentation
Psychology	Knowledge of the psychological impact of illness and personal changes in your daily life and the transdisciplinary approach is consistently embedded through the presentation	Knowledge of the psychological impact of illness and personal changes on the daily life is sufficient and a transdisciplinary approach is used now and then	Minimal recognizing the psychological impact of illness and personal changes and a minimal transdisciplinary approach is used in the presentation	Minimal or not recognizing the psychological impact of illness and personal changes and not approaching the patient on a transdisciplinary way
SOFT SKILLS				
Individual skills	Demonstrates initiative, works independently, meets deadlines consistently, consistently contributes valuable ideas	Works independently most of the time and follows guidelines, participates in team activities and sometimes suggests ideas	Requires occasional guidance to complete tasks but not always fulfill commitments	Requires constant support and assistance, demonstrates poor attendance, time management or respect for materials
Collaborative competence	Effectively manages conflicts, contributes positively to the team, and fosters a positive atmosphere	Collaborates well with the team and contributes to a positive environment	Collaborates but may occasionally cause tension within the team	Does not collaborate and creates a negative team environment



Communication skills	Communicates clearly, confidently, and effectively, maintaining eye contact and adhering to time limits (oral and written)	Delivers clear and organized presentations but may have minor issues (oral and written)	Communicates basic ideas but struggles to express them clearly (oral and/or written)	Has difficulty communicating and disrespects others' opinions (oral and written)
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## MAKE-UP ACTIVITIES

**GENERAL ACTIVITIES** to improve your work, applicable to everyone.

Make-up activities RUBRIC				
	4	3	2	1
TECHNICAL SKILLS				
Understanding and Follow-up results (product 1-3)	<p>You have reached level 4. <b>CONGRATULATIONS!</b> Continue to repeat the materials regularly to keep your knowledge and skills up to date!</p>	Further dept or exploration of patient perspectives could enhance the analysis	Ensure to review all relevant patient factors to minimize omissions and errors	Further analysis and additional effort is needed to address missing perspectives
Anatomy and physiology			Revisit key anatomical structures to reduce errors and ensure completeness	
Technical nursing interventions			Regular practice and feedback on protocol adherence can help reduce these errors	
Psychology		More consistent use of a transdisciplinary approach will enhance patient care perspectives		It is important to acknowledge and integrate psychological factors for a more holistic care approach
SOFT SKILLS				
Individual skills	<p>You have reached level 4. <b>CONGRATULATIONS!</b> Continue to repeat the materials regularly to keep your knowledge and skills up to date!</p>	More frequent contributions of ideas can improve initiative and team dynamics	Focus on building consistency in task completion and personal responsibility	attendance, time management needs improvement or respect for materials insufficient
Collaborative competence		Proactively manage conflicts or challenges to further enhance the team's cohesion	Focus on conflict resolution strategies to minimize tension and improve teamwork	Improving communication and team engagement will foster a more positive working dynamic
Communication skills		Address any minor issues with structure or clarity to improve overall communication (oral and written)	Practice communication techniques to enhance clarity and precision	Focus on respectful dialogue and clear communication techniques to engage more effectively

**SPECIFIC ACTIVITIES** to improve your work, activities on a personal level.

- ...
- ...

## RESOURCES

Interesting links to solve the challenge:

<https://apdp.pt/> - Associação Protetora dos Diabéticos de Portugal

<https://sphta.org.pt/> - Sociedade Portuguesa de Hipertensão

<https://www.dgs.pt/programa-nacional-para-a-diabetes/materiais-de-divulgacao.aspx> - Direção Geral da Saúde - Documentos de suporte e divulgação

<https://app.seg-social.pt>

<https://www.acss.min-saude.pt/> - Administração Central do Sistema de Saúde

<https://alimentacaosaudavel.dgs.pt/> - Programa Nacional de Alimentação saudável

## TIMING

Tuesday 20/05/2025			Wednesday 21/05/2025		Thursday 22/05/2025		
Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Set & understand the challenge	Obtain & organise information	Generate & choose the best proposal	Pitch it!	Move into action!	Present the results!	Reflect & Evaluate to learn	Share it
Time per step							
60' challenge+arrow dividing groups	45' Case study + questions + collect info	45'	2'/group 20' total time	100'	15'/group = 90' total time	10'/group 5' change group = 15'/group 30' general FB = 120' total time	

**30 minutes available to be flexible with time**

**CLASS DIARY**

Teachers should write a summary of what is done every session at the classroom.

DATE	CARRIED OUT ACTIVITY

**ASSESSMENT OF THE CHALLENGE – AREAS FOR IMPROVEMENT**

<b>TIMING</b>	
<b>RESOURCES</b>	
<b>THE CHALLENGE</b>	
<b>TEACHING TEAM</b>	
<b>STUDENTS</b>	