RaRisC_4Health training course

A mental models approach to risk communication on health applications of ionizing radiation

1. Course objectives

The course is aimed to provide an introductory course on the development, implementation, and testing of risk communications concerning ionizing radiation, with a particular focus on medical imaging.

With this course students are expected to:

- Understand differences between how experts and non-experts (laypeople) evaluate risks to themselves and to others.

- Learn basic principles, methods and techniques on why and how to collect scientific evidence from experts and non-experts, to inform risk communications concerning ionizing radiation.

- Understand the importance of testing and evaluating communications, to ensure their effectiveness.

- Develop problem solving and planning competencies for developing risk communications concerning ionizing radiation, by applying the learning acquired to specific case studies/scenarios in medical imaging.

2. Target audience:

High priority applications: Early career researchers (e.g. post-docs) and PhD students.

Other applicants: Senior career researchers, practitioners, continuing professional education, master students.

Maximum Number of participants: **12**

3. Dates and location:

- September 4 to September 12, 2023 (except September 10), Catholic University of Portugal, Lisbon.

4. Registration:

The registration is free of charge but approval is dependent on a successful application (see below).

5. Key dates

June 28 – Applications deadline

July 4 – Decision on applications

July 28 – Deadline for registration

July 28 – Deadline for accommodation confirmation

September 4 – Course start

6. Application procedure

Applicants should submit the documents below, to rgaspar@ucp.pt by June 30:
• Professional/academic CV
• A motivation letter;
• A supporting letter from an academic/professional supervisor (e.g. for Master/Phd candidates, this would be the supervisor)

7. Travel and accommodation

Accommodation will be offered by the organization but participants can also chose other places at their own expenses. Travel and other costs need to be covered by the participants themselves.

For additional travel support, please inquiry directly the PIANOFORTE partnership https://pianoforte-partnership.eu

8. Course programme content

1. Introduction to the Mental Models Approach to Risk Communications

- Experts vs. non-experts: From risk assessment to risk perception

- Risk communication: From diverging views, to shared understandings

2. Introduction to ionising radiation.

2.1 Fundamentals and applications of ionising radiation.

2.2 Biological effects of radiation.

2.3 Environment radioactivity

2.4 Nuclear and radiological emergencies

3. Experts' Mental Models – What do non-experts need to know, to make informed decisions?

3.1 Scientific evidence on ionising radiation use in medical imaging.

3.2 Tools for scientific evidence synthesis.

4. Laypeople's Mental models – What do non-experts know and how do they make judgements and decisions?

4.1 Methods and techniques to collect evidence on knowledge, beliefs and attitudes of patients undergoing examinations with ionizing radiation

5. Risk communications: effectiveness and impact

5.1 Effective communication strategies and target audience engagement

5.2 The role of randomized controlled trials in evaluating risk communications

6. Risk Communication in Medical Imaging

6.1 Patients' Rights and Duties, Informed Consent, Patient Anxiety, and Effective Educational Strategies.

6.2 Risk communication with vulnerable populations – Case studies.

9. Programme schedule

	Monday 04/9	Tuesday 05/9	Wednesday 06/9	Thursday 07/9	Friday 08/9	Saturday 09/9	Monday 11/9	Tuesday 12/9
08:30 - 09:00								
09:00 - 09:30	Welcome session	2. Introduction to ionising radiation I	3 Experts' Mental Models I	4. Laypeople's Mental models I	5. Risk comms: effectiveness and impact I	6. Risk Comms in Medical Imaging I	6. Risk Comms in Medical Imaging II	*Assessment*
09:30 - 10:00	1. Mental Models Approach to Risk Comms I							
10:00 - 10:30								
10:30 - 11:00								
11:00 - 11:30								
11:30 - 12:00								Closing session
12:00 - 12:30		Lunch	Lunch	Lunch	Lunch		Lunch	Aperitif
12:30 - 13:00	Lunch							
13:00 - 13:30		2. Introduction to ionising radiation II	3 Experts' Mental Models II	4. Laypeople's Mental models II	5. Risk comms: effectiveness and impact II		6. Risk Comms in Medical Imaging III	
13:30 - 14:00	1. Mental Models Approach to Risk Comms II							
14:00 - 14:30								
14:30 - 15:00								
15:00 - 15:30								
15:30 - 16:00								
20:00 - ..			Social dinner					

10. Trainers/guest speakers

Name	Organisation
Ana Pires	Politechnic Institute of Lisbon (IPL) - Lisbon Higher School for Health Technology
Isabel Paiva	University of Lisbon – Technical Higher Institute (IST), Nuclear and Technological Campus
Lina Vieira	Politechnic Institute of Lisbon (IPL) - Lisbon Higher School for Health Technology
Mário Reis	University of Lisbon – Technical Higher Institute (IST), Nuclear and Technological Campus
Marina Silva	Politechnic Institute of Lisbon (IPL) - Lisbon Higher School for Health Technology
João Martins/ Paulo Nunes	Portuguese Environmental Agency (APA)
Octávia Monteiro Gil	University of Lisbon – Technical Higher Institute (IST), Nuclear and Technological Campus
Rui Gaspar	Catholic University of Portugal, Faculty of Human Sciences
Tanja Perko	Belgium Nuclear Research Centre - SCK-CEN
Samuel Domingos	Universidade Lusofona de Humanidades e Tecnologias
Yevgenia Tomkiv *(tbc)*	Norwegian University of Life Sciences - NMBU

11. Organizing committee

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