



EUROPEAN GENERAL PRACTICE  
RESEARCH NETWORK



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## Abstract Book

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**20 - 23 October 2022**

**[www.egprn.org](http://www.egprn.org)**

# COLOPHON

Abstract Book of the 95th European General Practice Research Network Meeting  
Antwerp, Belgium 20 - 23 October 2022

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## Foreword

### Research on integrated community care: Focus on GP, patients and population

On behalf of EGPRN and the local organizing committee we welcome you at the 95th meeting in Antwerp in October 2022.

People and populations are faced with diverse and complex problems nowadays. Society is changing with an ageing population, multiculturalism, refugees, a pandemic and climate crisis. These changes have shown the fragility of our health care systems and the increased inequity within our society. This is a challenge for health and social care workers and society in general.

Traditionally family medicine and general practice is -focused on individual patients and their health problems and needs. Increasingly, GPs are providing interdisciplinary care towards improved health and wellbeing of their patients. However, trends and challenges in our society demand for an increase in interdisciplinary working – bridging the gap between health and social care and focusing more on the whole community and the determinants of their health and wellbeing and working across sectors and together with the stakeholders in the community. This means changes towards an integrated community care approach. It implies a shift from disease-oriented and problem-based care towards goal-based and patient-centred care. Key is co-development with individuals and communities, as well as connection between health and social care to improve clinical outcomes in terms of efficiency, effectiveness, and patient satisfaction. Integrated community care needs interdisciplinarity to have a common understanding of the problems and to find solutions. This approach builds upon the local community and its defined population. The local community is the living environment of the population for which we take care as GPs and other health care providers. Each local community has its own challenges in terms of population (demographics, health problems and vulnerability) but it also offers opportunities as a natural environment with sustainable resources and dynamics of health and social care providers.

What does this mean for research in primary care and general practice? First, the context of primary care research will shift increasingly from the individual clinical practice to community- and population-based research. Therefore, other, and innovative research designs are necessary, such as mixed-methods research, case study research and realist evaluation research, to evaluate integrated community care programs and participatory action research to support cocreation between fieldworkers, patients, and researchers. Outcomes of research can be both on the individual patient as on population and community level. Theme papers will focus on these innovative research methods to answer research questions on integrated community care. Freestanding papers will be welcome as well. Pre-conference workshops will offer an opportunity for researchers to discuss research designs with experienced researchers in the field.

### Host Organising Committee

- Ass. Prof. Dr. Hilde Bastiaens
- Ass. Prof. Dr. Lieve Peremans
- Prof. Dr. Roy Remmen
- Ass. Prof. Dr. Josefien Van Olmen
- Prof. Dr. Paul Van Royen

## Programme Overview

THURSDAY, 20th OCTOBER 2022					
Time	Scaldis (1st Floor)	Prentenkabinet (1st Floor)	Willem Elsschot (2nd Floor)	Gresham (2nd Floor)	Gerald Walschap (Ground floor)
9:30	Executive Board Meeting 09:30-13:00		Workshop 1 10:00 - 12:30 Workshop on developing Participatory Action Research	Workshop 4 10:00 - 12:30 Writing for Publication – Meet the Editors for Tips and Tricks!	
10:00					
10:30					
11:00					
12:00					
12:30					
13:00					
13:00-14:00	Lunch Break (Price is not included in the conference fee)				PuV-CoVa Group Study Meeting 13:00 - 17:00
14:00	Council Meeting 14:00-17:00	Workshop 2 14:00-16:30 How to start a research project on interprofessional collaboration?	Workshop 3 14:00-16:30 Population oriented research: how to overcome difficulties?		
15:00					
16:00					
16:30					
17:00	PR & Communication Committee 17:00-18:00	Research Strategy Committee 17:00-18:00	Educational Committee 17:00-18:00		
17:00					
18:00					
19:00-20:30	<b>Welcome Reception and Opening Cocktail</b> Location: Patio van 'Het klooster van de Grauwzusters' Address: Lange Sint-Annastraat 7/11, 2000 Antwerpen				



<b>FRIDAY, 21st OCTOBER 2022</b>			
08:00-08:30	Registration - Room Dürer (2nd Floor)		
08:30-08:45	<b>Tassis (2nd Floor)</b>		
	Opening of the Meeting by EGPRN Chairperson Tiny van Merode		
	Welcome by Local Host Prof. Dr. Lieve Peremans		
	International Keynote Lecture Dr. Heather L. Rogers		
	Plenary Session - Theme Papers		
11:10-11:40	Coffee Break - Dürer and Gresham (2nd Floor) - For regular attenders		
11:10-11:40	Blue Dot Coffee Break - For the first time attenders Foyer, 2nd floor, beside the Willem Elsschot room		
11:40-13:10	<b>Tassis (2nd Floor)</b>		<b>Willem Elsschot (2nd Floor)</b>
	Parallel Session A - Theme Papers: Exploration of patient needs in an integrated community context	Parallel Session B - Freestanding Papers: Not appropriated care	
13:10-14:10	Lunch - Dürer and Gresham (2nd Floor)		
13:10-14:10	Research Café! Buffet in room Scaldis and meeting in Prentenkabinet (1st Floor) Do you have any questions about research that you are doing or would like to do? Ask the EGPRN's experts at the lunchtime "Research Café"!		
14:10-15:40	<b>Tassis (2nd Floor)</b>		<b>Willem Elsschot (2nd Floor)</b>
	Parallel Session C - Theme Papers: Complex methodologies: challenges	Parallel Session D - Freestanding Papers: Organisation of care	<b>Prentenkabinet (1st Floor)</b>
			EGPRN Collaborative Study Group Meeting: Person-Centered Primary Care
15:40-16:00	Coffee Break - Dürer and Gresham (2nd Floor)		
16:00-17:30	Parallel Session E - Theme Papers	Parallel Session F - Freestanding Papers: Care for vulnerable people	EGPRN Collaborative Study Group Meeting: PHC-Eurodata-Covid19
17:30-17:40	Summary of the day Dr. Heather L. Rogers		
17:50-18:50	<b>Gerard Walschap (Ground Floor)</b>		
	EGPRN Collaborative Study Group Meeting: Örenäs		
18:00	<b>Practice Visits</b>		
	Location: 3 different options. Online pre-registration required, space is limited. Please see <a href="https://meeting.egprn.org/page/practice-visits">https://meeting.egprn.org/page/practice-visits</a> for more details.		

<b>SATURDAY, 22nd OCTOBER 2022</b>			
<b>08:30-09:10</b>	<b>Tassis (2nd Floor)</b>		
	National Keynote Lecture Prof. Hilde Bastiaens		
<b>09:10-10:40</b>	<b>Tassis (2nd Floor)</b>		<b>Willem Elsschot (2nd Floor)</b>
	Parallel Session G - Freestanding papers: Interprofessional collaboration		Parallel Session H - Freestanding Papers
	<b>Gresham (2nd Floor)</b>		
	Parallel Session I: Research Course Presentations		
<b>10:40-11:00</b>	Dürer and Gresham (2nd Floor)		
<b>11:00-12:30</b>	<b>Poster Sessions (7 sessions in different rooms)</b>		
	Poster Session 1: COVID-19 Location: Tassis (2nd Floor)	Poster Session 2: COVID-19 Location: Tassis (2nd Floor)	Poster Session 3: Diagnostic procedures. Location: Hall besides Willem Elsschot
	Poster Session 4: Vulnerable people. Location: Willem Elsschot (2nd Floor)	Poster Session 5: Screening and prevention. Location: Scaldis (1st Floor)	Poster Session 6: Innovation Location: Prentenkabinet (1st Floor)
	Poster Session 7 Location: Prentenkabinet		
<b>12:30-13:30</b>	Lunch - Dürer and Gresham (2nd Floor)		<b>Willem Elsschot</b>
<b>13:00-13:20</b>	<b>Prentenkabinet (1st Floor)</b>		12:30 - 13:00 Digital TRANSition and dIgiTal resilience in Oncology Group Meeting
	Invitation for a preliminary meeting to discuss a collaborative study for "How old do you feel? No food is allowed in the room.		
<b>13:30-15:30</b>	<b>Tassis (2nd Floor)</b>		<b>Willem Elsschot (2nd Floor)</b>
	Parallel Session I - Theme Papers: COVID 19		Parallel Session J - Freestanding papers: Diagnostic tools
<b>15:30-15:50</b>	Dürer and Gresham (2nd Floor)		
<b>15:50-17:30</b>	<b>Tassis (2nd Floor)</b>		<b>Willem Elsschot (2nd Floor)</b>
	Parallel Session L - One Slide Five Minute Presentations		Parallel Session L - Freestanding Papers: Patient centredness and involvement
<b>17:30-17:40</b>	Summary of the day Prof. Hilde Bastiaens		
<b>17:40-18:00</b>	Chairperson's Report by EGPRN Chair Tiny van Merode		
<b>18:00-18:15</b>	Presentation of the Poster-Prize for the best poster presented		
<b>18:15-18:25</b>	Introduction to the next EGPRN meeting		
<b>18:25-18:30</b>	Closing		
<b>19:30</b>	Social Night with Dinner, Dance and Music! Pre-booking online essential. Location: Horta Art Nouveau Room. Address: Hopland 2, 2000 Antwerpen, Belgium		

# Programme

## Thursday, 20 October 2022

- 09:30 - 13:00 **EGPRN Executive Board Meeting**  
Location: Scaldis (1st Floor)
- Only for Members of the Executive Board.  
09:30-13:00
- 10:00 - 12:30 **Workshop 1: Workshop on developing Participatory Action Research**  
Location: Willem Elsschot (2nd Floor)
- 10:00 - 12:30  
[Registration is required.](#)
- 10:00 - 12:30 **Workshop 4: Writing for Publication – Meet the Editors for Tips and Tricks!**  
Location: Gresham (2nd Floor)
- 10:00 - 12:30  
[Registration is required.](#)
- 13:00 - 17:00 **EGPRN Collaborative Study Group Meeting: PuV-CoVa**  
Location: Gerard Walschap (Ground Floor)
- 13:00-17:00
- 13:00 - 14:00 **Lunch**
- Price not included in conference fee.
- 14:00 - 17:00 **EGPRN Council Meeting**  
Location: Prentenkabinet (1st Floor)
- 14:00-17:00  
Only for EGPRN Executive Board and EGPRN Council members.
- 14:00 - 16:30 **Workshop 2: How to start a research project on interprofessional collaboration?**  
Location: Willem Elsschot (2nd Floor)
- 14:00 - 16:30  
[Registration is required.](#)
- 14:00 - 16:30 **Workshop 3: Population oriented research: how to overcome difficulties?**  
Location: Gresham (2nd Floor)

14:00 - 16:30

[Registration is required.](#)

17:00 - 18:00

**EGPRN Committee Meetings and Working Groups**

17:00-18:00

- EGPRN Educational Committee - Room Willem Elsschot
- EGPRN Research Strategy Committee - Room Prentenkabinet
- EGPRN PR & Communication Committee - Room Scaldis

19:00 - 20:30

**Welcome Reception and Opening Cocktail**

Location: Patio van 'Het klooster van de Grauwzusters'

Address: [Lange Sint-Annastraat 7/11, 2000 Antwerpen](#)

## Friday, 21 October 2022

08:00 - 08:30

### Registration

Location: Dürer (2nd Floor)

08:30 - 08:45

### Opening of the Meeting by EGPRN Chairperson

Location: Tassis (2nd Floor)

- Tiny Van Merode (Speaker)

08:45 - 09:00

### Welcome by Local Host

Location: Tassis (2nd Floor)

- Lieve Peremans (Speaker)

09:00 - 09:40

### International Keynote Lecture

Location: Tassis (2nd Floor)

- Tiny Van Merode (Chair)
- Models, theories, and frameworks for complex interventions: From concepts to application in primary care. - Heather L Rogers (Speaker)

09:40 - 11:10

### Plenary Session - Theme Papers

Location: Tassis (2nd Floor)

- Tiny Van Merode (Chair)
- Factors affecting the implementation of a comprehensive intervention program for prevention of cardiovascular diseases in community settings in Belgium - Kathleen Van Royen
- Health Kiosk: development and implementation of a low threshold community health literacy hub. - Caroline Masquillier
- Pulled in two directions: the tensions between implementation and established methods to evaluate in the same project, with marginalised communities - Harm Van Marwijk

11:10 - 11:40

### Blue Dot Coffee Break

Location: Foyer, 2nd floor, beside the Willem Elsschot room

For the first time attenders.

11:10 - 11:40

### Coffee Break

Location: Dürer and Gresham (2nd Floor)

For the regular attenders.

11:40 - 13:10

### Parallel Session A - Theme Papers: Exploration of patient needs in an integrated community context

Location: Tassis (2nd Floor)

- Pemra C. Unalan (Chair)
- Advance care planning among older people of Turkish origin in Belgium: an exploratory interview study - Hakki Demirkapu
- Breastfeeding mothers' experiences with community physicians in Israel: A qualitative study - Limor Adler
- Needs and expectations of transgender children and adolescents and their parents with regard to child psychiatry support. - Sidonie Chhor

11:40 - 13:10

**Parallel Session B - Freestanding Papers: Not appropriated care**

Location: Willem Elsschot (2nd Floor)

- Sophia Eilat-Tsanani (Chair)
- Family Conferences to facilitate shared prioritisation and deprescribing in frail elderlies with polypharmacy cared for at home. Results from of a pragmatic cluster randomized trial in primary care - Achim Mortsiefer
- Is willingness to deprescribe enough? Willingness to deprescribe and actual change in medication use over time: an analysis of trial data from older patients with polypharmacy - Katharina Tabea Jungo
- Patients' willingness to have medications deprescribed in Europe: Protocol for a cross-sectional survey study - Sven Streit

13:10 - 14:10

**Lunch**

Location: Dürer and Gresham (2nd Floor)

13:10 - 14:10

**Research Café**

Location: Scaldis and Prentenkabinet (1st Floor)

Do you have any questions about research that you are doing or would like to do?  
Ask the EGPRN's experts at the lunchtime "*Research Café*"!  
Buffet in room Scaldis and meeting in Prentenkabinet.

14:10 - 15:40

**EGPRN Collaborative Study Group Meeting: Person-Centered Primary Care**

Location: Prentenkabinet (1st Floor)

14:10 - 15:40

**Parallel Session C - Theme Papers: Complex methodologies: challenges**

Location: Tassis (2nd Floor)

- Paul Van Royen (Chair)
- A Search for relevant Contextual Factors in Intervention Studies, a Stepwise Approach with Online Information. - Michaël Van Der Elst
- Qualitative research in general practice: the need for specific quality standards in reporting qualitative studies - Annick Nonneman
- The sustainability of PBRNs and their contribution to community-based and population research - Anna Dania

14:10 - 15:40

**Parallel Session D - Freestanding Papers: Organisation of care**

Location: Willem Elsschot (2nd Floor)

- Jako Burgers (Chair)
- "A Day in the Life" - Distance medicine and its relation to Family Physicians' satisfaction from their work, and their perception of work quality - Galia Zacay
- The impact of remote and telemedicine visits on family physicians workload - Shlomo Vinker
- Unscheduled care, what match between demand and supply of care? A qualitative study. - Alain Mercier

15:40 - 16:00

**Coffee Break**

Location: Dürer and Gresham (2nd Floor)

16:00 - 17:00

**EGPRN Collaborative Study Group Meeting: PHC-Eurodata-Covid19**

Location: Prentenkabinet (1st Floor)

16:00 - 17:30

**Parallel Session E - Theme Papers**

Location: Tassis (2nd Floor)

- Peter Torzsa (Chair)
- Benzodiazepines deprescribing in the elderly : which collaboration between general practitioner and pharmacist? - Manon De Montigny
- Building bridges between community pharmacy and psychosocial care: the detection, discussion and referral of psychosocial problems in a pilot study with trained pharmacists - Eva Rens
- How Does “Home Health Services” Training During Family Medicine Residency Influence Medical Practice of the Physicians? - Pemra C. Unalan

16:00 - 17:30

**Parallel Session F - Freestanding Papers: Care for vulnerable people**

Location: Willem Elsschot (2nd Floor)

- Jacopo Demurtas (Chair)
- Breast cancer Long-term Outcome on Cardiac function: a longitudinal study - Laurine Van Der Wal
- Implementation of a lifestyle program in primary care among cancer survivors: lessons learned so far - Famke Huizinga
- Improving the quality of life of the hotel housekeepers: a cluster randomized trial evaluating a complex intervention in primary care - Oana Bulilete

17:30 - 17:40

**Summary of the day**

Location: Tassis (2nd Floor)

- Heather L Rogers (Speaker)

17:40 - 17:45

**End of the conference day**

17:50 - 18:50

**EGPRN Collaborative Study Group Meeting: Örenäs**

Location: Gerard Walschap

17:50-18:50

18:00 - 19:00

**Practice Visits in Antwerp**

Location: 3 different options.

Online pre-registration required, space is limited. The groups will leave from the conference venue. Please see <https://meeting.egprn.org/page/practice-visits> for more details.

## Saturday, 22 October 2022

- 08:30 - 09:10 National Keynote Lecture**  
 Location: Tassis (2nd Floor)
- Lieve Peremans (Chair)
  - General practice, primary healthcare and the community: linking the dots - Hilde Bastiaens (Speaker)
- 09:10 - 10:40 Parallel Session G: Freestanding Papers: Interprofessional collaboration**  
 Location: Tassis (2nd Floor)
- Radost Assenova (Chair)
  - A geriatric assessment intervention in primary care provided by a nurse or a GP (CEPIA) : a cluster-randomised trial - Veronique Orcel
  - An inventory of support, barriers and facilitators for a multicomponent lifestyle intervention for depressive symptoms in primary care: a qualitative study - Jolien Panjer
  - “Gaining control through close collaboration” – GPs’ experiences of a Collaborative Care Model for patients with Common Mental Disorders who need sick leave certification - Ausrax Saxvik
- 09:10 - 10:40 Parallel Session H: Freestanding Papers**  
 Location: Willem Elsschot (2nd Floor)
- Ayse Caylan (Chair)
  - Cardiovascular risk assessment in the 2021 European Guidelines on Cardiovascular Disease Prevention – A Population-Based Validation of SCORE2 and SCORE-OP - Yochai Schonmann
  - Identifying and prioritizing do-not-do recommendations in Dutch general practice - Jako Burgers
  - Patterns of physical, cognitive, and mental functioning among older primary care patients and differences in coping styles - Ljiljana Majnarić
- 09:10 - 10:40 Parallel Session I: Research Course Presentations**  
 Location: Gresham (2nd Floor)
- Mehmet Ungan (Chair)
  - Ferdinando Petrazzuoli (Chair)
  - Shlomo Vinker (Chair)
  - Physical activity on prescription in Belgian general practice: current state of affairs - Sherihane Bensemmane
  - Prevention in general practise : how does general practionner establish it ? - Aurore Girard
  - Psychological and neuropsychological syndrome associated with Long-COVID. - Raquel Gomez Bravo
- 10:40 - 11:00 Coffee Break**  
 Location: Dürer and Gresham (2nd Floor)
- 11:00 - 12:30 Poster Session 1: COVID-19**  
 Location: Tassis (2nd Floor)
- Davorina Petek (Chair)
  - Challenges and experiences of Latvian family doctors during the COVID-pandemic - Jānis Blumfelds
  - Impact of Economic and Pandemic Crises on the Mental Health of the Youths in a Deprived Area - Ana Eneriz Janeiro
  - Indicators to Monitor Primary Care Activity During the Covid-19 Pandemic in 27 European Countries: Eurodata Study - Sara Ares-Blanco
  - Mild severity COVID-19 mental health implications for patients in Greece: a qualitative study - Despoina Symintiridou



- Self-report credibility of anthropometric measures in the Israeli - Arab population during the corona-virus breakout - Joseph Azuri
- Self-triage tools during covid-19 outbreak: the CovidGuide app experience - Jacopo Demurtas

11:00 - 12:30

**Poster Session 2: COVID-19**

Location: Tassis (2nd Floor)

- Ilze Skuja (Chair)
- COVID-19 pneumonia in the outpatient setting in Italy: a population-based observational study - Davide Fornaciari
- Impact of Long/Post COVID on health-related quality of life and social participation in Germany: an online-based cross-sectional study - Dominik Schröder
- Mental health of general practitioners and family medicine specialists two years after the beginning of the COVID-19 pandemic - Jelena Danilenko
- Parental burnout in medical in non-medical community in Lithuania during the COVID-19 - Aelita Skarbaliene
- Real-time pandemic surveillance by the Covid-19 Barometer in General Practices in Belgium - Laura Debouverie
- The impact of rurality on the response of general practices to the COVID-19 pandemic outcomes from the PRICOV-19 study in 38 countries. - Ferdinando Petrazzuoli

11:00 - 12:30

**Poster Session 3: Diagnostic procedures**

Location: Hall besides room Willem Elsschot

- Carlos Martins (Chair)
- A mixed methods study of the awareness, diagnosis, and management of Familial Hypercholesterolaemia in Irish General Practice - Robyn Homeniuk
- Construction and Validation of an Individual Deprivation Index: a Study Based on a Representative Cohort of the Paris Metropolitan Area - Sarah Robert
- Diagnostic accuracy of blood tests for paediatric appendicitis, a systematic review and meta-analysis - Gea Holtman
- Diagnostic accuracy of tests suitable in primary care for acute diverticulitis: a systematic review and meta-analysis - Natasja Vijfschagt
- Psychometric properties of HSCL-5 and HSCL-10 to detect depression symptoms in Primary Health Care in Spain - Maria Rodriguez Barragan
- Real Life HbA1c variability profiles and association with ASCVD risk in T2DM - Alon Lapidus

11:00 - 12:30

**Poster Session 4: Vulnerable people**

Location: Willem Elsschot (2nd Floor)

- Naomi Aerts (Chair)
- Are immigrants living in France more reluctant to receive vaccines than native-born French citizens? findings from the national health Barometer study - Sohela Moussaoui
- Cancerless (Cancer Prevention and Early Detection Among the Homeless Population in Europe: Co-Adapting and Implementing the Health Navigator Model). - Jaime Barrio Cortes
- Community-oriented health promotion by the general practitioner in collaboration with the 'House of the child' - Jens Haegeman
- Effects of a digital intervention to improve primary care physicians' responses to Intimate Partner Violence (IPV) - Raquel Gomez Bravo
- Main Health Problems and Frequency of Depression and Anxiety Among Temporary Displaced Citizens to the Western Ukraine - Pavlo Kolesnyk

11:00 - 12:30

**Poster Session 5: Screening and prevention**

Location: Scaldis (1st Floor)

- Bernard Le Floch (Chair)
- Can be improved the screening for obstructive sleep apnoea syndrome in primary care? The Spanish version of the STOP-Bang questionnaire - Jesús González-Lama

- Clinical decision-making in patients that could have cancer: a vignette study comparing the Baltic states with the Nordic countries - Michael Harris
- Hip fracture prevention in Swedish 70-100 year old women 2001-2022: risk factors for mortality in intervention and control groups - Hans Thulesius
- Sociodemographic characteristics and cardiovascular events in patients with severe mental disorders - María Isabel Fernández San Martín
- Varicella surveillance among the patient population in Belgian general practice between 2019 and 2021 - Sherihane Bensemmane
- Why is the French colorectal cancer screening rates at 34.9 % ? According to GPs, a qualitative study - Paul Aujoulat

11:00 - 12:30

**Poster Session 6: Innovation**

Location: Prentenkabinet (1st Floor)

- Ana Luisa Neves (Chair)
- Capacity building through target group involvement – the Austrian Primary Health Care Platform - Kathryn Hoffmann
- Description of the BeoNet-Halle recruitment sample - Implementation of Broad Consent in a general practitioner setting. - Felix Bauch
- Evaluation of patient involvement activities during multiple stages of health research projects in German primary care: concept development for a meta-level study - Susanne Kersten
- Family-centred care and triadic medical consultations: Results from a pilot study - Heather L Rogers
- Patients' and physicians' attitudes towards artificial intelligence in primary healthcare: A qualitative study - Jana Gundlack
- What are the determinants of older people adopting communicative e-health services? A meta-ethnography - Ayse Aslan

11:00 - 12:30

**Poster Session 7**

Location: Prentenkabinet (1st Floor)

- Isabelle Auger (Chair)
- Acute gastroenteritis: a qualitative study of parental motivations, expectations, and experiences during out-of-hours primary care - Anouk Weghorst
- Antibiotic use in ambulatory care for acutely ill children in high income countries: a systematic review and meta-analysis - Ruben Burvenich
- Cluster Randomised Trial of a Goal-Oriented Care Approach for multimorbidity patients supported by a digital platform - Mariana Peyroteo
- Evidence-Based Review – the Benefits of Saffron for Depression Treatment - Berta Catalão
- Knowledge and skills toward Evidence-based medicine of General Practitioners in Greece - Eleni Jelastopulu
- Personal aptitudes, lifestyles, quality of life, use of services. Rural-urban differences in a health region - Maria Jose Fernandez Dominguez

12:30 - 13:00

**Digital TRANSition and dIgiTal resilience in Oncology Group Meeting**

Location: Willem Elsschot (2nd Floor)

Ends at 13:00

12:30 - 13:30

**Lunch**

Location: Dürer and Gresham (2nd Floor)

13:00 - 13:20

**Invitation for a Preliminary meeting to discuss a collaborative study for “How old do you feel?”**

Location: Prentenkabinet (1st Floor)

13:00 - 13:20

Long time EGPRN members Robert Hoffman, Israel and Tanju Yilmazer, Turkey invite those interested in discussing and participating in this study to meet with them. The project is about testing the usefulness of asking our older patients “how old they feel” during our primary care clinic intake. This simple question may prove to be very interesting and powerful. Come to join them! If you are interested but unable to meet at this time, feel free to contact either of them during the conference, or by email.

P.S: No food is allowed in the room. You may join the meeting after you have your lunch in the room Dürer and Gresham (2nd floor).

- Robert Hoffman
- Tefvik Tanju Yilmazer

13:30 - 15:30

### **Parallel Session J - Theme Papers: COVID 19**

Location: Tassis (2nd Floor)

- Slawomir Chlabicz (Chair)
- Impact of social support from family and friends on the perceived general health of patients diagnosed with Long-COVID - David Lerma-Irureta
- Understanding the behaviour of the Dutch population during the COVID-19 pandemic. The value of self-reported data in public health - María Villalobos
- Understanding Trustful Relationships between Community Health Workers and Vulnerable Citizens during the COVID-19 Pandemic: A Realist Evaluation - Peter Decat

13:30 - 15:30

### **Parallel Session K: Freestanding papers: Diagnostic tools**

Location: Willem Elsschot (2nd Floor)

- Ana Clavería (Chair)
- Clinical prediction rule for acute appendicitis in children in primary care - Guus Blok
- Effects of an ICT-supported hypertension management on antihypertensive medication: Results from the cluster-randomised controlled PIA-Study - Frauke Leupold
- How well does the eHealth tool recognize the health challenges in comparison to a nurse among the long-term unemployed? - Tuomas Koskela
- Point-of-Care C-Reactive Protein Test Results in Acute Infections in Children in Primary Care: A Post-Hoc Analysis - Liselore De Rop

15:30 - 15:50

### **Coffee Break**

Location: Dürer and Gresham (2nd Floor)

15:50 - 17:30

### **Parallel Session L: One Slide Five Minute Presentations**

Location: Tassis (2nd Floor)

- Ferdinando Petrazzuoli (Chair)
- Shlomo Vinker (Chair)
- Mehmet Ungan (Chair)
- Caring for Long Covid-19 patients in primary health care: a twinning study between Malta and Belgium - Sarah Moreels
- Continue or discontinue beta-blockers after myocardial infarction? – a case vignette study in Europe - Martina Zangger
- Diabetic patients' journey in healthcare: a multi-method, multi-center study proposal - Evrim Didem Güneş
- Enhanced care of patients with medically unexplained symptoms delivered by general practitioners - Martin Seifert
- ESSIDIA Pilot : enhancing recruitment in primary care : a mobile research unit - Irene Supper
- Gender gap and differences in efficacy and safety in the treatment of patients with coronary heart disease - Susanne Unverzagt
- General Practitioner's Personality type and chronic illnesses diagnosis. A cross sectional study - Ileana Gefaell

- Psychological symptoms in primary care: which symptoms persist more? - Asma Chaabouni
- Screening for post stroke depression by primary care physicians- an easy intervention of great importance - Olga Spivak
- The OECD' Patient Reported Indicators Survey (PaRIS) in Belgium - Amélie Van Vyve

15:50 - 17:30

**Parallel Session M - Freestanding Papers: Patient centredness and involvement**

Location: Willem Elsschot (2nd Floor)

- Hilde Bastiaens (Chair)
- Conceptual framework reflecting expectations, experiences and needs of parents and of children visiting their general practitioner with chronic gastrointestinal symptoms - Sophie Ansems
- Is self-triage by patients using a symptom-checker safe? - Andreas Meer
- What role do patients prefer in medical decision-making? - a population-based nationwide cross-sectional study - Carlos Martins

17:30 - 17:40

**Summary of the day**

Location: Tassis (2nd Floor)

- Hilde Bastiaens (Speaker)

17:40 - 18:00

**Chairperson's Report by EGPRN Chair**

- Tiny Van Merode (Speaker)

18:00 - 18:15

**Presentation of the Poster-Prize for the best poster presented**

- Pemra C. Unalan (Speaker)

18:15 - 18:25

**Introduction to the next EGPRN meeting**

<https://www.youtube.com/watch?v=YhtvgEhUfUE>

- Goranka Petricek (Speaker)

18:25 - 19:00

**Closing**

19:30 - 00:00

**Social Night with Dinner, Dance and Music!**

Pre-booking online essential and must be done before 14 October 2022. Onsite payments are not possible.

Horta Art Nouveau Room

Address: [Hopland 2, 2000 Antwerpen, Belgium](#)

## Sunday, 23 October 2022

09:30 - 12:00

### **EGPRN Executive Board Meeting**

Only for Members of the Executive Board

09:30-12:00

[Korte Klarenstraat 9A, 2000 Antwerp](#)

## **International Keynote Lecture**

### **Models, theories, and frameworks for complex interventions: From concepts to application in primary care**

**Dr. Heather L. Rogers**

Ikerbasque Research Associate, Biocruces Bizkaia Health Research Institute

In an Opinion on the Organization of Resilient Health and Social Care, the European Commission Expert Panel on Effective Ways of Investing in Health proposed a multi-dimensional conceptual framework combining elements of previous models. Integrated social and community care is critical to this model. Throughout Europe, innovative complex interventions have been created to improve health and social care systems. Updated guidance for the development and evaluation of complex interventions is now available by the UK Medical Research Council (Skivington et al., 2021). Furthermore, methodologies espoused by the field of implementation science have been useful for testing and understanding the effectiveness of complex interventions. See more details at ImpRes – Implementation Science Research Development Tool Guide (King's Improvement Science, 2018).

In line with the meeting theme, this talk will provide an overview of available implementation science research designs and evaluation approaches. It will also illustrate how these methods have been applied by primary care professionals in Europe. Through the examples, it will (1) emphasize the relevance of separating the complex intervention from the strategies used to facilitate its uptake or dissemination, (2) demonstrate the value of examining processes as well as multi-level outcomes in its evaluation, and (3) highlight the importance of exploring contextual factors that influence the real-world effectiveness of complex interventions.

## Local Keynote Lecture

### **General practice, primary healthcare and the community: linking the dots.**

**Prof. Hilde Bastiaens, MD, PhD**

Universiteit Antwerpen

The enormous challenges in healthcare are well defined and include an aging population, the rise of chronic conditions, changing expectations and needs, scientific innovations, increasing health inequality, shortage in health staff and rising budgets. A strong primary care is a cornerstone in addressing these challenges and in the pursuit of health and well-being for all. In their [‘Vision for primary health care in the 21st century’](#), WHO/UNICEF write that this future Primary Health Care (PHC) should entail three inter-related components: meeting people’s health needs throughout their life course through integrated healthcare; addressing broader determinants of health via multisectoral policies and actions; and engaging and empowering individuals, families, and communities for increased social participation and enhanced self-care and self-reliance in health.

If we want to realize this ambitious concept of PHC, a shift in the organization of primary (health)care is required, the role of general practice within this wider context will need to change and innovative primary care research is crucial to support this transformation. This lecture will sketch recent evolutions in the Belgian Healthcare Sector and will make the link with these challenges and evolutions within PHC, it will reflect on the consequent needs in primary care research and will illustrate this with concrete examples from research practice.

**Theme Paper / Finished study****Factors affecting the implementation of a comprehensive intervention program for prevention of cardiovascular diseases in community settings in Belgium**

Kathleen Van Royen, Naomi Aerts, Hamid Hassen, Hilde Bastiaens

University of Antwerp, 2000 Antwerp, Belgium. E-mail: kathleen.vanroyen@uantwerpen.be

**Keywords:** CVD prevention, local community settings, participatory action research, socio economically disadvantaged groups

**Background:**

Involving accessible community welfare organizations provide an opportunity to reach people living in vulnerable conditions who are often most at risk for cardiovascular diseases (CVD). In order to amplify systematic implementation of primary prevention of CVD in these settings, insight is needed in factors that determine successful implementation.

**Research questions:**

Which factors influence reach, adoption, implementation and maintenance of a comprehensive evidence-based prevention program for CVD in local community settings

**Method:**

A qualitative study with participatory action research approach was used to evaluate the implementation process of a comprehensive CVD intervention program in local community organizations. The program consisted of risk assessment of adults (40-75 yrs) and lifestyle coaching. Semi-structured interviews (N=22), comprising both individual and group interviews, were conducted with stakeholders, including implementers, coaches and volunteers.

With the aid of NVivo 1.5.1, an adaptive framework analysis was used according to the RE-AIM and CFIR frameworks.

**Results:**

Most significant identified facilitators included structural characteristics of local welfare organizations (e.g., trusted organizations); the adaptability of the intervention to the local needs of the organization and the target group; the compatibility with existing workflows; the ownership and engagement of the implementers; and organizational priority for prevention. Significant barriers included the complexity of the intervention; low compatibility for some settings; competition for other priorities/projects in a scattered healthcare landscape; and lack of resources such as time.

**Conclusions:**

Co-development and adaptability of the intervention to the local organizational needs, is a relevant strategy to enhance adoption, fidelity and maintenance of an evidence-based intervention program in the community. To tackle barriers such as lack of time and competition for other projects, it will be important to enhance collaboration between smaller local organizations. Emphasizing the added value and the quality of the intervention program, is crucial to support more leadership engagement which is key to a successful, adoption, implementation and maintenance.

**Points for discussion:**

How to further enhance the link between community welfare organizations and the primary care for primary CVD prevention



**Theme Paper / Finished study****Health Kiosk: development and implementation of a low threshold community health literacy hub.**

Caroline Masquillier, Hilde Bastiaens, Naomi Aerts, Kathleen Van Royen

Faculty of Medicine, Primary and Interdisciplinary Care, 2610 Wilrijk, Belgium. E-mail: caroline.masquillier@uantwerpen.be

**Keywords:** Health Kiosk, health literacy, socioeconomically vulnerable groups, outreach working

**Background:**

Being health literate is important to get sufficient health information, to navigate the health system, to access appropriate care and to be able to self-manage health. As such it is a key determinant of health. There is a need for innovative measures to improve health literacy among people living in socioeconomically vulnerable circumstances. In response to this need, a low threshold community health literacy hub was developed and implemented in a vulnerable neighbourhood in the city of Antwerp, within a broader project on the prevention of cardiovascular diseases (H2020 SPICES project).

**Research questions:**

The objective of this contribution is to describe the Health Kiosk guided by the principles underpinning the Integrated Community Care (ICC) framework—designed by the Transnational Forum on Integrated Community Care (i.e., TransForm).

**Method:**

A qualitative descriptive approach using in-depth interviews with implementers (founder, coordinator, intern) was taken. Interviews were audiotaped, transcribed and thematic analysis was done guided by the ICC framework. The research team was closely involved in all the steps of the development of the Health Kiosk, so was able to document the process from a participatory point of view. These observations and documents, such as meeting notes were used as additional data.

**Results:**

Several core ingredients of the Health Kiosk are important to stimulate health literacy among socioeconomically vulnerable groups, namely: (1) working in a community-based, outreaching way; (2) providing accessible health information and support to act on that knowledge; and (3) working in a flexible and independent way to adapt to local needs. As such, the Health Kiosk forms a community health literacy hub with low-threshold access for people living in socioeconomically vulnerable circumstances.

**Conclusions:**

To be able to focus on the core activity of the Health Kiosk—i.e., stimulating healthy living and health literacy—community building and considering the spatial environment of the neighborhood formed a fundamental basis.

**Points for discussion:**

Monitoring and evaluating grassroots innovations is challenging. We would welcome experiences of other researchers on evaluation these kinds of initiatives.

**Theme Paper / Finished study****Pulled in two directions: the tensions between implementation and established methods to evaluate in the same project, with marginalised communities**

Harm Van Marwijk, Tom Grice-Jackson, Elizabeth Ford, Geoffrey Musinguzi, Linda Gibson, Anne Van Marwijk, Hilde Bastiaens

Brighton and Sussex Medical School, BN1 9PX Brighton, United Kingdom. E-mail: H.VanMarwijk@bsms.ac.uk

**Keywords:** Implementation science, community health workers, mixed methods, lifestyle advice, cardiovascular risk, marginalisation

**Background:**

This paper addresses ways of evaluating implementation approaches with vulnerable communities, such as (remote) health coaching by community health workers for lifestyle improvement. We describe the tensions we experienced between implementation, and the use of qualitative, pragmatic evaluation methods or rigid randomised trial structures in 'Scaling-up Packages of Interventions for Cardiovascular disease (CVD) prevention in sites in Europe and Sub-Saharan Africa' (SPICES) during COVID19.

**Method:**

We reflect on method choices, particularly when working with 'vulnerable' groups, and particularly on how to share power with them, in an international intermediate CVD-risk prevention study. We discuss six SPICES projects in five countries and two continents to demonstrate tensions we faced when opening the research toolbox while working with vulnerable communities.

**Results:**

All tensions were linked to power differentials and how these impact on implementation and research in such complex marginalised settings. Tension 1 was in choosing between more or less participative evaluation methods. Tension 2 was to distinguish between 'strategies' and 'interventions'. Tension 3 was between short-term evaluation purposes and longer-term actual implementation/change. Tension 4 was about 'evidence': what is it, who defines it, how would we generate it, and who interprets it and how? Most participants from the South with high CVD 'risk' receive no CVD care, so we included them (5); and (6), 'vulnerability': entire countries are deprived in the South, versus particular areas in the North. 7 was the COVID19 pandemic.

**Conclusions:**

We advise co-designing projects early on, particularly in marginalised settings, including who sets the research questions and the research/implementation agenda.

**Points for discussion:**

Working with marginalised groups

Mixing methods

**Theme Paper / Published****Advance care planning among older people of Turkish origin in Belgium: an exploratory interview study**

Hakki Demirkapu, Lieve Van Den Block, Stéphanie De Maesschalck, Aline De Vleminck, F. Zehra Colak, Dirk Devroey

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**Keywords:** Advance care planning, older adult, ethnicity, minority group, qualitative study

**Background:**

Despite widespread recognition of the importance of future medical needs and end-of-life care, ethnic minorities show low engagement in advance care planning (ACP).

**Research questions:**

The aim of this study was to examine how seniors of Turkish origin in Belgium view ACP, and to identify facilitators and barriers to ACP in this population.

**Method:**

Employing a qualitative study design, a constant comparative analysis of semi-structured interview responses was conducted. A cohort of 33 adults, who were 65–84 years old (mean, 71.7 years; median, 74.5 years) and of Turkish origin living in Belgium, completed the study.

**Results:**

Although participants were unfamiliar with the term ACP, some had engaged in aspects of ACP. Respondents recognized that ACP was useful and were willing to discuss it. The most frequently mentioned ACP facilitator was the availability of community-adapted information. Other facilitators mentioned included active concerns about future care needs, respondents' children being aware of the advantages of ACP, and respondents' desire not to burden their children. The most frequently mentioned barrier was a lack of knowledge about ACP. Additionally, respondents expressed that ACP may be hindered by limited fluency with the national language, a lack of urgency, reliance on family, and worries about discussions of mortality upsetting their families and themselves.

**Conclusions:**

ACP engagement among seniors of Turkish origin in Belgium may be facilitated by the provision of tailored ACP information, the availability of linguistic interpreters, and programs promoting awareness of the importance of ACP to the community, including to the adult children of the elderly when appropriate.

**Points for discussion:**

Discussing ACP with ethnic minorities

**Theme Paper / Finished study****Breastfeeding mothers' experiences with community physicians in Israel: A qualitative study**

Elia Blitman, Aya Biderman, Ilan Yehoshua, Limor Adler

Israel Association of Family Physicians, 7935100 Sde Yoav, Israel. E-mail: adler\_l@mac.org.il

**Keywords:** breastfeeding, primary care, qualitative research, ante-natal care, postpartum care

**Background:**

The guidelines of all leading professional organizations recommend providing adequate support and education regarding breastfeeding; yet many mothers feel that they receive inadequate information from their health care providers in the primary care setting.

**Research questions:**

To expand our understanding of the breastfeeding-related experiences of mothers with primary care physicians (PCPs).

**Method:**

In this qualitative study, we interviewed breastfeeding mothers in Israel in the first six months after delivery. The interviews were conducted between December 2020 and May 2021. We used thematic analysis to explore women's attitudes and experiences with their PCPs regarding breastfeeding concerns.

**Results:**

We interviewed 13 women aged 24 to 37. We identified four main themes. The first of these was physicians' inconsistent attitudes toward breastfeeding. Some were indifferent, while others related to breastfeeding solely in the context of infant development. Some were supportive, while others opposed breastfeeding. Several women revealed physicians' inappropriate and disturbing attitudes to breastfeeding. The second theme was physicians' lack of knowledge regarding medical treatment for breastfeeding issues. This theme included lack of knowledge, incorrect treatment of breastfeeding problems, and contradictions among HCPs. The third was mothers' preference for alternative resources, including individualized breastfeeding counselling, maternity and childcare nurses, mothers' groups (in person or online), and family and friends over medical treatment for breastfeeding problems. The fourth theme involved mothers' suggestions for PCPs, which highlighted the importance of communication, prenatal physician-initiated dialogue on breastfeeding, expanding professional knowledge on breastfeeding, and increasing the availability of treatment for breastfeeding problems.

**Conclusions:**

The women in this study reported unsatisfactory breastfeeding support by PCPs and incorrect or inadequate treatment of medical problems related to breastfeeding. We believe that physicians should expand their knowledge on breastfeeding medicine and education programs for improving knowledge and skills in breastfeeding issues should be implemented throughout the medical training.

**Points for discussion:**

expanding knowledge in breastfeeding medicine

understanding patient' needs

qualitative studies as a good option for research in primary care

**Theme Paper / Ongoing study no results yet****Needs and expectations of transgender children and adolescents and their parents with regard to child psychiatry support.**

Sidonie Chhor

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**Keywords:** transgender, childrens, mental illness, psychiatric care

**Background:**

Research around the support of transgender adults has developed since the 1980s in France, as part of a movement of depsychiatrization and self-determination, supported by the various militant associations. However, studies concerning the psychological and child psychiatric support of transgender children and adolescents remain relatively recent in France. While this population had a higher prevalence of internalized and externalized psychiatric disorders, and remained more exposed to social exclusion and school bullying. Some studies have also highlighted the difficulty of access to care for transgender and gender non-conforming people, particularly with regard to primary care from general practitioners, in connection with several factors. Regarding mental health care, meeting with a psychologist or psychiatrist during the transition process can also be experienced as stigmatizing, and going against this desire for self-determination of transgender people.

The current care offer in child and adolescent psychiatry in the territory of Rennes, France does not include a reception specialized in the accompaniment of transgender children and adolescents.

**Research questions:**

The main objective of this study is to assess the expectations of children and adolescents concerning psychological and psychiatric support around transidentity and the transition process, as well as the different support strategies put in place.

The secondary objective is to collect parents' expectations around the mental health support of their child and their own support.

**Method:**

Qualitative study by semi-directed individual interviewing young people aged 5 to 16 who self-define as transgender or gender non-conforming, recruited in different places of care and as via social networks.

The variation criteria sought are age, gender, anteriority of transidentity evidence and social transition, family structure, sector of residence or socio-economic level.

The consent of the children and their parents will be collected.

A double coding of the verbatims will be done.

**Freestanding Paper / Finished study****Family Conferences to facilitate shared prioritisation and deprescribing in frail elderlies with polypharmacy cared for at home. Results from of a pragmatic cluster randomized trial in primary care**

Achim Mortsiefer, Stefan Wilm, Susanne Löscher, Anja Wollny, Manuela Ritzke, Eva Drewelow, Petra Thürmann, Veronika Bencheva, Jens Abraham, Gabriele Meyer, Birgitt Wiese, Andrea Icks, Joseph Montalbo, Attila Altiner

Institute of General Practice, Chair of General Practice II and Patient-Centredness in Primary Care, Department of Medicine, Faculty of Health, University Witten/Herdecke, 58448 Witten, Germany. E-mail: achim.mortsiefer@uni-wh.de

**Keywords:** polypharmacy, shared decisionmaking, frailty, family conferences, cluster randomised trail

**Background:**

For patients with geriatric frailty syndrome, the reduction of polypharmacy is a promising therapeutic option. Deprescribing is above all a challenge for communication between the different parties involved, such as patients, relatives, nursing staff and general practitioners.

**Research questions:**

The aim of this study was to investigate what effects family conferences on joint prioritisation and deprescribing can achieve in frail outpatients with polypharmacy.

**Method:**

Cluster-randomised, controlled intervention study with 114 GPs and 623 non-hospitalised patients with frailty and polypharmacy. Study physicians in the intervention group received three trainings on the application of a deprescribing guideline, including communication training. Three family conferences were conducted over a period of six months with the involvement of family caregivers and/or nursing services. Primary endpoint was the hospitalisation rate after 12 months. Secondary endpoints included the number of medications and parameters of geriatric assessments. Analysis using descriptive statistics and multilevel regression models.

**Results:**

Intention-to-treat analysis (n=510) showed no statistically significant difference in the adjusted mean number of hospitalisations between intervention group (0.98 (SD1.72)) and control group (0.99 (1.53)). In the per-protocol population (n=385), the number of medications taken evolved from 8.98 (3.56) to 8.11 (3.21) at six months and to 8.49 (3.63) at 12 months in the intervention group and from 9.24 (3.44) to 9.32 (3.59) at six months and to 9.16 (3.42) at 12 months in the control group, with a statistically significant difference at six months in the mixed-effect Poisson regression model (p=0.001).

**Conclusions:**

The mean number of hospitalisations did not differ between intervention and control group. After six months, the number of medicines taken per patient decreased by 0.87 in the intervention group, while it remained about the same in the control group. This is a quite powerful effect compared to other pragmatic deprescribing studies. However, this intervention effect was no longer significantly detectable after 12 months.

**Points for discussion:**

How to manage the process of deprescribing in the frail elderly?

What are the benefits of family conferences in primary care?

**Freestanding Paper / Almost finished study****Is willingness to deprescribe enough? Willingness to deprescribe and actual change in medication use over time: an analysis of trial data from older patients with polypharmacy**

Katharina Tabea Jungo, Kristie Weir, Damien Cateau, Sven Streit

Institute of Primary Health Care (BIHAM), University of Bern, 3012 Bern, Switzerland. E-mail: katharina.jungo@biham.unibe.ch

**Keywords:** deprescribing, older adults, multimorbidity, polypharmacy

**Background:**

There is a lack of evidence on whether patients' willingness to have medications deprescribed (i.e., discontinued or reduced) is associated with actual changes in medication use and medication appropriateness over time.

**Research questions:**

Is there an association between older patients' willingness to have medication(s) deprescribed and actual changes in medication use or medication appropriateness?

**Method:**

Data from the OPTICA trial were used. Patients were  $\geq 65$  years, with  $\geq 3$  chronic conditions, and  $\geq 5$  medications. Patients' were asked about their willingness to have medications deprescribed using the validated 'revised Patient Attitudes Towards Deprescribing' (rPATD) questionnaire. Medication appropriateness was measured using the Medication Appropriateness Index (MAI). Multilevel regression analyses adjusted for patient sociodemographic variables and clustering at general practitioner level were used to investigate the association between patients' baseline willingness to deprescribe and medication data (at 1-year follow-up).

**Results:**

298 patients completed the rPATD questionnaire. 45% were women and the average age was 79 (standard deviation=7). 88% of participants agreed or strongly agreed with the statement "If my doctor said it was possible, I would be willing to stop one or more of my regular medicines". We did not find any statistically significant association between older patients' willingness to have medications deprescribed and change in the number of medications or change in medication appropriateness during the 1-year follow-up period. Sensitivity analyses using other questions from the rPATD and the concerns about stopping score showed similar results.

**Conclusions:**

We did not find any association between patients' willingness to deprescribe, and changes to their medication use or medication appropriateness over time. Our results could be explained by patients' willingness to deprescribe hypothetically may not adequately reflect a patients' real willingness to have specific medications deprescribed, or patients being willing to change different medication(s) than those suggested by their physicians or the clinical decision support system tested in the trial.

**Points for discussion:**

What are other predictors of deprescribing uptake?

How can we translate patients' hypothetical willingness to have medications deprescribed into actual changes in medication use?

**Freestanding Paper / Ongoing study with preliminary results****Patients' willingness to have medications deprescribed in Europe: Protocol for a cross-sectional survey study**

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**Keywords:** Primary care, Survey, observational study, deprescribing, medication use

**Background:**

Polypharmacy has been associated with several health-related problems in older adults. To reduce inappropriate polypharmacy, deprescribing should be part of patients' care. Understanding patients' views and preferences in deprescribing at individual and country level may help health professionals to find effective ways to involve older adults when implementing deprescribing in primary care.

**Research questions:**

To investigate older adults' views and preferences on deprescribing in multiple countries and what role patient-GP relationship plays in deprescribing decisions.

**Method:**

This cross-sectional study is conducted in primary care settings in nine European countries. Eleven National Coordinator members of the EGPRN recruit 10 GPs per country, who recruit 10 patients each (total: 100 patients/site). Patients are included if they are  $\geq 65$  years and have polypharmacy ( $\geq 5$  regular medications). Patients will fill in an online or paper-based survey containing questions on sociodemographic characteristics, willingness to have medications deprescribed (assessed by Revised Patients' Attitudes Towards Deprescribing - rPATD), and patient-GP relationships (Wake Forest Physician Trust Scale). Patients are also asked about which specific medications they would hypothetically like to discontinue. To assess patients' willingness to have medications deprescribed across countries, we will compare the proportions of self-reported willingness to deprescribe and means of medicines number they would like to stop or reduce. We will report which medications were the most frequently considered for deprescribing and compare them across countries. To investigate the association between trust in physician and patients' willingness to deprescribe we will use multilevel mixed-effect ordered logistic regression models. Data collection began in May 2022.

**Results:**

Preliminary findings will be available at the conference.

**Conclusions:**

Investigating the role of patient-GP relationship in deprescribing and assessing which specific medications patients would rather stop or reduce will help health professionals and researchers to design and implement deprescribing interventions that consider patients' preferences.

**Points for discussion:**

How can we facilitate the recruitment of GPs and patients in research?

Which form of questionnaire is more efficient for enhancing response rate, on paper or online?



**Theme Paper / Published****A Search for relevant Contextual Factors in Intervention Studies, a Stepwise Approach with Online Information.**

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**Keywords:** Context – online information – complex intervention – frailty – method

**Background:**

In the D-SCOPE project, a complex intervention by means of home visits was set up to improve access to tailored care in 3 municipalities (Ghent, Knokke-Heist, and Tienen). The aim of the present study is to describe a stepwise approach to study which contextual factors might moderate the effect of healthcare interventions and to test the feasibility of this approach within the D-SCOPE project.

**Research questions:**

1) are there relevant standardized web-based public data available in these three municipalities? and 2) how can the contextual factors most likely to interact with the intervention and moderate its outcomes be determined?

**Method:**

The present study was an exploratory case study. one designed and tested an approach including five steps: (1) a theoretical/conceptual discussion of relevant contextual factor domains was held; (2) a search was done to find appropriate web-based public datasets which covered these topics with standardized information; (3) a list of all identified contextual factors was made (inventory); (4) to reduce the long list of contextual factors, a concise list of most relevant contextual factors was developed based on the opinion of two independent reviewers; and (5) a Nominal Grouping Technique was applied.

**Results:**

Three public web-based datasets were found resulting in an inventory of 157 contextual factors. After the selection by two independent reviewers, 41 contextual factors were left over and presented in a Nominal Grouping Technique which selected 10 contextual factors. The NGT included seven researchers, all familiar with the D-SCOPE intervention, with various educational backgrounds and expertise and lasted approximately one hour

**Conclusions:**

The present study shows that a five-step approach is feasible to determine relevant contextual factors that might affect the results of an intervention study. Such information may be used to correct for in the statistical analyses and for interpretation of the outcomes of intervention studies.

**Points for discussion:**

How to operationalize contextual factors in complex interventions?

**Freestanding Paper / Almost finished study****Qualitative research in general practice: the need for specific quality standards in reporting qualitative studies**

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**Keywords:** Qualitative research design, quality standards, guidelines, general practice

**Background:**

For several years, general practice (GP) has been appropriating qualitative methods from the field of human and social sciences to develop research. In contrast to quantitative research, at the root of evidence-based medicine, qualitative research in GP is still in its early stages.

Incorporating qualitative findings into the "evidence-based" appears to be an opportunity given the complex, dynamic and uncertain nature of cases in general practice. This contextualisation remains largely insufficient due to the lack of adequate evaluation tools for the quality of scientific production.

**Research questions:**

What is the most appropriate critical reading framework for assessing the quality criteria of qualitative studies in general practice?

**Method:**

1. Literature review in the PubMed, Embase and Cairn databases of articles discussing quality in qualitative research based on: (1) qualitative research design; (2) quality standards (3) social and human sciences, (4) published after 2014.
2. Critical comparative analysis of the 3 validated publication standards COREQ, SRQR and RATS (Equator network) versus the quality standards of a qualitative study as referenced in the literature review.

**Results:**

The comparative analysis and the literature review identified quality standards for assessing qualitative studies. None of the three publication standards were 100% in accordance with the quality standards reported in the referenced literature. SRQR is the most consistent publication standard with quality criteria identified in the literature. COREQ is limited to focus groups and interviews, seeks to quantify, requires little justifications, and establishes few connections between key elements. RATS supplements SRQR with some relevant quality standards.

**Conclusions:**

The literature review and critical comparative analysis shows that quality of qualitative research in GP can be difficult to evaluate because of incomplete and non-specific reporting of key elements in the validated publication standards.

A new evaluation framework for qualitative scientific production in GP could be proposed on the basis of these results.

**Points for discussion:**

Strengths and weaknesses of the framework as an evaluation tool, as it has to encompass the diversity of qualitative studies, are that it respects complex philosophical underpinnings of particular methodologies, and it is pragmatic.

Transferability of the framework as an assessment tool to other academic works in health sciences (nursing, physiotherapy, pharmacy, psychology).

The new evaluation framework could be used to support the research design of an advanced master's thesis work.

**Theme Paper / Ongoing study with preliminary results****The sustainability of PBRNs and their contribution to community-based and population research**

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**Keywords:** PBRN, community-based research, population research, learning communities

**Background:**

The EGPRN research Strategy 2021 set the mission to support research capacity building, foster translations of evidence into practice, and establish networks and collaborations where healthcare stakeholders and policymakers have more vital involvement. Practice-based Research Networks (PBRNs) are the research laboratories of primary care. The global literature shows that they not only focused on improving individual practices through practice-based evidence but also on multi-dimensional implementations of patient-centeredness and community/population health. In the context of a Ph.D. dissertation, an international team of PBRN leaders supported a scoping review on the facilitator and barriers to building PBRNs. The same group now investigates the sustainability of PBRNs, analyzing 56 interviews with PBRN leaders worldwide. The material produced through this research is used as a foundation to develop an initiative with WONCA WPR to support the PBRNs and their international collaboration.

**Research questions:**

What factors sustain the development, maturity, and continuity of PBRNs?

**Method:**

We used an interview guide for the 56 semi-structured interviews. We used memos to summarize the content of each interview, and we used inductive thematic analysis to code the quotations into key elements, sub-themes, and themes. The categories that emerged from our previous scoping review subthemes were used for the initial grouping, while new connections that crossed one or more codes were processed using matrix analysis.

**Results:**

Communication linked to training and learning activities and continuous reform to respond to transformations or challenges in the broader healthcare environment characterize the continuity of PBRNs. The current developments in PBRNs globally are intertwined with patient-centeredness and a broader engagement of community stakeholders, while the most critical sustainability factor is securing infrastructural funding.

**Conclusions:**

Business models, integration of community and population approaches, impacting policymakers, and alignment with the healthcare environment are at the core of successful PBRNs.

**Points for discussion:**

- The PBRNs are the research farms of primary care, and their activity must be supported through international advocacy and in-kind contributions from primary care and family medicine organizations. One crucial element is to have a PBRN registry to know "who is who" and where they stand and a virtual community of communication, collaboration, and co-learning. This research study supports the main goals of the WONCA WPR initiative to develop a platform that will sustain the development and activity of PBRNs and includes a registry, a knowledge repository, and a communication platform for PBRNs. What do you think about this idea?

- Europe has been the cradle of PBRNs. This research is attuned to the research strategy of EGPRN. How could EGPRN support the WONCA WPR initiative? What other benefits or contributions the EGPRN would see from this study?

**Freestanding Paper / Ongoing study no results yet****"A Day in the Life" – Distance medicine and its relation to Family Physicians' satisfaction from their work, and their perception of work quality**

Galia Zacay, Limor Adler, Anthony Heymann, Shlomo Vinker, Yochai Schonmann, Robert Hoffman, Yossi Azuri, Ilan Green, Ilan Yehoshua, Avivit Golan Choen, Shani Afek, Michal Shani

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**Background:**

The COVID-19 epidemic accelerated the integration of telemedicine technology. Telemedicine is comprised of synchronic visits using video consultations or phone calls including physician-initiated encounters, and non-synchronic work such as e-mail, requests via the electronic medical record and online apps. The relationship between these changes and primary care physicians' satisfaction, and their perception of these "encounters" has not been investigated.

**Research questions:**

1. Does the physicians' perception of encounter quality differ between distance encounters, non-synchronic requests and physical encounters?
2. Does The physicians' satisfaction differ between distance encounters, non-synchronic requests and physical encounters?
3. Do Non-synchronic requests generate more follow-up visits?

**Method:**

Cross sectional study among 67 primary care physicians (PCP) from the four Israeli health-maintenance-organizations. Each participant will document a full working day, by completing data from every encounter.

Data to be collected:

- Patient demographics and general health condition
- Was an appointment scheduled for the encounter?
- Type of encounter

Physician's evaluation of encounter (Scale 1 – 6):

- Was the chosen encounter format optimal for the specific medical problem?
- How did the PCP perceive quality of the encounter?
- Was the PCP satisfied with the encounter?

One month later the physician will check whether the documented encounters generated follow-up visits within the four-week period.

**Results:**

What has been achieved so far?

We recruited 67 PCPs who agreed to participate in this study. All have completed the first two stages

The first stage: Attending an online introduction meeting.

The second stage: Answering a questionnaire regarding their clinic demographics and characteristics.

The third stage: Documenting a day, has started during the last week of July. We plan to complete this stage by mid-August.

The fourth stage: Retrospective follow-up and evaluation of visits will be completed by mid-September.

We expect to have full results for the Antwerp EGPRN conference.

**Points for discussion:**

It would be interesting to repeat this protocol in other countries.

Is telemedicine good ? for the patients? for the physicians? what additional research can be done in order to further answer these questions?

**Freestanding Paper / Finished study****The impact of remote and telemedicine visits on family physicians workload**

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**Keywords:** telemedicine, work load, correspondence, face-to-face

**Background:**

In the COVID-19 pandemic, number of face-to-face visits to family physicians reduced dramatically. In Leumit Health Services (LHS) about two-thirds of visits became remote, using correspondence, telephone, or video consultations. Later on, patients resumed face-to-face visits while continuing to use remote modalities, non-face-to-face visits stayed at about 40%.

**Research questions:**

To evaluate the interchangeability between face-to-face visits and remote visits, we calculated the AADT (Accumulated Annual Duration of Time) of visits and the impact of the incorporation of remote medicine on workload.

**Method:**

A cross-sectional study based on the electronic medical records of all patients of LHS who had at least one visit to their primary care physician both in 2020 and 2021 (N=562,758 patients).

Patients had been classified into A) Remote medicine utilizers (RMU) – patients who used video or telephone visits. B) Correspondence utilizers (CU) – patients who used correspondence without using video or telephone. And C) Non-Remote utilizers (NRU) – patients who had only face-to-face visits. For each patient we calculated AADT, and we calculated the average AADT in each category of patients. We excluded all COVID-19 patients in 2020-2021 from the analysis.

**Results:**

The AADT increased by 56% among the 45,200 patients who were NRU and become RMU in 2021. AADT increased by 38% among the 38,300 patients who were CU and become RMU in 2021. The ADDT was reduced by 25% among patients who were RMU and become NRU in 2021. Patients who were in the same category in 2020 and 2021 stayed almost at the same ADDT.

The AADT of the entire cohort had a net increase of 5% in 2021 in comparison to 2020.

**Conclusions:**

The new remote visit modalities were additive visits and increased workload. Stakeholders should be acknowledged that this extra time spent with the patients increases costs and burn-out, yet without any proven outcome benefits.

**Points for discussion:**

remote vs. face-to-face

how to evaluate quality and effectiveness of remote medicine

lessons learned from COVID tele-consultations

**Freestanding Paper / Almost finished study****Unscheduled care, what match between demand and supply of care? A qualitative study.**

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**Keywords:** Ambulatory care ; Walk-in care ; health services accessibility ; Health care team ; Relations interprofessionnelles ; Needs assessment

**Background:**

In Europe, the number of patients visiting hospital emergency departments has been increasing steadily for the past 20 years. In France, only 46% of requests for unscheduled care require treatment in hospital emergencies. The literature suggests a mismatch between primary care supply and patient demand. Little data is available on the opinions of users, and whether these opinions are in line with those of carers.

**Research questions:**

The objective of this work was to understand the match between the demand for unscheduled care and the supply of care based on an analysis of the experience of users and health professionals at the territorial level.

**Method:**

A qualitative study by semi-directed interviews collected the experiences and opinions of users and health professionals.

**Results:**

30 users, 22 doctors and 6 nurses were interviewed. The definition of unscheduled care was not consensual. Users integrated administrative demands, while carers did not. The care system was perceived to be overloaded and placed the responsibility for determining the urgency degree on the user without any reference point. Organisational problems contributed to self-censorship patterns. Doctors did not integrate these notions and emphasised the notion of delay (2-5 days) to get an appointment. For the doctors, the presence of dedicated time committed the professional to receiving unscheduled care and limited the stress of managing it. The group practice was favoured by the carers (quality of life) and by the users (flexibility of solutions). Triage was carried out by the secretaries, who did not feel legitimate to do so, which was a source of stress. Some facilities had the sorting done by a nurse on medical criteria.

**Conclusions:**

Users hesitated between not consulting and going to the emergency room and felt powerless to make decisions adapted to their needs. They asked for a dedicated comprehensive care system with a capacity for reassurance and referral.

**Points for discussion:**

- In a context of decreasing health care supply and increasing demand, how can we give users the tools to better determine the degree of urgency and to properly direct them towards the health care system adapted to the situation?

What role should users be given in the governance of this system? What place should be given to non-medical carers?

What would be the right indicators to pilot this system at the local level?

**Theme Paper / Finished study****Benzodiazepines deprescribing in the elderly : which collaboration between general practitioner and pharmacist?**

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**Keywords:** Benzodiazepines, z-drugs, deprescribing, collaboration, pharmacist, general practitioner**Background:**

In Belgium, in 2016, it was estimated that more than one out of three patients over 75 used benzodiazepines or z-drugs. Despite a general awareness of the non-indication of these molecules for chronic use in the elderly, general practitioners have great difficulties. Although the literature shows that the collaboration between pharmacist and GP is very useful in reducing this consumption, this seems to be missing in Belgium.

**Research questions:**

How can we explain the lack of collaboration between these providers on this issue? What kind of partnership do they imagine for the future?

**Method:**

A literature review followed by a qualitative study using individual semi-directed interviews with French-speaking pharmacists and general practitioners. The coding analysis is iterative and the results are obtained by the consensus of two independent researchers.

**Results:**

Interviews were conducted with 6 general practitioners and 6 pharmacists. They confirmed that this deprescribing is a difficulty and is underpracticed for both the physician and the pharmacist. Collaboration between them is currently rare, although both are in need of more support. The physician wants to maintain leadership in deprescribing but wants the support of the pharmacist. The pharmacist expects the physician to provide clearer indications in order to better support patients in the process. Their exchanges should allow the physician to transmit his desire or agreement for a deprescription to the pharmacist who has made such a proposal. This collaboration, for example by phone or software should not exclude the patient, who remains an unquestionable actor in this process.

**Conclusions:**

To deprescribe more effectively, the collaboration between GP and pharmacist must be bilaterally motivated. The physician should be more proactive in proposing deprescribing schedules and should offer a more established place for the pharmacist in this process. The pharmacist should more easily contact the physician to propose a decrease in a patient's medication.

**Points for discussion:**

Both GPs and pharmacists denounce the abundance of means of communication. They want a clearer channel of communication, but offer many ways to get in touch in interviews. How can we agree on the most effective method of collaboration? Government initiative or case by case?

If collaboration between GPs and pharmacists is more fluid, how can we ensure that the patient is involved throughout the process?

**Theme Paper / Finished study****Building bridges between community pharmacy and psychosocial care: the detection, discussion and referral of psychosocial problems in a pilot study with trained pharmacists**

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**Keywords:** community pharmacy, psychosocial care, mental health**Background:**

Community pharmacists are increasingly consulted for healthcare advice and wellbeing promotion beyond medication management. Because of their high accessibility and trustworthiness, community pharmacists are in a good position to detect unmet psychosocial needs of their patients.

**Research questions:**

A collaboration between community pharmacy and psychosocial work was set up in Flanders, Belgium. During the pilot phase of the project, named "CAVAasa", the feasibility and potential of this collaboration was investigated. Community pharmacists were trained to detect and discuss a wide range of psychosocial needs (e.g., mental health problems, family problems, substance abuse...), to inform patients about possible help and to refer them to a Flemish Center for General Welfare Work if needed.

**Method:**

A total of 71 pharmacists participated. The study phase ran from October 2021 until January 2022. All contacts in which psychosocial wellbeing was discussed had to be registered using an online form. Moreover, focus group discussions were used to explore the pharmacists' experiences, barriers and facilitators in taking up a role in psychosocial care.

**Results:**

During the study phase, 79 patient contacts about psychosocial wellbeing were registered. The majority of patients were middle aged females. Family problems and mental health problems were discussed the most. Focus group discussions with 28 participating pharmacists revealed that they feel comfortable in taking up this role and recognize its added value. Patient satisfaction is a major driver. However, partly due to the coinciding COVID-19 pandemic, pharmacists experienced time constraints which may have resulted in an under-detecting and under-reporting of psychosocial problems.

**Conclusions:**

An intersectoral collaboration between community pharmacy and psychosocial care is feasible and promising. Adequate training about psychosocial wellbeing and care is crucial.

**Points for discussion:**

Should pharmacists take up an active role in psychosocial care?

Is it better for pharmacists to directly refer to psychosocial care, or is better to discuss this with the GP first?

What else can we do to detect people with unmet psychosocial needs (e.g. untreated mental health problems, domestic violence..)



**Theme Paper / Finished study****How Does “Home Health Services” Training During Family Medicine Residency Influence Medical Practice of the Physicians?**

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**Keywords:** Home Health Services, home care, education, experience, family medicine, practice

**Background:**

Family physician who has a key role in the provision of Home Care is considered to take part in this service delivery according to the basic discipline characteristics he/she is expected to provide this service. However, training on this topic doesn't have a standart during residency and there is no data yet on how physicians trained in HHSs and whether the training is effective in practice.

**Research questions:**

What kind of training is received during residency, perceptions of the family physicians and how it contributed to their daily practice?

**Method:**

Qualitative research method with audio recordings through focus group interviews and face-to-face structured in-depth interviews between 04,September 2021 and 04,February 2022 was used. Snowball method was used to recruit the family physicians who had HHS training during their residency. A total of 64 family medicine specialists were reached; 25 did not meet the inclusion criteria and 22 did not accept to participate in the study, a total of 16 were interviewed.

**Results:**

Physicians talked about their achievements, positive and negative experiences during residency training and providing HHS in their practice. Physicians' main argument was the HHS training is an opportunity to learn the basic principles and approaches of Family Medicine discipline. It is irreplaceably important in professional development, professional satisfaction and motivation. So the training methods and curriculum arrangements of Home Care training must be reviewed and best conditions must be integrated. They also mentioned negative experiences, too; the technical, structural and organizational problems during the consultation and referral, security concerns and physical difficulties experienced with the proxies were the emerging categories.

**Conclusions:**

HHS practicing physicians mention that HHS, Social Services and Family Medicine/Primary Care are a whole and a unique area to practice comprehensive and biopsychosocial care. So not only the effective training during residency but also the collaboration during practice is essential.

**Points for discussion:**

Is there any similarity with your home care training experience?

Can you suggest any learning/teaching method for more effective practicing skills of Home Care?

**Freestanding Paper / Ongoing study no results yet****Breast cancer Long-term Outcome on Cardiac function: a longitudinal study**

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**Keywords:** Breast cancer, cardiotoxicity, long-term outcomes, chemotherapy, radiotherapy

**Background:**

Breast Cancer (BC) is the most commonly diagnosed cancer among women in the Netherlands. Hence, every General Practitioner (GP) has around 25 BC survivors in his/her practice. In our previous, cross-sectional study, we showed that BC survivors ( $\geq 5$  years after BC diagnosis, median 10 years) treated with chemo and/or radiotherapy were at increased risk of mild systolic cardiac dysfunction. To date the implications of the results in terms of guidelines for the GP are unclear and there are no evidence-based guidelines for long-term survivors of BC. Therefore, we aim to perform a second measurement among the same women.

**Research questions:**

What are the long term ( $>11$  years) outcomes on cardiac function for women treated for BC compared to women without cancer of the same age? How does cardiac function change over time in women treated for BC compared to matched controls?

**Method:**

Longitudinal matched cohort study of two cohorts in primary care: 350 survivors of BC, diagnosed  $\geq 5$  years ago who received chemotherapy and/or radiotherapy, and 350 matched controls of the same age, without a history of cancer. A second measurement will be performed  $\geq 11$  years after diagnosis. The primary outcome is left ventricular systolic cardiac dysfunction, defined as LVEF $<54\%$ , measured by echocardiography. Secondary outcomes will be the rate of deterioration of cardiac function by change in LVEF and diagnosed cardiovascular diseases and medication as obtained from GP-files.

**Results:**

Results will include the prevalence of systolic dysfunction and cardiovascular diseases in BC survivors. Furthermore, we aim to provide insight whether treatment of BC is an independent risk factor for long-term cardiac dysfunction. The study is in progress and results will follow.

**Conclusions:**

This study will explore if cardiac function deteriorates at a faster rate for women treated for BC and which clinical and lifestyle factors contribute to this process.

**Points for discussion:**

Challenges in recruitment of participants after the long interval between the 2 studies

Should there be a guideline for monitoring and/or preventing cardiotoxicity for long-term survivors of BC?

Should we regularly screen cardiac function in women treated for breast cancer?

**Freestanding Paper / Ongoing study with preliminary results****Implementation of a lifestyle program in primary care among cancer survivors: lessons learned so far**

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**Keywords:** Lifestyle; physical activity; cancer survivors; primary care; implementation

**Background:**

Lifestyle receives increasing attention in clinical care of chronic diseases. Participation in lifestyle programs is generally low, especially for cancer survivors. They prefer a program that is accessible and close to home. However, there is little evidence on the implementation of lifestyle programs in primary care and the related barriers and facilitators.

**Research questions:**

To implement and evaluate a physical activity (PA) program for cancer survivors in 15 general practices.

**Method:**

In this participatory action research we include patients aged  $\geq 18$  years who finished cancer treatment  $\geq 6$  months ago. The intervention comprises six coaching sessions with the practice nurse (PN) over nine months, seeking to increase PA in daily activities using an activity tracker for goalsetting and feedback. The RE-AIM framework is used to evaluate implementation. Patient measurements include fatigue (FACT-F), depression and anxiety (HADS), weight, number of steps, aerobic endurance (step-test), lower limb strength (sit-to-stand-test), and self-reported PA (IPAQ), at baseline and after 12 weeks.

**Results:**

Reach: Until now, 82 of 344 invited patients participated in the program (24%). Participants were more often female ( $p=0.034$ ) and lower educated ( $p=0.006$ ) than non-participants. Effectiveness: after 12 weeks participants improved on number of steps ( $p=0.007$ ), the step-test ( $p<0.001$ ) and IPAQ-vigorous activities ( $p=0.042$ ), and reduced weight ( $p=0.041$ ). Many patients highly indicated that the PA program gave them more energy (45%). Frequent perceived barriers of patients were skin irritability of the Fitbit. Adoption: 15 of the 110 invited general practices participated (14%). General practitioners (GPs) and PNs indicated that the PA program is of added value and suits to their daily practice. Barriers of GPs and PNs were a lack of time and personnel.

**Conclusions:**

These preliminary results show that participants improved PA and aerobic endurance, and rate the program positively. GPs and PNs experience the program as valuable added care.

**Points for discussion:**

Is primary care (i.e. general practice) suitable for implementation of lifestyle care?

Despite the lack of standardization and a control group, participatory action research provides valuable and even crucial insights for clinical practice

**Freestanding Paper / Finished study****Improving the quality of life of the hotel housekeepers: a cluster randomized trial evaluating a complex intervention in primary care**

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**Keywords:** quality of life, primary care, housekeeping

**Background:**

The actual segregation of the labor market concentrates women in jobs with high time pressure and heavy workloads, such as hotel housekeepers (HHs). Their working conditions and occupational risk factors (e.g., physical, psychosocial) have a significant impact on their health and quality of life (QoL). A multifaceted intervention based on health promotion and empowerment conducted in primary healthcare (PHC) may improve the QoL of HHs.

**Research questions:**

The main objective of this study was to assess the effectiveness of a complex intervention to improve HHs' QoL, their lifestyles, psychological well-being and to reduce chronic pain.

**Method:**

Cluster randomized trial, 35 PHC centers: 17 randomized to intervention group (IG); 18 control group (CG).

Participants: HHs  $\geq 18$  years; health coverage in the Balearic Islands; worked in 2019 season.

Intervention: theoretical framework: intervention mapping process and integrated model for change (I-Change), multi-level: individual, group and community delivered by nurses, physiotherapists, psychologists (8 weeks). IG-3 individual+5 group visits, social prescription; CG-3 individual visits; usual care. Follow-up visit: 6 months.

Sample size: 594 HHs.

Measurements: QoL (SF36), smoking status, Mediterranean diet (PREDIMED), physical activity (IPAQ), chronic pain, Five Well-Being Index (WHO-5), Perceived Stress Scale, Self-efficacy, self-perceived health, social support (Duke).

Statistical analysis: intention-to-treat, generalized equation model.

**Results:**

35 PHC centers (17 IG, 18 CG). 1.223 HHs (IG 48.7%, CG 51.3%); mean age:  $47.2 \pm 8.7$  vs  $46.4 \pm 9.5$ ; Spanish nationality 54.9% vs 57.8%; 4-stars hotels: 56.7% vs 61.9%; mean rooms/day:  $17.4 \pm 6.0$  IG vs  $8.1 \pm 6.8$  CG; mean beds/day:  $43.9 \pm 20.3$  vs  $42.6 \pm 19.4$ . QoL: general health:  $\beta$  coefficient 0.2 (CI 95% -0.5-0.9), mental component score  $\beta$  0.7 (-0.2-1.5), physical component score  $\beta$  0.6 (-0.3-1.5); tobacco OR 2.1 (1.2-3.6); Predimed OR 1.8 (1.4-2.4); IPAQ OR 1.2 (0.9-1.5); chronic pain OR 1.1 (0.8-1.4); WHO-5 OR 1.0 (0.8-1.4); stress  $\beta$  -0.3 (-0.7-0.5); self-efficacy  $\beta$  0.1 (-0.5-0.6); Duke OR 1.2 (0.7-2.1); self-perceived health OR 1.2 (1.0-1.6).

**Conclusions:**

A complex intervention based on health promotion and empowerment did not improve the QoL of HHs compared to usual care. IG had two-fold higher probability of no smoking at 6 months and were more adherent to the Mediterranean diet.

**Points for discussion:**

quality of life

complex intervention

prevention, healthy lifestyles and empowerment

**Freestanding Paper / Finished study****A geriatric assessment intervention in primary care provided by a nurse or a GP (CEPIA) : a cluster-randomised trial**

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**Background:**

Comprehensive geriatric assessment (CGA) is a multidimensional holistic assessment of the health status of elderly people. Although its benefit is known in hospital care, its impact is uncertain in primary care.

**Research questions:**

We hypothesised that a complex intervention including a CGA adapted to primary care, educational training and specialised geriatric hotline to support GPs would be more effective on morbimortality of over-70s with chronic conditions than usual care in primary care.

The primary objective was to assess the 1-year morbimortality with a composite criterion combining all-cause mortality, emergency visits, hospitalisations, and institutionalisations.

Secondary objectives were assessed on each component of the composite criterion, quality of life, autonomy, polypharmacy, and care actions delivered.

**Method:**

The CEPIA study is a cluster randomised trial in 3 parallel arms between May 2016 and November 2017 in France.

Inclusion criteria were: patients over 70, with a long-term illness scheme or an hospitalisation in the past 3 months.

In arm 1, a systematic CGA (adapted to primary care) was provided by a nurse and in arm 2 a case-by-case basis CGA (adapted to primary care) was implemented by GPs. Arm 3 was usual care (control group).

Patients were followed up for 12 months, with 3 assessments (baseline, 6-month, 12-month).

Cluster randomisation was at the GP practice-level.

**Results:**

39 practices (89 GPs) included 634 patients: 231 in arm 1, 190 in arm 2 and 213 in arm 3.

In ITT analysis, after adjusting and multiple imputations, arm 2 tended to be significant, with  $p = 0.055$  (adjusted OR [IC95%] = 0.64 [0.41-1.01]). Arm 1 was not statistically significant.

**Conclusions:**

This study shows the effectiveness of an adapted CGA in primary care when provided by GPs. Delegation of tasks to nurses, with no real collaborative work, could explain the failure of the arm 1.

**Points for discussion:**

No GP called the geriatric hotline among the 2 interventional arms

More blood tests and medical imaging were prescribed in the control group

**Freestanding Paper / Ongoing study with preliminary results****An inventory of support, barriers and facilitators for a multicomponent lifestyle intervention for depressive symptoms in primary care: a qualitative study**

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**Background:**

Amongst people with depressive symptoms or a major depressive disorder a unhealthy lifestyle is more present. There seems to be a vicious circle where an unhealthy lifestyle causes more depressive symptoms, and depressive symptoms cause an unhealthy lifestyle. This unhealthy lifestyle is also associated with an increased risk for cardiovascular diseases. A possible way to break the vicious circle could be a multicomponent lifestyle intervention (MLI).

**Research questions:**

Is there a support base for a multicomponent lifestyle intervention for patients with depressive symptoms and what are important components of the intervention and possible barriers and facilitators for the implementation?

**Method:**

We interviewed 5 groups of stakeholders (general practitioners (GP), general practice based nurse specialists (POH-GGZ, POH-S), patients and lifestyle coaches (LC)) using a thematic analytic approach. Atlas TI was used to facilitate analysis. Mind mapping led to categories and themes. Results were used to adapt a MLI. The proposal for the adapted MLI was peer reviewed in a focus group.

**Results:**

We interviewed 5 GP's, 6 POH-GGZ, 5 POH-S, 7 patients and 5 lifestyle coaches. The interviews led to 2 final mind maps containing two themes: support base and intervention. These mind maps showed several points of consideration for a MLI: there is a support base for a MLI amongst most stakeholders. Several components, barriers and facilitators came up, to which attention should be given when designing an MLI.

**Conclusions:**

There is a support base for designing a MLI for depressive symptoms in primary care. When implementing such a MLI, the MLI should focus on establishing a sustainable change and on increasing intrinsic motivation, accessibility should be kept in mind and attention should be paid to psycho-education. The MLI can be given by LC's, when they're given extra education on depressive disorder and the impact it has on lifestyle.

**Freestanding Paper / Finished study****“Gaining control through close collaboration” – GPs’ experiences of a Collaborative Care Model for patients with Common Mental Disorders who need sick leave certification**

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**Keywords:** Primary health care; General Practitioner; Common mental disorders; Collaborative care; Care manager

**Background:**

General Practitioners (GPs) are an important part of collaboration around patients with common mental disorders in primary care. To further improve collaboration, the model Co-Work-Care was implemented, which emphasised working more closely with patients through active dialogues among care managers, rehabilitation coordinators and GPs. This enhanced collaborative model also included a person-centred dialogue meeting with patients’ employers.

**Research questions:**

To explore GPs’ experiences of the Co-Work-Care model – a collaborative care organisation at the primary care centre including a person-centred dialogue meeting in the care of patients with common mental disorders who need sick leave certification.

**Method:**

Design and setting: Qualitative individual and group interviews among Swedish GPs with experience of the Co-Work-Care trial where the primary care centre (PCC) was an intervention PCC with the enhanced collaboration model.

Method: GPs were sampled purposefully from different Co-Work-Care intervention PCCs in Sweden. Focus group and individual in-depth semi-structured interviews were conducted. All interviews were analysed by Systematic Text Condensation according to Malterud.

**Results:**

Three codes describing the GPs’ experiences of working in the Co-Work-Care model were identified: 1) A structured work approach, 2) Competency of the care manager and the rehabilitation coordinator, and 3) Gaining control through close collaboration.

**Conclusions:**

GPs experienced that the enhanced collaboration reduced their workload and enabled them to focus on the medical care. Patient care was perceived as safer and more effective. These advantages may result in higher quality in medical and rehabilitation decisions, as well as a more sustainable and less stressful work situation for GPs.

**Points for discussion:**

How does it fit in the different primary care organisations in other countries?

What’s in it for the doctor?

More job, higher costs, no control?

**Freestanding Paper / Ongoing study with preliminary results****Cardiovascular risk assessment in the 2021 European Guidelines on Cardiovascular Disease Prevention – A Population-Based Validation of SCORE2 and SCORE-OP**

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**Keywords:** Cardiovascular risk, SCORE2, SCORE-OP, population-based, validation study**Background:**

The 2021 ESC guidelines on cardiovascular disease prevention recommend using updated versions of the Systematic COronary Risk Evaluation prediction model (SCORE2 and SCORE-OP) for risk stratification to guide therapeutic interventions in apparently healthy people (primary prevention).

**Research questions:**

To assess the accuracy and clinical performance of the 2021 SCORE2 and SCORE-OP in a contemporary population-based cohort.

**Method:**

A historical cohort using routinely collected data from Israel's largest health provider, Clalit health services (CHS). We retrieved data on all 1,008,209 CHS members eligible for primary prevention and aged 40 years or over on 1/1/2012. We estimated participants' predicted ten-year cardiovascular risk, and followed them for ten years, or until they were hospitalized for any fatal or non-fatal atherosclerotic cardiovascular disease event (ASCVD).

**Results:**

We were able to calculate the SCORE and include 893,691 (88.7%) of all primary-prevention-eligible CHS members. The mean age was  $57.1 \pm 11.8$  years; 15.05% (134,493) were aged  $\geq 70$ ; 58.78% (525,318) were women, and 16.26% (145,358) were Arabs. The mean calculated ASCVD risk was 5.54 ( $SD \pm 5.17$ ). During a mean follow-up of 9.18 ( $SD \pm 2.15$ ) years, 44,959 (5.03%) people had experienced an ASCVD. The overall ratio of predicted-to-observed events (P/O) was 1.10 and the ROC area was 0.717 (95%CI 0.715-0.720). P/O was 0.97 for men, 1.25 for women, 0.70 for Arabs). 9.85% (88,097) of study participants were deemed by the 2021 guidelines as at a very-high-risk, and were more likely to experience an ASCVD (HR=4.24; 95%CI 4.15-4.33;  $P < 0.0001$ ); sensitivity 25.8% (95%CI 25.4-26.2); specificity 91.0% (95%CI 90.9-91.0); PPV 13.3% (95%CI 13.0-13.4); NPV 95.9% (95%CI 95.8-95.9).

**Conclusions:**

The 2021 versions of the SCORE overestimated ten-year ASCVD risk among women, and underestimated risk among Israeli Arabs, but provided overall good estimates for the general Israeli population. Guideline-based class I intervention cutoffs were specific, but not sensitive for predicting future events.

**Points for discussion:**

Are risk prediction calculators practical and useful for routine use in busy primary care?

What could be acceptable cutoffs for treatment in primary cardiovascular prevention?

How should individualized risk prediction calculation be incorporated into patients' and physicians' decision making



**Freestanding Paper / Published****Identifying and prioritizing do-not-do recommendations in Dutch general practice**

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**Keywords:** Family practice, Netherlands, Clinical practice guidelines, Low-value care, De-implementation**Background:**

Low-value care provides minimal or no benefit for the patient, wastes resources, and can cause harm. Efforts have been undertaken worldwide to identify these low-value care practices. The Dutch College of General Practitioners (GPs) runs a longstanding guideline programme including do-not-do recommendations.

**Research questions:**

To identify and to prioritize do-not-do recommendations for implementation to reduce low-value care.

**Method:**

We used a mixed method design in Dutch primary care. First, we identified do-not-do recommendations through a systematic assessment of 92 Dutch guidelines for GPs, resulting in 385 do-not-do recommendations. Second, we selected 146 recommendations addressing high prevalent conditions. Third, a random sample of 5000 Dutch GPs was invited for an online survey to prioritize recommendations based on the prevalence of the condition and low-value care practice, potential harm, and potential cost reduction on a scale from 1 to 5/6. Total scores could range from 4 to 22. Recommendations with a median score > 12 were included. In total, 440 GPs completed the survey.

**Results:**

The selection process led to a list of 30 prioritised recommendations. These covered drug treatments (n = 12), diagnostics (n = 10), referral to other healthcare professions (n = 5), and non-drug treatment (n = 3). Examples are not to prescribe antibiotics in children with acute otitis media, not to request imaging in patients with non-specific low back pain, not to refer to a (orthopedic) surgeon for an epicondylitis, and not to treat warts longer than 3 months with cryotherapy.

**Conclusions:**

The list of 30 high-priority do-not-do recommendations can be used to raise awareness of low-value care among GPs and to facilitate quality improvement projects. As the recommendations are supported with the latest evidence from international studies, GPs and policy makers in other countries can use the list for validating the list in their context and designing strategies to reduce low-value care.

**Points for discussion:**

Method for selecting and prioritising do-not-do recommendations from guidelines

Country and health system context sensitivity for accepting or rejecting do-not-do recommendations

De-implementation strategies to reduce low-value care

**Freestanding Paper / Finished study****Patterns of physical, cognitive, and mental functioning among older primary care patients and differences in coping styles**

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**Keywords:** aging, chronic diseases, multimorbidity, functional decline, coping with chronic stress, prevention

**Background:**

Chronic diseases tend to accumulate (multimorbidity), which accelerates the age-related decline in older individuals' physical, mental, and cognitive functioning. Older patients with chronic diseases are highly heterogeneous, which hampers delivering of individualized care and preventive strategies. Inadequate coping with chronic stress can accelerate aging and the development of comorbidities and functional decline.

**Research questions:**

How physical frailty, mental disorders, and cognitive impairment cluster together, and how these clusters are associated with comorbidities and coping styles.

**Method:**

Participants (N=263, F=172) were older individuals ( $\geq 60$ ), PC attendees, who were mobile and not suffering from dementia. For screening participants on physical frailty, cognitive impairment, and mental disorders, we used Fried's phenotype model, the Mini-Mental State Examination, the Geriatric Anxiety Scale, and the Geriatric Depression Scale. We used the 14-scale questionnaire Brief COPE to test participants on coping styles. To identify clusters, we used the fuzzy algorithm k-means. To further describe the identified clusters, we examined differences in age, gender, a number of chronic diseases, and some diagnoses of chronic diseases, in medications prescribed, body mass index, renal function decline (expressed as the glomerular filtration rate), and coping styles.

**Results:**

The most appropriate cluster solution was the one with three clusters, termed: functional (FUN) (N=139), dysfunctional (DFUN) (N=81), and cognitively impaired (COG-IMP) (N=43). The cluster FUN was associated with a positive reframing coping style. Religion and self-blame were coping mechanisms specifically associated only with cluster DFUN; self-distraction only with cluster COG-IMP; and these two latter clusters shared the mechanisms of behavioral disengagement and denial. Participants in particular clusters demonstrated significant variations in some other features, indicating differences in health status.

**Conclusions:**

Screening older individuals in coping styles can be used to predict the levels of physical, mental, and cognitive health decline, and to improve personalized prevention and treatment strategies.

**Points for discussion:**

Can we set up research protocols to support an integrated model of care?

**Web Based Research Course Presentation / Ongoing study no results yet****Physical activity on prescription in Belgian general practice: current state of affairs**

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**Keywords:** Primary care, physical activity, lifestyle, prescription**Background:**

Low physical activity is an important risk factor for various illnesses and accounts for more than 5% of the burden of a chronic disease. International guidelines suggest that adults should do at least 150 minutes of moderate aerobic physical activity a week.

In Belgium, physical inactivity is important and increases with age. Less than 35% of the population over 45 achieve the weekly goal. Furthermore, there is no policy on physical activity on prescription (PAP) at national level. However, local policies and initiatives exist.

**Research questions:**

To understand how PAP is organized and used in Belgian primary care.

**Method:**

The study is divided into three consecutive steps. In phase 1, desk research and stakeholder interviews were carried out to map initiatives and policies existing in Belgium.

In the second phase, a questionnaire will be applied to general practitioners (GPs), part of the Belgian network of Sentinel General Practitioners (SGP), to investigate the willingness to use PAP, type of patients targeted, and prior experience.

During the third phase 3, patient data will be collected retrospectively during one year by the SGP network data. Complementary data on PAP will be collected via regional/local programmes in the three Belgian regions.

**Results:**

Whilst approaches in the three Belgian regions are complementary, physical activity programs for patients differ. In Flanders, PAP is provided through coaching (motivational) sessions, whereas in Brussels and Wallonia, implemented initiatives focus on collective adapted physical activity sessions, sometimes including coaching. Wallonia plans to implement measures to promote physical activity. GPs represent the main prescriber of physical activity. Phases 2 and 3 have not started.

**Conclusions:**

This study informs on the current provision of PAP in Belgium. Moreover, it will allow us to investigate attitudes toward PAP in the Belgian general practices, quantify current use of PAP and provide an overview of PAP at national level.

**Points for discussion:**

Belgian regions do not have the same approach regarding PAP

There is a lack of harmonization at national level

**Web Based Research Course Presentation / Ongoing study with preliminary results****Prevention in general practise : how does general practionner establish it ?**

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**Keywords:** Prevention; General Practise;

**Background:**

Childhood obesity is a high prevalence problem all over the world. This problem induces important complications with a higher risk of chronic diseases. The risk of staying obese for an obese child is higher than 80%.

Despite all this facts, prevention messages of GP aren't constant or systematic to all children.

**Research questions:**

What are the different constructive elements of GP prevention message? How do they interact?

**Method:**

We realize a qualitative study on 30 general practionners semi-directed interviews. All the material was analyzed continuously in an inductive thematic analysis.

The elaboration of the scheme was completed all the time by new interview materials.

On the same time, scientific literature was explored to complete this analysis.

We completed the analysis with 10 observations on site to implement on this analysis.

**Results:**

We identified different factors that are linked in the construction of this messages:

1. GP work on a stage; they manage their consultations like on a theater scene. They need to construct a good moment and feel that it's the good way to speak about prevention
2. GP construct a time-based relation with their patients; even if they don't speak about prevention on a precise moment, they create the relation for later
3. GP are human. Sometimes it's not a good day for the GP himself
4. GP have previous idea on what their patients are ready for. They presuppose about patient's ideas.

**Conclusions:**

Different elements influence the message of GP. A lot of these elements are directly linked to the GP himself. To improve prevention and it can be implemented in GP practice, these elements have to be integrated in formations.

**Points for discussion:**

Applicability of the results in different country

Utilization of identified elements for GP formation

**Web Based Research Course Presentation / Ongoing study no results yet****Psychological and neuropsychological syndrome associated with Long-COVID.**

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**Keywords:** Long-COVID, COVID-19, post-COVID-19 syndrome, mental health, Psychological test, neuropsychological testing

**Background:**

Reports on long-term effects of COVID19 symptoms continue to rise while the pandemic is evolving. It is estimated that 30% of people treated for COVID-19 have developed 'Long COVID.' Several post-COVID syndrome categories have been described that cover a range of physical, psychological and neuropsychological symptoms, although these have not yet been sufficiently and adequately been described.

**Research questions:**

The overall aim of this project is to improve our understanding of the psychological and neuropsychological syndromes associated with Long COVID.

- 1) To describe the different syndromes associated with psychological and neuropsychological symptoms associated with Long COVID.
- 2) To analyze and phenotype the different syndromes associated with psychological and neuropsychological symptoms associated with Long COVID.
- 3) To identify the factors associated with the development of Long COVID characterized by psychological and/or neuropsychological features (e.g. infection related, treatment associated with COVID-19)

**Method:**

Methodology: Descriptive, cross-sectional survey using an online questionnaire and online neuropsychological testing.

Recruitment: Participants were recruited through public relations, social media and information campaigns targeting the general public and health professionals.

Sample size: Snowball technique / convenient sample

No ethical approval was needed.

The project was supported by the Luxembourg National Research Fund (FNR).

**Results:**

Our results will allow for the first-time to draw conclusions on a broad range of behaviorally assessed neuropsychological symptoms including psychological symptoms in a large (and international) sample.

**Conclusions:**

This project is of immediate urgency and will contribute to important knowledge for the public health management of the ongoing pandemic. The findings will provide recommendations specific to supporting not only country's pandemic management strategy but also how to combat the impact of Covid-19 at an international level. To the best of our knowledge such an online real-time approach to test for neuropsychological symptoms has not yet been carried in a larger Long-COVID cohort including controls.

**Poster / Ongoing study with preliminary results****Challenges and experiences of Latvian family doctors during the COVID-pandemic**

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**Keywords:** COVID-19 ; Challenges; experiences; Latvian; primary care**Background:**

There has been 844 142 confirmed COVID-19 cases in Latvia up to date. Coronavirus pandemic has brought numerous challenges and necessity to adapt and innovate in health care system around the world. Primary care is usually the first point of care for people in many countries, therefore being impacted significantly. Strong primary care shields against increased mortality and differences of organisation in this field between countries may be one of the factors for different mortality rates.

**Research questions:**

What positive /negative changes COVID-19 pandemic brought to primary care?

What aspects could be improved upon in COVID-19 patient care and vaccination?

**Method:**

Qualitative study was conducted in April 2022 to find out individual experiences of Latvian general practitioners during management of COVID-19 pandemic. Using purposive sampling method 16 GPs of different age, gender, experience, and practice settings were selected; Anonymous open question survey was distributed by personal invitation via e-mail or WhatsApp.

**Results:**

Twelve complete responses have been collected thus far. As of positive effects, most GP's admitted improved work organisation, rediscovered importance of teamwork and recognized revelations of possibility of remote counselling. Increased independence of patients was also noted. Financial aid for increased workload was appreciated. Among negative effects GP's admitted burnout, increased workload, neglected non-covid patient and prophylactic care, as well as inconsistent and unreasoned recommendations on management of pandemic and suboptimal functionality of e-platforms. Changes that GP's mentioned as positive, they mostly would like to see implemented in daily work after pandemic.

**Conclusions:**

COVID-19 pandemic has brought in forefront multiple positive aspects, like improved work organisation and teamwork possibilities, as well as showed the potential of remote counselling. New and existing problems in health care system organisation, workload management and E-Systems were recognized. Worry about returning to previous model of work organisation and lack of implementing "lessons learned" in the future was present.

**Poster / Ongoing study with preliminary results****Impact of Economic and Pandemic Crises on the Mental Health of the Youths in a Deprived Area**

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**Keywords:** MENTAL HEALTH, YOUTH, ECONOMIC CRISES

**Background:**

Successive economic and pandemic crises (including lockdowns) had a great health impact worldwide. These crises had exacerbated social problems and pre-existing social inequality, which are related to health inequities, especially in deprived areas. Teis neighborhood is one of the largest and most populated in Vigo. It's a deprived area of diverse, working-class people, where rural and urban spaces are also mixed

**Research questions:**

We wanted to assess the impact of economic and pandemic crises on the mental health and emotional well-being of child and adolescent populations in a deprived area: the Vigo neighborhood of Teis.

**Method:**

We carried out semi-structured interviews to key social agents of the neighborhood (teachers, social workers, mental health professionals, nurses, GPs, pediatricians). People who can offer us information on the mental health of Teis youths, allowing to make an approximation to its social, economic and community context.

**Results:**

Stakeholders pointed the Pandemic has a before and after event, but it is not being perceived as the main determinant. It aggravated emotional discomfort and previous mental health problems. Main mental health problems faced by adolescents are related to anxiety, among which the generalized increase in self-injurious behavior stands out.

The preliminary results of the study show a clear concern for mental health from educational centers, where agents raised sentences like: "that generates a feeling that I neither feel nor suffer, I am empty and if I cut myself I feel something". There is frustration among professionals and the perception of lack of resources, especially human resources in mental health.

**Conclusions:**

It is necessary to provide communities in general with resources to deal with the mental health problems of young people, which have increased after lockdowns but were present in the neighborhood.

**Points for discussion:**

Roles of educational centers and health centers on the mental health of the youths

Influence of social media

Importance of Community support

**Poster / Finished study****Indicators to Monitor Primary Care Activity During the Covid-19 Pandemic in 27 European Countries: Eurodata Study**

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**Keywords:** COVID-19, Primary Care, Clinical Pathways, Health Information System

**Background:**

Healthcare systems were and are under high-pressure during the COVID-19 pandemic. To organize healthcare services, monitoring cases and follow-up was essential. The main indicators were: number of cases, number of deaths, number of patients hospitalized and number of patients in intensive care units (ICU). However, although the majority of patients were treated in the outpatient sector, mainly in primary care, there was any official and Europe-wide indicator of the primary health care (PHC) COVID-19 cases

**Research questions:**

Was there any monitoring indicator of the primary health care (PHC) COVID-19 activity during the pandemic in the 27 participating European countries?

**Method:**

Retrospective descriptive study in 27 European countries between March 2020-August 2021. Main outcome: Any variables that describes PHC COVID-19 activity. Secondary variables: COVID-19 mobile App, Connection between COVID-19 App and PHC. Data was extracted from official sources considered relevant and reliable. Analysis: Descriptive analysis.

**Results:**

Ten countries collected information regarding PHC activity. Number of contacts, face-to-face appointments and number of follow-ups were recorded. In Belarus and Italy nearly all the population received medical care in PHC. Information regarding COVID-19 tests referrals issued by GPs was recorded in Poland. Cyprus collected the procedures during the PHC consultation: symptoms assessment, COVID-19 testing, X-ray and phlebotomy. Information from the sick leaves issued by the GPs was recorded in Rumania

**Conclusions:**

Indicators regarding PHC COVID-19 activity were not routinely recorded in Europe. The indicator more frequently collected was the total COVID-19 cases in PHC. It can be speculated that the neglect to monitor the COVID-19 activity in PHC in detail in many countries is a barrier to an overall and adequate response to the pandemic and should be solved soon



**Poster / Finished study****Mild severity COVID-19 mental health implications for patients in Greece: a qualitative study**

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**Keywords:** COVID-19, mental health, primary health care, Greece

**Background:**

Patients infected with COVID-19 who were quarantined and socially isolated, as well as those who were surrounded by incorrect information and misinformation, were more susceptible to unpleasant emotions such as panic and terror. The psychological repercussions of quarantine were aggravated by the detrimental effects of restricted physical activity and nutritional modifications among quarantined individuals.

**Research questions:**

How was the mental wellbeing of Covid-19 patients affected during the isolation?

**Method:**

This is a qualitative study. Adult patients with mild COVID-19 and confined at home participated in semi-structured interviews, conducted between week 2 and 3 after the diagnosis. Prior to participant enrolment, written informed consent was obtained. The interview guide focused on the illness, the management of the isolation weeks, the participants' knowledge and perceptions and the suggestions for improvement. Interviews were audio-recorded, verbatim transcribed and analyzed with thematic analysis.

**Results:**

After 37 interviews data saturation was achieved. A commonly reported negative feeling is fear. Participants report fear and insecurity about their condition and possible illness consequences (short-term and long-term complications, relapse, need for hospitalization and death), the fear of infecting others especially vulnerable family members in combination with a sense of guilt, and concerns about the economic impact of their illness on their family. Feelings of loneliness caused by isolation and concerns about social stigma were also reported. In some cases fear emerges with somatic symptoms such as insomnia, panic attacks and anxiety disorders. Participants indicate that receiving timely medical evaluation and psychological assistance, as well as having access to reliable sources of information could alleviate these concerns.

**Conclusions:**

Fear, insecurity and manifestations such as sleep and anxiety disorders in mild Covid-19 patients are detrimental to their mental wellbeing. Primary healthcare interventions in coordination with mental health services, delivered even to mild Covid-19 patients, could significantly assist in the management of long-term psychological consequences.

**Points for discussion:**

Are there any examples of mental health services for homebound COVID-19 patients provided by primary healthcare?

Is the use of telemedicine services adequate to alleviate the burden COVID-19 puts on patients' mental health?

**Poster / Finished study****Self-report credibility of anthropometric measures in the Israeli - Arab population during the corona-virus breakout**

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**Keywords:** Arab sector; Self-reporting; Anthropometric data**Background:**

Health promotion processes involve various anthropometric measures, such as blood pressure, height, and weight, which sometimes are based on the patients' self-report. It is therefore important to ensure the reliability of these reports. During the Corona outbreak, great variability in patients' anxiety levels was observed. According to the ECM (Confirmation-Expectation Model) model, anxiety may influence the patients' health perceptions and affect the self-report reliability. There is also a lack of information regarding the Arab populations' self-report reliability.

**Research questions:**

To examine whether anthropometric measures (blood pressure, height, and weight) collected from Arab patients in primary care clinics during the corona outbreak were reliable.

**Method:**

Questionnaires were distributed to patients using a mobile device when awaiting a primary care physician visit. They included demographic questions, a self-report of clinical indices, and an anxiety perception questionnaire. The data were compared to the actual measurement data.

**Results:**

239 patients, 54% males, mean age  $45.18 \pm 12.05$ , completed the questionnaire. There were no significant differences between self-report and actual measurements of weight ( $74.03 \pm 19.58$  vs.  $74.46 \pm 38.22$ , respectively,  $p=0.279$ ) or height ( $171.07 \pm 9.05$  vs.  $178.77 \pm 19.25$ , respectively,  $p=0.184$ ). Self-report of blood pressure was lower for systolic ( $133.22 \pm 15.34$  vs.  $135.08 \pm 16.88$ , respectively,  $p<0.001$ ) and higher for diastolic blood pressure ( $69.95 \pm 12.78$  vs.  $68.76 \pm 12.75$ , respectively,  $p=0.007$ ), although the differences were not clinically significant. Self-efficacy and anxiety symptoms were not associated with decreased reliability of the self-report.

**Conclusions:**

Self-reports of anthropometric parameters by Arab patients waiting for a primary care physician visit are reliable, even though the Corona pandemic.

**Points for discussion:**

Self-report of clinical measures among patients

**Poster / Ongoing study with preliminary results****Self-triage tools during covid-19 outbreak: the CovidGuide app experience**

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**Keywords:** triage, self-monitoring, safety, safety netting, covid-19, time to treat, point of care**Background:**

During the first phases of the pandemic many apps were launched to tackle the surge of covid-19, among those the CovidGuide app. The app is a conversational agent (CA) with a neural network artificial intelligence (AI) supporting users in defining the right time to treat and point of care for their healthcare problem. To be safe and effective, the advice of the app should be followed by the user. This can help reduce health systems overloading.

**Research questions:**

Can a self-triage app give safe and effective advice to patients in case of covid19-like symptoms?  
Can self-triage tools impact on primary care professionals' (notably GPs') burden?

**Method:**

CovidGuide database containing consultations results from inception to April 19 2022 was analyzed and the main descriptive statistical analyses were performed

**Results:**

On a total number of 374.179 consultations, the most frequent advice given was the indication to see the doctor today (38% of the consultations). 62% patients were females, 75% in the age range 14-49 years, main symptoms reported were viral syndrome not otherwise specified and throat symptoms complaints. 75.692 patients, 20% of cases, received indication for self-monitoring with safety net (ie indications on what to do in case of symptoms' worsening).

**Conclusions:**

Data retrieved so far depict the core features of the users of this app: women in age range 14-49 were the most represented category of CovidGuide users. Further exploration of factors influencing intention to comply with the app's advice, already ongoing, may help understand what brings people to use this kind of app and eventually follow the given advice.

Moreover, the huge number of consultations ending with the indications for self-monitoring may be investigated to understand whether it is possible to use these tools to decrease PCPs' burden.

**Points for discussion:**

safety of self-triage tools

intention to comply with AI-assisted self-triage tools advice

potential impact of this tools as gatekeeping tools

**Poster / Almost finished study****COVID-19 pneumonia in the outpatient setting in Italy: a population-based observational study**

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**Keywords:** #COVID-19 #pneumonia #italy #primarycare #observationalstudy #electronichealthrecord

**Background:**

While around 80% of symptomatic SARS-CoV-2 infections are characterised by mild to moderate respiratory symptoms, two out of ten patients develop severe disease, with pneumonia being the most common clinical outcome. Little is known about the prevalence and the patient management of SARS-CoV-2 related pneumonia in Italian general practices.

**Research questions:**

To describe the clinical features of outpatients with SARS-CoV-2 related pneumonia and the management strategies of Italian general practitioners (GPs) in the province of Modena (Italy).

**Method:**

Retrospective study of SARS-CoV-2 infected adult outpatients managed by their GPs from March to May 2020 to April 2021. Data on GPs' monitoring and treatment strategies, patients' clinical and socio-demographic characteristics, hospitalisation and death were extracted from the GP's electronic medical records and were analysed using descriptive and bivariate statistics.

**Results:**

5340 patients from 46 GP practices were included in the analyses and among these 1457 (27%) developed pneumoniae with (12%) or without (15%) respiratory failure. Among these, 940 (66 %) were managed entirely in the outpatient setting by GPs. 59% of patients received paracetamol, 33 % NSAID, 59% antibiotics, 37% corticosteroids, 47% LMWH, 14% oxygen and 3% hydroxychloroquine; significant differences were observed in prescription patterns between the first and subsequent waves. 921 (63%) patients with pneumonia received active monitoring while 611 (42%) were visited at home; this percentage remained stable despite the exponential increase in the overall number of cases and the resulting GPs' workload. 114 (8%) patients with pneumonia died, mostly (96%) with critical disease and 27 (24%) of deaths occurred in the outpatient setting.

**Conclusions:**

The study quantifies the important contribution of Primary Care to the management of COVID-19 outpatients with pneumonia in Italy and describes the variation of therapeutic and management strategies between the first and subsequent waves.

**Points for discussion:**

What is the added value of the GP home visit compared to remote management for patients with COVID-19 pneumonia?

What is the best home treatment for patients with COVID-19 pneumonia who choose, or are forced to, stay at home?

**Poster / Almost finished study****Impact of Long/Post COVID on health-related quality of life and social participation in Germany: an online-based cross-sectional study**

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**Keywords:** COVID-19; Long COVID; Pandemic; Quality of Life; social participation

**Background:**

The specification of patient-centered outcomes like health-related Quality of Life (hrQoL) and social participation can give insights to medical care needs of the affected persons. Especially in the case of a new and widely spread disease such as Long COVID, characterization of the disease is crucial in terms of disease management, treatment and planning of new therapies.

**Research questions:**

How does the health-related quality of life and social participation characterize in individuals with Long COVID compared to individuals without Long COVID?

**Method:**

A cross-sectional online survey was conducted in Germany. All persons 18 years or older were eligible to participate. Participants were divided in three groups: Long COVID with a prior SARS-CoV-2 infection and new or persistent symptoms 28 days after infection, ExCOVID with a prior SARS-CoV-2 infection and without new or persistent symptoms after 28 days and NoCOVID when participants had no prior SARS-CoV-2 infection. EQ-5D-3L was used as hrQoL measure and the Index for the Assessment of Health Impairments (IMET) to reflect social participation. Descriptive and inferential statistics were performed.

**Results:**

A total of 3,188 participants were included in the analysis (1,421 Long COVID; 260 ExCOVID; 1,507 NoCOVID). Long COVID was associated with the lowest EQ-5D-3L index values ( $p < 0.001$ ), Visual Analogue Scale (VAS) scores ( $p < 0.001$ ), and IMET ( $p < 0.001$ ) scores followed by NoCOVID and ExCOVID. About 10% of Long COVID participants showed no health impairments in all EQ-5D dimensions while 51.1% of NoCOVID and 60% of ExCOVID participants showed no health impairments. Long COVID participants were affected in heterogeneous impairment dimensions. The appearance of Long COVID was associated with lower hrQoL compared to NoCOVID ( $p < 0.001$ ) after adjusting for sociodemographic factors, medical factors and social participation.

**Conclusions:**

This study highlights the additional health burden of persons with Long COVID on hrQoL and social participation compared to individuals without Long COVID in Germany.

**Points for discussion:**

Treatment of Long COVID as a general practitioner

Heterogeneity of Long COVID symptoms

**Poster / Ongoing study with preliminary results****Mental health of general practitioners and family medicine specialists two years after the beginning of the COVID-19 pandemic**

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**Keywords:** mental health, COVID-19, general practitioners, family medicine specialists,

**Background:**

Mental health is greatly affected during times of considerable adversity and unstable political, social, and economic situations. During viral epidemic outbreaks various demographic, social and occupational factors influence the mental health of healthcare workers. Since general practitioners (GPs) and family medicine specialists (FMSs) are the gatekeepers of the healthcare system, during this pandemic they have been exposed to increased workload, stress, and risk of infection.

**Research questions:**

The primary aim is to assess the prevalence of anxiety, depression and fear of COVID-19 in GPs and FMSs two years after the beginning of the COVID-19 pandemic. The secondary aim is to explore factors that influence the level of anxiety, depression and fear.

**Method:**

An anonymous online survey was distributed to the target population in the following countries in Europe: Latvia, Macedonia, Slovenia, Germany, Italy, Albania, Serbia, Montenegro, Croatia, Bulgaria, Romania, Bosnia and Herzegovina, and Turkey, with the help of various national organizations of GPs and/or FMSs. The survey includes questions about sociodemographic and occupational data, as well as different scales for assessing mental health: PHQ-9, GAD-7 and Fear of COVID-19 scale.

**Results:**

At the time of writing this abstract, 1719 GPs and FMSs participated in the survey. The majority are female with 75,97%. The average age is 47,05±12,11. From the total, 43,68% are GPs and 56,32% are FMSs. More than half of the participants work in the public sector and ¾ work in urban areas. Since the survey isn't closed yet, we will be presenting the preliminary results of our research at the EGPRN conference.

**Conclusions:**

Taking care of the mental well-being and resilience of GPs and FMSs is essential in the fight against the COVID-19 pandemic. This study will shed more light on this problem and help us in creating new policies that will contribute to maintaining mental well-being among healthcare workers during the pandemic.

**Points for discussion:**

What are the most common factors that influence the mental health of healthcare workers during the COVID-19 pandemic?

How can we use the results of this research to help in creating better mental health support systems for physicians during pandemic outbreaks?

How to increase interest and improve response rates of GPs and FMSs in future research regarding mental health?

**Poster / Finished study****Parental burnout in medical in non-medical community in Lithuania during the COVID-19**

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**Keywords:** Parental burnout, community, healthcare professionals**Background:**

The number of employees' work-related stress is growing. 44.8 % of workers were classified as high personal burnout perceived group, 46.7% as high work-related burnout perceived group, and 35.1% as high client-related burnout perceived group. In prolonged work-related stress, burnout is arising. Burnout affects 5%–7% of the general population. It is a mix of exhaustion, cynicism, and ineffectiveness. Burnout victims get emotionally and physically exhausted. For those who must fulfill both professional and parental responsibilities burnout is more prevalent. As parenting has been shown to be both a complex and stressful activity, individuals with kid(s) are seriously facing the challenge of participating successfully both as employees and as family members, since involvement in any role is associated with additional demands on working hours, time allocated to care for children, and time for household tasks. The aim of this study was to reveal the parental burnout in medical and non-medical communities during COVID-19.

**Research questions:**

1. What is the prevalence of parental burnout in medical and non-medical communities?
2. What factors are associated with a higher level of parental burnout?

**Method:**

The questionnaire included demographics, Parental Burnout Assessment, Emotional Regulation Questionnaire, and Co-parental Cooperation tool. Data were collected from a sample of 408 Lithuanian parents.

**Results:**

The results revealed that healthcare professionals experienced relatively milder burnout in parenting activities than representatives of other professions. Greater burnout is caused by the younger age of parents, higher education, a higher number of children living together, and time spent helping children with education.

**Conclusions:**

Acknowledging that parenting can be challenging and exhausting for many parents, particularly in times of pandemic, may raise the initiatives by psychologists, public health specialists, social workers, teachers, etc. to help minimize the exhaustion of parenting and support individuals who suffer from parental burnout.

**Points for discussion:**

Differences in the level of parental burnout in medical and non-medical communities

Stigma of parental burnout in the community

**Poster / Ongoing study with preliminary results****Real-time pandemic surveillance by the Covid-19 Barometer in General Practices in Belgium**

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**Keywords:** Covid-19, Surveillance, General Practices

**Background:**

In Belgium, Covid-19 surge started in February 2020 and general practitioners (GPs) played a major role in testing and treatment, as the primary point of contact for patients with non-severe symptoms. To ensure a real-time Covid-19 pandemic surveillance with essential primary care data, the Covid-19 Barometer in General Practices version 2.0 (Covid-19 BGP) was launched in October 2020.

**Research questions:**

To describe the COVID-19 Barometer as a tool for semi-automatic real-time Covid-19 surveillance in primary care.

**Method:**

A majority of Belgian GPs use electronic medical records (EMR) to store patient data, including diagnostics and patient contacts. EMR software includes statistical modules and electronic forms (eForms) which were used by the Covid-19 BGP to collect data from the GPs. Partially pre-filled eForms are transferred daily by participating practices (Monday until Friday, holidays excluded). Participation is voluntary without pre-registration.

For Covid-19 surveillance purposes, 5 indicators were collected via the EMR: the number of patients with Influenza-like-illness, Acute Respiratory Infections, Suspected Covid-19, Confirmed Covid-19 or Viral Syndrome. The Covid-19 BGP also collects the daily percentage of diagnoses coded in the EMR and the estimated patient population of the practice, for data quality checks.

**Results:**

Between October 2020 and March 2021, the average daily participation rose above 1,000 practices. Over 2,000 practices, representing nearly 5,000 GPs (of the 11,935 practicing GPs in 2021 in Belgium), participated at least once to the Covid-19 BGP.

Weekly, data on Suspected Covid-19 are reported in the Belgian flu bulletins and the Covid-19 reports of Sciensano and are used as a source for predictive modelling, to support government crisis management.

**Conclusions:**

The Covid-19 BGP is an effective tool for real-time pandemic surveillance through primary care on a national level, to support crisis management.

**Points for discussion:**

The feasibility of an (semi-)automated surveillance tool in general practices

Ensuring the validity of technical developments in EMR softwares

Reporting data from real-time surveillance



**Poster / Finished study****The impact of rurality on the response of general practices to the COVID-19 pandemic outcomes from the PRICOV-19 study in 38 countries.**

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**Keywords:** quality of care, patient safety, pandemic, rurality, primary health care, COVID-19, PRICOV-19, general practice, family medicine

**Background:**

General practitioners (GPs) played a crucial role in the fight against the COVID-19 pandemic. However, they have experienced many barriers to fulfilling this role. The PRICOV-19 study investigates how GP practices in Europe were organized during COVID-19 to guarantee safe, effective, patient-centered, and equitable care. The PRICOV-19 study also aimed to describe the association between response to the pandemic and practice and health care system characteristics.

**Research questions:**

How did degree of rurality impact on the response of general practices to the COVID-19 pandemic?

**Method:**

Using a cross-sectional design, data were collected through an online questionnaire sent to GP practices in 37 European countries and Israel. The final version of the questionnaire included 53 items covering demographic details, management of patient flow, infection prevention and control, information processing, communication, collaboration and self-care.

**Results:**

A total of 5,539 GP practices participated in the study: 1,864 PC practices were located in Big (inner) city, 560 in Suburbs, 1,039 in (small) town, 1100 in a mixed urban-rural area, and 976 in a rural area. Statistically significant differences were found between rural, semi-rural and urban practices in the management of patient flow with the urban setting mainly adopting an appointment system while rural practices still operated a walk-in system. Significant differences were also found in the perceived limitations related to the building or the infrastructure of the practice to provide high-quality and safe care.

**Conclusions:**

The response to the Covid-19 pandemic in Europe was diverse and heterogeneous across and within countries. Practice location in terms of degree of rurality is shown here to be a key factor in how general practices across 38 countries responded to the COVID-19 pandemic and on the potential impact on patient safety and quality of care. Rurality should be a consideration when designing supports for general practice and family medicine within countries.

**Points for discussion:**

relevance of the rural-urban comparison

impact of Covid 19 pandemic in rural areas in your country

**Poster / Finished study****A mixed methods study of the awareness, diagnosis, and management of Familial Hypercholesterolaemia in Irish General Practice**

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**Keywords:** primary care, general practice, familial hypercholesterolaemia, hyperlipidemia, record screening, LDL cholesterol

**Background:**

Familial Hypercholesterolemia (FH) is a common genetic disorder, with an estimated global prevalence of 1:200-500, which leads to premature cardiovascular disease. It is estimated that there are 30,000 largely undiagnosed cases of FH in Ireland.

**Research questions:**

What is the current level of awareness of FH among Irish GPs? Is a model of care including electronic record screening, clinical assessment, and coding of possible FH patients feasible in general practice?

**Method:**

The study included a validated questionnaire, tailored online educational resources, a retrospective chart review of patients with a history of elevated LDL cholesterol (LDLc) and finally an active review with a selection of those patients.

**Results:**

Eighteen general practices agreed to take part in the study. In the initial survey, respondents rated their personal and practice familiarity with FH as slightly below average. Around one-third of respondents were unaware of guidelines for detecting and managing FH. Of over 55,000 adult patient records searched, only 0.2% had a recorded FH diagnosis and 3.9% had ever had an LDLc above 4.9mmol/l. Eight practices completed 198 chart reviews. Among these, 29.8% of patients had a family history recorded, and 22.2% had a family history of CVD. Female patients had higher averages for the highest and recent LDLc. Seventy patients underwent a clinical review – with 27% of these patients identified as 'probable' or 'definite FH'. There was a statistically significant ( $p=0.002$ ) relationship between FH status and whether the patient had other CVD risk factors.

**Conclusions:**

General practitioners in Ireland had similar levels of awareness of FH compared to international results. The activities of this project encouraged clinicians to consider FH during consultations, especially for those with elevated LDLc at a young age. Wider awareness of the condition in public and in general practice could increase conversations about FH and benefit patient outcomes.

**Points for discussion:**

As a GP, how do you make time for research/what would encourage you to participate in such projects?

As the practices are aware of this condition why is recognition of it in practice so low? Is taking a family history and/or checking for FH routine?

How could we improve diagnosing of FH in general practice without it being overly resource intensive? What is disease coding like where you are from?

**Poster / Published****Construction and Validation of an Individual Deprivation Index: a Study Based on a Representative Cohort of the Paris Metropolitan Area**

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**Keywords:** Social determinants of health · Deprivation · Index · France · Living standards · Health inequalities · Validity

**Background:**

The association between health status and deprivation is well established. However, it is difficult to measure deprivation at an individual level and already-existing indices in France are not validated or do not meet the needs of health practitioners.

**Research questions:**

The aim of this work was to establish a validated, easy-to-use, multidimensional, relevant index that was representative of the population in the Paris metropolitan area.

**Method:**

The sample was drawn from the 2010s wave of the SIRS cohort study which is representative of French-speaking adults living in the Paris metropolitan area. A total of 3006 people were included between December 2010 and December 2011 through a multistage cluster sampling procedure. First, 50 census blocks called "IRISs" were randomly selected from the 2595 eligible in the Paris metropolitan area. Then, 60 households were randomly chosen within each selected IRISs and third, one adult was selected within each household. A total of 14 socio-economic characteristics were selected: health insurance, educational background, socio-professional category, professional status, feelings of loneliness, emotional origin. In addition, a total of 12 health status, healthcare use, and nutrition-related variables were also selected. Content validity and internal validity of the index were explored.

**Results:**

The 14 socio-economic indicators were associated to varying degrees with poorer health status, less use of healthcare, and poorer nutrition and were distributed across the 14 multiple choice questions of the index. Each answer was rated from 0 to 2. The index value of 10 that isolates 20% of the most deprived individuals was used as threshold. "Being deprived," as defined with this value, was significantly associated with 9 of the 12 studied health variables. The Cronbach's alpha value was 0.68.

**Conclusions:**

This index could be a relevant instrument in the assessment of deprivation and social inequalities of health.

**Points for discussion:**

PRECAR index seems to be a relevant score for the general practice

Strength: met the content and construct validity criteria; fair internal consistency

Limitations: length of the index, needs to be regularly updated

**Poster / Finished study****Diagnostic accuracy of blood tests for paediatric appendicitis, a systematic review and meta-analysis**

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**Keywords:** Blood tests; Appendicitis

**Background:**

Possible appendicitis in children is a common emergency presentation. The exact value of blood tests in these children is debated.

**Research questions:**

What is the diagnostic accuracy of white cell count (WCC), neutrophil (count or percentage), C-reactive protein, and/or procalcitonin for paediatric appendicitis?

**Method:**

For this systematic review and diagnostic meta-analysis, MEDLINE, EMBASE, Central, Web of Science were searched from inception to March 2022 with reference searching and authors were contacted for missing/unclear data. We included studies reported on the diagnostic accuracy of the four blood tests compared to the reference standard histology or follow-up. Risk of bias was assessed (QUADAS-2), pooled sensitivity and specificity were generated for each test and for commonly presented cut-offs. To provide insight into clinical impact, we present several strategies using a hypothetical cohort of children suspected of appendicitis.

**Results:**

67 studies were included (34,839 children, 13,342 with appendicitis), all were in the hospital setting (73% in emergency department). The most sensitive tests were WCC ( $\geq 10,000$  cells/ $\mu\text{l}$ , 53 studies, sensitivity 0.85 [95% CI 0.80-0.89]) and absolute neutrophil count [ANC] ( $\geq 7,500$  cells/ $\mu\text{l}$ , five studies, sensitivity 0.90 [95% CI 0.85-0.94]). Applying results to a hypothetical cohort of 1000 children presenting with symptoms of appendicitis, of whom 400 have appendicitis, 60 and 40 children would be wrongly discharged based solely on WCC and ANC, respectively. The most specific tests were CRP alone ( $\geq 50\text{mg/l}$ , 38 studies, specificity 0.87 [95% CI 0.80-0.91]) or combined with WCC ( $\geq 10,000$  cells/ $\mu\text{l}$  and CRP  $\geq 50\text{mg/l}$ , individual patient data of six studies, 0.93 [95% CI 0.91-0.95]).

**Conclusions:**

The best performing blood tests for ruling-out paediatric appendicitis are WCC or ANC. With technology developing at pace these tests could be used at the point of care in combination with clinical prediction rules at the emergency department. Studies are needed to evaluate the diagnostic accuracy of these tests in primary care.

**Points for discussion:**

What would be the value of these tests in primary care?

Which test would be most applicable in primary care?

**Poster / Almost finished study****Diagnostic accuracy of tests suitable in primary care for acute diverticulitis: a systematic review and meta-analysis**

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**Keywords:** acute diverticulitis, diagnostic accuracy, c-reactive protein, ultrasound

**Background:**

Timely recognition of acute diverticulitis is important, because of (a small) risk for severe complications. The differentiation between acute diverticulitis and other gastro-intestinal disorders is challenging as symptoms overlap. Clinical tests could assist the clinician with this diagnostic challenge. Previous reviews have focused on prognostic questions and imaging examinations in a secondary care setting.

**Research questions:**

What is the diagnostic accuracy of clinical tests suitable in primary care for acute diverticulitis in suspected patients?

**Method:**

We have systematically searched MEDLINE, EMBASE and Web of sciences for studies about the diagnostic accuracy of tests suitable in the primary care (signs, symptoms, laboratory tests and ultrasound) compared to a reference standard (computed tomography, colonoscopy, surgery findings (histopathology) and/or follow-up) in patients (>16 years old) suspected of acute diverticulitis. Three independent reviewers selected studies, extracted data, and assessed study quality with the QUADAS-2 tool. We have constructed dumbbell plots with corresponding likelihood ratios (LR) for signs and symptoms and meta-analyzed laboratory tests and ultrasound results.

**Results:**

Sixteen studies were included (N = 4.283), all studies were performed in secondary care with a median prevalence of 49% (IQR 40 - 59). Signs and symptoms showed a LR+ range of 0.46 - 6.47 and a LR- range of 0.22 - 1.81. C-reactive protein >10 mg/L (4 studies) had the best diagnostic accuracy of the laboratory tests with a pooled sensitivity and specificity of 0.95 (95%CI 0.89 - 0.98) and 0.39 (0.28 - 0.52) respectively. Ultrasound (11 studies) had a high pooled sensitivity and specificity of 0.92 (95%CI 0.85 - 0.96) and 0.95 (95%CI 0.89 - 0.98) respectively.

**Conclusions:**

None of individual signs and symptoms were informative. CRP showed potential for ruling out acute diverticulitis and ultrasound had good diagnostic accuracies. More research is needed about the diagnostic accuracy of these tests in patients suspected of acute diverticulitis in primary care.

**Points for discussion:**

How do you establish the diagnosis of acute diverticulitis at the GP's office?

What do you think about the applicability of C-reactive protein?

Ultrasound showed a high diagnostic accuracy in our study, do you think ultrasound could be applicable in a primary care setting for acute diverticulitis or abdominal pain in general?

**Poster / Almost finished study****Psychometric properties of HSCL-5 and HSCL-10 to detect depression symptoms in Primary Health Care in Spain**

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**Keywords:** Primary Health Care; Family Practice; General Practitioners; Depression; Depressive Disorder; Questionnaires; Psychometrics; Validation Studies.

**Background:**

As a collaborative project of the Family Practice Depression and Multimorbidity group of European General Practice Research Network, the Hopkins Symptom Checklist-25 (HSCL-25) was identified as reproducible, reliable, and easy to use. It was translated and adapted to 13 European languages. There are different short versions of this scale that can be useful in the Primary Care (PC) settings.

**Research questions:**

What are the psychometric properties of the Spanish version of HSCL-10 and HSCL-5?

**Method:**

Multicentre, cross-sectional study. HSCL-25 was administered to outpatients aged from 45 to 75 in six Spanish PC Centres. All patients also conducted the structured Composite International Diagnostic Interview (CIDI). HSCL-10 and HSCL-5 were assessed and compared to HSCL-25 regarding total score correlation, internal consistency, and criterion validity against gold standard CIDI.

**Results:**

767 patients out of 790 complimented HSCL-25 (97.1% response rate). Mean age was 58.4 years ( $\pm$  8.2), 54.4% were women. 736 participated in the CIDI interview. Total score mean was 1.57 (SD 0.45) for HSCL-25, 1.55 (SD 0.50) for HSCL-10, and 1.72 (SD 0.59) for HSCL-5. Pearson's correlation was 0.955 (CI 95%, 0.95–0.96%) between HSCL-25 and HSCL-10, and 0.91 (CI 95%, 0.90–0.92%) between HSCL-25 and HSCL-5. Cronbach's alpha was 0.84 for HSCL-10 and 0.77 for HSCL-5. Sensitivity was 79.7% (CI 95%, 67.2–89.0%) for HSCL-10, and 78.0% (CI 95%, 65.3–87.8%) for HSCL-5, whereas specificity was 83% (CI 95%, 80.0–85.8%) for HSCL-10, and 72.8% (CI 95%, 69.3–76.1%) for HSCL-5. Area under the curve (AUC) against CIDI was 0.88 (CI 95%, 0.84–0.92%) for HSCL-10, and 0.85 (CI 95%, 0.81–0.89%) for HSCL-5.

**Conclusions:**

Spanish versions of the HSCL-10 and the HSCL-5 show acceptable psychometric properties to diagnose depression in PC and could be used for daily practice and epidemiological research.

**Points for discussion:**

Are these results similar in other language versions of HSCL-10 and HSCL-5?

Are short versions useful tools in Primary Care?

**Poster / Finished study****Real Life HbA1c variability profiles and association with ASCVD risk in T2DM**

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**Keywords:** diabetes mellitus, HbA1c, variability profiles, ASCVD**Background:**

Hyperglycemia correlates with the risk of atherosclerotic cardiovascular disease (ASCVD) in patients with T2DM. However, unequivocal correlations between HbA1c levels and the development of ASCVD have not been demonstrated.

**Research questions:**

We examined the association between intrapersonal dynamics in HbA1c and development ASCVD, hypothesizing that higher variability is associated with greater ASCVD risk.

**Method:**

A retrospective observational study on T2DM patients in the electronic registry of Maccabi HCS diagnosed Jan. 1st 2005 – Dec. 31st 2019. Inclusion criteria required: >3 years of follow-up, with at least four discrete HbA1c measurements per every 3 years. Prior ASCVD were excluded. The clinical endpoint was development of ASCVD. Intrapersonal HbA1c variables were calculated, descriptive statistics and Cox multivariate regression models were used to determine hazard ratios (HR).

**Results:**

Of 59,364 patients included, 4670 patients (7.9%) developed ASCVD with a follow-up of  $7.1 \pm 2.8$  years (cardiovascular (CV) cohort). The majority (63%) had an intrapersonal HbA1c profile of mean <7% & standard deviation (SD) <1. The basic Cox regression showed increased HRs for increased HbA1c mean and baseline CV risk factors, but not for rise in HbA1c SD. A second Cox regression model analyzing the highly variable (HbA1c SD >1) sub-population showed significantly increased HRs for increase in intrapersonal HbA1c mean range (HbA1c mean >8%, HR 5.3,  $p=0.004$ ) and SD >2 (HR 1.17,  $p<0.05$ ). Finally, 2959 patients developed ASCVD within 3 years, and were excluded.

**Conclusions:**

We identified three patterns of ASCVD in diabetes. First, ASCVD within 3 years, not included and deserves further investigation. Second, stable and well managed glycemic control (63% of CV cohort), suggesting that baseline risk factors are paramount in developing ASCVD, regardless of optimal glycemic management. For the remainder, both HbA1c mean and SD are ASCVD risk factors. Baseline risks notwithstanding, the more variable the intrapersonal HbA1c measurements are, the greater the risk of developing ASCVD.

**Poster / Published****Are immigrants living in France more reluctant to receive vaccines than native-born French citizens? findings from the national health Barometer study**

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**Keywords:** Hesitancy Vaccine Immunization Migrants**Background:**

France is one of the world's most vaccine hesitant countries and vaccine hesitancy (VH) is considered one of the world's leading threats to global health. However, little is known about VH in immigrant populations in France. Using data from the 2016 Health Barometer, we examined VH among newcomers, more established immigrants, and the native-born population in France.

**Research questions:**

What is the prevalence of VH among immigrants in France?  
Is the length of time since first arrival in France associated with attitudes towards vaccination?

**Method:**

Data was collected from French speaking individuals aged from 15 to 75 years old, residing in France. Individuals were selected through randomly generated landline and mobile phone numbers. Vaccine hesitancy was assessed through four questions and a "time spent in France" variable was created, using the year of arrival in France. Associations were studied using logistic regression.

**Results:**

A sample of 15,216 participants residing in France included 1,524 foreign-born immigrants and 13,692 native-born individuals, with a mean age of 46-years. Most participants (75.7%) reported being favorable to vaccination regardless of country of origin but immigrants were less hesitant toward vaccinations than the host population. Foreign-born immigrants from North Africa had the most favorable views whereas those from sub-Saharan Africa held most unfavorable views on vaccination. With time spent in France, the opinions towards vaccination became more negative (aOR = 0.57, 95 %CI [0.40–0.79], p = 0.001) and the risk of vaccine refusal (aOR = 2.34, 95 %CI [1.45 – 3.78] p = 0.001) and reluctant acceptance of vaccines increased (aOR = 1.89 95 %CI [1.20 – 2.99], p = 0.006). Foreign-born individuals with the longest residency in France had more negative opinions than native-born individuals, regardless of region of origin.

**Conclusions:**

Immigrants were less hesitant toward vaccinations than the host population, but vaccine hesitancy increased with time spent in France.

**Points for discussion:**

Acculturation: This study found that the more time spent in France after an immigrant's first arrival, the more their opinions on vaccine safety and efficacy became negative.

Determinants of vaccine hesitancy: Native-born individuals appeared to have a greater distrust toward information on vaccines provided by the Ministry of Health than foreign-born individuals, whereas the majority of both groups reported trusting the information given on vaccines by physicians.



**Poster / Ongoing study with preliminary results****Cancerless (Cancer Prevention and Early Detection Among the Homeless Population in Europe: Co-Adapting and Implementing the Health Navigator Model).**

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**Keywords:** Homeless, Health prevention, Cancer screening, integrated care

**Background:**

Homeless population in Europe has a 30-year average lifespan less than general population, while cancer mortality is double. There is a need for interventions to improve their access to health care. Successfully implemented patient navigation and patient empowerment models have been associated with increased access to health care.

**Research questions:**

Does a model of care co-designed with individuals experiencing homelessness and professionals based on the Patient Navigation and Patient Empowerment improve cancer prevention and facilitate early detection?

**Method:**

Pilot study. The sample will be made up of 400 homeless aged over 18 years and recruited in social and health resources of the Madrid Social Care Network and Madrid Health Service. Quantitative and qualitative analysis. CFIR y RE-AIM frameworks for the evaluation of the implementation. A health navigator on four timelines will develop the interventions and results evaluation: T0-Start, T1-4 weeks from start, T2-trimester, T3-semester, where the before and after actions of the interventions will be measured.

Variables studied will be clinical, treatments, administrative, social determinants of access to health, social exclusion, autonomy-promotion, relational adherence processes. The measurable actions necessary for access to health: Information, education for health, access to the social and health system and intervention on barriers and facilitators of access.

Authorized by an Ethics Committee.

**Results:**

Detection and quantification of barriers to access to systems through the model (Tashani): Availability, accessibility, acceptability, contact with services, effective coverage.

Type/s of action of the health navigator developed for the elimination of barriers, and creation of facilitators.

**Conclusions:**

CANCERLESS will deliver proven integrated services through:

A new model of socio-health care for the early detection of cancer in homeless people.

proactive work protocols that define the framework of action

New navigation figure between the systems.

An information system to identify social determinants in access to health, type of action required, time and methodology of social intervention

**Points for discussion:**

Do we provide person-centered integrated health and social care considering the needs and preferences of the most vulnerable groups?

Is homelessness addressed from a comprehensive and integrated approach in primary care and general practice?

What variables from the Patient Navigation model generated synergies between the health and social care providers?

**Poster / Finished study****Community-oriented health promotion by the general practitioner in collaboration with the 'House of the child'**

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**Background:**

As general practitioners, children between the ages of six and twelve are often only seen for short-episode care. Yet school-age children also face increasing health risks, including obesity. Children with a migration background appear to be an extra relevant target group for healthy lifestyle interventions.

**Research questions:**

On the one hand, we assessed the influence of health educational play sessions on children. On the other hand, what the role of the GP can be in health promotion at neighborhood level.

**Method:**

During an organized language camp we integrate two play sessions where healthy food and exercise are central. This is followed by a focus group with the parents in which they reflect on healthy parenting and the challenges involved. The intervention is evaluated using the 'Realist Evaluation' method. Data is obtained through a focus group with parents, an in-depth interview with a pedagogue and a panel discussion with fellow general practitioners-in-training.

**Results:**

Contextually, the composition of the target group, the location and the presence of the GP appear to be important. In a thorough review of the mechanism of our sessions, the following elements play a role: the design and content of the play sessions, our attitude and participation as a general practitioner and the collaboration with the known social partner. As a result, we see a discussion of health, awareness about this and a changed view on the role of the GP.

**Conclusions:**

The study shows a possible strategy to be able to participate in health promotion in children as a general practitioner within the district. Afterwards, our participation in the play sessions on health is discussed among the children and also at home with the parents. Active participation as a general practitioner, without teaching, could lead to awareness of one's own healthy lifestyle and low-threshold access to primary care. The collaboration with a local social partner appears to be an essential spearhead in this regard by selecting a relevant target group and offering the right setting for a project.

**Poster / Ongoing study with preliminary results****Effects of a digital intervention to improve primary care physicians' responses to Intimate Partner Violence (IPV)**

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**Keywords:** Digital intervention, Intimate Partner Violence, Primary Care, COVID-19

**Background:**

The COVID-19 pandemic has exacerbated violence against women worldwide transforming it into a shadow pandemic for which healthcare professionals are not properly trained. There is an urgent need for effective training to improve prevention, early detection and care for victims, survivors and their families.

**Research questions:**

What are the effects of an e-learning programme to improve General Practitioners' (GP) responses to intimate partner violence (IPV) in the Madrid region (Spain)?

**Method:**

Using a mixed-methods randomized control trial we investigated changes in IPV knowledge, at baseline and post-intervention, as assessed by the Spanish version of the PREMIS questionnaire. A total of 119 participants met the inclusion criteria and were randomly allocated to an intervention (G1) or control group (G2).

**Results:**

The 40h training programme was highly valued by both groups, meeting their expectations. The majority of participants were women (89.5% in G1 and 82.8% in G2), senior (66.7% vs 65.5%), working in urban practices (87.7% vs 89.7%) and had received IPV training previously (50%). There were no significant group differences at baseline. After the intervention, there were significant time by group interaction for the overall physician PREMIS scores (Wilks' Lambda = 0.320;  $p < 0.001$ ) with changes in actual and perceived knowledge, perceived preparation, and five opinion scales. There were no statistically significant differences in self-reported detection of new cases.

**Conclusions:**

This digital intervention provides a feasible and effective training to improve the care provided by GPs to survivors of IPV and their families. Future research should investigate different types of interventions, including other health-care professionals, and using longer follow-up periods.

**Points for discussion:**

How can we make digital interventions more accessible and attractive to health care professionals to improve the care provided to their populations?

How can we complement the data obtained by self-reported questionnaires (PREMIS) with data provided in electronic medical records, for example management practices, number of diagnoses, and patients' satisfaction and wellbeing?

**Poster / Ongoing study with preliminary results****Main Health Problems and Frequency of Depression and Anxiety Among Temporary Displaced Citizens to the Western Ukraine**

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**Keywords:** temporary displaced citizens, war, health, depression, anxiety

**Background:**

The Russian invasion into Ukraine escalates taking more and more casualties every day. Uzhgorod which is in the Western part of Ukraine due to its remoteness from the hostilities or due to its geographical closeness to NATO member states remains the safest place in Ukraine so far though alarms became a routine of Ukrainians everyday life. Huge wave of temporary displaced citizens (TDC) migration victims of the war is observed in Western Ukraine during last 5 months. Uzhgorod population has increased from 100 000 to 150 000. Thanks to the international financial assistance we obtained a unique opportunity to launch the International Family Medicine Clinic in Uzhgorod during the war to provide primary medical help based on family medicine to TDC and to conduct practical education for senior students and residents. From the beginning of the war we have organized a temporary Medical Volunteer Center for refugees and displaced citizens, which we regard as a predecessor of International Family Medicine Clinic and which proved to be a good start up of medical care for this vulnerable group of the population.

**Research questions:**

What are the main health problems among TDC and how often are they connected with depression and anxiety?

**Method:**

Descriptive statistical analysis was made using the ICPC-2 based data of 1000 TDC collected during last 5 months. Results of PHQ-9 and GAG-7 survey were analyzed.

**Results:**

Non-controlled arterial hypertension is often observed among TDC: they don't get their medications regularly. Prevalence of hypothyroidism required high doses of levothyroxine. Among the most spread diseases were: respiratory, cardiovascular, orthopedic, neurological, endocrinological and skin pathology. Moderate frequency of depression, panic attacks and anxiety among TDC showed high resiliency for the war trauma of the major population.

**Conclusions:**

Frequency of non-communicable diseases, depression and anxiety has been evaluated among Ukrainian war migrants to Uzhgorod.

**Points for discussion:**

We foresee that our medical research may be resulted in the joint international research project of the correlation between a psychological state of temporary migrated citizens and frequency of non-communicable diseases in the state of war.

Is there any similar data collected by our European colleagues from the countries suffered from the war conflicts.

What effective short-term group psychotherapy can be prescribed to the victims of war to cope with PTSD?

**Poster / Finished study****Can be improved the screening for obstructive sleep apnoea syndrome in primary care? The Spanish version of the STOP-Bang questionnaire**

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**Keywords:** Home Respiratory Polygraphy; Obstructive Sleep Apnoea Syndrome; Primary Care; STOP-Bang Questionnaire.

**Background:**

Obstructive sleep apnoea (OSA) is a very common condition that has been linked to several diseases and accidents. There is significant under-diagnosis, mainly due to the difficulty of accessing OSA diagnostic tools from Primary Care (PC).

**Research questions:**

Is the Spanish version of the STOP-Bang questionnaire (SBQ) useful for OSA screening in PC?

**Method:**

A descriptive study was conducted to validate the measurement instrument. Subjects over 18 years of age who attended the health centre for any reason were included. After completing the SBQ, all patients underwent home respiratory polygraphy (HRP). The SBQ criterion validity was analysed by comparing the SBQ score with the apnoea-hypopnoea index (AHI) obtained by the HRP (OSA was diagnosed if  $AHI > 5$ ). After 1 to 3 months, a subsample of 30 subjects completed the SBQ again, to assess the reliability of the questionnaire, measuring internal consistency and interobserver agreement, as well as concurrent criterion validity.

**Results:**

255 subjects (54.1% male; mean age  $54.8 \pm 10$  years) from 7 PC centres were recruited. 61.6% (95%CI: 55.6 to 67.6) were diagnosed with OSA. Of these, 22.8% (95%CI: 17.6 to 27.9) had mild OSA ( $5 < AHI \leq 15$ ), 22.8% (95%CI: 17.6 to 27.9) moderate ( $15 < AHI \leq 30$ ), and 16.1% (95%CI: 11.5 to 20.6) severe ( $AHI > 30$ ). The Kuder&Richardson coefficient was 0.623 (95% CI 0.335 to 0.788) and the Cohen's Kappa coefficient 0.871 (95% CI 0.520 to 1.00;  $p < 0.001$ ). For screening for moderate/severe OSA ( $AHI > 15$ ), the SBQ obtained an area under the ROC curve of 0.769 (95% CI 0.704 to 0.833) which, for an optimal cut-off point of 3, achieved a sensitivity of 84.8% (95% CI 77.3 to 92.4) and a specificity of 55.1% (95% CI 44.7 to 65.5).

**Conclusions:**

The SBQ has been shown to be useful for detecting moderate/severe OSA in Spanish PC centres. Its psychometric properties are like those obtained in studies conducted in other populations.

**Points for discussion:**

What screening questionnaires are used in PC in other countries in patients with suspected OSA?

Would it be feasible to perform HRP in PC? Coordination with specialists in respiratory medicine.

What could be the advantages of performing HRP in PC?

**Poster / Finished study****Clinical decision-making in patients that could have cancer: a vignette study comparing the Baltic states with the Nordic countries**

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**Background:**

One-year relative cancer survival rates in the Baltic States (Estonia, Latvia and Lithuania) are lower than the European mean. Lower one-year relative cancer survival rates are considered an indicator of a more advanced disease at diagnosis. In contrast, the one-year relative cancer survival rates in the Nordic countries (Denmark, Finland, Norway and Sweden) are higher than the European mean.

**Research questions:**

How does the management of patients with a low but significant risk of cancer in a primary care setting differ between the Baltic States and Nordic Countries?

**Method:**

Primary care practitioners (PCPs) participated in an online questionnaire that asked for demographic data and practice characteristics, and gave four vignettes of patients presenting with symptoms that could indicate cancer. Participants were asked what their immediate clinical actions would be with these patients.

**Results:**

Questionnaires were completed by 455 PCPs: 138 from the Baltic states and 317 from the Nordic countries. There were no significant regional differences in prescribing rates. PCPs in the Baltic states were significantly more likely to arrange active follow-up than their Nordic colleagues (79.7%, vs. 59.1% respectively,  $P < 0.001$ ) and to take diagnostic action (arrange a test and/or refer to a specialist, 90.6% vs. 61.0%,  $P < 0.001$ ). They were significantly less likely to use a 'wait and see' approach (10.9% vs. 22.4%,  $P < 0.001$ ).

**Conclusions:**

While one-year relative cancer survival rates are poorer in the Baltic states than in the Nordic countries, this does not seem to be due to delays in PCPs' clinical actions. Further research is needed to investigate whether the survival differences are due to socio-demographic factors, to delays in other parts of their healthcare systems, or to differences in cancer treatment.

**Points for discussion:**

Although PCPs in the Baltic states are more likely to take diagnostic action more quickly than their Nordic colleagues, their cancer survival rates are lower. Why do EGPRN members think this may be? What is the best way to investigate this?

**Poster / Finished study****Hip fracture prevention in Swedish 70-100 year old women 2001-2022: risk factors for mortality in intervention and control groups**

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**Keywords:** Mortality risk factors, older women, hip fracture prevention, longitudinal cohort

**Background:**

Hip fractures cause considerable morbidity and mortality. A prevention intervention study in primary care starting in 2001 focused on physical exercise, fall prevention at home, and pharmacological osteoporosis treatment.

**Research questions:**

To investigate associations between risk factors for mortality 21 years after a controlled hip fracture prevention intervention.

**Method:**

Prospective population-based cohort with 1247 women aged 70-100 years in three rural primary care districts in Sweden. Fracture-related risk factors collected in baseline survey. 435 women recruited to hip fracture reduction intervention and 813 women age matched controls. Risk factor models defined at baseline based on age  $\geq 80$  years, weight  $< 60$  kg, previous fragility fracture and either fall last year or inability to rise up five times from a chair without the use of arms. Associations between 11 specific risk factors and mortality and intervention group allocation were studied with Cox regression proportional hazard models.

**Results:**

Of 1247 participants at baseline 2001, 152 were alive January 2022 with oldest woman 105 years. Cox regression proportional hazard models showed overall hazard ratios for mortality of 1.8 (95% confidence interval (CI) 1.6-2.1,  $p < 0.001$ ) for inability to rise up five times from a chair and poor self rated health of 1.6 (95% CI 1.3-1.9,  $p < 0.001$ ). Participation in the intervention group showed mortality hazard ratio of 0.9 (95% CI 0.7-1.0,  $p = 0.05$ ) only for women who were able to rise up five times from a chair without the use of arms.

**Conclusions:**

Age-adjusted inability to rise up five times from a chair without the use of arms and poor self rated health were the strongest factors predicting mortality in this 21-year follow up of a hip fracture prevention study. Participation in intervention group showed borderline significance for lower mortality only for women who were able to rise up five times from a chair without the use of arms.

**Points for discussion:**

Do you think it would be useful to know more about your older patients' muscular capacity if it proves to be a marker for earlier death?

Why is it that poor self rated health has shown association with higher mortality in many studies?

**Poster / Ongoing study with preliminary results****Sociodemographic characteristics and cardiovascular events in patients with severe mental disorders**

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**Keywords:** severe mental disorders, cardiovascular incidence, sociodemographic factors

**Background:**

The prevalence of cardiovascular morbidity and mortality are more elevated in patients with severe mental disorders (SMD) than in general population

**Research questions:**

Our main objective is to estimate the incidence rates of cardiovascular events (CVE) in patients with SMD and to determine the sociodemographic factors that can be associated

**Method:**

Retrospective longitudinal study of a cohort of patients having SMD. Patients between 35 and 74 years assigned to primary care teams of the Catalan Institute of Health and who have been attended between 2007 and 2010 had been included. Exclusion criteria: history of CVE at baseline, lipid-lowering treatment at baseline. Sociodemographic baseline measurement from the anonymized database SIDIAP: gender, age, socioeconomic level according to geographic area, rural/urban area. At 12 years follow-up CVE (coronary heart disease: CHD; and stroke) were collected

**Results:**

A total of 22747 SMD patients who met the selection criteria were included: 46.7% had schizophrenia, 27.8% had bipolar disorder and 25.5% had other psychotic disorders. 49.1% were women, the average age was 47.9 years (SD:10).

Incidence rates of CVE per 1000 person-years: Global CVE 3.74 (IC95%: 3.46 – 4.03); CHD 1.79 (95%CI: 1.60 - 2.00); stroke 1.82 (95%CI: 1.62 - 2.25). CVE rates are higher in men, especially in the case of CHD. In all cases the incidence rates of CVE increase with age. The incidence rates of CVE are higher in the bipolar group, especially due to stroke. There are no differences in the incidence rates of CVE by socio-economic level or rurality

**Conclusions:**

The incidence of CVE in the SMD population is high and higher than the general population. There are differences in CVE rates according to gender and diagnostic groups. It is necessary to adjust according to cardiovascular risk factors to assess which ones are more relevant in each diagnostic and gender group

**Points for discussion:**

How is the prevalence of cardiovascular risk factors in the diagnostic groups?

Is there differences in CVE incidences between SMD and population according to gender?

Is there differences in CVE incidences according to socioeconomic level, adjusting for CV risk factors?



**Poster / Ongoing study with preliminary results****Varicella surveillance among the patient population in Belgian general practice between 2019 and 2021**

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**Keywords:** Infectious diseases, varicella, Primary care, surveillance**Background:**

Varicella is a preventable infectious disease caused by varicella-zoster virus (VZV). Usually, varicella is a mild or moderate illness. Although serious cases are rare, complications can occur and include superinfection of the skin or soft tissue, respiratory syndromes, and neurological manifestations, even death.

In Belgium, there is no mandatory notification for varicella cases. Furthermore, vaccination against varicella is not compulsory. The network of Sentinel General Practitioners (SGP) ensures varicella surveillance in primary care. During the period from 2006 to 2012, the incidence varied between 30.6 and 41.8 cases per 10000 person-years.

**Research questions:**

This study aims to update varicella surveillance among patients consulting Belgian general practices as it resumed in 2019.

**Method:**

A 3-year retrospective population-based study based on data collected by the SGP network. We conducted a web-based survey using LimeSurvey®. Registered cases from 2019 to 2021 were analyzed.

**Results:**

During the study period, 431 cases were reported. The majority of patients were female (51.5%). In this sample, only 1.2% of patients were vaccinated against VZV. Patients aged 1-4 years old represented 61.3%, the second most affected group (21.4%) was patients aged 5-14, then patients under 1 year old (8.6%).

Complications rarely occurred (3.5%). Moreover, the most common complication was superinfection of the skin.

Consistently with previous data, a seasonality with peaks in winter is observed. In 2019, incidence was 20/10000, 6.7/10000 in 2020 and 7.5/10000 in 2021.

Incidence decreased in 2020 and 2021 compared to 2019. This drop could be explained by COVID-19-related restrictions (e.g. physical contact restriction), as well as the impact of COVID-19 on consultation and reduced registration by GP's due to increased work load.

**Conclusions:**

This study yields recent data on reported varicella cases reported in general practice in Belgium. Unsurprisingly, COVID-19-related situation lead to a decrease in cases. Furthermore, surveillance data from SGP network is consistent with the literature.

**Points for discussion:**

Appropriateness of varicella surveillance through general practice

Impact of covid-19 on surveillance activities

**Poster / Almost finished study****Why is the French colorectal cancer screening rates at 34.9 % ? According to GPs, a qualitative study**

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**Keywords:** CRC screening, early detection, public policies, qualitative study

**Background:**

CRC is the third most common cancer in men and the second most common cancer in women. There are more than 1.9 million patients diagnosed with CRC and more than 900000 deaths from the disease each year worldwide. In France, medium-risk subjects aged between 50 and 74 years are invited by mail, every 2 years, to consult their attending GP so they can receive a screening FOBT. The invitation letter is sent by the structure in charge of screening in each department. However, the French participation rate was at 34.6% in 2021.

**Research questions:**

According to GPs, what could explain the French (non)participation to CRC OS ?

**Method:**

Semi-structured interview were conducted with GPs around French department of Finistere. GPs were chosen in the control group of AmDepCCR, a study that aim to improve the CRC OS participating rate. Purposive sampling aimed for a maximum variation sample in participant age, gender, years in practice and rural/urban exercise. Interviews were audio-recorded, transcribed verbatim, and thematic analysis with principles of constant comparison was conducted.

**Results:**

13 interviews were conducted. GPs described a variety of elements that could influence the OS CRC, one way or the other. Several were already found in literature. The ignorance of the patients and the fact of not feeling concerned was a barrier, as well as the GP's lack of time to deliver information. The key to screening was the GP-patient relationship. The impact of the national campaign was a lever, as well as the facilitation of the test by the arrival of the immunotest. Performance of the GPs' software was also a facilitator.

**Conclusions:**

Improving the doctor-patient relationship appears to be a good way to increase OS CRC participation. This supports our idea of using motivational interviewing in this setting.

**Points for discussion:**

Is there an OS CRC in your country ?

Do you know the rate of participation in OS CRC in your country (if there is one)?

How do you explain the wide difference in participation in OS CRC between countries?

**Poster / Study Proposal / Idea****Capacity building through target group involvement – the Austrian Primary Health Care Platform**

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**Keywords:** capacity building, Primary Health Care, Austria, target-group involvement

**Background:**

Since 2013, the Austrian Primary Care (PC) reform aims to strengthen the PC sector. Different initiatives were focusing on the introduction of additional organizational forms besides single-handed and GP group practices: PC Centres and Networks. They consist of an interdisciplinary PC team, have extended opening hours, and offer more comprehensive services. However, to tackle the capacity building gap public PC is facing, there was the need for further action. In 2021, the Austrian Federal Ministry for Social Affairs, Health, Care and Consumer Protection successfully applied for the Recovery and Resilience Facility of the EU. One element is the project "Enhancing primary health care in Austria" and, within this, the building of a Primary Care Platform to support and strengthen the current PC reform efforts.

**Research questions:**

The Austrian Primary Care Platform is managed by the Austrian National Public Health Institute and will be launched in September 2022. Its aim is to create a support-, meeting-, education-, and exchange- space for (current and future) PC professionals and thereby to improve the capacity building and development of interdisciplinary PC.

**Method:**

To make the platform more sustainable and to meet the needs of its target groups, PC community involvement from the beginning was a matter of course. Thereby, plenty of interviews, focus groups, and workshops with relevant individuals were conducted to systematically collect their ideas, needs, challenges, and realistic involvement potential. Additionally, regularly grassroots meetings with members are planned. All activities of the platform are designed based on the involvement (ideas, needs, challenges) of its potential members.

**Results:**

Expected result: Besides sustainable capacity building for PC, we collected and included all ideas, needs and challenges within a database and, thus, hope to be able to provide a unique insight into the views, perceptions, and needs of the different target-groups for PC in Austria to build adequate capacity.

**Points for discussion:**

Are there similar initiatives in other countries?

How would you generate the database (e.g. MS Access)?

What are the main needs of health care personnel regarding PC in your country?

**Poster / Ongoing study with preliminary results****Description of the BeoNet-Halle recruitment sample - Implementation of Broad Consent in a general practitioner setting.**

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**Keywords:** General practice, Broad Consent, Primary Care database.

**Background:**

To overcome data protection hurdles, obtaining Broad Consent becomes an increasingly important prerequisite for conducting research with patient data for different or multiple purposes. BeoNet-Halle is a German database that links data across specialties using Broad Consent. This study describes the first sample from patients who gave their Broad Consent in a General practitioner setting.

**Research questions:**

The aim is to identify differences between patients who gave and those that did not give Broad Consent in terms of socioeconomic and morbidity-related variables and in relation to the frequency of physician-patient contacts.

**Method:**

In this single-center, retrospective cohort study there are three patient groups: Patients who consented, patients that did not give consent and a representative control group of patients visiting the general practice during the recruitment period. A socio-demographic questionnaire was sent per mail to a subsample of all three patient groups. Additional patient data was collected from the BeoNet-Halle database to describe sample differences

**Results:**

A total of 277 patients consented during the initial recruitment phase from May 2021 to June 2022 while 119 patients denied consent. About 350 Patients were calculated as a necessary sample size for the control group. Preliminary analyses revealed a matched gender ratio of the Broad Consent sample (female = 53.1%, male = 46.2%, not specified = 0,7%).

**Conclusions:**

We hypothesize that patients who gave consent will differ from those who did not in terms of sociodemographic and morbidity variables, as well as frequency of physician-patient contacts. Patients with higher education might show an increased willingness to support health services research.

**Points for discussion:**

What are potential research areas for which Broad Consent data from BeoNet are particularly appropriate?

What do the findings regarding income and educational attainment mean for future research, particularly with respect to the representativeness of broad consent data?

What do you think are the challenges of conducting research with Broad Consent data?

**Poster / Ongoing study no results yet****Evaluation of patient involvement activities during multiple stages of health research projects in German primary care: concept development for a meta-level study**

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**Keywords:** patient involvement, patient engagement, action research, meta-study

**Background:**

Patient involvement in research projects is an overarching goal that has only been achieved to a limited extent in Germany and some other European countries. Numerous frameworks exist for patient engagement, but there is a lack of empirically collected findings on which involvement activities succeed in which project phase under which framework conditions and have a positive impact.

**Research questions:**

This paper reports on the development of a concept for a meta-level study on patient engagement to be piloted in approximately 4-6 different research projects across all project stages. The aim of this meta-level study is to gain more profound evidence, which involvement activities and strategies might be conducive at which stage of a research project and under what circumstances.

**Method:**

Qualitative accompanying study and action research on patient engagement in 4-6 research projects:

Phase 1: literature reviews and interviews with experts on patient involvement as well as workshops with different stakeholders in general medical research projects.

Phase 2: effect, intensity, benefits and acceptance of patient involvement will be assessed and evaluated by means of interviews and focus groups. The different stakeholders will be recorded on a project-specific and cross-project basis.

Phase 3: Recommendations will be formulated as a synthesis, followed by an evaluation in a Delphi process.

**Results:**

The literature research is currently being carried out. In a first workshop on a new research project, a strong interest of all stakeholders for patient involvement in all project phases emerged, with the exception of the scientific evaluation, for which the scientists were considered mainly responsible. More results from project phase 1 will be available until the congress.

**Conclusions:**

A systematic, cross-project exchange of experiences is necessary to capture impact, barriers and facilitating factors for patient engagement in research and to establish a sustainable involvement culture.

**Points for discussion:**

What is your experience of patient participation in research from the different European countries?

What do you think needs to be considered methodologically in our concept of a cross-project meta-study?

**Poster / Ongoing study with preliminary results****Family-centred care and triadic medical consultations: Results from a pilot study**

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**Keywords:** Family-centred care, person-centred care, triadic medical consultations

**Background:**

The presence of a family member in the primary care visit is socially and culturally acceptable in Spain. 20%-40% of consultations include a family member.

**Research questions:**

What are the perceptions of health care professionals and patients regarding family-centred care (FCC)?  
What do FCC consultations look like?

**Method:**

94 physicians, pediatricians, nurse, midwives, and nurse assistants with at least 2 years of experience in primary care (PC) were recruited from 5 health centers in Basque Country, Spain. They completed modified Person-Centred Practice Inventory-Staff and Family Nurse Caring Belief Scale. 165 patients were recruited from these centers using purposeful sampling stratified by age and gender. They completed a questionnaire to measure person- and FCC. In a follow-on study (data collection on-going), physicians complete a worksheet regarding their daily consultations, recording the patient's age, the patient's gender, the reason for consultation (text and check box), acute vs. chronic condition, was information (if any) about the family was gathered, was the patient accompanied by someone, relationship to the patient, how was the family member involved in the consultation (if at all), and total duration of the consultation. The medical record will be reviewed for written annotation/documentation about the family.

**Results:**

99% (n=93) of the health professionals agreed/strongly agreed with statements regarding FCC behaviors, 77%(n=72) with family as a resource, and 63%(n=59) with professional responsibility to the family. Total score, FCC Behaviors, and Role of the family were negatively associated with years in PC ( $p$ 's<0.05) and tended to be higher in nurses than physicians ( $p$ 's<0.07). Of the 165 patients, 37%(n=61) usually attended medical consultations with a family member. Half of those (n=36;21.8% of the sample) came accompanied. Almost half (47%;n=15/32) rated FCC with the maximum score, with means of "very good" on each item.

**Conclusions:**

FCC is important to both healthcare professionals and patients in primary care.

**Points for discussion:**

How often is family-centred care practiced in your center/consultations?

How often do you orient your exploration of the patient as a person towards the family?

If family members are present in the consultation, how do you engage them in the visit?

**Poster / Ongoing study with preliminary results****Patients' and physicians' attitudes towards artificial intelligence in primary healthcare: A qualitative study**

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**Keywords:** Artificial intelligence, Patients' and physicians' attitudes, primary healthcare

**Background:**

Artificial intelligence (AI) promises to relieve the healthcare system and to improve healthcare - the potential seems endless. Although AI-based systems have made first steps into healthcare, practical application is limited. For a successful implementation, it is essential to capture the opinions and attitudes of patients and physicians.

**Research questions:**

The aim is to investigate the attitudes and perceptions of AI among patients and physicians as well as current and possible future areas of application. Furthermore, we aim to explore possible benefits and concerns as well as expectations and implementation suggestions for potential AI-systems in healthcare.

**Method:**

Focus groups with patients and physicians will be conducted between the end of July and October 2022 until achieving theoretical saturation. The focus groups will be semi-structured using guidelines and digital application examples (mockups). The material will be coded and subjected to a thematic analysis according to Mayring. The results will be used for developing a standardized questionnaire for a following quantitative study. Both studies are part of a project called "PEAK".

**Results:**

In pretests, both patients and physicians showed a general interest in AI. One benefit perceived by them is that AI can support medical staff by processing large amounts of data. Both groups are concerned about the lack of human contact. Patients see possible areas of application, for example, in dermatology, physicians rather in radiology and oncology.

**Conclusions:**

We plan to present first results of our focus groups that will reveal patients' as well as physicians' attitudes regarding the use of applications of AI including their acceptance towards AI in healthcare. Further, the areas of application AI is already used or wished to be developed, how AI-based systems should be designed to be useful for patients and physicians and where the participants see themselves in this progress will be uncovered.

**Points for discussion:**

Which AI-based systems are you using in your work practice and could you please tell us more about your experiences with it?

In case you have participated on a study dealing with AI, can you please tell us the specific focus of the study and the nature of it (quantitative/ qualitative)?

**Poster / Almost finished study**

## **What are the determinants of older people adopting communicative e-health services? A meta-ethnography**

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**Keywords:** older adults, e-health, digital technology

### **Background:**

Over the years, society has shifted to the online world with Covid-19 highlighting digital inequalities across the population. The largest group of individuals who may experience digital inequalities are older adults. Additionally, older adults are more likely to need medical appointments in comparison to their younger counterparts, therefore, with the increased digitalisation of healthcare, this could impact older adults' access. Communicative e-health services within this research refers to any service a patient receives or seeks online with them actively interacting with a human/clinician.

### **Research questions:**

What are older adults' experiences or opinions on communicative e-health services? What are their facilitators and barriers to use them?

### **Method:**

A meta-ethnography was conducted to qualitatively synthesise the literature around older adults and communicative e-health services. A systematic search, with terms relating to 'older adults', 'e-health', 'technology' and 'communication', was conducted on six databases. A date range was implemented on the search, with only literature after January 2014 being eligible. The search yielded a total of 10 eligible studies for synthesis.

### **Results:**

The results of the research are currently being finalised. However, despite over half of the papers having participants who had not used communicative e-health services, the findings produced similar interpretations with topics such as support networks, authenticity, difficult interface, convenience, awareness, and physical health commonly spoken about.

### **Conclusions:**

The poster will present the final conclusions at the conference. However, the preliminary findings highlight the potential usefulness of the research and guidance on how we can make communicative e-health services more inclusive to older adults and the wider population such as having the appropriate support and spreading awareness of services available to individuals. Additionally, many older adults struggled with the set-up and usage of the applications and emphasised the need for clear, easy to read instructions.

### **Points for discussion:**

The audiences personal experience with communicative e-health services and whether they are similar with the findings from this research?

Do GPs actively encourage older adults to use e-health services to access healthcare?

How do you promote e-health services to digitally disadvantaged groups?



**Poster / Finished study****Acute gastroenteritis: a qualitative study of parental motivations, expectations, and experiences during out-of-hours primary care**

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**Keywords:** acute gastroenteritis, motivation, expectation, primary care, general practitioner

**Background:**

Acute gastroenteritis is a common infectious disease in children under 6 years old. Although it is a self-limiting disease, it nevertheless has a high consultation rate in primary care, especially during out-of-hours primary care (OOH-PC). Reasons for this high consultation rate are still unclear.

**Research questions:**

What are the parental motivations, expectations, and experiences of OOH-PC contacts for children with acute gastroenteritis?

**Method:**

A qualitative study with a purposive sample of parents who contacted OOH-PC for children aged 6 months to 6 years with acute gastroenteritis was performed. Fourteen semi-structured interviews with parents who contacted the OOH-PC were conducted. Interviews were video recorded, transcribed and analysed by constant comparison.

**Results:**

Unusual behaviour of the sick child, absent micturition, and on-going vomiting and/or diarrhoea, with either reduced or no fluid intake, motivated parents to contact the OOH-PC. Parents instigated contact to prevent symptom deterioration and to be reassured by a general practitioner (GP), expecting them to perform a thorough physical examination, provide information, and make follow-up agreements. Parents reported dissatisfaction if they felt unheard, misunderstood, or not taken seriously, and this increased their likelihood of seeking another consultation. Unfortunately, GPs did not always meet parental expectations.

**Conclusions:**

Multiple factors affect the decision for parents to contact the OOH-PC for their child with gastroenteritis. There is a mismatch between the parental expectations and actions of the GP. Awareness about the feelings and understanding expectations of parents can guide GPs in the interaction with parents which could improve satisfaction with primary healthcare.

**Points for discussion:**

General practitioners communication skills

Education of parents for home management

Fulfilling expectations of parents by general practitioners

**Poster / Finished study****Antibiotic use in ambulatory care for acutely ill children in high income countries: a systematic review and meta-analysis**

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**Keywords:** Anti-Bacterial Agents, Antimicrobial resistance, Drug Prescriptions, Primary Health Care, Outpatients, Ambulatory Care, General Practice, General Practitioners, Paediatrics, Emergency Medicine

**Background:**

Childhood infections are common. Inappropriate antibiotic prescribing leads to antimicrobial resistance with associated healthcare costs.

**Research questions:**

To determine the rate and appropriateness of antibiotic prescribing for acutely ill children in ambulatory care in high-income countries.

**Method:**

On 10 February 2021, we systematically searched articles published since 2000 in MEDLINE, Embase, CENTRAL, Web-Of-Science, and grey literature databases. We included cross-sectional and longitudinal studies, time series analyses, randomised controlled trials and non-randomised studies of interventions with acutely ill children up to and including 12 years of age in ambulatory care settings in high-income countries. Pooled antibiotic prescribing and appropriateness rates were calculated using random-effects models. Meta-regression was performed to describe the relationship between the antibiotic prescribing rate and study-level covariates.

**Results:**

We included 86 studies comprising 11,114,863 children. We found a pooled antibiotic prescribing rate of 45.4% (95% confidence interval [CI] 38.2 to 52.8) for all acutely ill children, and 85.6% (95% CI 73.3 to 92.9) for acute otitis media, 37.4% (95% CI 30.9 to 44.3) for respiratory tract infections, and 40.4% (95% CI 29.9 to 51.9) for other diagnoses. Considerable heterogeneity can only partly be explained by differences in diagnoses. The overall pooled appropriateness rate is 68.5% (95% CI 55.8 to 78.9,  $I^2=99.8%$ ; 19 studies, 119,995 participants). 38.3% of all prescribed antibiotics were aminopenicillins.

**Conclusions:**

Antibiotic prescribing rates for acutely ill children in ambulatory care in high-income countries remain high. Large differences in prescription rates between studies can only partly be explained by differences in diagnoses. Better registration and further research are needed to investigate patient-level data on diagnosis and appropriateness.

**Points for discussion:**

How can we generate less heterogeneous data in the future?

Why does (inappropriate) antibiotic prescribing for acutely ill children presenting to ambulatory care in high income countries remain high despite the many interventions?

Which methods exist to determine the appropriateness of antibiotic prescribing and which are preferred?

**Poster / Ongoing study no results yet****Cluster Randomised Trial of a Goal-Oriented Care Approach for multimorbidity patients supported by a digital platform**

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**Keywords:** Multimorbidity, Primary Health Care, Information Management, Research Design

**Background:**

Multimorbidity has been increasingly studied, with these patients having poorer clinical outcomes, disruption of their lives, and higher financial burden. Nowadays, the treatment approach is carried out with multiple single-organ management guidelines, which is highly detrimental. The Goal-Oriented Care (GOC) approach is an integrated model, prioritizing patient preferences and agreeing on shared treatment goals that allows patients to voice their concerns and expectations, leading to greater engagement and adherence.

**Research questions:**

This study aims to evaluate the impact of using of a digital healthcare platform that assists patients and primary care clinicians in managing multimorbidity within a GOC framework on improving quality of life, anxiety, depression, and serious adverse events.

**Method:**

A cluster randomized superiority trial will be conducted in Primary Health Care Practices in Lisbon. Eligible patients will be people with complex multimorbidity, 50 years or older, with internet access and a technology device. This study intervention combines the implementation of a training program and a customized digital platform designed to nudge clinicians to adopt a GOC approach. The training program will include the concept of personalized care, methods of goal elation, implications and how METHIS platform can be used to support the application of GOC in healthcare practice.

**Results:**

The primary outcome is Health-related Quality of Life, measured at 12 months with the SF-12 questionnaire. Secondary outcomes include mental health. We will also assess serious adverse events (hospitalization and use of hospital emergency services). Finally, at 18 months, we will ask general practitioners (GPs) for any potential missed diagnoses.

**Conclusions:**

This study creates the possibility of improving care to patients with multimorbidity and research in health services directed to these patients. Digital platforms should be adapted to the needs of an aging and more complex population and the changes must be guided by evidence.

**Points for discussion:**

What is the role of digital transformation in the care for patients with multimorbidity?

How does a GOC approach adjust to disease management in patients with multimorbidity?

How to measure the effects of complex interventions?

**Poster / Finished study****Evidence-Based Review – the Benefits of Saffron for Depression Treatment**

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**Keywords:** “saffron”, “crocus sativus”, “depression”, “antidepressant”

**Background:**

The saffron has antidepressant properties, since its main components, crocin and safranal, inhibit the reuptake of dopamine, norepinephrine and serotonin.

**Research questions:**

The aim of this work is to verify the saffron's benefits when used as a treatment for depressive syndrome and its impact on symptomatic improvement.

**Method:**

A bibliographic search was carried out with the MeSH terms “saffron” or “crocus sativus” AND “depression” or “antidepressant”. Systematic reviews, meta-analyses, randomized controlled clinical trials (RCCT), cohort and case-control studies published between 2016 and 2021, in Portuguese and English, were included. The Strength of Recommendation Taxonomy was used to assign the levels of evidence and strength of recommendation.

**Results:**

Of the ninety articles found, we selected a RCCT, a systematic review, a meta-analysis and a guideline. There was symptomatic improvement with the use of saffron compared with placebo and with the evaluated antidepressants, namely, fluoxetine, imipramine, sertraline and citalopram. It was aimed that saffron is a safe alternative for postpartum depression treatment. There was no significant difference with regard to adverse effects. In mild to moderate depression, saffron is recommended as a third-line therapy, in monotherapy or adjuvant.

**Conclusions:**

There is current evidence that the use of saffron improves depressive symptoms, either as monotherapy or as an adjuvant treatment. The use of saffron had comparable effects with the antidepressants studied. However, more high-quality, larger and longer-lasting studies are needed to reach more robust conclusions about the benefit of using saffron in depression.

**Points for discussion:**

The saffron can be a safe and efficient therapy for depression treatment, but more studies are needed in this area.

**Poster / Finished study****Knowledge and skills toward Evidence-based medicine of General Practitioners in Greece**

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**Keywords:** Evidence-based medicine, General Practitioners, Clinical Practice

**Background:**

In order to provide patients with the best care possible, evidence-based medicine (EBM) is used. To support them in their clinical practice, general practitioners (GPs) should critically evaluate the research evidence.

**Research questions:**

The goal of the research is to evaluate the knowledge and terminology related to EBM among General Practitioners.

**Method:**

A cross-sectional study using an online survey was developed, and it was distributed via social media platforms. GPs completed a Likert-5 questionnaire, from 1(Poor) to 5(advanced), consisting of several sections to assess skills and knowledge about terms related to EBM. Data were analyzed using SPSS version 25.

**Results:**

A total of 339 GPs with a mean age of  $43.96 \pm 7.30$  participated in the study. 206 (60.8 %) of them were females. The most used search engines were Google (94.1 %) and Wikipedia (78.2 %). The majority of GPs rated the following skills as average: finding medical literature (3.6/5) and searching online databases (3.5/5) and they reported limited experience in critical appraisal of available scientific literature (1.5/5). The most known terms among GPs were “case study” (100 %), “mean” (96.8 %), “standard deviation” (63.7 %), “prevalence” (61.1 %), and “p-value” (58.4 %), while the least known were “median” (28.9 %), “confidence interval” (18.3 %), “interquartile range (IQR)” (12.1 %), “odds” (9.4 %), and “effect size” (3.2 %).

**Conclusions:**

GPs seem to have a knowledge gap in skills and terms related to EBM. Most of them were using a nonscientific search engine to obtain medical information. There is a need to educate medical students about the proper steps for getting the scientific literature and EBM skills.

**Poster / Ongoing study with preliminary results****Personal aptitudes, lifestyles, quality of life, use of services. Rural-urban differences in a health region**

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**Keywords:** quality of life, primary care, personal aptitudes

**Background:**

Little is known of the role that personal determinants and skills (self-efficacy, activation, health literacy, resilience, locus of control and personality traits) have in the ability to adopt health promoting behaviors and to respond appropriately in the face of adverse situations.

**Research questions:**

Are there differences between rural and urban areas in personal skills related to behaviors, adoption of healthy physical and mental lifestyles, quality of life, health problems and use of health services?

**Method:**

Multicentre cohort study, 3083 participants, 35-74 years/old, from 9 Spanish Health Regions. Follow-up: 5 and 10 years. Main independent variables: a) Self-efficacy (Sherer's general self-efficacy scale); b) Activation (Patient Activation questionnaire); c) Resilience (10-item version of the Connor-Davidson abbreviated scale); d) Health Literacy (HLS-EU-Q16 literacy questionnaire); e) Locus of control; f) Personality (Big Five Inventory of 10 items for the determination of personality traits).

**Results:**

Basal data analysis from 346 patients in one health region, 47.4% rural and 52.6%urban. Higher level of education in urban areas ( $p=0.00$ ). They arrive financially worse at the end of the month ( $p=0.03$ ) and cannot afford to maintain an adequate temperature at home ( $p=0.008$ ); greater patient activation in rural areas ( $p=0.00$ ). Globally, 11% suffered maltreatment in childhood.

No differences in self-efficacy, resilience, quality of life (euroqol), work stress, adverse events, duke social support, life satisfaction, marital status, tobacco use, alcohol consumption, loneliness, trust in spouse, family and friends.

In lifestyles, more sedentary urban ones ( $p=0.00$ ); in rural ones, greater consumption of more red meat ( $p=0.03$ ), more legumes ( $p=0.01$ ), less chicken ( $p=0.02$ ).

VAS of 70% in both areas, 60% find their health to be very good/good.

**Conclusions:**

Socioeconomic and cultural differences are observed between rural and urban patients, but not in personal skills. Morbidity, mortality, life style, health resources utilization will be observed in the follow-up.

**Theme Paper / Finished study****Impact of social support from family and friends on the perceived general health of patients diagnosed with Long-COVID**

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**Keywords:** Long-Covid; social support; general health

**Background:**

The Long-COVID pathology is still unknown and enigmatic. Many of these patients refer to the discomfort caused by both the uncertainty and the grieving process they suffer when comparing their capacities before and after infection. In this context, it is estimated that social support can reinforce the patient's self-perception of her general health status.

**Research questions:**

Delve into the self-perceived general health of Long-COVID patients according to the social support of family and friends in relation to their pathology.

**Method:**

A cross-sectional study was carried out. The sample is made up of 100 patients diagnosed with Long-COVID, recruited by Primary Health Care family doctors at the beginning of 2022. The main variable was the general health perceived by the patients themselves, one of the dimensions included in The Short Form -36 Health Survey (SF-36). Age, sex, and social support perceived by the person were used as predictive variables. The latter was measured using the Medical Outcomes Study (MOS) questionnaire. Descriptive, correlation and linear regression analyses were performed.

**Results:**

Positive correlations were obtained between perceived general health and social support, age and gender. Linear regression showed that greater social support ( $b=0.355$ ,  $p=0.001$ ), female gender ( $b=9.016$ ,  $p=0.028$ ), and older age ( $b=0.427$ ,  $p=0.017$ ) were predictors of better perceived general health.

**Conclusions:**

At older ages, the female gender and the social support of family and friends are elements with the capacity to favourably modify the Long-COVID patient's self-perception of their general health.

**Points for discussion:**

What can we do to enhance social support of these types of patients?

How to stimulate the use of community resources?

**Theme Paper / Almost finished study****Understanding the behaviour of the Dutch population during the COVID-19 pandemic. The value of self-reported data in public health**

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**Keywords:** self-reported data, COVID apps, public health, health-protective behaviours, vaccination.

**Background:**

Public health policies to adopt health-protective behaviours were and continue to be part of the strategy to slow down SARS-CoV-2. A year and a half after the first report of the virus, growing evidence supports the value of some of these policies, but there is still limited understanding of the population's response to these policies and evidence of the real changes in the population's behaviour.

**Research questions:**

This study explores the value of self-reported data for understanding behavioural patterns relevant to public health during the COVID-19 pandemic in the Netherlands. Specifically, we researched if this data could be used to track changes and better understand (1) the behaviour of the population through the pandemic, and in response to infection and vaccination; and (2) the population's compliance with the government's policies.

**Method:**

The COVID Radar app, developed by the Leiden University Medical Centre, gathered self-reported data from 284 026 users, from April 2020 until March 2022. Using seven behavioural variables included in the COVID Radar app dataset, a COVID Behaviour Score (CBScore) was generated. Higher CBScores indicate riskier behaviours. Additionally, adherence to two government policies (the number of visitors allowed and the use of facemasks) was analysed.

**Results:**

We showed that the CBScore changes through time, and that it can be used as a proxy for COVID-19 risky behaviour. There is variability depending on the age group. CBScores change significantly after vaccination and/or testing positive for COVID-19. Similarly, adherence to the government's policies regarding the number of visitors and the use of facemasks varied depending on age.

**Conclusions:**

This study contributes to a better understanding of the reach of government policies during the COVID-19 pandemic, but can be translated to other public health issues and policy in general. It provides evidence-ground to analyse and improve policies and better support citizens during healthcare emergencies.

**Points for discussion:**

Value and quality of self-reported data

Limitations of the study

Value and translation into policy-making



**Theme Paper / Finished study**

## **Understanding Trustful Relationships between Community Health Workers and Vulnerable Citizens during the COVID-19 Pandemic: A Realist Evaluation**

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**Keywords:** community health workers; primary healthcare; vulnerable populations; trust; COVID-19; realist evaluation; grounded theory

### **Background:**

Community health workers (CHWs) are an essential public health workforce defined by their trustful relationships with vulnerable citizens. However, how trustful relationships are built re-mains unclear.

### **Research questions:**

This study aimed to understand how and under which circumstances CHWs are likely to build trust with their vulnerable clients during the COVID-19 pandemic.

### **Method:**

We developed a program theory using a realist research design. Data were collected through focus groups and in-depth interviews with CHWs and their clients. Using a grounded theory approach, we aimed to unravel mechanisms and contextual factors that determine the trust in a CHW pro-gram offering psychosocial support to vulnerable citizens during the COVID-19 pandemic.

### **Results:**

The trustful relationship between CHWs and their clients is rooted in three mental models: recog-nition, equality, and reciprocity. Five contextual factors (adopting a client-centered attitude, coor-dination, temporariness, and link with primary care practice (PCP)) enable the program mecha-nisms to work.

### **Conclusions:**

CHWs are a crucial public health outreach strategy for PCP and complement and enhance trust-building by primary care professionals. In the process of building trustful relationships be-tween CHWs and clients, different mechanisms and contextual factors play a role in the trustful relationship between primary care professionals and patients.

### **Points for discussion:**

Future research should assess whether these findings also apply to a non-covid context, to the involvement of CHWs in other facets of primary healthcare (e.g., prevention campaigns, etc.), and to a low- and middle-income country (LMIC) setting.

Furthermore, implementation research should elaborate on the integration of CHWs in PCP to support CHWs in developing the mental models leading to build trust with vulnerable citizens and to establish the required conditions.

**Freestanding Paper / Published****Clinical prediction rule for acute appendicitis in children in primary care**

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**Keywords:** Clinical Decision Rule, Appendicitis, Children

**Background:**

Recognising acute appendicitis in children presenting with acute abdominal pain in primary care is challenging. General practitioners (GPs) may benefit from a clinical prediction rule.

**Research questions:**

To develop and validate a clinical prediction rule for acute appendicitis in children presenting with acute abdominal pain in primary care.

**Method:**

A retrospective cohort study of data retrieved from GP electronic health records included in the Integrated Primary Care Information database was performed. We assigned children aged 4–18 years presenting with acute abdominal pain ( $\leq 7$  days) to development (2010–2012) and validation (2013–2016) cohorts, using specialist-reported acute appendicitis as the outcome. Multivariable logistic regression was used to develop a prediction model based on clinical features from existing rules used in secondary care. We then performed internal and external temporal validation before deriving a point score with cut-offs for low-, medium-, and high-risk groups based on pre-defined sensitivity and specificity criteria.

**Results:**

The development and validation cohorts included 2041 and 3650 children, respectively, of whom 95 (4.6%) and 195 (5.3%) had acute appendicitis. The model included male sex, symptom duration (24–48, <24, >48 hours), nausea/vomiting, elevated temperature ( $\geq 37.3^\circ\text{C}$ ), abnormal bowel sounds, right lower quadrant tenderness, and peritoneal irritation. Internal and temporal validation showed good discrimination (C-statistics: 0.93 and 0.90, respectively) and excellent calibration. In the low-, medium-, and high-risk groups, the risks of acute appendicitis were 0.5%, 7.5%, and 41%, respectively.

**Conclusions:**

Combined with further testing in the mid-risk group, the prediction rule could improve clinical decision making and outcomes.

**Points for discussion:**

Why a clinical prediction rule rather than the present intuition based approach?

Would GPs use this prediction rule?

What is the next step for further research?

**Freestanding Paper / Finished study****Effects of an ICT-supported hypertension management on antihypertensive medication: Results from the cluster-randomised controlled PIA-Study**

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**Keywords:** eHealth, antihypertensive drugs, telemonitoring, hypertension**Background:**

Hypertension is a worldwide problem causing stroke and heart attacks. Although effective antihypertensives are available, their dosing is insufficient frequently. Information communication technology (ICT) has the potential to improve blood pressure (BP) control. The newly developed PIA ICT with PIA app for patients and PIA practice management center for German general practices allowed for the electronic transmission of BP readings, medication plans and short messages. In a cluster-randomised controlled trial with 525 patients, BP control was 23.1% better in the intervention compared to the control group.

**Research questions:**

Which medication changes were observed in the intervention and control group of the PIA study?

**Method:**

In the cluster-randomised controlled trial, the prescribed antihypertensive drugs were analyzed using the medication plans at baseline and follow-up. The following parameters were calculated: medication classes according to guidelines (ACE/ARB, thiazide diuretics, calcium channel blockers, betablockers, and others), and the mean medication dose rates (the proportion of the prescribed daily dose relative to the maximum allowed daily dose per antihypertensive). We compared these parameters between study arms at follow-up, and between baseline and follow-up per study arm.

**Results:**

In the 525 patients, the medication classes followed guidelines: ACE/ARB (88,0%), thiazide diuretics (30,7%), calciumchannel blockers (47,9%), betablockers (44,9%), and others (19,2%). At follow-up, the intervention group received more antihypertensive groups compared to the control (intervention group: 2.42; control group; 2.20;  $p=0.039$ ). Especially diuretics were prescribed more frequently (intervention: 57 ; control: 26,  $p<0,001$ ). The mean dosing rates were significantly higher in the intervention compared to the control group (intervention 1.56; control 1.34;  $p=0.017$ ). Compared to baseline, only the dosing rates of the intervention group increased (+0.12).

**Conclusions:**

The PIA ICT resulted in an uptitration of guideline-recommended medications with better BP control in the intervention compared to the control group.

**Points for discussion:**

What is your experience with uptitration of antihypertensives?

What is your opinion on ICT-supported hypertension management to improve hypertension control and uptitration of medications?

**Freestanding Paper / Ongoing study with preliminary results****How well does the eHealth tool recognize the health challenges in comparison to a nurse among the long-term unemployed?**

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**Keywords:** eHealth; risk assessment; long-term unemployed

**Background:**

Lifestyle choices and socioeconomic status have a significant impact on the expected onset of diseases, age of death, and risk factors concerning long-term illnesses and morbidity. STAR® is an online health examination tool, which gives users a report that includes an evaluation of their life expectancy and lists the most important health challenges based on questions about health, characteristics, lifestyle and well-being.

**Research questions:**

How well does the eHealth tool recognize the health challenges in comparison to a nurse among the long-term unemployed?

What health problems does the tool not recognize?

**Method:**

49 unemployed participants attending a health check were recruited from two Finnish primary health care centers. At first, the participants used STAR® and attended a nurse's health check after that. The health challenges provided by STAR® were compared with the three most important health challenges provided by a nurse. The health challenges were categorized and the percentages of agreement between STAR® and nurse and the confidence intervals of the percentages were calculated. The health challenges not recognized by STAR were recognized.

**Results:**

STAR® identified 365 health challenges in 49 individuals. For 47 cases the assessment by both a nurse and STAR was obtained. Health challenges were categorized in 17 different groups. In 63 % of cases, STAR identified all categorized health challenges identified by nurses, 95% CI [47.5, 76.8]. In 70 % of cases, STAR identified at least 2/3 of the categorized health challenges identified by the nurse, 95% CI [54.2, 82.3]. 32 health challenges identified by the nurse could't be categorized into the 17 different categories in the STAR report.

**Conclusions:**

STAR® identified most of the health challenges identified by nurse, but missed some essential ones. The personal health counseling provided by the eHealth tool depends on the questions of the tool and data entered into the tool.

**Points for discussion:**

The reasons for the differences between the eHealth tool's assessment and the nurse's assessment

**Freestanding Paper / Finished study****Point-of-Care C-Reactive Protein Test Results in Acute Infections in Children in Primary Care: A Post-Hoc Analysis**

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**Background:**

Acute infections are common in children in primary care. Differentiating serious infections from self-limiting ones is challenging. Diagnostic uncertainty can lead to unnecessary antibiotic prescribing, additional testing, or referral. Point-of-care (POC) C-reactive protein (CRP) testing guides antibiotic prescribing in adults, however in children its use remains unclear and limited.

**Research questions:**

Assessing POC CRP level in relation to the diagnosis of acute infections in children in ambulatory care and assessing whether it can help differentiate between serious and non-serious infection.

**Method:**

A post-hoc analysis in which descriptive analyses were performed in children with an acute infection presenting to ambulatory care, defined as general practice (GP), paediatric outpatient clinic and emergency department (ED).

**Results:**

In this study 8280 cases were analysed, 6552 had a POC CRP value available. The median patient age was 1.98 years (IQR 0.97 to 4.17), 36.9% of children presented to a GP, 32.9% to a paediatric out-patient clinic, and 30,2% to the ED. A total of 131 different preliminary diagnoses were found, with acute upper airway infection as most frequent. The median CRP over all infectious episodes was 10 mg/L (IQR <5-29). Young children had a higher median CRP. A serious infection was diagnosed in 6.2% (n=513) of patients. Most common was pneumonia. Median CRP in serious infections was 21 mg/L (IQR 6 to 63.5). Pneumonia had a median CRP of 48 mg/L (IQR 13-113). Antibiotics were prescribed in 27.7% (n=2030) of episodes. When antibiotics were prescribed, median CRP level was 29 mg/L (IQR 10-58) compared to 7 mg/L (IQR <5-19) when they were not prescribed.

**Conclusions:**

In our study, a low POC CRP as such did not seem to be sufficient to rule out serious infections, but its potential in assessing serious infections could increase when integrated in a clinical decision rule

**Points for discussion:**

Use of POC CRP in children in primary care: how can it be used in assessing serious infections and to tackle antibiotics use?

Practical implication: will GPs use POC CRP? What are the facilitators and barriers?

A recent study estimated 1.27 million deaths attributable to antimicrobial resistance in 2019. Which other ways seem useful to tackle AB use in ambulatory care?

**One-Slide/Five Minutes Presentation / Ongoing study no results yet****Caring for Long Covid-19 patients in primary health care: a twinning study between Malta and Belgium**

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**Keywords:** COVID-19; Primary Health Care; Long COVID; Malta; Belgium

**Background:**

Some of the individuals surviving a Covid-19 infection continued to experience symptoms beyond the acute phase. Although its definition is still debatable, this phenomenon is labelled as 'Long Covid'. Primary healthcare is at the forefront in caring for these individuals.

**Research questions:**

The study intends to gain insight on general practitioners (GPs) Long Covid knowledge, experiences, opinions and aims to identify the definition being used by GPs across two countries (Malta and Belgium)

**Method:**

An online literature-based questionnaire was built and validated by a panel of experts of the Belgian Sentinel General Practitioners network and Sciensano (Belgian national public health institute). The survey was distributed electronically to all practicing GPs in Belgium and Malta through established national GP networks. A mixed method approach will be utilized to compare the responses.

**Results:**

The results are expected to shed light on this emerging condition, the definitions used by GPs, while gaining insight on the knowledge, experiences, and opinions of GPs on Long Covid. The comparative analyses will establish whether there are differences in GPs approach towards Long Covid both at national and cross-country levels.

**Conclusions:**

This study will be beneficial for deeper understanding of Long Covid at a local and European level as well as aid policy makers in setting up country level health agendas.

**Points for discussion:**

Do GPs feel that they are equipped well in dealing with Long Covid-19 patients?

How are GPs caring for Long Covid-19 patients and their symptoms?

Do GPs feel that Long Covid might be considered a new chronic disease?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Continue or discontinue beta-blockers after myocardial infarction? – a case vignette study in Europe**

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**Keywords:** beta-blockers, myocardial infarction, prescribing variation

**Background:**

The optimal long-term management of myocardial infarction with preserved left ventricular ejection fraction with respect to beta-blocker prescription is controversial. Recommendations for prescribing beta-blockers are based on studies conducted before the introduction of reperfusion therapy. Today, the question arises whether beta-blockers are still as beneficial in those without heart failure or left ventricular dysfunction. Guidelines vary in the strength of recommendation for prescribing beta-blockers in these situations due to the lack of recent trials. However, unclear guidelines increase variation in clinical practice and quality of care. Our aim is to examine the reasons why general practitioners (GPs) prescribe or deprescribe beta-blockers in this clinical situation, where there is no clear evidence, and to assess the factors that might influence their decisions.

**Research questions:**

How do GPs' long-term beta-blocker prescriptions after myocardial infarction with preserved left ventricular ejection fraction vary across European countries and which factors influence their decision to prescribe or deprescribe beta-blockers in a situation in which the evidence is unclear?

**Method:**

This will be a cross-sectional online case vignette study with GPs across different European countries. We will assess GP characteristics, their prescribing behaviors related to beta-blockers, and their decisions to deprescribe or reduce dosages of beta-blockers in case vignettes that differ in terms of patient age, history of myocardial infarction, comorbidities, and side effects.

**Results:**

N/A

**Conclusions:**

This study will shed more light on (de)prescribing decisions in a situation of uncertain evidence. We will investigate the extent of beta-blocker prescription variation and the reasons behind the (de)prescribing decisions. Future studies could focus on explanations for these differences to ensure high-quality levels of care. The reasons for (dis)continuation of beta-blocker therapy found in this study could also apply to other situations with unclear evidence. Also, they could be considered in future guideline recommendations to include GPs' perspective.

**Points for discussion:**

Would you be interested in participating in this study?

What kind of case vignette would you see as relevant?

What are your best practices about (de)prescribing beta-blockers in this situation?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Diabetic patients' journey in healthcare: a multi-method, multi-center study proposal**

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**Keywords:** operational research, continuity of care, diabetes mellitus

**Background:**

Diabetes Mellitus (DM) requires patients to adhere to several treatments, diagnostic examinations and admit to different health professionals. Thus patients face a complicated journey through the healthcare system. This journey might be affected by factors such as socio-cultural characteristics and healthcare services. One of the core competencies of family medicine, continuity of care, stands as a cornerstone to guide the patients in this complicated journey and is associated with decreased emergency department attendance, hospitalization, and mortality.

**Research questions:**

How can we describe diabetic patients' journey in health systems with different integration levels by using existing data and operational research methods?

How is this journey experienced by the patients? Does continuity of care facilitate this journey?

**Method:**

This multi-method, multi-country study will include adult patients with type 2 DM. Patients will be recruited by primary care physicians from participating countries by purposive sampling to ensure maximum variability in terms of age, literacy, gender and diabetes age.

The quantitative part will be conducted as follows. Data will be retracted from electronic medical records. Process mining will be applied to describe the paths of patients in the system. This method uses event logs to describe the processes, check conformance to defined processes and analyze processes by defining cycle and waiting times at various stages and identifying bottlenecks. Stastistical analysis will be performed via R package. The level of continuity of primary care will be calculated using the Usual Provider Continuity index in which the numerator is the number of visits with "own" physician for a year and the denominator is the total number of visits with other physicians for the same year.

The qualitative part will explore the behaviour and experiences of patients in their regular interactions with primary care physicians. For this, a phenomenological approach using semi-structured interviews is proposed.

**Points for discussion:**

Are any audience participants willing to be partners in this study?

How can we include partners from various countries?

Which countries have electronic medical records about patients' contacts with the health system and would it be possible to have access to such data?



**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Enhanced care of patients with medically unexplained symptoms delivered by general practitioners**

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**Keywords:** medically unexplained symptoms , general practice, psychosomatic therapy, enhanced care, psychosomatic education

**Background:**

Patients with medically unexplained symptoms (MUS) make up a significant proportion of patients in general practice and can be very burdensome for doctors and the whole health and social care system. There has been no research focusing on patients with MUS or with somatization disorders in primary care in the Czech republic. Czech general practitioners (GPs) can officially achieve second medical specialization in Psychosomatic medicine which is based on many courses, months of internships, around 250 hours of self-experience, an original paper and finally an oral exam. In our study POCMUS we would like to compare the results of care of patients with MUS delivered by GPs with psychosomatic education and by those without. Also, we would like to detect the effective factors of the enhanced psychosomatic care provided by GPs with psychosomatic education.

**Research questions:**

What is the effect of a 30-minute intervention by a GP who has received specialized psychosomatic training compared to conventional care by a GP without training in psychosomatics on quality of life and health care utilization in their MUS patients?

**Method:**

Focus groups with GPs without and with GPs with psychosomatic training facilitated by a psychotherapist with experience with MUS patients and thematic analysis of the collected data. Prospective naturalistic intervention cohort study comparing the outcome of patients with MUS in quality of life, degree of disability from somatic symptoms, volume of health care received, work ability of patients with MUS, satisfaction with health care and perception of doctor-patient relationship treated by GPs with and without psychosomatic training. In-depth semi-structured interviews with selected patients from both groups.

**Conclusions:**

We expect to prove better outcome in patients with MUS treated by GPs with special psychosomatic training with additional paid 30 minutes once a month. Effective factors of the enhanced care will be analysed and described.

**Points for discussion:**

What should be the right cost-effective psychosomatic education for GPs? Effective or for everybody?

How should the cost-effective psychosomatic intervention in primary care look like?

How to identify the "psychosomatic" patients in general practice and how to select the patients for the study?

**One-Slide/Five Minutes Presentation / Ongoing study no results yet****ESSIDIA Pilot : enhancing recruitment in primary care : a mobile research unit**

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**Keywords:** RCT primary care recruitment

**Background:**

The feasibility to recruit patients for a nationwide RCT in France is questioned after many unsuccessful projects.

**Research questions:**

How to improve the research organisation in primary care in order to improve patient recruitment?

**Method:**

Comparative descriptive study of three recruitment processes:

- Paid GP
- GP assisted (clinical research assistant, prevention nurse or student)
- GP collaboration with a mobile research unit in primary care (bus+ GP researcher+ clinical research assistant)

**Results:**

We expect to recruit 216 patients from 36 practices (12 GPs in each group recruiting a target of 6 patients / group , with success if superior to 84%) in 6 months.

**Conclusions:**

The research organization in primary care has to be developed along primary care team enhancement

**Points for discussion:**

Mobile research units in Europe in primary care?

Mutualizing research assistants for multiple university primary care group practices ?

Or is it more effective to mix research and care in healthcare assistants activities ?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Gender gap and differences in efficacy and safety in the treatment of patients with coronary heart disease**

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**Keywords:** gender differences, coronary heart disease, evidence-based medicine**Background:**

Cardiovascular disease is the leading cause of death worldwide. Due to the high prevalence of the disease, the treatment of patients with chronic coronary heart disease (CHD) is of particular interest to prevent myocardial infarction, development of heart failure and to reduce mortality. In Germany, women die more often from myocardial infarction and are less often treated with revascularization, with these differences being mainly associated to older age and an unfavorable distribution of cardiovascular risk compared to men. The current guidelines recommend a variety of drug therapies addressing different targets (thrombosis aggregation inhibitors, lipid-lowering agents, beta-receptor blockers, inhibitors of the RAS-system, prophylaxis and symptomatic treatment of angina pectoris). The GP's tasks include individual counselling of patients, monitoring symptoms and promoting adherence to prescribed medication.

**Research questions:**

The aim of the planned work is to investigate to what extent gender aspects were taken into account in the conduct of the individual studies and in the synthesis of evidence in systematic reviews for patients with CHD:

- Are the study populations comparable to the general population in terms of gender as well as age, cardiovascular risk factors, comorbidities and socioeconomic factors?
- Are there indications of gender-specific differences in efficacy and in the occurrence of adverse effects of drugs?

**Method:**

Systematic search in Medline (Ovid) and Cochrane for recent, high-quality systematic reviews on the efficacy of drug therapies recommended in current European guidelines, evaluation of the methodological quality, extraction of the number of men and women included, their age range and further characteristics, and comparison of the results on key endpoints as all-cause and cardiovascular mortality, myocardial infarction and safety.

**Points for discussion:**

Are you aware of gender differences in the treatment of patients with CHD?

Which differences are most relevant in your practice (diagnosis, pharmacological or non-pharmacological treatment)?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****General Practitioner's Personality type and chronic illnesses diagnosis. A cross sectional study**

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**Keywords:** Personality Inventory, Physicians, Primary Care, diagnosis, Chronic Disease

**Background:**

Some studies have related the personality type with the physician's specialties choice or the patient's diseases. The Five-Factor Model of personality, is useful describing personality. We can identify: extraversion, openness, agreeableness, conscientiousness and neuroticism types. Agreeableness, introvert personality types in medical schools, are more likely to end up as general practitioners (GPs).

GPs face with patients' chronic diseases because of continuity of care, and personality might have a role in the diagnosis of the patient's illnesses as it influences on decision making. For instance, neurotic GPs have shown more anxiety due to uncertainty in their practice. Still the role of GP personality in the medical care of chronic patients is unknown

**Research questions:**

Is there an association between the GP personality and higher prevalence of some type of chronic diseases in their practice?

**Method:**

Multicentric cross-sectional study in Madrid city (Spain) in the first semester of 2023. Target population: GP and adults who were assigned to this GP for at least 1 year.

Primary outcome: Prevalence of chronic diseases in the patients assigned to this GP for at least 1 year according their personality test.

Variables: GP characteristics: sociodemographic, time working in the same practice, individual area of interest in medicine, personality test: Big Five Inventory, Spanish version. Patient's characteristics: sex, age, presence of: DM, cardiovascular diseases (coronary heart disease, stroke, heart failure) psychiatric diseases (anxiety and depression), arthrosis and joint pain.

Data will be extracted from the electronic health record and Consultaweb database program. Analysis: Descriptive analysis. The relationship between GP's personality and patient chronic diseases will be analyzed with multivariate logistic regression.

**Results:**

The hypothesis of this project is an expected relation between the type of personality of the GPs and the frequency of patient's chronic disease. This could help to make a better approach to the diseases in the future.

**Points for discussion:**

Does our personality influence on the diagnosis of the diseases of our patients?

If we knew our personality type, would our approach to patients be different?

Would our patient's personalities interfere in the results of the study?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Psychological symptoms in primary care: which symptoms persist more?**

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**Keywords:** Psychological symptoms, persistent symptoms, management strategies

**Background:**

Psychological symptoms that could not be attributed to a psychiatric disease play an important part in primary care. More than 20% of all consultations are about psychological symptoms. More than half of the patients with psychological symptoms have persistent symptoms. General practitioners (GPs) often experience difficulties in the care of patients with persistent psychological symptoms.

**Research questions:**

Relevance of the study: Because of the high frequency of patients with psychological symptoms in primary care and the challenges that GPs encounter when dealing with them, it is important to gain a broad insight into the scale of (persistent) psychological symptom diagnoses in order to adjust management strategies.

Aim of the study: Investigate clinical characteristics and GP management strategies of patients with (persistent) psychological symptoms and study which psychological symptoms persist more.

**Method:**

A retrospective cohort study. We will collect data from the Family- Medicine Network (FaMe-Net) dataset, a Dutch data registry including more than 32 GPs coding medical files from 1978. We will include all patients, aged more than 18 years, who visited their GP in 2018 for a psychological symptom diagnosis according to the International Classification of Primary Care (ICPC-2; codes P01-P29). An Episode of Care (EoC) is defined as 'a health problem in an individual from the first until the last encounter with a health care provider'. We established for each symptom diagnosis the duration of the EoC. Persistent psychological symptoms are defined when the EoC last more than one year.

**Results:**

Expected results: We will determine the incidence and prevalence rates of (persistent) psychological symptoms. Additionally, we will study patients' characteristics (age, sex, marital status, comorbidities, level of education, previous psychological physical and/or sexual abuse, marital, etc) and GP management strategies (referrals, diagnostic and therapeutic investigations, etc) of patients with (persistent) psychological symptoms.

**Conclusions:**

N/A

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Screening for post stroke depression by primary care physicians- an easy intervention of great importance**

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**Keywords:** screening, stroke, depression, primary care**Background:**

Post-stroke depression (PSD) is the most common neuropsychiatric complication after cerebrovascular accident (CVA) with a cumulative incidence of 55%, and is related to significant morbidity and mortality. In Israel, in 2016 screening for PSD became a quality measure in geriatric and rehabilitation centers via one of existing screening tools, including the PHQ-2 questionnaire. The optimal timing and setting for screening for PSD is yet to be established. Since primary care physicians follow these patients closely in an outpatient setting for long periods of time, their awareness of performing screening for depression in patients with new diagnosis of CVA is of great importance.

**Research questions:**

This study aims to compare the diagnosis rate of PSD by primary care physicians before and after introduction of a pop-up notification suggesting to perform screening for depression in patients with new diagnosis of CVA (in the past year)

**Method:**

This is a combined retrospective and interventional prospective study. Patients' records with a diagnosis of CVA between 2016-2021 will be reviewed for the diagnosis of depression. Time elapsed until the diagnosis of depression, the expert making the diagnosis, treatment with antidepressant drugs and referral to a psychiatrist will be evaluated. Next, a pop-up notification with PHQ-2 questionnaire advising to screen for PSD will appear in all medical records of patients with a recent diagnosis of CVA. Patients scoring  $5 \leq$  points in PHQ-2 questionnaire will be evaluated according to DSM-5 criteria by a primary care physician or referred to a psychiatrist. After 1 year follow up, medical files will be reviewed once again according to the same criteria.

**Hypotheses/outcomes:**

Diagnosis rate of PSD between 2016-2021 made by primary care physicians is lower than what is known in current literature.

Diagnosis rate of PSD made by primary care physicians will be significantly higher after the introduction of a pop-up notification.

**Points for discussion:**

Findings confirming our hypotheses will enable the use of pop-up notification to aid primary care physicians in screening for PSD, and thus improving patients chances for optimal rehabilitation.

**One-Slide/Five Minutes Presentation / Ongoing study no results yet****The OECD' Patient Reported Indicators Survey (PaRIS) in Belgium**

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**Keywords:** Primary care, Patient reported indicators, Chronic conditions

**Background:**

Due to the growing elderly and chronically ill population in many countries, health care needs are changing. Little is known about the capacity of health care system to meet these patients' needs. Primary care plays a large role in addressing these needs, assessing its performance, including the patients perspective, is crucial. As part of the Patient Reported Indicators Survey (PaRIS) initiative, the OECD surveys adults living with chronic conditions and the primary care they receive in 20 countries, including Belgium.

**Research questions:**

To what extent does the primary care patients with chronic conditions receive meet their needs?

**Method:**

PaRIS is a prospective cross-sectional international study that uses standardised data collection tools to survey patients and primary care provider (PCP) experiences.

The patient questionnaire (online or on paper) contains self-reported information about patient's characteristics, health care experience and outcomes. The PCP questionnaire is about the practice's structure and work organization.

Sampling is done in two steps; 1) recruitment of PCP and 2) recruitment of patients with (and without, as a reference group) chronic conditions, selected randomly within participating practices.

We target 100 participating PCP, 1000 will be invited with an expected participation rate of 10%. We aim to include 50 participating patients per practice, 170 patients per practice will be invited with an expected participation rate of 30%.

**Results:**

The survey will be conducted in 2023. Results will be available in 2024. Preliminary results of the field trial will be available near the end of 2022.

**Conclusions:**

The survey will provide perspectives from both patients and their health care providers and how they vary across and within countries. This will allow countries to benchmark their performances, exchange knowledge and increase cooperation.

Nationally, we hope to highlight groups of patients and health care aspects that require specific attention to further improve the quality of delivered care.

**Points for discussion:**

Participating PCP will receive a report with the aggregated results of their practice as an incentive.

PaRIS is a one-off data collection, to monitor the performance of the primary care, we have to repeat this data collection over time.

The results should not be attributed solely to the good/poor quality of care provided by the GP, but should be interpreted at the system level.

**Freestanding Paper / Finished study****Conceptual framework reflecting expectations, experiences and needs of parents and of children visiting their general practitioner with chronic gastrointestinal symptoms**

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**Background:**

Chronic gastrointestinal symptoms are common among children and affect their daily activities and quality of life. The majority will be diagnosed with a functional gastrointestinal disorder. Effective reassurance and education are therefore key components of the physician's management. Qualitative studies have shown how parents experience specialist pediatric care, yet less is known about GPs, who manage most cases in the Netherlands.

**Research questions:**

What are the expectations and experiences of parents and children when visiting a GP for chronic gastrointestinal symptoms?

**Method:**

We conducted a qualitative interview study in The Netherlands. We purposively sampled participants from a randomized controlled trial evaluating the effectiveness of fecal calprotectin testing in children with chronic gastrointestinal complaints in primary care. Online interviews were audio and video recorded, transcribed verbatim and independently analyzed by the first 2 authors. Data were collected and analyzed concurrently until data saturation was reached. Using thematic content analysis, we developed a conceptual framework reflecting respondent expectations and experiences. We performed a member check of the interview synopsis and the conceptual framework.

**Results:**

Thirteen parents and 2 children (15 and 17 years old) participated. Three key themes emerged: disease burden, GP-patient relationship, and cognitive reassurance. Often, the experienced disease burden and the pre-existing GP-patient relationship influenced expectations (e.g., for further investigations or a sympathetic ear), and when a GP fulfilled these expectations, a trusting GP-patient relationship ensued that facilitated cognitive reassurance. We found that individual needs influenced these themes and their interrelationships, and when recognized and met by the GP, improved the quality of the consultation experience.

**Conclusions:**

Insights provided by this framework could help GPs managing children with chronic gastrointestinal symptoms in daily practice and may therewith improve the consultation experience for both parents and children. Further research should evaluate whether this is the case.

**Points for discussion:**

Do these results sufficiently reflect the child perspective or do we need further exploration?

Can our results be generalized to other functional somatic symptoms in children (such as chronic fatigue or headaches)?

How could this framework help GPs in managing children with chronic gastrointestinal symptoms?



**Freestanding Paper / Finished study****Is self-triage by patients using a symptom-checker safe?**

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**Keywords:** triage, safety, telemedicine, symptom checkers**Background:**

Symptom-Checker-Apps have recently come on the market, helping users with self-triage through an interactive medical assessment and providing guidance on the urgency of the clinical picture presented. To be safe and effective, this tools should identify the right time to treat and point of care, avoiding potential situations of hazardous undertriage.

**Research questions:**

What is the probability of an undertriage to result in a risk to life or health (potentially hazardous undertriage) for patients using a symptom-checker?

**Method:**

Single-centered, prospective, non-randomized, non-placebo-controlled clinical trial comparing the patient's self-triage using the Symptom Checker, with the assessment of the urgency made by three interdisciplinary panels of physicians (panel A, B and C).

The assessment of the urgency encompassed the appropriate time-to-treat (T2T) and the adequate point-of-care (PoC). Cases which were adjudged to be undertriaged by panel A and B, were assessed for a risk to health or life by panel C.

Potentially hazardous undertriage was defined as a case where panel C reaches a consensus that it is "rather likely" or "likely" that the self-triage could have led to a hazardous undertriage.

To analyze it, Clopper-Pearson confidence bound was chosen. We assumed that in order to confirm the Symptom-Checkers safety, the upper confidence bound should lie below 1%.

**Results:**

Of the 2529 cases available for the analysis, none reached the pre-specified criterion for a potentially hazardous undertriage. This resulted in an upper 95% confidence bound for the probability of a potentially hazardous undertriage of 0.1184%

**Conclusions:**

Using the available data symptom-checkers's safety seems to be confirmed. Further studies aimed at investigating the risk of overtriage and its consequences are ongoing.

**Points for discussion:**

Safety and effectiveness of triage-oriented symptom-checkers

Potential role of self-triage in organization of care

**Freestanding Paper / Published****What role do patients prefer in medical decision-making? - a population-based nationwide cross-sectional study**

Micaela Gregório, Andreia Teixeira, Teresa Henriques, Rosália Páscoa, Sofia Baptista, Rosa Carvalho, Carlos Martins

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**Keywords:** shared decision-making, family medicine, patient centredness

**Background:**

In theory, the consultation model has evolved from a paternalistic perspective towards the current approach of integrating patient preferences and values while engaging patients actively in their healthcare decisions.

**Research questions:**

To assess patients' preferred roles in healthcare-related decision-making in a representative sample of the Portuguese population.

**Method:**

Design: Population-based nationwide cross-sectional study.

Setting and participants: A sample of Portuguese people 20 years or older were interviewed face-to-face using a questionnaire with the Problem-Solving Decision-Making scale.

Outcomes: The primary outcome was patients' preferred role for each vignette of the problem-solving decision-making scale. Sociodemographic factors associated with the preferred roles were the secondary outcomes.

**Results:**

599 participants (20–99 years, 53.8% women) were interviewed. Three vignettes of the Problem-Solving Decision-Making scale were compared: morbidity, mortality and quality of life. Most patients preferred a passive role for both the problem-solving and decision-making components of the scale, particularly for the mortality vignette (66.1% in the analysis of the three vignettes), although comparatively more opted to share decision in the decision-making component. For the quality of life vignette, a higher percentage of patients wanted a shared role (44.3%) than with the other two vignettes. In the problem-solving component, preferences were significantly associated with area of residence ( $p < 0.001$ ) and educational level ( $p = 0.013$ ), while in the decision-making component preferences were associated with age ( $p = 0.020$ ), educational level ( $p = 0.015$ ) and profession ( $p < 0.001$ ).

**Conclusions:**

In this representative sample of the Portuguese mainland population, most patients preferred a practitioner-controlling role for both the problem-solving and decision-making components. In a life-threatening situation, patients were more willing to let the doctor decide. In contrast, in a less serious situation, there is a greater willingness to participate in decision-making. We have found that shared decision-making is more acceptable to better-educated patients in the problem-solving component and to people who are younger, higher educated and employed, in the decision-making component.

**Points for discussion:**

Patients prefer a more passive role in medical-decision making

Empowerment of patients: still a long way to go

Qualitative research may have an important role in the interpretation of our results

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