HELPE

Health Literacy in Physiotherapy Education

Health Literacy Questionnaire for Students

Authors

Angelique Hagen [1]
Birgit Jocham [2]

Consortium HELPE

Hannes Aftenberger [2]
Angela Arntz [5]
Monica Christova [2]
Carles Fernández Jané [3]
Christian Grüneberg [5]
Angelique Hagen [1]
Marietta Handgraaf [5]
Birgit Jocham [2]
Pirjo Mäki-Natunen [4]
Janke Oosterhaven [1]
Sanna Paasu Hynynen [4]

1. University of Applied Sciences Utrecht, Netherlands
2. University of Applied Sciences FH JOANNEUM, Austria
3. Blanquerna School of Health Sciences, Ramon Llull University, Spain
4. JAMK University of Applied Sciences, Finland
5. University of Applied Science, Hochschule für Gesundheit, Germany

Content

Introduction/Purpose 4

Development of the questionnaire 4

Results International focus group 5

Results Feedback colleagues 5

Results Feedback experts 5

Final results 6

Literature 7

Appendix A 8

Appendix B 14

Introduction/Purpose

The Health Literacy (HL) framework includes a **questionnaire to evaluate health literacy (HL) competences of physiotherapy students** as a key element. A questionnaire was developed and will be performed in each partner university. The results from these questionnaires will be used as a basis for the development of guidelines for improving the HL competences in PT education.

Development of the questionnaire

In a literature search, the team the content of the IMPACCT (IMproving PAtient-centered Communication Competences) project was identified. The main objective of IMPACCT is "to improve the relevance and quality of education of medical and nursing students in Europe through the development, implementation, evaluation and dissemination of an evidence-based Health Literacy Educational Program. In the course of the project, questionnaires and a video observation tool were developed to evaluate medical students' HL communication skills. The HELPE team decided to evaluate these tools and adapt them to the needs of physiotherapy students. For this purpose various qualitative research approaches such as focus groups and expert interviews were used (see Fig. 1)

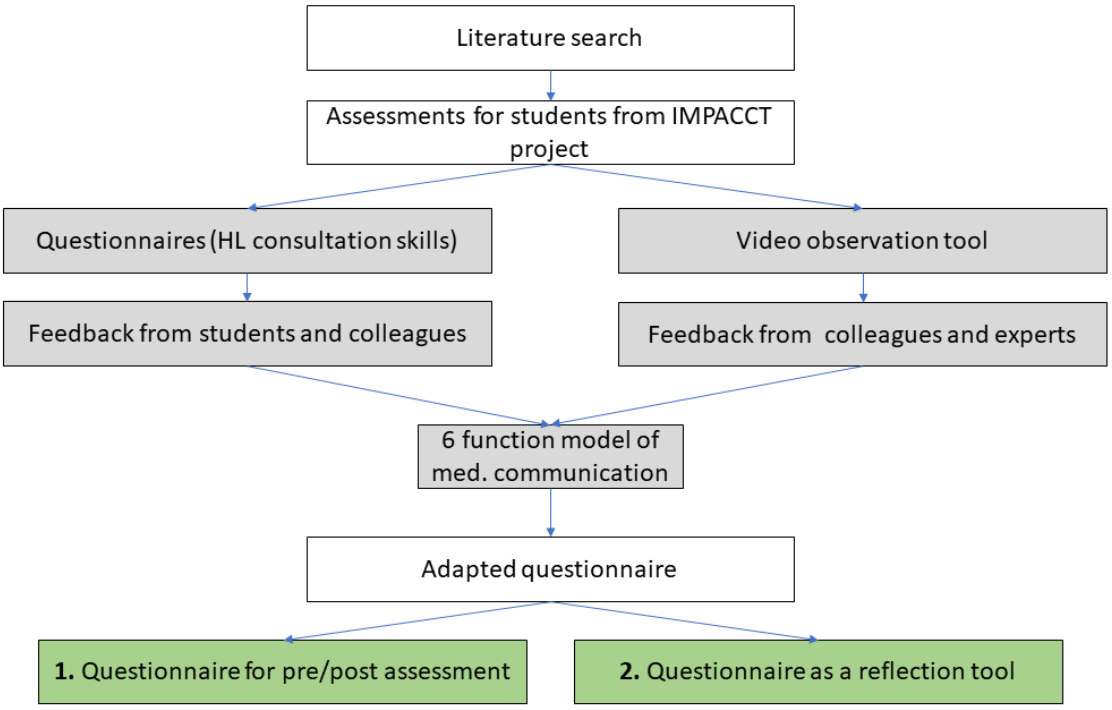

Figure 1: Process of developing a HL assessment for physiotherapy students

Results International focus group

The focus group discussion was conducted online via a video conferencing tool (MS Teams) on 11th May 2021 from 5.00 to 6.30pm. In addition, the tool "Padlet" was used to visualise content and record comments anonymously. Six students participated. The participants were recruited by the contact person of the respective university. The students represented all countries (Austria (1 participant), The Netherlands (1), Germany (2), Finland (1), Spain (1)). In addition, 3 persons from the project team participated (AH, MC, BJ). The participants signed an informed consent on purpose of evaluation, procedure and data protection (the template of the informed consent can be found in *Appendix B*).

The results of the focus group can be summarised as follows:

- The students agree that it is very important to read the introduction to each question topic so that it is clear what is being asked.
- Concrete ideas on the general questions (item 5/6)
- There are different answer-options in the different parts of the questionnaire.
- Difficult to answer questions about time of use (start of studies, before/after internship)
- It has to be taken into account that teachers have to be trained on the tool.
- Some questions are very suggestive.
- Develop a checklist for the supervisor to screen HL skills – student uses / shows …technic 1-5 scale.

Results Feedback colleagues

All members of the HELPE-Team were asked to give feedback on the questionnaire from the IMPACCT project. A short questionnaire was designed for this purpose. Feedback could be obtained from 8 colleagues (physiotherapists). All countries were represented (Austria (2), Germany (1), Finland (2), The Netherlands (2), Spain (1)). Both the specific questions on the questionnaire were answered and comments were left on the original questionnaire. The answers were summarised in an Excel table and in a next step the contents were implemented in the original questionnaire. Two project members (AH, BJ) carried out the content evaluation and the adaptation of the questionnaire.

Results Feedback experts

A focus group with health literacy experts was held on the first of June 2021. Feedback on the video observation sheet was collected and written up. Nine experts (psychosomatic physiotherapists) from the Netherlands participated. They answered the following questions: How can we adapt this tool specific for PT? Could this form be used for expliciting your own competences in relation to limited health literacy?

Two groups discussed each a different video from a conversation with a patient with limited health literacy and used the video-observation form. The experts gave specific information on questioning style, jargon and language. Accordingly, the questions and answers should not contain jargon and should be short and concise. The experts see it as a good tool to use for discussing cases with colleagues. But according the experts the form is too long and it is not clear if it a checklist or reminder and not all items were addressed /relevant for the target group. Another comment for example is that

making a video during a consultation can affect the conversation. Which raises the question of how representative this evaluation is?

Final results

From the adapted version, the team developed two tools: a questionnaire for the pre/post assessment and a questionnaire as a reflection tool.

Health Literacy Questionnaire for students (Pre/Post Assessment):

This questionnaire is used to evaluate health literacy (HL) competences of physiotherapy students. The questionnaire includes elements from the HL questionnaire and the video observation tool of the IMPACCT project and the 6 function model of medical communication (de Haes & Bensing, 2009). The questionnaire consists of 2 general questions and 47 items and covers the topics/learning outcomes:

(A) Knowledge about HL

(B) Adjustment of communication and patient educational skills to patients with limited HL

(C) Awareness of own attitude towards using HL communication skills and/or teaching strategies

(D) Confidence in using HL communication and patient educational skills

The entire questionnaire can be found in Appendix A.

Health Literacy Questionnaire: reflection tool

In the course of intensive discussions with students, experts and colleagues, the need for a "checklist" for practical application was expressed several times. Therefore, the video observation was included in the reflection questionnaire. The aim is to use it as a reflection tool during internships and practical training at the university.

The entire reflection questionnaire and observation tool can be found in Appendix B

Literature

de Haes, H., & Bensing, J. (2009). Endpoints in medical communication research, proposing a framework of functions and outcomes. *Patient education and counseling, 74*(3), 287-294. https://doi.org/10.1016/j.pec.2008.12.006

Elwyn, G., Tsulukidze, M., Edwards, A., Légaré, F., Newcombe, R. (2013). Using a 'talk' model of shared decision making to propose an observation-based measure: Observer OPTION 5 Item. Patient Education & Counseling, 93 (2): 265-71. https://doi.org/10.1016/j.pec.2013.08.005

Kaper, M. S., Sixsmith, J., Koot, J. A., Meijering, L. B., van Twillert, S., Giammarchi, C., ... & de Winter, A. F. (2018). Developing and pilot testing a comprehensive health literacy communication training for health professionals in three European countries. *Patient education and counseling*, *101*(1), 152-158. https://doi.org/10.1016/j.pec.2017.07.017

Mackert, M., Ball, J., & Lopez, N. (2011). Health literacy awareness training for healthcare workers: Improving knowledge and intentions to use clear communication techniques. *Patient education and counseling*, *85*(3), e225-e228. https://doi.org/10.1016/j.pec.2011.02.022

Appendix A

Questionnaire: Your health literacy consultation and educational skills

INTRODUCTION

Dear Student,

We ask you to fill in this questionnaire on Health Literacy (HL) consultation skills. HL refers to the knowledge, motivation, and competencies of individuals to access, understand, and apply health information for taking decisions for their own health. Those abilities are influenced by various social, environmental, and educational factors.

Limited HL has been reported in nearly 45% of the European citizens. Client groups with limited HL require an individual therapeutic and communication approach from the physiotherapist. To respond to this requirement, physiotherapists need to acquire solid HL competencies during their education. Health literacy consultation skills are defined as the communication and teaching strategies that have been described as effective with limited health literacy clients. These include plain language communication, which is the avoidance of medical jargon, Teach-Back (let the clients explain the information in their own words to check understanding) and include skills related to shared decision making and promoting self-management.

In order to evaluate your HL competence in your physiotherapy bachelor studies, we will ask you about the following topics on different times during your study.

- General questions
- Your knowledge of health literacy
- Your consultation skills focused on health literacy
- Your opinion on using health literacy consultation skills (attitude)
- Your confidence in using health literacy consultation skills

We ask you to fill out this questionnaire two times: 1) before and 2) after HL competence training. Your answers are confidential and will be saved under your unique number. Answers will not be linked to your name or student number. For the quality of the research, we use different questionnaires. Because of this, some questions may look similar, and some response scales differ from each other. It takes about 15 minutes to answer the questions.

If you have any questions related to the questionnaires, please contact your teacher in charge at your university:

University of Applied Sciences FH-Joanneum Graz (AT), Birgit Jocham, birgit.jocham@fh-joanneum.at

University of Applied Health Sciences Bochum (hsg, DE), Christian Grünenberg, christian.grueneberg@hsgesundheit.de

Ramon Llull University, Blanquerna School of Health Sciences (SP), Carles Fernández Jané, carlesfj@blanquerna.url.edu

HU University of Applied Sciences Utrecht (NL), Angelique Hagen, angelique.hagen@hu.nl

JAMK University of Applied Sciences (FIN), Sanna Paasu-Hynynen, Sanna.Paasu-Hynynen@jamk.fi

General questions

In which year of your study program are you?	o 1 o 2 o 3 o 4 o more
How many months of internship have you completed so far?	o 0-2 o 3-6 o 7-9 o 10-12 o 13-15

A. Knowledge about health literacy

Please indicate how much you know about limited health literacy. Choose only one answer.

I know where to find information on limited health literacy.					
	1 Strongly disagree	**2**	**3**	**4**	**5 Strongly agree**
1. I understand the challenges that clients with limited health literacy can have					
2. I know which groups are more likely to have limited health literacy					
3. I can name several health outcomes associated with limited health literacy					

B. I can adjust my communication and client educational skills to clients with limited health literacy

The following communication and educational skills have been described as effective with clients with limited health literacy/digital health literacy. Therefore, please indicate on which level you use the following health literacy communication skills during conversations with simulated clients or in internships/practices. Choose only one answer.

Fostering the relationship – I engage with the client in a personal though professional way					
	1 Never	**2 Rarely**	**3 Occasio-nally**	**4 Some-times**	**5 Every time**
4. I greet the client in a manner that is personal and friendly (e.g. ask client how s/he likes to be addressed, use client's name).					

5. I ask the client what he/she hopes to achieve by attending therapy.					
6. I attempt to elicit all of the client's concerns					
7. I show interest in how the problem is affecting the client's life					
8. I encourage clients to ask additional questions					
9. I consider working with a (professional) interpreter, if necessary.					

Gathering information – I have appropriate skills to identify and to gather adequate information from clients with limited health literacy					
	1 Never	**2 Rarely**	**3 Occasio-nally**	**4 Some-times**	**5 Every time**
10. I use instruments/ questionnaires to identify clients with limited health literacy					
11. I identify behavior typically exhibited by people with limited health literacy					
12. I consider limited health literacy: do you need help to fill in forms? Cues: missed appointments, excuses, and inconsistent information.					
13. I encourage the client to discuss his/her concerns by using active listening techniques (e.g., using various continuers such as Aha, tell me more, go on).					
14. I observe non-verbal cues to gather information about (not) understanding information					
15. I create a shame-free environment by using normalization.					
16. I am sensitive to and capable of gathering information about the illness beliefs and the possible influence of personal/ environmental problems on physical problems (and I explain these facts to the client)					
17. I ask about the (cultural) background and taboos of the client which may influence their (illness)believes about cause and treatment and their coping style					

Providing information – I have appropriate skills to provide clear information to people with limited health literacy					
	1 Never	**2 Rarely**	**3 Occasio-nally**	**4 Some-times**	**5 Every time**
18. I speak slowly and in short sentences					
19. I use plain, understandable, non-medical language					
20. I show or draw pictures					

21. I use nonverbal communication to support the given information					
22. I limit the amount of information provided and ask the client to repeat it					
23. I check if the client understands the information (teach back, show me, chuck and chunk techniques, ASK me 3)					
24. I pause after giving information with the intent of allowing the client to react to and absorb the information given					
25. I judge whether written health information is appropriate for clients with limited health literacy					
26. I involve the client in the process of examination and treatment, so that he/she knows what and why I am doing it					

Shared decision making – I involve clients with limited health literacy in shared decision making					
	1 Never	**2 Rarely**	**3 Occasio-nally**	**4 Some-times**	**5 Every time**
27. I confirm the request for help and indicate that I we will discuss the various treatment options together.					
28. I reassure the client that I will support and provide clear information, so that the client is enabled to participate in decision-making.					
29. I discuss the treatment options and the likely benefits, and harms of each option with the client.					
30. I support clients to explore 'what matters most to them', considering the client's: values, preferences and circumstances.					
31. I support the client to make an informed decision together (when necessary, after time to absorb and to discuss with significant others)					

Enabling self-management- I apply strategies adjusted to clients' level of health literacy to enable self-management					
	1 Never	**2 Rarely**	**3 Occasio-nally**	**4 Some-times**	**5 Every time**
32. I assess barriers and facilitators related to therapy compliance (e.g. illness believes, shame, level of education, influence of the family, taboos, cultural influences etc.)					
33. I involve the client in formulating personalized goals and action plans					
34. I use the influence of the social context in a beneficial way					

35. I check whether the follow up – plans for the subsequent sessions are understood and accepted					

Responding to emotions – I respond to verbal and nonverbal emotional expressions					
	1 Never	**2 Rarely**	**3 Occasio-nally**	**4 Some-times**	**5 Every time**
36. I openly encourage or am receptive to the expression of emotion (e.g., by using continuers or appropriate pauses (verbal or nonverbal signals indicating that it is okay to express feelings)					
37. I recognize emotional expressions					
38. I identify, verbalize and accept feelings					
39. I am open-minded and elicit clients' concerns and needs and explore possible taboos with them					

C. Awareness of own attitude towards using health literacy communication skills and/ or teaching strategies

What is your opinion/ attitude on using health literacy communication skills and/or teaching strategies? Give an example of a specific interaction with a client with low health literacy. Reflect on your own competences?

D. My confidence in using health literacy communication and client educational skills

How confident are you in your ability to:					
	1 Not at all confident	**2**	**3 neutral**	**4**	**5 Very confi-dent**
40. adjust your communication and client educational skills to clients with limited health literacy					
41. engage with the client in a personal though professional way					

42. identify and gather adequate information from clients with limited health literacy					
43. provide clear information to clients with limited health literacy					
44. involve clients with limited health literacy in shared decision making					
45. apply strategies adjusted to the clients' level of health literacy to enable their self-management					
46. respond to verbal and nonverbal emotional expressions					
47. create a shame free environment for clients with limited health literacy					
48. stimulate clients with limited health literacy to manage their own health					

Thank you very much for your cooperation!

References:

de Haes, H., & Bensing, J. (2009). Endpoints in medical communication research, proposing a framework of functions and outcomes. *Patient education and counseling, 74*(3), 287-294. https://doi.org/10.1016/j.pec.2008.12.006

Elwyn, G., Tsulukidze, M., Edwards, A., Légaré, F., Newcombe, R. (2013). Using a 'talk' model of shared decision making to propose an observation-based measure: Observer OPTION 5 Item. Patient Education & Counseling, 93 (2): 265-71. https://doi.org/10.1016/j.pec.2013.08.005

Kaper, M. S., Sixsmith, J., Koot, J. A., Meijering, L. B., van Twillert, S., Giammarchi, C., ... & de Winter, A. F. (2018). Developing and pilot testing a comprehensive health literacy communication training for health professionals in three European countries. *Patient education and counseling*, *101*(1), 152-158. https://doi.org/10.1016/j.pec.2017.07.017

Mackert, M., Ball, J., & Lopez, N. (2011). Health literacy awareness training for healthcare workers: Improving knowledge and intentions to use clear communication techniques. *Patient education and counseling*, *85*(3), e225-e228. https://doi.org/10.1016/j.pec.2011.02.022

Appendix B

Reflection Tool
Questionnaire & video observation: Your health literacy consultation and educational skills

INTRODUCTION

HL refers to the knowledge, motivation, and competencies of individuals to access, understand, and apply health information for taking decisions for their own health. Those abilities are influenced by various social, environmental, and educational factors.

Limited HL has been reported in nearly 45% of the European citizens. Client groups with limited HL require an individual therapeutic and communication approach from the physiotherapist. To respond to this requirement, physiotherapists need to acquire solid HL competencies during their education.
Health literacy consultation skills are defined as the communication and teaching strategies that have been described as effective with limited health literacy clients. These include, plain language communication, which is the avoidance of medical jargon, Teach-Back (let the client explain the information in their own words to check understanding) and include skills related to shared decision making and promoting self-management.

- Your knowledge of health literacy
- Your consultation skills focused on health literacy
- Your opinion on using health literacy consultation skills (attitude)
- Your confidence in using health literacy consultation skills

This tool is made to help you reflect on your own competences.
It consists of a combination of a questionnaire and a video-observation tool.

You can use the questions for self-assessment, peer-assessment, or teacher/ supervisor assessment as well in learning activities at school as during your internships.

General questions

In which year of your study are you?	o 1 o 2 o 3 o 4 o more
How many months of internship have you completed?	o 0-2 o 3-6 o 7-9 o 10-12 o 13-15

A. Knowledge about health literacy

Please indicate how much you know about limited health literacy. Choose only one answer.

I know where to find information on limited health literacy		**1 Strongly disagree**	**2 Disagree**	**3 Neither agree/ nor disagree**	**4 Agree**	**5 Strongly agree**
1	I understand the challenges that clients with limited health literacy can have					
2	I know which groups are more likely to have limited health literacy					
3	I can name several health outcomes associated with limited health literacy					

B. I can adjust my communication and client educational skills to clients with limited health literacy

The following communication and educational skills have been described as effective with clients with limited (digital) health literacy. Please indicate on which level you use the following health literacy communication skills during conversations with simulated clients or in internship/practices. Choose only one answer.

Fostering the relationship – I engage with the client in a personal though professional way		**1 Not present/ Acquired**	**2 Partially present/ acquired**	**3 Present/ acquired to a minimal degree**	**4 Clearly present and largely acquired**	**5 Fully present/ acquired**
4	Client is greeted in a manner that is personal and friendly (e.g. asks how the client likes to be addressed, uses client's name).					

5	Determining what the client hopes to achieve by attending therapy.					
6	Attempts to elicit the full range of the client's concerns.					
7	Showing interest in how the problem is affecting client's life.					
8	Encouraging clients to ask additional questions.					
9	Consider working with a (professional) interpreter, if necessary.					
Examples from video observation						

Gathering information – I have appropriate skills to identify and to gather adequate information from clients with limited health literacy		**1 Not present/ acquired**	**2 Partially present/ acquired**	**3 Present/ acquired to a minimal degree**	**4 Clearly present and largely acquired**	**5 Fully present/ acquired**
10	Using instruments/ questionnaires to identify clients with limited health literacy.					
11	Identifying behavior typically exhibited by people with limited health literacy.					
12	Considering limited health literacy: do you need help to fill in forms? Cues: missed appointments, excuses, inconsistent information.					
13	Encouraging the client to expand in discussing his/her concerns by using active listening techniques (e.g., using various continuers such as Aha, tell me more, go on).					
14	Observing cues related to non-verbal communication to gather information about (not) understanding information.					

15	Creating a shame-free environment by using normalization.					
16	Being sensitive and capable in gathering information about the illness beliefs and the possible influence of personal/ environmental problems on physical problems (and in explaining this to the client).					
17	Asking about the (cultural) background and taboos of the clients which may influence their (illness)beliefs about cause and treatment and their coping style.					
Examples from video observation						

Providing information – I have appropriate skills to provide clear information to people with limited health literacy		**1 Not present/ acquired**	**2 Partially present/ acquired**	**3 Present/ acquired to a minimal degree**	**4 Clearly present and largely acquired**	**5 Fully present/ acquired**
18	Speaking slowly in short sentences.					
19	Using plain, understandable, non-medical language.					
20	Showing or drawing pictures.					
21	Using nonverbal communication to support the given information.					
22	Limiting the amount of information provided and asks to repeat it.					
23	Checking if the client understands the information (teach back, show me, chuck and chunk techniques, ASK me 3).					

24	Pausing after giving information with intent of allowing client to react to and absorb it.					
25	Judging appropriateness of written health information for clients with limited health literacy.					
26	Involving the client in what and why I am doing during examination and treatment.					
Examples from video observation						

Shared decision making – I involve clients with limited health literacy in shared decision making		**1 Not present/ acquired**	**2 Partially present/ acquired**	**3 Present/ acquired to a minimal degree**	**4 Clearly present and largely acquired**	**5 Fully present/ acquired**
27	Confirming the request for help and indicate that you will discuss the various treatment options together.					
28	Reassuring the client that you will support and provide clear information, so that the client is enabled to participate in decision-making.					
29	Discussing the treatment options and the likely benefits, and harms of each option with the client.					
30	Supporting clients to explore 'what matters most to them', considering the client's: values, preferences and circumstances.					
31	Supporting the client to make an informed decision together (when necessary, after time to absorb and to discuss with significant others)					
Examples from video observation						

Enabling self-management- I apply strategies adjusted to clients' level of health literacy to enable self-management		**1 Not present/ acquired**	**2 Partially present/ acquired**	**3 Present/ acquired to a minimal degree**	**4 Clearly present and largely acquired**	**5 Fully present/ acquired**
32	Assessing barriers and facilitators related to therapy compliance (e.g. illness beliefs, shame, level of education, influence of the family, taboos, cultural influences etc.).					
33	Involving the client in formulating personalized goals and action plans.					
34	Using the influence of the social context in a beneficial way.					
35	Checking the understanding and acceptance of the follow up – plans for next time.					
Examples from video observation						

Responding to emotions – I respond to verbal and nonverbal emotional expressions	**1 Not present/**	**2**	**3 Present/**	**4**	**5**

		acquired	Partially present/ acquired	acquired to a minimal degree	Clearly present and largely acquired	Fully present/ acquired
36	Openly encouraging or is receptive to the expression of emotion (e.g., through use of continuers or appropriate pauses (signals verbally or nonverbally that it is okay to express feelings.					
37	Recognizing emotional expression.					
38	Identifying, verbalizing and accepting feelings.					
39	To elicit and be open-minded for clients' concerns and needs and explore possible taboos.					
Examples from video observation						

Which skills would you like to develop in the next months? How do you plan to practice these goals?

C. Awareness of own attitude towards using health literacy communication skills and/ or teaching strategies

What is your opinion/ attitude on using health literacy communication skills and/or teaching strategies? Give an example of a concrete interaction with a client with limited health literacy. Reflect on own competences?

D. My confidence in using health literacy communication and client educational skills

How confident are you in your ability to:		1 Not confident at all	2 Not confident	3 Neither confident nor not confident	4 Confident	5 Very confident
40	adjust your communication and client educational skills to clients with limited health literacy.					
41	engage with the client in a personal though professional way.					
42	identify and gather adequate information from clients with limited health literacy.					
43	provide clear information to clients with limited health literacy.					
44	involve clients with limited health literacy in shared decision making.					
45	apply strategies adjusted to the clients' level of health literacy to enable self-management.					
46	respond to verbal and nonverbal emotional expressions.					
47	create a shame free environment for clients with limited health literacy					
48	stimulate clients with limited health literacy to manage their own health.					

Which learning goals would you like to reach in the next months?

References:

de Haes, H., & Bensing, J. (2009). Endpoints in medical communication research, proposing a framework of functions and outcomes. *Patient education and counseling, 74*(3), 287-294. https://doi.org/10.1016/j.pec.2008.12.006

Elwyn, G., Tsulukidze, M., Edwards, A., Légaré, F., Newcombe, R. (2013). Using a 'talk' model of shared decision making to propose an observation-based measure: Observer OPTION 5 Item. Patient Education & Counseling, 93 (2): 265-71. https://doi.org/10.1016/j.pec.2013.08.005

Kaper, M. S., Sixsmith, J., Koot, J. A., Meijering, L. B., van Twillert, S., Giammarchi, C., ... & de Winter, A. F. (2018). Developing and pilot testing a comprehensive health literacy communication training for health professionals in three European countries. *Patient education and counseling*, *101*(1), 152-158. https://doi.org/10.1016/j.pec.2017.07.017

Mackert, M., Ball, J., & Lopez, N. (2011). Health literacy awareness training for healthcare workers: Improving knowledge and intentions to use clear communication techniques. *Patient education and counseling*, *85*(3), e225-e228. https://doi.org/10.1016/j.pec.2011.02.022