



EUROPEAN GENERAL PRACTICE  
RESEARCH NETWORK



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## **Abstract Book**

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**17 - 20 October 2024**

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

# COLOPHON

Abstract Book of the 99th European General Practice Research Network Meeting  
Budapest, Hungary 17-20 October 2024

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## Foreword

### Mental Health Promotion and Prevention: Adjusting to the Changing World

The "Mental Health Promotion and Prevention: Adjusting to the Changing World" theme, particularly in the context of the COVID-19 pandemic, plays a pivotal role in addressing the profound impact of the pandemic on mental health globally. As the world navigates through unprecedented challenges brought about by the pandemic, it has become increasingly evident that mental health promotion and prevention efforts are more critical than ever.

In light of the COVID-19 pandemic and the ongoing wars, the conference may emphasize the following key areas:

- Impact of the Pandemic on Mental Health
- Innovative Strategies for Mental Health Support
- Building Resilience and Coping Mechanisms
- Addressing Mental Health Disparities
- Supporting Frontline Workers and Healthcare Professionals
- Policy Implications and Future Directions

Overall, the conference serves as a crucial platform for sharing knowledge, best practices, and lessons learned in promoting mental health and preventing mental illness in the context of a rapidly changing world and the ongoing challenges posed by the COVID-19 pandemic. By fostering collaboration and innovation, the conference aims to contribute to the global effort to prioritize mental health and support the well-being of individuals and communities worldwide.

### Host Organising Committee

#### Coordination

- Prof. Dr. Peter Torzsa, Head of department of Family Medicine, Semmelweis University
- Dr. Krisztian Voros, Vice Head of department of Family Medicine, Semmelweis University

#### Supporting Staff

- Dr. Ádám Becze
- Dr. Zoltán Lakó Futó
- Dr. Ábel Perjés
- Ilona Fekete
- Dr. Anna Krolopp
- Dr. Ágnes Szélvári
- Dr. Csenge Hargittay
- Dr. Janos Nemcsik
- Dr. Janos Zsuffa

## THURSDAY, 17TH OCTOBER 2024

Time	Three Corners Lifestyle Hotel	Room 1	Room 6	Room 0
	<b>Semmelweis University, Basic Medical Science Center</b>			
9:00				
9:30	Executive Board Meeting 09:30 - 13:00	Workshop 2 The Principles of Qualitative Research 09:30-12:30	Workshop 1 Writing for Publication 09:00 - 12:30	Workshop 3: How to read a paper: critical appraisal skills for randomised controlled trials papers 09:30-12:00
10:00				
11:00				
11:30				
12:00				
12:30				
13:00				
13:00	<b>Lunch Break</b> Price is not included in the conference fee.			
13:30				Workshop 4: Balint Group – a method for improving doctors' mental health 13:30-16:00
14:00				
14:00				
15:00		Council Meeting 14:00 - 17:00		
16:00				
17:00				
17:00		Research Strategy Committee 17:00 - 18:00	PR & Communication Committee 17:00 -18:00	Educational Committee 17:00 - 18:00
18:00				
18:00-19:30	<b>Welcome Reception and Opening Cocktail</b> Semmelweis University Basic Medical Science Center Ground Floor			

<b>FRIDAY, 18TH OCTOBER 2024</b>			
08:00-08:30	Registration - Ground Floor		
08:30-08:45	<b>Szent-Gyorgyi (A) Lecture Hall</b>		
	Opening of the Meeting by EGPRN Chairperson Dr. Tiny van Merode		
	Welcome by Local Host Prof. Dr. Peter Torzsa		
	International Keynote Lecture Prof. Philip Wilson		
09:40-11:10	EGPRN 50th Anniversary Celebration Session with Former EGPRN Chairs		
11:10-11:40	Coffee Break - Main Hall		
11:10-11:40	Blue Dot Coffee Break - For the first time attendees		
11:40-13:10	<b>Szent-Gyorgyi (A) Lecture Hall</b>		<b>Hevesy (B) Lecture Hall</b>
	Parallel Session A - Theme Papers: Mental Health of General Practitioners		Parallel Session B - Freestanding Papers: Patient Centred Care
13:10-14:10	<b>Room 1</b>		
	Research Cafe 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"! Take your lunch with you.		
13:10-14:10	Lunch - Main Hall		
14:10-15:40	<b>Szent-Gyorgyi (A) Lecture Hall</b>		<b>Hevesy (B) Lecture Hall</b>
	Parallel Session C - Theme Papers: Depression		Parallel Session D - Special Methodology session
15:40-16:00	Coffee Break - Main Hall		
16:00-17:30	Parallel Session E - One Slide Five Minute Presentations	Parallel Session F - Theme Papers: Work Related Stress	
17:30-17:40	Summary of the day by the International Keynote Speaker Prof. Philip Wilson		
17:40	End of the conference day		
17:45-18:45	<b>Szent-Gyorgyi (A) Lecture Hall</b>		<b>Hevesy (B) Lecture Hall</b>
	EGPRN Collaborative Study Group Meeting: Örenäs		EGPRN Collaborative Study Group Meeting: PHC-Eurodata-Covid19
18:00	<b>Room 1</b>		
	<b>Practice Visits in Budapest</b> Location: 5 different options. Online pre-registration required, space is limited. The groups will leave from the conference venue.		

<b>SATURDAY, 19TH OCTOBER 2024</b>			
<b>08:30-09:10</b>	<b>Szent-Gyorgyi (A) Lecture</b>		
	National Keynote Lecture Prof. György Purebl		
<b>09:10-10:40</b>	EGPRN 50th Anniversary Celebration Session with Former EGPRN Chairs		
<b>10:40-11:00</b>	Coffee Break - Main Hall		
<b>11:00-12:30</b>	<b>Poster Sessions - Main Hall</b>		
	Poster Session 1: Mental Health	Poster Session 2: Mental Health	
	Poster Session 3: Therapy	Poster Session 4: Risk Factors and Calculation in a Primary Care Population	
	Poster Session 5: Supporting GPs in Practice	Poster Session 6: Practice Organisation	
	Poster Session 7: Telemedicine and Technical Applications	Poster Session 8: Taking Care for Chronic Patients	
<b>12:30-13:30</b>	Lunch - Main Hall		
<b>13:30-15:30</b>	<b>Szent-Gyorgyi (A) Lecture</b>	<b>Hevesy (B) Lecture Hall</b>	<b>Room 1</b>
	Parallel Session G - Theme Papers: Mental Care with Adolescents	Parallel Session H - Freestanding Papers: Chronic Disease Management from Different Perspectives	Parallel Session I - Web Based Research Course Presentations
<b>15:30-15:50</b>	Coffee Break - Main Hall		
<b>15:50-17:20</b>	<b>Szent-Gyorgyi (A) Lecture</b>	<b>Hevesy (B) Lecture Hall</b>	<b>Room 1</b>
	Parallel Session J: Theme Papers - Mental Health Big Data Studies	Parallel Session K: Theme Papers Care for Vulnerable People	Parallel Session L: Freestanding paper - Technical Support in Practice
<b>17:20-17:30</b>	Summary of the day by the National Keynote Speaker Prof. György Purebl		
<b>17:30-17:50</b>	Chairperson's Report by EGPRN Chair, Dr. Tiny van Merode		
<b>17:50-18:00</b>	Presentation of the Poster-Prize for the best poster presented		
<b>18:00-18:10</b>	Introduction to the next EGPRN meeting		
<b>18:10-18:15</b>	Closing		
<b>19:30-00:00</b>	Social Night with Dinner, Dance and Music! Pre-booking online essential. Location: River Diva Budapest. Departure Location: In front of the Parliament (Close to the Kossuth Square metro station). Please ensure you arrive on time, as being late may result in missing the boat and, consequently, the social night.		

# Programme

## Thursday, 17 October 2024

09:00 - 12:30 **Workshop 1: Writing for Publication – Meet the Editors for Tips and Tricks!**

Location: Room 6

[Registration is required.](#)

09:00 - 12:30

09:30 - 13:00 **EGPRN Executive Board Meeting**

Location: Three Corners Lifestyle Hotel

Only for Members of the Executive Board

09:30 - 13:00

09:30 - 12:30 **Workshop 2: The Principles of Qualitative Research**

Location: Room 1

[Registration is required.](#)

09:30 - 12:30

09:30 - 12:30 **Workshop 3: How to read a paper: critical appraisal skills for randomised controlled trials papers**

Location: Room 0

[Registration is required.](#)

09:30 - 12:00

13:00 - 14:00 **Lunch**

Price is not included in the conference fee. You may purchase lunch at [restaurants close to the venue.](#)

13:30 - 16:00 **Workshop 4: Balint Group – a method for improving doctors' mental health**

Location: Room 0

[Registration is required.](#)

13:30 - 16:00

14:00 - 17:00 **EGPRN Council Meeting**

Location: Room 1

Only for EGPRN Executive Board and EGPRN Council members.

14:00 - 17:00

**17:00 - 18:00 EGPRN Committee Meetings and Working Groups**

17:00 - 18:00

- Research Strategy Committee - Room 1
- Educational Committee - Room 0
- PR & Communication Committee - Room 6

**18:00 - 19:30 Welcome Reception and Opening Cocktail**

Location: Ground Floor

**Friday, 18 October 2024**

08:00 - 08:30	<b>Registration</b> Location: Ground Floor
08:30 - 08:45	<b>Opening of the Meeting by EGPRN Chairperson</b> Location: Szent-Gyorgyi (A) Lecture Hall <ul style="list-style-type: none"> <li>• Tiny Van Merode (Speaker)</li> </ul>
08:45 - 09:00	<b>Welcome by Local Host</b> Location: Szent-Gyorgyi (A) Lecture Hall <ul style="list-style-type: none"> <li>• Peter Torzsa (Speaker)</li> </ul>
09:00 - 09:40	<b>International Keynote Lecture</b> Location: Szent-Gyorgyi (A) Lecture Hall <ul style="list-style-type: none"> <li>• Tiny Van Merode (Chair)</li> <li>• Mental health promotion begins at birth – or earlier - Philip Wilson (International Keynote Speaker)</li> </ul>
09:40 - 11:10	<b>EGPRN 50th Anniversary Celebration Session with Former EGPRN Chairs</b> Location: Szent-Gyorgyi (A) Lecture Hall <ul style="list-style-type: none"> <li>• Tiny Van Merode (Chair)</li> <li>• Dag Bruusgaard (Speaker)</li> <li>• Michael Köhle (Speaker)</li> <li>• Juan J. Gervas (Speaker)</li> <li>• Jan-Joost Rethans (Speaker)</li> <li>• Paul Van Royen (Speaker)</li> </ul>
11:10 - 11:40	<b>Blue Dot Coffee Break</b> Location: Room 1  For the first time attenders.
11:10 - 11:40	<b>Coffee Break</b> Location: Main Hall  For the regular attenders.
11:40 - 13:10	<b>Parallel Session A - Theme Papers: Mental Health of General Practitioners</b> Location: Szent-Gyorgyi (A) Lecture Hall <ul style="list-style-type: none"> <li>• Torunn Bjerve Eide (Chair)</li> <li>• Burnout syndrome and risk factors in trainees and fully qualified GPs: an observational study - Lorenzo Rizzotto</li> <li>• Exploring Self-Care: Cross-Sectional Study on GPs' Mental Health Maintenance amid the Pandemic - Ivana Keenan</li> <li>• Supporting the Mental Health of the Primary Care Workforce - Heather L Rogers</li> </ul>
11:40 - 13:10	<b>Parallel Session B - Freestanding Papers: Patient Centred Care</b> Location: Hevesy (B) Lecture Hall <ul style="list-style-type: none"> <li>• Lieve Peremans (Chair)</li> </ul>

- Medical decision-making challenges among ethnic minority populations in Belgium: a focus group study - Flore Vermijs
- The evolution of the doctor-patient relationship after the introduction of a medical assistant in a person centred-care: a qualitative study from a patient perspective - Laura Blake
- Understanding access challenges in primary healthcare: A comprehensive view from healthcare providers and people living in socio-economically disadvantaged conditions - Emilie Op De Beeck

13:10 - 14:10

**Lunch**

Location: Main Hall

13:10 - 14:10

**Research Café**

Location: Room 1

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"! Take your lunch with you.

14:10 - 15:40

**Parallel Session C - Theme Papers: Depression**

Location: Szent-Gyorgyi (A) Lecture Hall

- Jako Burgers (Chair)
- CAse-finding foR depressiOn in primary care (CAIRO) - Sarah A Lawton
- Piloting an intervention (checklist) to facilitate deprescribing antidepressants in general practice - Jochen Vukas
- Strategies of German general practitioners in dealing with depressive disorders in primary care patients – a mixed-methods study - Laura Hofner

14:10 - 15:40

**Parallel Session D - Freestanding Papers: Special Methodology Session**

Location: Hevesy (B) Lecture Hall

- Paul Van Royen (Chair)
- A Multidisciplinary Education Intervention to Increase Family Physicians' Knowledge and Self-Efficacy in Recognizing and Managing Cases of Child Neglect and Abuse - İrem Gelgeç
- Association between affective temperaments and the severity and the extent of coronary artery disease as obtained by coronary CT angiography - Barbara Sipos
- Gender differences in responses to the Hopkins Symptom Checklist-25, a scale to assess depression in Primary Care - Maria Rodriguez Barragan

15:40 - 16:00

**Coffee Break**

Location: Main Hall

16:00 - 17:30

**Parallel Session E: One Slide Five Minute Presentations**

Location: Szent-Gyorgyi (A) Lecture Hall

- Ferdinando Petrazzuoli (Chair)
- Mehmet Urgan (Chair)
- Shlomo Vinker (Chair)
- Digital health training needs in primary care - Ana Luisa Neves
- Evaluating knowledge, beliefs, attitudes, and practices of breast and cervical cancer screening among Ukrainian women - Nataliia Ponzel
- Evaluation of the Effect of Home Exercises and Posture Corrector Use on Scapula Height and Functional Outcomes in Chronic Shoulder Pain and Subacromial Impingement Syndrome: A Study at a Family Health Center - Basar Basci
- Knowledge and attitudes regarding palliative care in Croatia - assessing primary healthcare professionals' viewpoint - Ema Slapnicar

- Performance evaluation in primary care: pilot survey in Hungary and proposal for a European survey - Csaba Móczár
- Presence and Importance of Family Medicine Education in European Medical Schools: - Rosa Magallón Botaya
- Presenteeism Among General Practitioners – A Study Proposal - Lisa Voggenberger
- Primary Healthcare Physicians' Work Pressure and Turnover Intent Before, During, and After the COVID-19 Pandemic - Katica Tripković

16:00 - 17:30

**Parallel Session F - Theme Papers: Work Related Stress**

Location: Hevesy (B) Lecture Hall

- Pavlo Kolesnyk (Chair)
- Effects of adding early cooperation and a work-place dialogue meeting to primary care management for sick-listed patients with stress-related disorders: CO-WORK-CARE-Stress - a pragmatic cluster randomised controlled trial. - Ausra Saxvik
- Who wants to quit their job? – A survey among Swiss Internal Medicine physicians. - Jeanne Moor
- Work-Related Stress and Patient-Centered Care Among European GPs: Insights from the PACE GP/FP Study - Goranka Petricek

17:30 - 17:40

**Summary of the day**

- Philip Wilson (International Keynote Speaker)

17:40 - 17:45

**End of the conference day**

17:45 - 18:45

**EGPRN Collaborative Study Group Meeting: TRANSITION**

17:45 - 18:45

**EGPRN Collaborative Study Group Meeting: Örenas**

17:45 - 18:45

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

18:00 - 20:00

**Practice Visits in Budapest**

Online pre-registration required, space is limited. The groups will leave from the conference venue. Please click [here](#) for more information.

## Saturday, 19 October 2024

08:30 - 09:10

### National Keynote Lecture

Location: Szent-Gyorgyi (A) Lecture Hall

- Peter Torzsa (Chair)
- Low-intensity Psychological Interventions in Primary Care - György Purebl (National Keynote Speaker)

09:10 - 10:40

### EGPRN 50th Anniversary Celebration Session with Former EGPRN Chairs

Location: Szent-Gyorgyi (A) Lecture Hall

- Thomas Frese (Chair)
- Eva Hummers (Speaker)
- Jean Karl Soler (Speaker)
- Mehmet Urgan (Speaker)
- Davorina Petek (Speaker)

10:40 - 11:00

### Coffee Break

Location: Main Hall

11:00 - 12:30

### Poster Session 1: Mental Health

Location: Main Hall

- Negar Pourbordbari (Chair)
- Antidepressant effect on cardiovascular risk and weight in geriatric population: a retrospective study - Joana Carneiro De Moura
- Assessing Prevalence of Depressive Symptoms and Its Association with Type 2 Diabetes Mellitus in Primary Care: A Cross-Sectional Study from 9 residency training family health Units in Istanbul - Eda Yaldirak
- Comorbidity clusters and mental health - Matea Matić-Ličanin
- Integrating Mental Health Services in Primary Health Care: Insights from the Sughd Oblast Pilot, Tajikistan - Malika Khakimova
- Measurement of the effect of mental health interventions in primary prevention - Csaba Móczár
- Social stigma of individuals with multiple sclerosis and the management of psychological distress - Is there any role for General Practitioners? - Eleni Jelastopulu

11:00 - 12:30

### Poster Session 2: Mental Health

Location: Main Hall

- Heather L Rogers (Chair)
- "VoluntariaMente" - The Impact of the Individual Social Role on the Improvement of Mental Health - Ana Gonçalves
- Analysis of the Loneliness Perception of Young Students in Aragón, Spain - Fátima Mendez López
- Mental health and associated factors in young adults from two peripheral neighborhoods of Barcelona after the COVID-19 pandemic. - Dúnia Bel Verge
- Physician Burnout in Primary Care during the COVID-19 Pandemic: A Cross-Sectional Study in Portugal - Sofia Baptista
- Prevalence of Clinical Depression Among Medical Students at Uzhhorod National University, Ukraine - Oksana Ilkov

11:00 - 12:30

### Poster Session 3: Therapy

Location: Main Hall

- Hilde Bastiaens (Chair)
- Adherence to inhalers in COPD patients - Michal Shani
- Deprescribing Levothyroxine in Subclinical Hypothyroidism: Which Barriers and Enablers Do GPs Identify? - Annika Rettich

- Development of a strategy for deprescribing levothyroxin (LTX) accepted by patients with subclinical hypothyroidism (SH) - what motivations and barriers do patients have? - Melanie Rennert
- Evaluation of the Ingredients of Protein Bars from the Perspective of Family Medicine - Canan Tuz
- Patients experience of a study of light therapy in the treatment of chronic insomnia in general practice. a qualitative study - Juliette Chambe
- 'I am confident ... until patient X presents' - a qualitative meta-synthesis to understand primary healthcare professionals' experience with urinary tract infections - Henrike Kleuser

11:00 - 12:30

**Poster Session 4: Risk Factors and Calculation in a Primary Care Population**

Location: Main Hall

- Ana Clavería (Chair)
- Age and Low Heel Bone Mineral Density predicted Hip and Pelvic fracture-risk in 245 women aged 72-98: A 20-Year Population based Primary Care Study in Rural Sweden - Nils Larsson
- Differences between SCORE, Framingham Risk Score, and Estimated Pulse Wave Velocity-Based Vascular Age Calculation Methods Based on Data from the Three Generations Health Program in Hungary - Helga Gyöngyösi
- Plaque assessment as a potential cardiovascular risk modifier in primary care: A pilot study - Zsófia L. Somoskői
- Pre-screening of high-risk patients for osteoporosis in primary healthcare - Zoltán Lakó-Futó
- Risk factors for poor prognosis in outpatients with urinary tract infection: a systematic review and meta-analysis - Peter Kurotschka
- Underreporting of mortality related to fractures as compared to dementia in 641 women 75-105 years followed for 22 years in a population-based primary care study in Sweden. - Hans Thulesius

11:00 - 12:30

**Poster Session 5: Supporting GPs in Practice**

Location: Main Hall

- Jean Yves Le Reste (Chair)
- General practitioners' approach to young women's sexual health - Maxime Pautrat
- Level of knowledge of the new Spanish law on euthanasia among healthcare professionals and students - Eva Peguero
- Patient centered deprescribing in older adults by general practitioners - Tom Vermeulen
- Talking about motivational interviewing : how do GPs use it in daily practice - Paul Aujoulat
- The Health Care Worker Well-being Survey (WBS): An Assessment of the Impact of Well-being and Climate Change on Health Care Quality Improvement, Tajikistan, 2023. - Surayo Pulatova
- Training experience: Suicide prevention scape room for primary health care workers - M<sup>e</sup> Guadalupe Fontanet Redó

11:00 - 12:30

**Poster Session 6: Practice Organisation**

Location: Main Hall

- Imre Rurik (Chair)
- Do Primary Healthcare professionals agree on the Primary Care core values? Preliminary Data on a Delphi study. - Ileana Gefaell
- Are nurse-Led Patient consultations and nurse-led dose adjustments of permanent medication acceptable for the general practitioners and practice nurses in Germany? - Results from a survey in two federal states - Solveig Weise
- Can the GP practice location affect the uptake of colorectal cancer screening? - Jelena Danilenko
- Exploring interprofessional collaboration in general practice: a survey among the general practitioners in Finland - Kadri Suija
- Patterns and Associated Factors in Health Service Utilization Among High School Students in Turkey - Cigdem Apaydin Kaya
- Perspectives and Experiences of Healthcare Providers and Research Coordinators in

## Scientific Study Participation: A Qualitative Descriptive study - Sophie Van Hoof

11:00 - 12:30

**Poster Session 7: Telemedicine and Technical Applications**

Location: Main Hall

- Didem Kafadar (Chair)
- A novel approach in telemedicine – bringing hybrid, contact- and telemedicine-based mobile healthcare services in rural Hungarian areas - Ábel Perjés
- Empowering middle-aged patients with multimorbidity through virtual co-creation - Ana Isabel Gonzalez- Gonzalez
- Empowering patients with diabetes by monitoring daily activities using a home activity monitoring system: a feasibility study - Jesús González-Lama
- Opinions of Primary Care Physicians Working in Istanbul Province on Telehealth Applications - Pemra C. Unalan
- Teledermatology- the solution or the problem - Shlomo Vinker
- Telemedical services in Hungary. Are we on a right way? - Mária Markó-Kucsera

11:00 - 12:30

**Poster Session 8: Taking Care for Chronic Patients**

Location: Main Hall

- Krisztián Vörös (Chair)
- Benefits of Home-Based Services in Greece for the Homebound: Leveraging Insights and Perspectives from Primary Healthcare Professionals - Dimitra Iosifina Papageorgiou
- Differences in resilience and coping styles among women with asthma, dyspepsia, and the control - Ljiljana Majnaric
- Health-related quality of life of caregivers. A population-based study - Francisco Gude
- Hospital-at-Home Costs and Outcomes: A Cohort Study - Ilan Yehoshua
- Life span differences after hip fracture – a pilot case control study from primary care in rural Sweden. - Katarina Walseth Krøgenes
- Understanding of Long (Post)-COVID Definitions Across Europe - Sandra Leon Herrera

12:30 - 13:30

**Lunch**

Location: Main Hall

13:30 - 15:30

**Parallel Session G - Theme Papers: Mental Care with Adolescents**

Location: Szent-Gyorgyi (A) Lecture Hall

- Ana Clavería (Chair)
- General practitioner residents' mental health and satisfaction in relation to their professional training - András Mohos
- Is the Thoughts and Health programme feasible in the context of Swedish schools? - Pia Augustsson
- Loneliness, problematic smartphone use and screen time among medical students in Germany - Lukas Liebig
- The EARLY Study – "Evaluating, identifying, and reducing determinants of Mental Health Conditions in Youth" - Limor Adler

13:30 - 15:30

**Parallel Session H: Freestanding Papers: Chronic Disease Management from Different Perspectives**

Location: Hevesy (B) Lecture Hall

- Radost Assenova (Chair)
- Changes in Hungarian family physicians' knowledge and attitudes regarding sleep apnoea over the past 15 years. What difficulties do they have in screening car drivers for OSAS? - Peter Torzsa
- Evaluating a Chronic Disease Management Programme in General Practice: A Comparative Analysis of Healthcare Provider and Patient Perspectives - Fintan Stanley
- How many diabetic patients are treated by the Hungarian Healthcare System and how? The role of GPs in an evidence-based care provision - Katalin Maria Dozsa

- Incorporating Environmentally and Climate-Friendly Medication in GP Consultations: Patient Perspectives- Results from a qualitative Study - Dana Neumann

13:30 - 15:30

**Parallel Session I: Web Based Research Course Presentations**

Location: Room 1

- Ferdinando Petrazzuoli (Chair)
- Shlomo Vinker (Chair)
- Mehmet Ungan (Chair)
- Analysing Turkish-Language Human Papillomavirus Vaccination Videos on YouTube: Assessing Content Quality and Educational Value - Elif Ozeller
- Assessment of a code-based method compared with a questionnaire-based method for Influenza-Like Illness surveillance data collection in Belgian General Practices: Protocol - Mélanie Nahimana
- Chronic Care in Belgium: Crafting Effective Care Plans for Improved Patient Outcomes and Experiences - Dagmar Annaert
- How digital screen education affects adolescents' physical and mental health? Cross-sectional research. - Mariyana Daskalova
- Impact of a clinical communication skills course on communication and psychosocial competencies of 4th year family medicine residents - Ander Portugal
- The GP infection barometer: Protocol of a real-time syndromic surveillance of multiple infectious diseases in primary care using electronic health records - Nathalie Bossuyt
- The influence of the albuminuria screening on the control of risk factors for diabetic kidney disease progression by GPs in the Belgrade region - Marija Glavinić Mijić

15:30 - 15:50

**Coffee Break**

15:50 - 17:20

**Parallel Session J - Theme Papers: Mental Health Big Data Studies**

Location: Szent-Gyorgyi (A) Lecture Hall

- Jean Yves Le Reste (Chair)
- Benzodiazepine Use and Incident Cancer – A Population-based Cohort Study - Yochai Schonmann
- Regional distribution of suicide mortality rates in mainland Portugal: a community perspective from General and Family Medicine - Andreia Maria Bandeira
- The course of psychological symptoms and the initial management strategies in primary care - Asma Chaabouni

15:50 - 17:20

**Parallel Session K - Theme Papers: Care for Vulnerable People**

Location: Hevesy (B) Lecture Hall

- Pavlo Kolesnyk (Chair)
- Internal Medicine physicians' struggle with family planning and infertility - Isa Egger
- The Impact of Earthquake-Induced Migration on Access to Primary Health Care Services: A Case Study of Istanbul Following the Kahramanmaraş Earthquakes on February 6, 2023 - Neslişah Temuroglu
- Trajectories of resilience in advanced cancer caregiving. - Sophie Opsomer

15:50 - 17:20

**Parallel Session L - Freestanding Papers: Technical Support in Practice**

Location: Room 1

- Andrej Pangerc (Chair)
- A comparative Randomized Trial among different types of low and high power laser therapy, associated with steroid or visco-elastic joint injection under ultrasound guidance in the management of knee osteoarthritis in primary care. - Mihai Iacob
- Estimated pulse wave velocity can help in patient selection for ambulatory blood pressure monitoring to detect masked hypertension - János Nemcsik
- Point-of-care ultrasound for differential diagnosis of dyspnea in primary care: A pilot study - Róbert Kiss-Kovács

17:20 - 17:30

**Summary of the day**

Location: Szent-Gyorgyi (A) Lecture Hall

- György Purebl (National Keynote Speaker)

17:30 - 17:50

**Chairperson's Report by EGPRN Chair**

- Tiny Van Merode (Speaker)

17:50 - 18:00

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

Location: Szent-Gyorgyi (A) Lecture Hall

- Radost Assenova (Speaker)

18:00 - 18:10

**Introduction to the next EGPRN meeting**

Location: Szent-Gyorgyi (A) Lecture Hall

- Hans Thulesius (Speaker)

18:10 - 18:15

**Closing**

Location: Szent-Gyorgyi (A) Lecture Hall

19:30 - 00:00

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

Place is limited. Pre-booking online essential.

The social night will take place on the River Diva boat on the Danube. The boat will depart [Kossuth-tér Port](#), at the Parliament. Please ensure you arrive on time, as being late may result in missing the boat and, consequently, the social night.

After the river cruise, the boat will dock at 22:00. You may disembark at this time if you wish. After 22:00, the music will continue on board until 24:00. Please note that no transport has been arranged to reach the dock. We kindly recommend you to use [public transport](#) or call a taxi from your hotel.

## **Sunday, 20 October 2024**

09:30 - 12:00

### **EGPRN EB Meeting**

Only for members of the Executive Board.

Three Corners Lifestyle Hotel

09:30 - 12:00

## **International Keynote Lecture**

### **Mental health promotion begins at birth – or earlier**

**Prof. Philip Wilson**

Professor, Department of Family Medicine, University of Copenhagen

This talk will begin with a brief overview of the mechanisms by which in-utero factors and exposures in early life can influence brain development and thereby later mental and physical health. Epidemiological studies of mental health trajectories will be discussed critically, along with their implications for primary care developmental screening, opportunistic child consultations, health promotion and early intervention. Much of the content of the presentation will be based on my own work and that of my colleagues in Glasgow, Copenhagen, Gothenburg and further afield.

## Local Keynote Lecture

### Low-intensity psychological interventions in primary care

#### Prof. György Purebl

Head of Institute of Behavioural Sciences, Faculty of Medicine, Semmelweis University  
Hungarian Psychiatric Association, Vice-president (2010-2014), President (2016-2018)  
Hungarian Council of Psychotherapy Societies President  
Semmelweis University Sleep Medicine Board Chair since 2019  
Hungarian Sleep Association, Founding member

In everyday medical practice, there are many situations that require some form of psychological support. Many medical complaints and physical illnesses are accompanied by psychological symptoms (most often anxiety, mood symptoms, irrational attitudes to therapy), which can have a decisive influence on treatment compliance and outcome and, if left untreated, can lead to mental disorders (e.g. depression, acute stress disorder, etc.). In addition, people with chronic illnesses very often have a comorbidity of some kind of mental disorder (most often depression). These situations make it necessary not only for psychiatrists and clinical psychologists, but also for all doctors (and health care workers in general) to have at their disposal psychological methods that can be applied quickly and easily in the time-limited everyday situations of medicine. Fortunately, these methods are now available and are collectively known as Low Intensity Psychological Interventions (LIPI). They have the following common characteristics:

1. easy and quick to learn (even from a manual),
2. do not require special psychological training,
3. time-saving, and
4. easy to implement.

**Theme Paper / Finished study****Burnout syndrome and risk factors in trainees and fully qualified GPs: an observational study**

Lorenzo Rizzotto, Lucia Luzi Crivellini, Andrea Cesaro, Giulio Rigon, Francesco Del Zotti, Sonia Zenari

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**Keywords:** ProQOL; perceived support (PS); compassion satisfaction (CS); burnout (BO); secondary traumatic stress (STS); moral distress (MD), General Practitioners (GPs)

**Background:**

BO represents a widespread social problem, particularly relevant in helping professions like GPs. Italy has the highest scores relating to burnout among European GPs. Understanding and improving the professional quality of life of GPs is crucial for the well-being of physicians and to ensure optimal quality of care.

**Research questions:**

The study aims to evaluate the working conditions of GPs in the Veneto region: what are the risk elements of burnout and the associated protective factors? Is there a difference between physicians in training and those already qualified?

**Method:**

An analytical-observational research was conducted through an online questionnaire for GPs of Veneto region and the organization of five focus groups (three constituted of 8-12 fully qualified GPs and two of 15-20 training GPs). The questionnaire collected demographic data, informations on working habits and professional well-being using the Professional Quality of Life Scale (ProQOL-Health). The focus groups were used to deepen the results and gather qualitative data on the personal experiences of GPs regarding burnout and coping strategies.

**Results:**

499 questionnaires were completed, 241 by training GPs and 260 by trained GPs. High levels of BO were reported both in training GPs (45%) and in fully qualified ones (35%), in spite of the lower number of assisted patients by the trainees. The Perceived Support in the trainees and in the other GPs was respectively of 38% and 30%, and the Compassion Satisfaction was 60% and 55% in the two groups. GPs with nursery and secretary desk resulted at more risk of developing BO syndrome, while there was a positive correlation between BO syndrome and CS.

**Conclusions:**

BO between training and trained GPs was comparable. Surplus of working hours and more employees were the greatest risk factors. From the focus groups, prolonged multi-channel contactability and bureaucracy were great stressors. Among training GPs, PS resulted a protective factor.

**Points for discussion:**

Burnout and Compassion Satisfaction were statistically correlated. Therefore can we talk about workaholism in General Practice?

Is there any room for a systematic approach to fight burnout? are we GPs doomed to sooner or later face it?

Does GPs feel themselves sufficiently trained from a managerial point of view to organize their and their teams working activity?

**Theme Paper / Finished study**

## **Exploring Self-Care: Cross-Sectional Study on GPs' Mental Health Maintenance amid the Pandemic**

Ivana Keenan, Esther Van Poel, Els Clays, Sara Willems, Milena Šantrić Milićević, Katica Tripković, Radost Assenova, Kathryn Hoffmann, Iliana-Carmen Busneag, Gazmend Bojaj, Liubovė Murauskienė, Claire Collins

Irish College of General Practitioners, D02 XR68 Dublin, Ireland. E-mail: Ivana.Keenan@ICGP.IE

**Keywords:** Self-care, Wellbeing, General Practice, COVID-19, Resilience

### **Background:**

Working as a General Practitioner (GP) is a challenging career, and can contribute to stress, burnout, depression, and other mental health problems among doctors. Practicing self-care is essential in achieving work-life balance and ensuring the overall well-being of GPs. A lack of self-care was particularly evident during the COVID-19 pandemic when GPs predominately focused on patient care and often neglected their own needs.

### **Research questions:**

The present study aimed to investigate:

What were the self-care practices adopted by GPs amid the COVID-19 pandemic?

What was the relationship between self-care practices and the risk of experiencing mental distress?

### **Method:**

The study utilized data from a cross-sectional PRICOV-19 study, where an online self-reported questionnaire was distributed among GP practices across 38 countries. The Six Domains of Self-Care theoretical framework was applied to investigate open-text responses to maintaining mental health during COVID-19. The Mayo Clinic Well-Being Index (eWBI) was used to assess mental health well-being. The SPSS Statistics software was applied for data analysis.

### **Results:**

In total, 2,949 GPs were included in the study; and most of the respondents (65.5%) were considered at risk of distress ( $eWBI \geq 2$ ). Many GPs prioritised 'physical' (61.6%), followed by 'relational' (38.0%) and 'psychological' (34.6%) self-care practices to maintain their mental health. Participants who practiced 'professional' self-care practices had the lowest distress risk ( $eWBI=1.99$ ,  $p<0.001$ ). Overall, 5% of GPs disclosed not applying any practices to maintain their mental health and were more likely to experience a higher risk of distress ( $eWBI= 4.90$ ,  $p<0.001$ ).

### **Conclusions:**

GPs have adapted uniquely during the pandemic yet experienced significant stress despite self-care efforts. A robust long-term strategic plan, focused on the development of supportive work environments and the promotion of a healthy work-life balance, is necessary to enhance GP resilience and ensure optimal well-being.

## Supporting the Mental Health of the Primary Care Workforce

Heather L Rogers, Jelka Zaletel, Pedro Pita Barros, Expert Panel On Effective Ways Of Investing In Health

BioBizkaia Health Research Institute, 48903 Barakaldo, Spain. E-mail: rogersheatherl@gmail.com

**Keywords:** Mental health, primary care workforce, prevention, intervention

### Background:

In 2021, the European Commission DG SANTE Expert Panel on Effective Ways of Investing in Health (EXPH) published an Opinion on 'Supporting the Mental Health (MH) of the Health Workforce' (see: [https://ec.europa.eu/health/publications/supporting-mental-health-health-workforce-and-other-essential-workers-0\\_en](https://ec.europa.eu/health/publications/supporting-mental-health-health-workforce-and-other-essential-workers-0_en)).

### Research questions:

The mandate asked the EXPH to address:

1. What are the specific determinants of MH of the health workforce?
2. What is known about MH interventions and their cost effectiveness?
3. What implementation conditions are necessary for successful delivery of MH interventions?
4. What evidence-based action points are recommended?

### Method:

A literature review along with focus group discussions with EXPH members and invited experts were conducted.

### Results:

1. Optimal mental health involves lack of mental illness AND high mental well-being.
2. There is a complex interplay of determinants - biological, psychological, and social & environmental (including both work-related, occupation-specific and non-occupational-specific characteristics) - influencing MH trajectories over time in the face of a given stressor.
3. Supporting the mental health of the primary care workforce requires inter-sectorial and multi-stage interventions (primary, secondary, and tertiary).
4. European Agency for Safety and Health at Work legislation exists, as well as international standards of the Occupational Health and Safety management system.
5. The Swiss cheese model of accident causation (Reason, 1990) is a helpful heuristic to illustrate this synergy among MH interventions enacted within and outside of the health sector.

### Conclusions:

The main recommendation centers on the need for multiple interventions targeting multiple risk and protective factors occurring at multiple levels in order to ensure that all members of the primary care workforce benefit from them and no one individual is left behind. The priorities of different levels of interventions should begin with large scale interventions supporting the largest share of the health workforce, followed by interventions targeting organizational and team & job characteristics, and lastly targeting modifiable individual characteristics.

### Points for discussion:

What interventions are available to support the mental health of the primary care workforce in your country?

At what level are these interventions implemented (e.g., policies outside the health sector, policies within the health sector, organizational-level policies, managerial interventions, center (group) interventions, individual interventions)?

What activities do you find most helpful to maintain your own mental health?

**Freestanding Paper / Almost finished study****Medical decision-making challenges among ethnic minority populations in Belgium: a focus group study**

Flore Vermijs, Amina Yakhlaf, Josefien Van Olmen, Paul Van Royen, Katrien Bombeke, Sarah Van De Velde, Edwin Wouters, Veerle Buffel, Nina Van Eekert

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**Keywords:** medical decision-making, culturally sensitive care, focus group discussions

**Background:**

Cultural differences can influence the process of medical decision-making (MDM) between general practitioners (GPs) and patients with an ethnic minority background, potentially threatening the quality of person-centred care.

**Research questions:**

What are the challenges related to MDM among patients with an ethnic minority background, from the perspectives of patients and GPs in Belgium?

**Method:**

Three focus group discussions with patients (or their representatives) with a migration background from Turkey (n=6), Morocco (n=6) and sub-Saharan Africa (n=7), and two with GPs (n=13) were conducted in Belgium in November-December 2023. Reflexive thematic analysis of the transcripts integrated medical, sociological and deontological/legal perspectives.

**Results:**

Challenges arise from differences in conceptions about diseases and their corresponding treatment, discordant expectations regarding patient involvement in their own health and MDM, and providers' lack of knowledge and understanding of patients' preferences regarding disclosure of medical information and treatment. Moreover, close family involvement can affect the MDM process at multiple stages. Challenges were most prevalent in MDM about prevention, non-communicable diseases, mental health, sexual and reproductive health, and end-of-life care. Importantly, the intersection with other factors, such as language proficiency, education, socio-economic status, length of residence in Belgium, gender dynamics, religious affiliations, as well as Belgian legislation related to MDM should be recognized.

**Conclusions:**

The analyzed patient and GP perspectives enrich our understanding of the complex cultural dynamics surrounding MDM. This study highlights the importance of working towards culturally sensitive healthcare practices that accommodate the diverse needs and preferences of ethnic minority populations in the MDM process, while taking the deontological/legal framework as well as the educational and supportive needs of their GPs into account.

**Points for discussion:**

How to integrate different perspectives (e.g., medical, sociological and also partly legal/deontological) within a reflexive thematic analysis of the data?

What are your experiences with medical decision-making with patients with an ethnic minority background, e.g. with regards to non-disclosure practices, religious preferences...

**Freestanding Paper / Almost finished study****The evolution of the doctor-patient relationship after the introduction of a medical assistant in a person centred-care: a qualitative study from a patient perspective**

Laura Blake, Irene Supper

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**Keywords:** medical assistant; general practitioner; primary care; medical undeserved area; interprofessional collaboration; doctor-patient relationship; person-centred care

**Background:**

To deal with medical underserved areas, medical assistants (MA) have been recruited in France since 2018, relieving general practitioners (GP) from administrative tasks in order to guarantee a better access to primary care. The MA arrival fosters to reorganize the medical encounter, impacting the doctor-patient relationship.

**Research questions:**

In this study, we wanted to explain the evolution of the doctor-patient relationship after the introduction of a MA, according to a person-centred care model, from the patient's perspective.

**Method:**

This study followed a qualitative design based on individual semi-structured interviews. Patients were recruited until data saturation, on a purposive sampling base aiming for a maximum variation in participant age, gender, years of follow up. Double coding was performed after transcription and data anonymization. Thematic content analysis followed, with a principle of constant comparison according to Stewart's 2024 person-centred care model.

**Results:**

19 interviews were conducted. The MA is seen by the patient as an intermediate facilitating the doctor-patient exchanges through organizational roles (waiting time, administrative tasks, emergency triage) and interpersonal skills, making the MA a pair and a figure of trust. However, the GP remains the expert of both intimacy and complexity and the privileged referent. The MA has no place in the shared decision-making. Task delegation and lack of information increase confusion in the patient navigation. By enhancing the time and emotional availability of the GP, the MA rehumanizes the doctor-patient relationship but has no impact on the outside system remaining pressurized by the doctor shortage.

**Conclusions:**

The MA is considered as a facilitating pair, enhancing the doctor-patient relationship. The GP remains the holistic medical care keeper in a fragmented system. More research is needed to find the right balance of interprofessional collaboration to avoid the loss of attractiveness of the GP profession and the long-term economic viability for medical practices employing MAs.

**Points for discussion:**

The task delegation and the notion of "minor consultations"

The loss of attractiveness of the GP profession: a European common point?

Is a European medical assistant possible? Needs for a clear legal framework, common tasks and a European pooling skills. Furthermore quantitative research is needed to identify the needs of practices experiencing different profiles of MAs.

**Freestanding Paper / Finished study****Understanding access challenges in primary healthcare: A comprehensive view from healthcare providers and people living in socio-economically disadvantaged conditions**

Emilie Op De Beeck, Hilde Bastiaens, Caroline Masquillier, Josefien Van Olmen, Edwin Wouters

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**Background:**

Even though access to primary healthcare (PHC) is essential for people's health and wellbeing, there are still people with difficulties in accessing PHC (PDAP). They predominantly comprise people who live in socio-economically vulnerable conditions (e.g. people with a low income and/or low educational attainment). There is a lack of knowledge on the possible cumulative effects of barriers encountered over time.

**Research questions:**

The aim of this qualitative research is to explore the barriers to access PHC over time, experienced by people living in socio-economically difficulties and healthcare providers (HCP) as well as the interplay between healthcare seekers and HCP, regarding access to PHC.

**Method:**

A qualitative longitudinal approach using semi-structured interviews with people living in socio-economically difficulties was conducted. In addition, semi-structured interviews with HCP, such as general practitioners, dentists, pharmacists and therapists, were performed. A combination of purposive and snowball sampling was used as sampling strategy. Interviews were audiotaped, transcribed and thematic analysis was done guided by the access to care framework of Levesque, et al (2013).

**Results:**

In general, PDAP postpone seeking care due to stigma, financial barriers, extended waiting times, and perceived cultural gap between PDAP and HCP. Assistance from healthcare and welfare professionals or informal social network can help to overcome these barriers. Additionally, HCP confirm the challenges presented by financial problems and complex health issues as well leading to postponement in care. Furthermore, HCP are confronted with cultural and language barriers that make it difficult to provide appropriate care. One of the domains where the aforementioned barriers are particularly prevalent is mental health care.

**Conclusions:**

Barriers in accessing care can accumulate, leading to delays, especially in mental health care. Stigma and expected cultural differences challenge patients to seek care, while long waiting lists and high costs make it difficult to obtain the services needed.

**Theme Paper / Finished study****CAse-finding foR depressiOn in primary care (CAIRO)**

Sarah A Lawton, Christian D Mallen, Carolyn A Chew-Graham, Tom Kingstone, Sarah Lewis, Ram Bajpai, Sara Muller, Toby Helliwell

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**Background:**

Depression is a significant determinant of quality of life, a leading cause of disability and a major contributor to the disease burden worldwide. The prevalence of depressive symptoms in a consulting primary care adult population is unknown.

**Research questions:**

What proportion of patients screen positive for depression, whilst self-completing an automated check-in screen prior to any general practice (GP) consultation?

**Method:**

The use of automated check-in screens to collect brief research data, examined the number of patients screening positive for depression, using the validated Whooley questions: (1) Have you felt down or depressed or hopeless? and (2) Have you been bothered by little interest or pleasure in doing things? - in the past month. Patients  $\geq 18$  years, with a pre-booked appointment, during a 3-week recruitment period, at 10 GPs in the West Midlands, England, were eligible. Responses to the two additional research questions were added to the patients' electronic medical record. Descriptive statistics were used to analyse and present data.

**Results:**

41.1% (n=3,666) of patients with a booked appointment (n=8,913) participated in the CAIRO Study, 61.1% (n=2,239) female, mean age 55.0 years (18-96 years, SD=18.5). 19.1% (n=700) of participants screened positive to both of the Whooley questions, potentially indicating depression. Significantly more positive responses were obtained from females, those aged between 35-49 years and those from more deprived practices. Recruiting GPs to host the study was challenging.

**Conclusions:**

A positive response does not indicate a diagnosis of depression but indicates that further exploration is needed. One in five (19.1%) CAIRO participants provided a positive response to the Whooley questions, suggesting a level of un-met need. Further investigation is required on why the recruitment of general practices to this study was challenging.

**Points for discussion:**

This study provides a snapshot of primary care consulting patients' mental health status and highlights a potential un-met need.

**Theme Paper / Almost finished study****Piloting an intervention (checklist) to facilitate deprescribing antidepressants in general practice**

Jochen Vukas, Oliver Senckenberg, Vita Brisnik, Tobias Dreischulte

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**Keywords:** deprescribing, discontinuation, antidepressant, intervention, general practice, clinical guidance

**Background:**

The global rise in antidepressant use suggests greater acceptance but raises concerns about overprescription. Long-term and unnecessary prescriptions, especially for mild to moderate depression or sleep disturbances, drive this trend. Antidepressant use comes with risks of numerous adverse drug reactions (ADRs), particularly in vulnerable older adults. In this regard, the concept of deprescribing experiences increasing awareness. However, there is a need to further investigate for targeted interventions to facilitate deprescribing in general practice.

**Research questions:**

Developing and testing a deprescribing intervention to support general practitioners in appropriately deprescribing antidepressants.

**Method:**

We followed the 2021 version of the Medical-Research-Council-Framework for the development and evaluation of complex interventions. First, we conducted qualitative semi-structured interviews with general practitioners based on the Capability-Opportunity-Motivation-Behaviour Framework to explore for factors influencing deprescribing behaviour. Second, we conducted a systematic review of clinical practice guidelines and extracted recommendations regarding appropriate treatment durations and strategies to avoid antidepressant ADRs. Third, we developed an intervention based on the Behaviour-Change-Wheel-Framework using results generated by the interviews and the systematic review. We started a pilot study.

**Results:**

For the interview study, we recruited 20 general practitioners. Facilitators were: self-confidence and professional experience. Identified barriers were: lack of interdisciplinary collaboration, uncertainties in decision-making and inadequate or missing tools to support decision-making. To further improve medication-safety and antidepressant deprescribing, participants suggested: shared-decision-making, good relationships with patients, practical tools as decision-aids and comprehensive practice-management-software.

The literature search of 14 guidelines revealed a lack of recommendations on when discontinuation of antidepressants may be attempted. We noted inconsistencies in the statements regarding adverse effects, high-risk prescriptions, and overprescribing and found points of departure for deprescribing based on the warnings and recommendations.

**Conclusions:**

A study protocol for a pilot study to evaluate the feasibility, acceptability, and effectivity of the intervention was created. The pilot study is ongoing. Results will be expected by October.

**Points for discussion:**

Deprescribing intervention (checklist): feasible, accepted, effective?

Improvements/adaptions for a randomized controlled study?

**Theme Paper / Finished study****Strategies of German general practitioners in dealing with depressive disorders in primary care patients – a mixed-methods study**

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**Keywords:** depressive disorders, general practice, mixed-methods study design, survey, in-depth interviews**Background:**

Depression is a global health issue that challenges general practitioners (GPs) when patients seek medical care. In Germany, psychiatrists and psychotherapists are involved in ambulatory care. In this context, the role of GPs in treating depression is not yet fully understood.

**Research questions:**

What strategies do GPs use to manage patients with depression? How do GPs perceive their role?

**Method:**

In January 2021, we sent a survey to 1800 randomly selected Bavarian GPs including an invitation to an in-depth interview (mixed methods design). The 53 items comprised patient management (e.g. consultations, diagnostics, medication) and demographics. Survey data was analysed descriptively. Interviews were analysed using Kuckartz's content analysis. We employed a triangulation protocol to integrate quantitative and qualitative data.

**Results:**

Overall, 471 GPs (45.4% female) completed the survey, and 20 participated in an interview. GPs reported referring 6 out of 10 patients to a psychotherapist (mean=6.0, SD=2.4), referring 6 out of 10 to a psychiatrist or neurologist (mean=5.6 SD=2.5), prescribing antidepressants to 5 out of 10 (mean=4.7, SD=2.6) and prescribing herbal drugs to 3 out of 10 (mean=2.8, SD=2.4). Interviews revealed that patients' expectations and concerns guide GPs' decisions. GPs provide psychosocial support in cases of social burden due to family conflicts and work stress. GPs see themselves as gatekeepers, patients' advocates, comforters, and problem-solvers, but also describe themselves as sole primary care providers, challenged by limited time and referral options. During the COVID-19 pandemic, GPs noticed rising mental health issues and a decline in supporting healthcare structures. At the same time, GPs had more time for mental health care as they had fewer routine medical tasks to perform.

**Conclusions:**

Psychosocial guidance is a key strategy for treating depression in primary care. GPs are committed to providing a patient-centered therapeutic approach, yet often feel constrained by the existing healthcare structures.

**Points for discussion:**

Which GPs' treatment strategy may serve as a reference point for improving the management of patients with depression?

To what extent do the perceptions of GPs as sole primary care providers in the treatment of depression reflect wider systemic issues within healthcare structures?

What strategies could be implemented to better support GPs in the treatment of depression within primary care?

**Freestanding Paper / Finished study**

## **A Multidisciplinary Education Intervention to Increase Family Physicians' Knowledge and Self-Efficacy in Recognizing and Managing Cases of Child Neglect and Abuse**

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**Keywords:** Child neglect, child abuse, education, family medicine, primary care, continuing medical education, child maltreatment

### **Background:**

According to studies, family physicians need training in recognizing and managing cases of child neglect and abuse (CNA) and it was seen that there wasn't education intervention research for primary care in Türkiye on this subject before.

### **Research questions:**

Is a training to increase family physicians' knowledge and self-efficacy in recognizing and managing CNA cases effective?

### **Method:**

This is a educational intervention study conducted with family physicians in Istanbul between May-June 2023. The volunteer physicians who invited via telephone messaging groups, were given a full-day interactive training by the psychologists, lawyers, social workers and family medicine and forensic medicine academicians in small groups. The content of the education was based on real CNA cases encountered in primary health care and conducted through lectures and structured case-based discussions. Physicians were filled a form before the education included socio-demographic characteristics, the "Scale for Diagnosis of Symptoms and Risks of Child Abuse and Neglect" (SDSRCAN), and the "Self-efficacy Assessment Form (SEAF) in Managing CNA Cases". At the end of the education and six months later, SDSRCAN and SEAF were filled again. In addition, physicians were requested give feedback about the training with a maximum of 10 points. In analysis, Wilcoxon or Friedman test was used.  $P < .05$  was considered significant.

### **Results:**

Thirty eight physicians with a median age of  $30 \pm 8$  were participated in the study (76% F;24% M). Average scores of SDSRCAN were  $4.07 \pm 0.35$  before the training,  $4.5 \pm 0.36$  at the end of the the training and  $4.4 \pm 0.4$  six months after the training ( $p < 0.001$ ). An increase in SEAF score was also detected six months after the training compared to before the training ( $29.7 \pm 8$ ;  $42.7 \pm 5$ ;  $p < 0.001$ ). The mean education feedback point of the physicians was  $9.5 \pm 0.7$ .

### **Conclusions:**

The multidisciplinary educational program for family physicians, encompassing case-based discussions and lectures on recognizing and managing CNA cases, is effective.

### **Points for discussion:**

Are there any pre or post graduation trainings for family physicians in your country about managing child neglect and abuse cases?

How could the educational method be more effective in order to ensure the knowledge and self-efficacy permanence?

**Freestanding Paper / Finished study****Association between affective temperaments and the severity and the extent of coronary artery disease as obtained by coronary CT angiography**

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**Keywords:** Affective temperaments, Coronary artery disease, Coronary CT angiography

**Background:**

Affective temperaments are documented predictors of psychopathology, but cumulating data suggest their relationship with coronary artery disease (CAD).

**Research questions:**

We aimed to evaluate role of affective temperaments in relation to surrogate semiquantitative markers of coronary plaque burden, as assessed by coronary CT angiography (CCTA). We also wanted to compare the application of 110-item to the 40-item TEMPS-A autoquestionnaire.

**Method:**

We included 351 patients who were referred for CCTA due to suspected CAD. All patients completed the Temperament Evaluation of Memphis, Pisa, Paris and San Diego Autoquestionnaire (TEMPS-A). The severity and extent of CAD was evaluated by CCTA, applying semiquantitative plaque burden scores, notably Segment Involvement Score (SIS) and Segment Stenosis Score (SSS). Logistic regression analyses were performed to define the predictors of CAD severity and extent.

**Results:**

Regarding the scores evaluated by TEMPS-A that consists of 110 questions, in men, significant inverse association was found between hyperthymic temperament score and SSS ( $\beta=-0.143$ , (95%CI:-0.091 to -0.004),  $p=0.034$ ). Compared to the TEMPS-A form, applying the abbreviated version – containing 40 questions – significant relationship between affective temperaments and SSS or SIS was found in case of both sexes. Concerning men, hyperthymic temperament was demonstrated to be independent predictor of both SSS ( $\beta=-0.193$ , (95%CI:-0.224 to -0.048),  $p=0.004$ ) and SIS ( $\beta=-0.194$ , (95%CI:-0.202 to -0.038),  $p=0.004$ ). Additionally, we proved, that significant positive association between irritable temperament and SSS ( $\beta=0.152$ , (95%CI:0.002 to 0.269),  $p=0.047$ ) and SIS ( $\beta=0.155$ , (95%CI:0.004 to 0.221),  $p=0.042$ ) exists among women.

**Conclusions:**

Assessment of affective temperaments could offer added value in stratifying cardiovascular risk for patients beyond traditional risk factors in general practice.

**Points for discussion:**

Female and male population were assessed separately.

Differences were found between applying the 110-item autoquestionnaire and the 40-item abbreviated version regarding female population.

**Freestanding Paper / Finished study****Gender differences in responses to the Hopkins Symptom Checklist-25, a scale to assess depression in Primary Care**

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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) scale was identified as a valid, reproducible, effective and easy to use instrument. Depression manifests itself differently by gender; nevertheless, the assessment instruments are the same regardless to gender.

**Research questions:**

Are there differences in the psychometric properties of the HSCL-25 depending on the gender?

**Method:**

Multicentre cross-sectional study. HSCL-25 was self-administered to outpatients aged from 45 to 75 in six Spanish Primary Care Centres. All patients also conducted the structured Composite International Diagnostic Interview (CIDI). Difference between male and female were assessed regarding responsiveness (discrimination index for the items); total score mean; construct validity (Pearson's correlation with PHQ-9); criterion validity against CIDI (area under curve and optimal cut-off point, sensitivity and specificity); and reliability (Cronbach's Alpha).

**Results:**

767 patients out of 790 (97.1%) complimented HSCL-. Mean age was 58.4 years ( $\pm 8.2$ ), 54.4% were women. 736 participated in the CIDI. Item "Sleep disturbance" discriminated better among males, whereas "Losing sexual interest" and "Worrying too much" discriminated better among females. Total score mean was 1.42 (SD 0.64) for males and 1.57 (SD 0.76) for females ( $p < 0.001$ ). Pearson's correlation was 0.78 (CI95% 0.73-0.82) for males and 0.76 (CI95%, 0.71-0.79) for females. AUC against CIDI was 0.96 (CI95% 0.93-0.99) for males and 0.83 (CI95% 0.87-0.89) for females. Sensitivity was 87.5% (CI95% 61.7-98.4) for males and 88.4% (CI95% 74.9-96.1) for females, whereas specificity was 86.8% (CI95% 82.6-90.3) for males and 67.3% (CI95% 62.2-72.1) for females. Cronbach's Alpha was 0.90 for males and 0.92 for females.

**Conclusions:**

Sensitivity and reliability of the HSCL-25 are the same between gender. Some items perform differently according to gender. Specificity is far lower for women demanding more investigation to see if the cut-off should be differentiated by gender.

**Points for discussion:**

Should gender be taken into account when interpreting depression scale scores?

Should different cut-off points be considered according to gender?

## **Digital health training needs in primary care**

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### **Background:**

The successful integration of digital health into primary care heavily relies on general practitioner/family doctors' (GP/FDs') proficiency and comfort with these technologies, which often bring new complexities and concerns to routine practice. Preliminary evidence suggests that lack of proper training may contribute to the challenges faced by GPs/FDs in integrating these technologies into their daily practice.

### **Research questions:**

This work aims to comprehensively assess the digital health training needs of GPs/FDs globally (minimum target of 70 countries). Specifically, we aim to a) identify the current level of digital health literacy among GP/FDs; b) map the existing training in digital health, both in pre- and post-graduate curricula; c) identify key priorities for training in digital health, and d) develop recommendations to guide the implementation of digital health training in pre- and post-graduate curricula.

### **Method:**

As per the overall scope of the work, a minimum target of 70 countries, covering each WONCA Region, will be considered. We will use a mixed methods approach, including an online survey to map existing digital training in digital health (>386 responses, for a confidence level of 95% and a margin of error of 5%); and a combination of 5 focus groups (n=10 each) and an eDelphi study (n=140 experts) to identify and reach consensus on the key topics for digital training. Main aspects to be covered include preferred education methods, stakeholders to be involved, and relevant actions to be taken, to incorporate these aspects on training curricula.

### **Conclusions:**

In collaboration with the Wonca Working Party on eHealth, Working Party in Research and SIG Policy Advocacy, this work will provide a necessary contribution to the scientific literature about the need for digital training in pre- and post-graduate curricula, and a brief to providers and policymakers who are working at the cutting edge of integrating digital health into the primary care environment.

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Evaluating knowledge, beliefs, attitudes, and practices of breast and cervical cancer screening among Ukrainian women**

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**Keywords:** breast cancer, cervical cancer, screening, questionnaire

**Background:**

Cancer remains a leading global public health issue, ranking as the second leading cause of death. Among women, breast cancer is the most commonly diagnosed, while cervical cancer is the fourth. In Ukraine, the lack of organized screening programs and the ongoing war have further complicated cancer prevention and early detection efforts.

**Research questions:**

How reliable and valid is the Ukrainian Breast and Cervical Screening Questionnaire (UBC-SQ) for assessing knowledge, beliefs, attitudes, and practices related to breast and cervical cancer screening among Ukrainian women?

What are the knowledge, beliefs, attitudes, and practices related to breast and cervical cancer screening among Ukrainian women as evaluated by the UBC-SQ?

**Method:**

The study involves translating, cultural adaptation and validation of UBC-SQ. The process includes forward-backward translation, experts review, comprehensive validity and reliability assessments. Participants will be recruited through health care centres and family medicine clinics, Ukraine. The study includes women aged 21-74 who were literate. Participants with a history of breast or cervical cancer will be excluded. As well as looking at overall knowledge, beliefs, attitude and screening practices we will compare them within women in Ukraine with those outside it and in different regions.

**Results:**

We will present the study protocol and preliminary results of validation of UBC-SQ.

**Conclusions:**

Literature research about breast and cervical cancer screening practices in Ukraine is limited. There is insufficient evidence that clearly identifies the specific beliefs, knowledge, and attitudes influencing women's screening behaviors. Therefore, developing, testing and using a reliable assessment tool to evaluate these is crucial. The results of research would be essential for GPs in creating effective interventions to promote screening practices for both breast and cervical cancer and would provide valuable insights for improving public health strategies in Ukraine.

**Points for discussion:**

The importance of implementing organized screening programs in Ukraine.

Strategies for improving cancer screening awareness and practices among Ukrainian women, especially in conflict-affected areas.

Would any EGPRN colleagues like to collaborate with us in this research?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Evaluation of the Effect of Home Exercises and Posture Corrector Use on Scapula Height and Functional Outcomes in Chronic Shoulder Pain and Subacromial Impingement Syndrome: A Study at a Family Health Center**

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**Keywords:** Shoulder Pain, Home Exercise, Posture Correction**Background:**

Shoulder pain is a common complaint, associated with subacromial impingement and scapulothoracic dysfunction. These can affect shoulder stability, leading to pain and functional limitations. Scapula height is critical for shoulder mechanics and function, making the evaluation of scapulothoracic movements important. This study aims to examine the effect of home exercises and posture corrector use on scapula height in patients with chronic shoulder pain and subacromial impingement visiting a family health center.

**Research questions:**

- 1.How does use of home exercises and a posture corrector impact scapula height and functional outcomes in patients with chronic shoulder pain and subacromial impingement syndrome?
- 2.Are there significant differences in scapula height and functional outcomes before and after the intervention?
- 3.What are the patient-reported benefits and challenges of adhering to this approach
- 4.How do changes in scapula height correlate with improvements in pain and functional limitations in patients undergoing the intervention?
- 5.Can this intervention be recommended as a standard non-invasive treatment for chronic shoulder pain and subacromial impingement syndrome based on the study findings?

**Method:**

Fifty patients diagnosed with chronic shoulder pain and subacromial impingement will be included in the study. Patients will follow an individually designed home exercise program for six weeks and use a posture corrector. Before and after treatment, photographs of each patient's back will be taken, and scapula heights will be measured. Scapula heights will be evaluated through visual analysis and image processing measurement methods, with pre- and post-treatment comparisons. Additionally, ASES and Constant scores will be evaluated pre- and post-treatment for functional scoring.

**Results:**

This study is at the idea stage; data collection will commence following ethical committee approval.

**Conclusions:**

This study highlights the potential benefits of home-based exercises and posture correction in improving scapula mechanics and shoulder function. These findings could inform clinical practice, offering a non-invasive and cost-effective approach to managing chronic shoulder conditions.

**Points for discussion:**

Efficacy of Home Exercises and Posture Correctors

Scapula Height Measurement Techniques

Patient Adherence and Compliance

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Knowledge and attitudes regarding palliative care in Croatia - assessing primary healthcare professionals' viewpoint**

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**Keywords:** family medicine, palliative care, general practitioners, primary care nurses

**Background:**

Palliative care is characterised by comprehensive approach to patients who suffer from incurable diseases, aiming to improve their quality of life. Primary palliative care is provided by general practitioner in cooperation with the multidisciplinary team and patient's family. Due to the lack of resources and low awareness of healthcare professionals, palliative care in Croatia is often provided only for people whose curative treatment has been completed and whose disease is progressing rapidly. Therefore, palliative care and end-of-life care are often considered synonyms in Croatia, although the philosophy of palliative care is much broader.

**Research questions:**

To determine current attitudes, knowledge and practices of primary healthcare professionals (physicians, nurses) regarding palliative care in Croatia.

**Method:**

A cross-sectional study will be conducted among following primary healthcare professionals: general practitioners, community nurses and nurses working in home care institutions. Separate survey questionnaires will be used among physicians and nurses. The structure of both questionnaires is three-part: collecting general demographic data, evaluating attitudes and knowledge about palliative care using two validated questionnaires (Frommelt's Attitude Toward Care of the Dying and Palliative Care Knowledge Test) and examining the respondents' personal experiences related to work in the palliative care system in Croatia.

**Results:**

Results of the research can point out strengths and weaknesses in knowledge and practices of primary palliative care providers in Croatia, which may help identify areas where education, interventions or strategy changes are needed.

**Conclusions:**

Lack of knowledge about palliative care among healthcare professionals is one of the most common obstacles in the implementation of high-quality palliative care.

Although in recent years there have been improvements of the system of palliative care in Croatia, it is not yet at the desired level of development. The first step in improving the quality of palliative care is the education of all members of team who provide palliative care.

**Points for discussion:**

How to obtain an insight into the initial knowledge and skills of healthcare professionals in matters of palliative care?

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Performance evaluation in primary care: pilot survey in Hungary and proposal for a European survey**

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**Keywords:** performance evaluation, primary care, safe, efficient patient care

**Background:**

In our cross-sectional study conducted in 3% (n=166) of the Hungarian general medical practices that provide care for adults, we found that half of the GPs:

❑ don't know how their own professional performance compares to domestic conditions?

❑ don't know what time trend their performance shows in their own practice?

❑ don't know what efficiency their colleagues working in their immediate environment achieve in their care practices?

❑ he/she did not prepare a report for the local government about his/her own work.

❑ he/she is not used to talking to his/her colleagues about the efficiency of their work.

❑ have never received a comprehensive assessment of the effectiveness of domestic primary care?

❑ would require that their work be regularly evaluated compared to the domestic reference level.

According to our observations, in Hungarian primary care, there is no meaningful and public performance evaluation, which does not meet the patient's interests but also does not enable continuous quality improvement for GPs. These findings are in concordance with the PHAMEU (2009-2010) survey, which described that the Hungarian primary health care was one of the weakest in Europe, the primary reason being the poor management of the system and poor coordination of services.

**Research questions:**

We aimed to determine how GPs can evaluate their performance, how they can determine the weak points of their own practice.

**Method:**

we plan to repeat the survey in Hungary, which we would like to implement together with international partners. For the planned survey, partners should select a representative sample of GPs, and they should participate in the further development of the questionnaires already used in Hungary should take part in the joint data processing.

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Presence and Importance of Family Medicine Education in European Medical Schools:**

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**Keywords:** family medicine; medical school; medical education; primary care;

**Background:**

Family medicine plays a critical role in healthcare systems, serving as the cornerstone of primary care. This study revisits and extends the 2009 analysis of the inclusion and emphasis of family medicine in European medical school curricula. By examining changes over the past 15 years, we aim to assess the current state of family medicine education and its impact on students' interest and future specialty choices.

**Research questions:**

How has the presence of family medicine in European medical school curricula changed since 2009?

What is the current importance attributed to family medicine in these educational programs?

How does the extent of family medicine education influence medical students' interest in pursuing this specialty?

What is the relationship between the presence of family medicine in medical education and the quality of primary care in different European countries?

**Method:**

This comparative study will analyze data from medical school curricula across Europe, replicating the methodology used in the 2009 study. Surveys and interviews will be conducted with faculty members and medical students to gather qualitative and quantitative data. Additionally, national healthcare statistics will be reviewed to correlate educational practices with primary care quality indicators.

**Results:**

While specific results are yet to be obtained, we anticipate identifying significant trends and shifts in the inclusion of family medicine in medical education. Expected findings include an analysis of whether increased emphasis on family medicine correlates with higher student interest in this specialty and improved primary care quality.

**Conclusions:**

The study aims to provide insights into the evolution of family medicine education and its broader implications for healthcare systems. We expect to offer recommendations for enhancing medical curricula to better support primary care development.

**Points for discussion:**

Strategies to increase the presence of family medicine in medical education. The impact of medical education on students' specialty choices.

Correlation between family medicine education and primary care quality.

Potential policy implications for improving primary care through educational reforms.

## **Presenteeism Among General Practitioners – A Study Proposal**

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**Keywords:** presenteeism

### **Background:**

Presenteeism, the practice of working while sick, is a prevalent issue among general practitioners (GPs) and medical doctors, with various factors contributing to this behavior. Lifestyle, occupational health, and work-related factors such as poor health, work-life balance, and psychological distress have been identified as key drivers of presenteeism in GPs. Gender differences also play a role, with women more likely to report presenteeism due to concerns for others and workload, while men are more likely to cite capacity and financial reasons. Fear of overburdening colleagues, a sense of duty, and economic impact are additional factors contributing to presenteeism in physicians. The implications of presenteeism include risks to patient safety and the hidden curriculum in medical training, representing substantial economic costs. Strategies are needed to reduce presenteeism and promote health-saving behavior among GPs.

### **Research questions:**

1. What are the main factors contributing to presenteeism among general practitioners in different geographical areas and settings?
2. What are the attitudes and beliefs of general practitioners towards presenteeism, and how do these impact their behavior?
3. How can strategies be developed to reduce presenteeism and promote health-saving behavior among general practitioners?

### **Method:**

This study will utilize qualitative research techniques:

**In-depth interviews:** Conduct semi-structured interviews with GPs from diverse geographical areas and settings to explore their experiences and perspectives on presenteeism.

**Sample:** 5-15 GPs per country, controlled for equal representation of male and female participants, and balanced for years of experience.

**Coordination:** Each participating country will have one coordinator responsible for conducting interviews via Zoom in the participants' native language.

**Data Analysis:** Use thematic analysis to identify common patterns and unique insights. A consortium of coordinators from all participating countries will collaborate on the final analysis.

Based on the results, develop targeted interventions and policy recommendations to reduce presenteeism.

### **Results:**

Data collection and analysis are pending.

### **Conclusions:**

TBD

### **Points for discussion:**

Potential collaborators for this study.

Additional aspects or factors to consider.

Personal experiences with presenteeism, if willing to share.

**One-Slide/Five Minutes Presentation / Study Proposal / Idea****Primary Healthcare Physicians' Work Pressure and Turnover Intent Before, During, and After the COVID-19 Pandemic**

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**Keywords:** primary healthcare, work pressure, turnover intent**Background:**

A 'quintupled' healthcare workforce crisis has culminated across Europe during the COVID-19 pandemic-induced demand for healthcare services, necessitating proficient strategic healthcare management. Even in the economically advanced public primary healthcare system of Belgrade (Serbia), there are persistent challenges in recruiting and retaining sufficient primary healthcare physicians (PHCPs).

**Research questions:**

o investigate the prevalence of work pressure among Belgrade PHCPs and its association with turnover intent before (2019), during (2021), and after the COVID-19 pandemic (2023).

**Method:**

With a robust cross-sectional design we estimated the age and sex prevalence of work pressure (WP at a 5-point Likert scale, from 1=none to 5= very high) and turnover intention (TI: yes vs. no) among PHCPs from 15 primary healthcare centers in 2019 (n=910), 2021 (n=900), and 2023 (n=931). We obtained data from the electronic databases of the Belgrade Public Health Institute, which conducts standardized annual surveys of public PHCPs. Univariate and multivariate logistic regression Odds Ratio with corresponding 95% Confidence Interval (OR 95% CI) are externally valid, given the response rates: 87.2% in 2019, 83.4% in 2021, and 82.9% in 2023.

**Results:**

The annual prevalence of both reported PHCPs' high and very high WP (the highest in 2021: 51.7%) and positive TI (peaking at 32.0%) varied annually ( $p<0.01$  and  $p<0.01$ ). In all observed years, the highest OR, 95% CI for high and very high WP was in 2023 for female PHCPs (1.96, 1.35-2.84), aged 35-54 years (1.74, 1.13-2.69), 54 years or older (1.80, 1.13-2.88), managers (1.88, 1.22-2.89), and with positive TI (3.99, 2.92-5.45).

**Conclusions:**

Our findings, which reveal that almost every second PHCP in Belgrade reported high or very high work pressure before, during, and after the pandemic, while almost every third reported turnover intent, underscore the critical need for effective work pressure management. This management must combat turnover intent and be tailored to age and gender characteristics.

**Points for discussion:**

No significant association was found between work pressure and dual practice due to various reasons.

Which kind of management training would be helpful to balance the workload among PHCPs?

Reinforcing physicians' requirements planning skills is beneficial for managers to efficiently tailor the skill mix to the specific needs of primary healthcare centers, at present and in the foreseeable future.

## Effects of adding early cooperation and a work-place dialogue meeting to primary care management for sick-listed patients with stress-related disorders: CO-WORK-CARE-Stress - a pragmatic cluster randomised controlled trial.

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**Keywords:** Adjustment disorder/exhaustion disorder stress-related mental disorder randomised controlled trial care manager rehabilitation coordinator primary care days on sick-leave

### Background:

To investigate whether intensified cooperation between general practitioner (GP), care manager and rehabilitation coordinator (RC) for patients sick-listed for stress-related mental disorder, combined with a person-centred dialogue meeting with employer, could reduce sick-leave days compared with usual care manager contact.

### Research questions:

The aim was to investigate whether a structured intervention combining early cooperation between care manager, GP and rehabilitation coordinator combined with a person-centred workplace dialogue meeting led to earlier return to work and fewer net and gross sick-leave days over 12 months period in recently sick-listed patients with adjustment disorder/exhaustion disorder. The intervention was compared with the usual collaborative care manager organisation care

### Method:

Pragmatic cluster-randomised controlled trial, randomisation at primary care centre (PCC) level. PCCs in Region Västra Götaland, Sweden, with care manager organisation. Cooperation between GP, care manager and rehabilitation coordinator from start of illness notification plus a person-centred dialogue meeting between patient and employer within 3 months. Regular contact with care manager was continued at the control PCCs.

### Results:

There were no significant differences between intervention and control groups after 12 months: days on sick-leave (12-months net sick-leave days, intervention, mean = 110.7 days (95% confidence interval (CI) 82.6 – 138.8); control, mean = 99.1 days (95% CI 73.9 – 124.3)), stress, depression, or anxiety symptoms, work ability or EQ-5D. There were no significant differences between intervention and control groups concerning proportion on sick-leave after 3, 6, 12 months. At 3 months 64.8% were on sick-leave in intervention group vs 54.3% in control group; 6 months 38% vs 32.8%, and 12 months 16.9% vs 15.5%.

### Conclusions:

Increased cooperation at the PCC between GP, care manager and RC for stress-related mental disorder coupled with an early workplace contact in the form of a person-centred dialogue meeting does not reduce days of sick-leave or speed up rehabilitation.

### Points for discussion:

How works cooperation at PCC in your country?

What insurance system do you have?

Do you have a specialised nurse at PCC?

**Theme Paper / Finished study****Who wants to quit their job? – A survey among Swiss Internal Medicine physicians.**

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**Keywords:** physician job attrition, Internal Medicine physicians, work-life balance, workplace inclusiveness

**Background:**

The European healthcare sector has a shortage in physicians. Similarly, Swiss studies suggest that the Swiss Internal Medicine (IM) workforce is predicted to be reduced by 44% in 10 years. Strategies to better retain medical professionals in the workforce in IM must rely on an in-depth understanding of factors associated with wanting to quit their job.

**Research questions:**

We investigated sex-specific associations of workplace-related and personal factors associated with wanting to quit work among Swiss IM physicians.

**Method:**

In a cross-sectional questionnaire among physicians working in IM in Switzerland, we assessed demographics, workplace-related and personal factors in association with the desire to quit work. The outcome variable of wanting to quit work was dichotomized from a 6-point Likert scale. We performed sex-stratified analyses by multiple logistic regression adjusting for demographic variables.

**Results:**

This study included 682 physicians, 278 (41%) men and 404 (59%) women aged  $37 \pm 11$  years (mean  $\pm$  standard deviation). Overall, a desire to quit their job was prevalent in 33% of respondents of either sex. Lack of the following workplace-related factors was associated with the desire to quit work in both sexes: having a good network, mentoring or supervisor's support, satisfaction with autonomy at work, workplace inclusiveness and a good work-life balance. Furthermore, perceived gender-related discrimination at work and a pathological Physician Well-Being Index was associated with wanting to quit work. A key sex differences among personal factors was that men (but not women) who reported having no adequate childcare were more likely to desire to quit work compared to those who reported having adequate childcare.

**Conclusions:**

A supportive and inclusive work environment might be an important step to retain IM physicians in their job. Furthermore, attrition may be addressed by an improved compatibility of work and private life.

**Points for discussion:**

What experiences are there in other European countries of methods interventions to keep physicians in the workforce?

How does your work environment support you in your occupation?

**Theme Paper / Finished study****Work-Related Stress and Patient-Centered Care Among European GPs: Insights from the PACE GP/FP Study**

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**Keywords:** Stress related to work, general practice, person-centered care, quality of care, PACE GP/FP study

**Background:**

Mental distress is becoming increasingly common among physicians, including general practitioners (GPs). Work-related stress negatively impacts the application of work skills and the overall functioning of an organization.

**Research questions:**

To investigate GPs' perception of work-related stress and its relation to sociodemographic factors and attitudes towards patient-centered care (PCC).

**Method:**

A cross-sectional, self-reported online survey was conducted among GPs in 24 European countries. GPs received email invitations with a survey link via national medical associations' mailing lists. The survey included four parts: general information about the doctor and office, the Perceived Stress Scale (PSS), the Patient-Physician Orientation Scale (PPOS), and facilitators and barriers to PCC. The study was conducted in collaboration with European Association of Quality and Safety in General Practice/Family Medicine (EQuiP) and EGPRN (European General Practice Research Network), coordinated by the Department of Family Medicine, University of Zagreb, and supported by the EGPRN Grant. Research Ethics Committee of Zagreb Medical School approved the study. Statistical analysis was performed using Statistica version 7.1.

**Results:**

A total of 4346 GPs participated, with a mean age of  $46.79 \pm 11.84$  years. Among them, 2273 (66.4%) were female, and 2564 (79%) specialized in general practice. GPs reported a moderate level of work-related stress ( $17.16 \pm 6.46$ ). Older age, longer experience and fewer daily patient contacts were associated with lower stress ( $p < 0.01$ ). Higher stress levels correlated with lower total PPOS and subscale scores ( $p < 0.05$ ).

**Conclusions:**

The PACE GP/FP study highlights moderate work-related stress among GPs in Europe, with significant correlations between stress levels, sociodemographic factors, and PCC. The findings underscore the need for targeted interventions to alleviate stress and promote PCC. Understanding these dynamics is crucial for developing strategies to improve GPs' well-being and the quality of care they provide.

**Points for discussion:**

Impact of Work-Related Stress on GP Well-Being and Patient Care Quality.

The potential implications of the study's findings for healthcare policy and practice, aiming to enhance the support systems for GPs.

**Poster / Finished study****Antidepressant effect on cardiovascular risk and weight in geriatric population: a retrospective study**

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**Keywords:** cardiovascular risk; geriatric population;

**Background:**

The relationship between antidepressant (AD) initiation and increased weight and cardiovascular risk is controversial. Some studies associate AD use with higher risks of diabetes, hypertension, and hypercholesterolemia, while others report a 1.5 times higher risk of stroke in elderly patients with depression.

**Research questions:**

Can the introduction of antidepressants alter cardiovascular risk?

**Method:**

This retrospective observational cohort study included 108 patients over 65 years old with Depressive Disorder, who began AD treatment at the Unidade de Saúde de Freamunde and União Penafidélis. Data on weight, BMI, Cardiovascular Risk (CVR), Systolic Blood Pressure (SBP), Diastolic Blood Pressure (DBP), Total Cholesterol (TC), HDL, LDL, and Triglycerides (Tg) were collected before and after one year of AD treatment. Comparisons were made using t-tests or Wilcoxon tests for paired measures based on data normality.

**Results:**

In this cohort, BMI decreased from  $28.43 \pm 4.30$  to  $28.13 \pm 4.12$  kg/m<sup>2</sup> ( $p < 0.05$ ). No significant changes were observed in CVR ( $12.41 \pm 7.27\%$  to  $12.96 \pm 7.60\%$ ), SBP ( $130.34 \pm 15.35$  mmHg to  $133.50 \pm 15.03$  mmHg), DBP ( $74.54 \pm 8.74$  mmHg to  $75.31 \pm 8.1$  mmHg), TC ( $176.61 \pm 37.24$  mg/dL to  $175.82 \pm 35.98$  mg/dL), LDL ( $99.8 \pm 31.21$  mg/dL to  $99.39 \pm 29.92$  mg/dL), HDL ( $53.04 \pm 12.85$  to  $52.77 \pm 13.94$  mg/dL), and Tg ( $124.52 \pm 57.80$  mg/dL to  $123.80 \pm 64.64$  mg/dL).

**Conclusions:**

This study assessed cardiovascular risk and weight changes in elderly patients with Depressive Disorder after starting ADs. Results showed a negligible increase in CVR (12.41 to 12.96) and a reduction in BMI (28.43 to 28.13), indicating that ADs did not increase CVR and may have reduced BMI. Larger studies are needed to confirm these findings.

**Points for discussion:**

Relationship between antidepressant (AD) initiation and increased weight and cardiovascular risk

Antidepressant can increase risk of diabetes, hypertension and hypercholesterolemia

**Poster / Ongoing study no results yet****Assessing Prevalence of Depressive Symptoms and Its Association with Type 2 Diabetes Mellitus in Primary Care: A Cross-Sectional Study from 9 residency training family health Units in Istanbul**

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**Background:**

The association between Type 2 Diabetes Mellitus(T2DM) and depression is a complex dynamic, and evidence suggests bidirectional effects. This study aims to evaluate the prevalence of depressive symptoms among adults attending nine family health units in two districts of Istanbul served by family medicine residents.

**Research questions:**

What is the prevalence of screening positive for depressive symptoms by two case-finding questions(PHQ-2) among adults ( $\geq 18$  years) attending 9 academic primary care units?

Is there a difference between frequency of chronic disease (like T2DM) in people who screen positive or negative by PHQ-2?

**Method:**

For this cross-sectional study, a representative sample size of  $n=422$  (error margin 0.05%, power 0.8) stratified by health unit population size and sex was calculated. Adults (age  $\geq 18$  years) presenting to the family health units without known diagnosis of depression (verified by ICD-10 codes and/or antidepressant therapy) after giving their informed consent will be recruited by convenience sampling. Data collection will encompass sociodemographic, clinical, and lifestyle factors. Participants will complete the PHQ-2 and the BDI-PC. Chronic conditions (verified by ICD-10 codes and/or related pharmacotherapy) with an emphasis on T2DM as the index disease will be extracted from medical records. T2DM specific variables (diabetes duration, HbA1c, BMI, blood pressure, smoking, and exercise habits) will also be assessed. The study will utilize a range of statistical methods, including descriptive and correlation analyses.

**Results:**

Findings will show the performance of the PHQ-2 in identifying depressive symptoms in a primary care setting. Moreover, the study will provide insight into the association between depression and T2DM, thereby facilitating holistic approaches to patient care.

**Conclusions:**

The results will shed light on the multi-morbid epidemiology of depression and diabetes in a primary care population and show extra diagnostic yield of screening for depression in T2DM.

**Points for discussion:**

Could stepwise screening for depression in primary care with a short tool like PHQ-2 improve quality of mental health care by improving diagnostic yield?

**Poster / Finished study****Comorbidity clusters and mental health**

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**Keywords:** Comorbidity clusters, somatic disease, mental health

**Background:**

The global trend of population aging has led to a constant increase in the number of people with multiple comorbid conditions (MCCs). Certain conditions tend to occur in consistent clusters, while others present in various combinations. Individuals with MCCs often experience poor mental health, which in turn diminishes their functional abilities and contributes to the development of new co-occurring conditions

**Research questions:**

Which combinations of MCCs are associated with poor mental health, including anxiety, depression, and cognitive impairment?

**Method:**

The sample consisted of 189 older individuals (58% female) aged over 60 years (mean age  $78.47 \pm 6.65$ ) who had visited two family doctor's teams at the Health Center Osijek for reasons unrelated to this study over 6 months. Demographic data and diagnoses related to physical health were extracted from the patient's e-health records. Mental health and cognitive function were evaluated using standard tests, including the Geriatric Anxiety Scale, the Geriatric Depression Scale, and the 6-item cognitive impairment test. The clusters were identified based on 14 diagnoses using Latent Profile Analysis after dimensionality reduction. Participants from different clusters were compared on their mental health and cognitive function using one-way ANOVA and the Games-Howell post hoc test.

**Results:**

The identified clusters were labeled based on the most common diagnoses as follows: Hypertension and Osteoarthritis (H+O), type 2 Diabetes, Osteoarthritis, Chronic Pain, and Sensory Impairment (D+O+CP+SI), Cerebrovascular diseases, Urinary bladder diseases and Constipation (CV+U+C), and Low Comorbidity (LC). Participants from the D+O+CP+SI and H+O clusters showed higher levels of anxiety. Those from the D+O+CP+SI cluster also scored higher on the depressive dysphoria scale, compared to the LC cluster. The D+O+CP+SI cluster had the most significant impact on cognitive ability.

**Conclusions:**

Mental health disorders and cognitive impairment may be expected in older individuals with MCC clusters, especially those involving type 2 diabetes.

**Poster / Ongoing study with preliminary results****Integrating Mental Health Services in Primary Health Care: Insights from the Sughd Oblast Pilot, Tajikistan**

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**Keywords:** Mental health integration, primary health care, Sughd Oblast, Tajikistan, health outcomes, capacity building, health system strengthening

**Background:**

Low income countries, such as Tajikistan, face significant mental health challenges, exacerbated by socio-economic instability, limited access to specialized care, and cultural stigmas. Integrating mental health services into primary health care (PHC) is essential for improving accessibility and outcomes. Sughd Oblast pilot project in Tajikistan offers a unique opportunity to evaluate such integration within the existing health system.

**Research questions:**

How has the integration of mental health services into PHC affected patient outcomes in Sughd Oblast?  
What barriers and facilitators have been encountered in the integration process?  
Can the Sughd Oblast model be effectively scaled and adapted for other regions in Tajikistan?

**Method:**

Study Design: Mixed-methods approach, combining quantitative data analysis with qualitative interviews.

Data Collection:

Quantitative: Health records from PHC centers in Sughd Oblast, focusing on mental health service utilization, patient demographics, and health outcomes.

Qualitative: Semi-structured interviews with healthcare providers, patients, and policymakers to gain insights into their experiences and perceptions.

Analysis: Descriptive and inferential statistics for quantitative data; thematic analysis for qualitative data.

**Results:**

Integration led to an increase in patient consultations for mental health issues within the first year, with improved continuity of care. Patients receiving integrated care showed significant reductions in symptoms of depression and anxiety. Training programs for PHC providers improved their competence in delivering mental health care, with reporting enhanced capabilities. Barriers included cultural stigmas and resource limitations, while effective collaboration with the Ministry of Health and strong community engagement facilitated success.

**Conclusions:**

Integrating mental health services into PHC in Sughd Oblast improved access and outcomes, demonstrating the potential for scaling up this model across Tajikistan. Continuous capacity building, community engagement, and policy support are essential to sustain and expand these efforts, addressing the mental health needs of the population effectively.

**Points for discussion:**

Strategies to overcome cultural stigmas associated with mental health in Tajikistan.

Approaches to ensure sustainable funding and resources for integrated mental health services.

The role of community engagement in successful integration of mental health services.

**Poster / Finished study****Measurement of the effect of mental health interventions in primary prevention**

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**Keywords:** mental health, mental health test, primary prevention, interventions**Background:**

Measuring the effectiveness of primary prevention activities aimed at mental health is complicated. Our study examined the use of the Mental Health Test within the framework of a pilot study conducted on two interconnected, well-defined target groups.

**Research questions:**

In 2023-2024, the mental health staff of the Kecskemét Community Health Office assessed the mental health status of the care nursing home residents and the care staff before and after completing an individual and community intervention program.

**Method:**

Mental Health Test (MET) was used to survey mental status, which measures the following five pillars of mental health:

1. Well-being (global well-being)
2. Savoring
3. Creative-executive efficiency
4. Self-regulation
5. Resilience

Answering was done on a 6-point Likert-type scale.

Supervision was introduced for the workers in group and individual forms.

For residents: personal and integration support groups were organized.

**Results:**

161 residents of the nursing home (74% women, 26% men) participated in the study, their average age was 82.6 years (43-96 years). The average scores of the questionnaire test showed an improvement after the complex intervention: well-being, from 3.24 to 3.97, savoring from 3.45 to 4.01, creative-executive efficiency from 3.04 to 3.41, self-regulation changed from 4.01 to 4.36, resilience from 3.14 to 3.57 points, and MET characterizing the general psychological state from 3.45 to 3.87. The degree of change was significant in all cases.

80 workers were involved, 75 women and five men (48.8 years (22-64 years)). Well-being increased from 3.81 to 4.79, savoring from 4.0 to 5.13, creative-executive efficiency increased from 3.61 to 4.56, self-regulation from 4.37 to 4 to .59, resilience improved from 3.41 to 4.09, and the MET average increased from 3.74 to 4.63.

**Conclusions:**

Our pilot study showed that the complex intervention to help integrate the elderly residents significantly improved their psychological state.

The improvement in the caregivers' psychological state is outstanding.

**Poster / Finished study****Social stigma of individuals with multiple sclerosis and the management of psychological distress – Is there any role for General Practitioners?**

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**Keywords:** multiple sclerosis, stigma, psychological distress, general practice

**Background:**

Multiple sclerosis (MS) is a chronic autoimmune disease affecting the central nervous system, often accompanied by social stigma leading to isolation and exclusion. This stigmatization contributes to mental health problems such as depression, anxiety and feelings of helplessness. Although general practitioners (GPs) do not primarily specialize in MS care, patients frequently rely on them for their emotional well-being and general healthcare needs.

**Research questions:**

What is the social stigma experienced by people with MS and their caregivers, and how can the distress caused by this stigma be addressed?

**Method:**

We conducted a cross-sectional study, from October 2022 to January 2023. Data collection involved the distribution of a comprehensive self-report questionnaire, that included demographic information, disease characteristics, experiences of social stigma, psychological distress, coping strategies, and perceived social support. Standardized scales including the Stigma Scale of Chronic Illness - SSCI-8, Kessler Psychological Distress Scale, Brief Resilient Coping Scale, and UCLA Loneliness Scale were used.

**Results:**

A total of 134 people, 70.1% women, with a mean age of 45.9 years participated in the study. Of these, 80.6% were diagnosed with MS, while the remaining included caregivers, family members and friends. 31.3% of MS patients sought creative coping strategies, with 14.2% feeling able to control their reactions and 24.6% capable of moving forward. Notably, 40.3% perceived discomfort from others due to their illness, while 52.3% reported feeling marginalized. Common mental health challenges included nervousness (58.2%), melancholy (47.1%), despair (32.8%), and anxiety (20.8%), alongside high rates of loneliness (58.2%) and feelings of misunderstanding (55.2%).

**Conclusions:**

This study highlights the significant impact of MS on the social lives and mental well-being of those affected. Isolation, stigmatization, and psychological distress are common challenges for patients and caregivers. GPs can significantly contribute by providing tailored support during diagnosis, relapse, disease progression, pregnancy, changes in symptoms, relationships, and medication decisions.

**Points for discussion:**

Can GPs and the MS care team collaborate effectively to provide personalized care for individuals living with MS? Should awareness of potential stigma faced by MS patients be increased among GPs?

**Poster / Finished study****"VoluntariaMente" - The Impact of the Individual Social Role on the Improvement of Mental Health**

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**Keywords:** Mental health; anxiety; depression; volunteering; primary health care

**Background:**

Mental health problems are very common and represent a significant proportion of health-seeking contacts in primary health care. Given the prevalence and impact of mental health disorders, it's important to improve methods that promote social integration and well-being of these patients. Studies have shown that volunteer work promotes not only mental health, but also social inclusion, and is related with lower anxiety and depression symptoms. Taking into account the PERMA model (Seligman, M.) who proposes five pillars on which psychological well-being and happiness are based – Positive Emotion, Engagement, Relationships, Meaning and Accomplishments –, a methodology was created that aims to foster experiences that stimulate the psychological well-being and happiness of participants.

**Research questions:**

This study aims to evaluate the effects of volunteer work handled by people suffering with Anxiety and/or Depression Disorders on their disease's scores.

**Method:**

Patients from a Portuguese Family Healthcare Unit medicated with anxiolytics and/or antidepressants, in order to treat their Anxiety and/or Depression Disorders, were selected and integrated in a volunteering project that lasted a year. Anxiety symptoms were measured by the Hamilton Anxiety Scale, and depression scores were quantified by the Patient Health Questionnaire-9, both before and after the intervention.

**Results:**

Thirty-three participants were selected and 25 were included in the study. The majority were female, over 50 years old, and performed an average of 48 hours of volunteering. There was a statistically significant reduction in levels of anxiety or/and depression scores after the intervention, regardless of the number of volunteer hours performed.

**Conclusions:**

Qualified and accompanied volunteer work had a positive effect on the participants, significantly lowering anxiety and depression scores.

**Points for discussion:**

The impact of volunteering on the improvement of mental health.

Volunteering as a complementary therapy for mental illness.

Primary health care and its articulation with the social sector as promoters of more health gains.

**Poster / Almost finished study****Analysis of the Loneliness Perception of Young Students in Aragón, Spain**

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**Keywords:** teenagers, young adults, loneliness, health, mental health, Primary Care

**Background:**

Loneliness is defined as a feeling of emotional discomfort resulting from the discrepancy between the desired and actual quality and/or quantity of interpersonal relationships. It has been scarcely analyzed among youth.

**Research questions:**

What is the prevalence of loneliness among adolescents and young adults?

How do sociodemographic factors, mobile phone and social media use, self-esteem, and mental health correlate with loneliness?

**Method:**

This descriptive observational cross-sectional study was conducted via an online survey among students aged 14-30 from high school and university, during March and April 2024. The main variables were measured using the UCLA and De Jong Gierveld loneliness scales, examining their relationship with gender, age, social relationships, mobile phone use, self-esteem, and self-perceived health.

**Results:**

A total of 413 students participated, with an average age of 19 years, 71% of whom were women. Findings indicated that 23% never felt lonely, 56.2% sometimes, 19.1% often, and 1.7% always felt lonely. Among those feeling lonely, 41.1% had experienced loneliness for over a year. The UCLA scale classified 39.3% as lonely, while the De Jong Gierveld scale identified 30.7% as not lonely, 57.9% as moderately lonely, and 11.4% as severely lonely. Higher levels of loneliness were associated with belonging to the LGBTIQ+ community, higher mobile and social media use, lower education levels, fewer and poorer quality social relationships, lower self-esteem, worse self-perceived health, and mental health issues.

**Conclusions:**

Loneliness is prevalent among youth, affecting two out of three individuals aged 14-30. This study highlights the need for targeted prevention and detection strategies, including a youth-specific loneliness scale and intervention plans through Primary Care, Mental Health services, and educational institutions.

**Points for discussion:**

Development of targeted intervention strategies to address loneliness in youth.

Role of educational institutions and healthcare providers in mitigating loneliness.

Implications of digital media usage on youth loneliness and mental health.

**Poster / Finished study****Mental health and associated factors in young adults from two peripheral neighborhoods of Barcelona after the COVID-19 pandemic.**

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**Keywords:** Mental health, Covid-19, young adult, anxiety disorder, depression

**Background:**

The COVID-19 pandemic has harmed the mental health of the population. It is unknown if there are differences between people with mental health problems before the pandemic and newly diagnosed.

**Research questions:**

To evaluate the prevalence and persistence of symptoms of anxiety and depression in young adults diagnosed before or during the COVID-19 pandemic period. To identify possible factors associated with their development.

**Method:**

A cross-sectional observational study in adults from 18 to 39 years old who were visited in Primary Care Centers of two neighborhoods of Barcelona. A random selection of individuals was classified into three groups: diagnosed with anxiety-depression in the pre-pandemic period (group A), diagnosed during (group B), and not diagnosed (group C). The participants responded to questionnaires about sociodemographic data, depression (PHQ9), anxiety (GAD7), resilience (BRS), social support (OSLO3), and exercise (CBPAAT). A descriptive and bivariate analysis was carried out with comparison of proportions and averages, and calculation of prevalences.

**Results:**

96 participants were interviewed (group A: n=32, B: n=31, C: n=33). According to the PHQ9 test, 71.9% presented depressive symptoms, with a higher score in groups A and B compared to C (11.2 points vs 6.1;  $p<0.001$ ). According to the GAD-7 test, 76% had symptoms of anxiety, with a higher score in groups A-B, compared to C (11.0 points vs 6.1;  $p<0.001$ ). The prevalence of moderate-severe symptoms of anxiety-depression, according to combined GAD7 and PHQ9 results, is higher in group A than in B and C (78.1% vs 61.3% vs 39.4%;  $p<0.001$ ). Higher (worse) scores in PHQ9 and GAD7 were associated with female gender, lower resilience, and less social support ( $p<0.01$ ).

**Conclusions:**

The prevalence of anxiety-depression symptoms is higher in the control group compared with recorded prevalence. The persistence of symptoms is higher in those already diagnosed before the pandemic. Social support and resilience act as protective factors.

**Points for discussion:**

Possible underdiagnosis of anxiety-depression in clinical health records.

Faster recovery of anxiety-depression symptoms on those diagnosed during the pandemic period which suggest a reactive effect.

**Poster / Published**

## **Physician Burnout in Primary Care during the COVID-19 Pandemic: A Cross-Sectional Study in Portugal**

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### **Background:**

Primary care physicians have been present on the frontline during the ongoing pandemic, adding new tasks to already high workloads.

### **Research questions:**

Our aim was to evaluate burnout in primary care physicians during the COVID-19 pandemic, as well as associated contributing factors.

### **Method:**

Cross-sectional study with an online questionnaire disseminated through social media, applying the snowball technique. The target population was primary care physicians working in Portugal during the first outbreak of the COVID-19 pandemic. In addition to sociodemographic data, the questionnaire collected responses to the Copenhagen Burnout Inventory (CBI), the Resilience Scale and the Depression, Anxiety, and Stress Scales (DASS-21). Data were collected from May 9 to June 8, 2020, a period comprising the declaration of a national calamity and then state of emergency, and the subsequent ease of lockdown measures. Levels of burnout in 3 different dimensions (personal, work, and patient-related), resilience, stress, depression, and anxiety were assessed. Logistic regression analyses were conducted to identify factors associated with burnout levels.

### **Results:**

Among the 214 physician respondents, burnout levels were high in the 3 dimensions. A strong association was found between gender, years of professional experience, depression and anxiety, and burnout levels.

### **Conclusions:**

Physician burnout in primary care is high and has increased during the pandemic. More studies are needed in the long term to provide a comprehensive assessment of COVID-19's impact on burnout levels and how to best approach and mitigate it during such unprecedented times.

### **Points for discussion:**

Burnout has negative impacts on physicians, patients, and healthcare organizations. Our findings reinforce that strategies to counteract physician burnout during a pandemic need to be further investigated.

Our workgroup suggests next steps should include, at an organizational level, involving physicians in designing guidelines and contingency plans and also in implementing physician's access to feedback channels.

A supportive network should be created, including childcare, transportation, and lodging. Emotion management strategies and self-care should also be endorsed, encompassing rest, work breaks, sleep, shift work, fatigue, and healthy lifestyle behaviors

**Poster / Study Proposal / Idea****Prevalence of Clinical Depression Among Medical Students at Uzhhorod National University, Ukraine**

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**Keywords:** depression, medical students, mental health, prevalence, Russia-Ukraine conflict, Uzhhorod National University, Ukraine.

**Background:**

The mental health of medical students has garnered significant attention due to its impact on academic performance, personal well-being, and future healthcare professionals. The ongoing conflict may also play a role in the mental health status of students. This study aims to examine the prevalence of clinical depression among medical students at Uzhhorod National University in Ukraine.

**Research questions:**

The study addresses the following research questions: What is the prevalence of clinical depression among medical students at Uzhhorod National University? Are there any variations in the occurrence of clinical depression based on gender, academic year, or other demographic factors?

**Method:**

A cross-sectional survey will be employed to collect data from a representative sample of medical students at Uzhhorod National University. The survey will be administered via a secure online platform. Participants will be provided with a unique link to the survey, ensuring confidentiality and anonymity of their responses. The survey will consist of two sections. The first section is the PHQ-9 and the second section will collect demographic information.

**Results:**

The findings will shed light on the prevalence of clinical depression among medical students at Uzhhorod National University. Descriptive statistics and inferential analyses will be conducted to determine the prevalence rate and explore potential associations between clinical depression and demographic factors. The results will be presented in a clear and concise manner.

**Conclusions:**

The findings will assist in raising awareness about the mental well-being of medical students and provide evidence for the development of targeted interventions and support programs. Ultimately, the study aims to promote the overall mental health and well-being of medical students at Uzhhorod National University.

**Points for discussion:**

Are there any variations in the occurrence of clinical depression based on gender, academic year, or other demographic factors?

**Poster / Finished study****Adherence to inhalers in COPD patients**

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**Keywords:** COPD, adherence, inhalers

**Background:**

Medication adherence is a key factor in medical treatment. Good adherence to medication improves health outcomes.

**Research questions:**

To explore long term adherence rates of various inhalers among patients with COPD in a real-world setting, and to identify patient characteristics related to good adherence to inhalers.

**Method:**

We conducted a population-based cohort study in Clalit Health Services, Israel.

Patients aged 48 -80 years with a diagnosis of COPD before 2017 were included. We analyzed adherence to 18 inhalers for COPD patients.

We included in the adherence analysis patients who filled at least one prescription per year in three consecutive years (2017-19). We analyzed all prescriptions that were filled for the medications from January 1st, 2018 to December 31st, 2018. We considered purchasing at least 7 monthly prescriptions during 2018 as "good adherence" (>50%) to inhalers.

**Results:**

32,155 COPD patients (37% women) were included in the study. The average age was  $68.1 \pm 7.2$ . 75% of the patients had documented spirometry.

Only 14,796 (46%) used at least one of the inhalers included in the study. 10,877 (73.5%) used inhalers with corticosteroids, 13,200 (89.2%) used long acting beta agonists (LABA) inhalers 6,467 (43.7%) used long acting muscarinic agonists (LAMA) inhalers.

Good adherence rates to inhalers vary from 35% to 80%. Older patients, those with higher socioeconomic status, patients requiring hospitalization during the study period and patients who were vaccinated were more likely to be adherent.

**Conclusions:**

Different inhalers have different adherence rates. Treatment rates in COPD patients were low.

**Points for discussion:**

Different inhalers have different adherence rates. choosing the right inhaler can make a difference.

Most of our COPD patients do not get any treatment

**Poster / Ongoing study with preliminary results****Deprescribing Levothyroxine in Subclinical Hypothyroidism: Which Barriers and Enablers Do GPs Identify?**

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**Keywords:** Levothyroxine, deprescribing, subclinical hypothyroidism, participatory research, qualitative research, focus group discussions, general practitioners

**Background:**

Subclinical hypothyroidism (SH) is a condition which, according to current evidence, generally does not require medical treatment. The prescription of levothyroxine (LTX) in patients with SH can therefore be regarded as medical oversupply. According to the DEGAM guideline for German general practitioners (GPs), a controlled deprescription of LTX can be considered in cases of SH. Yet, no structured deprescription strategy for LTX has been established in primary care.

**Research questions:**

Which barriers and enablers do German GPs identify regarding the deprescription of LTX? Which conditions are considered essential for the development of a deprescription strategy?

**Method:**

In DELTA-PIA, collaboration project between Universities of Leipzig and Dresden, Germany, we used a qualitative participatory approach involving GPs and patients. We aimed to explore key barriers, enablers and conditions of deprescribing LTX to derive indications for a deprescription strategy. Three GP focus groups were conducted in March 2024 (N = 15 GPs).

**Results:**

As main enablers for deprescribing LTX, participating GPs identified (1) a potential reduction of side effects through LTX, (2) depathologization of patients with SH, and (3) a reduction of (multi)medication burden. As main barriers, GPs identified (1) anticipated patient resistance, (2) elevated short-term effort required to implement the deprescription procedure, and (3) suspected conflicts with other medical professionals (e.g., endocrinologists, alternative practitioners, dieticians). Reported necessary conditions for deprescribing were: (1) the presence of patient's willingness, (2) a low initial LTX dose, and (3) the availability of an effective deprescription strategy including a decision-making tool covering different social and medical factors.

**Conclusions:**

The focus groups revealed a general willingness of GPs to deprescribe LTX in patients with SH. In order to enable an implementation of LTX deprescription in primary care, a structured deprescription strategy is required that incorporates all conditions identified by GPs and provides a decision-making tool on the appropriate handling of the identified barriers.

**Points for discussion:**

What types of material could facilitate the LTX deprescription process for GPs? (e.g. information sheets as handouts for patients on possible consequences of deprescribing/not deprescribing)

How could GPs handle potential conflicts with other medical professionals over the deprescription of LTX?

Which other areas of general medicine research could benefit from participatory involvement of GPs?

**Poster / Ongoing study with preliminary results****Development of a strategy for deprescribing levothyroxin (LTX) accepted by patients with subclinical hypothyroidism (SH) - what motivations and barriers do patients have?**

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**Keywords:** deprescribing, hypothyroidism, levothyroxin, qualitative research, participatory research, focus group interviews, patients, general practitioners

**Background:**

According to recent scientific findings, patients with latent hypothyroidism generally do not benefit from treatment with the thyroid hormone levothyroxine (LTX). Nevertheless, the number of prescriptions continues to rise. To reduce this partial overtherapy, there is currently no standardized procedure for deprescribing LTX.

**Research questions:**

What motivations and barriers are mentioned by patients with subclinical hypothyroidism with regard to discontinuing LTX?

**Method:**

As part of the qualitative research project DELTA-PIA (collaboration of Leipzig University and Dresden University of Technology), a deprescribing strategy is going to be developed using a participatory approach. Focus group discussions with two patient groups (n=13) and two mixed groups (n=10 patients, together with general practitioners and medical assistants) were conducted in March – May 2024 to explore motivations and barriers from different perspectives. Focus groups were recorded and transcribed. Furthermore prioritized aspects were analyzed using the method of qualitative content analysis (according to Kuckartz).

**Results:**

Ongoing analyzes indicate that patients often feel inadequately informed about their illness and medication. Potential changes in their medication create skepticism, uncertainty and concerns about possible symptomatic consequences. At the same time, patients also regard a gradual and controlled discontinuation positively, as the potential benefits and the resulting opportunities are convincing: a (re)gain of quality of life, the reduction of possible medication side effects or cost and time savings. A deprescribing strategy requires more in-depth medical information - in particular about possible risks of taking medication and potential benefit factors of discontinuing it.

**Conclusions:**

The results illustrate a general motivation in deprescribing LTX. A procedure is required that takes patient's motivations, as well as their worries and concerns, into account.

**Points for discussion:**

What materials could be used by general practitioners to provide information about advantages of deprescribing LTX for patients, f. e. the impacts, effects and process of deprescribing?

Which stakeholders could be relevant additionally to promote a deprescribing of LTX in context of motivations and concerns of patients with subclinical hypothyroidism?

**Poster / Finished study****Evaluation of the Ingredients of Protein Bars from the Perspective of Family Medicine**

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**Keywords:** protein bars, family medicine, ingredients**Background:**

Family members often rely on fast or snack foods due to limited time for nutrition. Despite the availability of natural protein sources, one in five individuals in the United States uses protein bars, believing they meet daily protein needs. The World Health Organization recommends a daily protein intake of 0.8–1 gram per kilogram of body weight, averaging 56–70 grams per day for adults. Considering the protein content, sugar levels, and saturated fat in protein bars, it is crucial to examine their health impacts. This study aims to evaluate the ingredients of protein bars to assess their potential effects on health.

**Research questions:**

1. Should family physicians recommend protein bars to individuals?
2. What are the contents of protein bars important for primary care?

**Method:**

This cross-sectional, descriptive study examined protein bars available for online sale in January 2024. The study included brands from Turkey's top three highest-grossing online supermarkets. Data were collected using an evaluation form and analyzed with SPSS software.

**Results:**

The study included 100 healthy snack bars from 16 brands, with 98 bars analyzed after excluding two brands lacking energy content tables. Of these, 46.9% (n=46) were high-protein bars, while 53.1% (n=53) were non-protein-rich snack bars. High-protein bars had equal plant-based and animal-based sources (50% each, n=23). The average weight was 39.60 grams, with an energy content of 382.789 kcal per 100 grams. The average fat content was 14.35 grams, saturated fat 6.32 grams, carbohydrates 39.6 grams, fiber 10.38 grams, and protein 21.34 grams. Protein bars had significantly higher protein content ( $p<0.01$ ) and lower carbohydrate levels ( $p=0.02$ ) compared to non-protein bars.

**Conclusions:**

While protein bars are used as healthy snacks or meal replacements, their average carbohydrate and protein content approach daily recommended amounts. Individuals should pay attention to labels and consult with family physicians when consuming protein bars.

**Points for discussion:**

Shall we add the other "protein-riched" snacks to this study?

**Poster / Finished study****Patients experience of a study of light therapy in the treatment of chronic insomnia in general practice. a qualitative study**

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**Keywords:** insomnia, light therapy, research protocol, qualitative

**Background:**

Chronic insomnia is a condition that is both common and underestimated, impacting patients' quality of life in numerous ways. In this context, the general practitioner plays a central role as an essential point of contact.

**Research questions:**

The aim of this study was to thoroughly explore the experiences and perceptions of light therapy among patients with chronic insomnia who participated in an evaluation of light therapy in general outpatient practice, as part of the Insolux study.

**Method:**

Two researchers interviewed 22 patients through semi-structured interviews, providing valuable insights into the real-life experiences of patients facing this therapeutic approach. The analysis was first carried out in parallel by the two researchers, then pooled until a consensus was reached.

**Results:**

Most patients joined the study with the goal of improving their sleep disorders through a non-drug therapy. Although light therapy was very well tolerated, the majority of patients did not report significant improvement in their symptoms. The study also highlights the patients' desire for a more precise characterization of their sleep disorder, thus emphasizing the importance of an individualized approach in managing chronic insomnia.

**Conclusions:**

Ultimately, our study helps inform practitioners about the use of light therapy in managing patients with chronic insomnia, while also highlighting the challenges and opportunities associated with this therapeutic approach. In light of these results and recent advances in the field, further studies are necessary to determine the exact place of light therapy within French and international recommendations for the treatment of chronic insomnia, particularly its use in conjunction with CBT and its interaction with sleep-wake phases. These future studies could help refine our understanding of the effectiveness of light therapy and guide its clinical implementation.

**Points for discussion:**

limits of the sample of patients

improvement of interventional study in general practice

non-drug treatments of insomnia

Presentation on 19/10/2024 11:00 in "Poster Session 3: Therapy" by Juliette Chambe.

**Poster / Almost finished study****‘I am confident ... until patient X presents’ – a qualitative meta-synthesis to understand primary healthcare professionals’ experience with urinary tract infections**

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**Keywords:** management of UTIs, qualitative research , meta-synthesis

**Background:**

Urinary tract infections (UTIs) are among the most common infections encountered in primary care. Qualitative research shows that numerous factors such as prior experiences, habits, patient expectations, time constraints, or available resources may influence how Primary Care Professionals (HCPs: physicians, nurses, and other healthcare professionals) manage UTIs. Gaining insight into their perspectives facilitates better healthcare provision.

**Research questions:**

What are the experiences of HCPs when managing patients with UTIs? What aspects do HCPs consider when treating adults and children with UTIs?

**Method:**

We systematically searched PubMed, Embase, PsycINFO, and CINAHL from inception to October 7th, 2022, to retrieve qualitative research focusing on HCPs’ experiences in UTI management. We synthesised findings of included studies using Braun and Clarke’s reflexive thematic analysis, and subsequently applied GRADE-CERQual to rate confidence in our findings. PROSPERO registration: CRD42022301250.

**Results:**

We retrieved 2794 records, reviewed 140 studies in full, and selected 20 studies from nine different countries reporting the experiences of 389 HCPs. The theme ‘I am confident ...until patient X presents’ illustrates that HCPs approached UTI consultations with a high level of confidence due to their familiarity and experience. However, confidence waned when particular groups of patients (children, recurrent UTIs, elderly patients, and male patients) presented. HCPs then reported uncertainty for initial diagnosis and treatment, fearing deterioration of symptoms and treatment failure. The theme ‘I have to balance patient preferences and antimicrobial resistance’ describes that HCPs carefully weighed individual risk factors against the danger of increasing resistance, acting in the patients’ and communities’ best interest. ‘I am a victim of an overstretched healthcare system’ describes how time-constraints, shortage of staff, limited resources, and reimbursement of consultations influenced the management of UTIs.

**Conclusions:**

HCPs are confident in managing UTIs until patients with non-specific symptoms present. Patient preferences, antimicrobial stewardship efforts and available resources influence the management of UTIs.

**Points for discussion:**

Looking at certain tasks assigned to medical personnel in your country: What responsibilities do GPs, nurses, receptionists etc. have in your country?

How do our findings match your experience in practice?

What patient groups do you find challenging and/or perceive to be complicated when managing UTIs?

**Poster / Finished study****Age and Low Heel Bone Mineral Density predicted Hip and Pelvic fracture-risk in 245 women aged 72-98: A 20-Year Population based Primary Care Study in Rural Sweden**

Nils Larsson, Hans Thulesius, Ulrica Mölsted, Anna Lindgren, Anna Segernäs, Robert Eggertsen, Håkan Johansson, Pär Wanby, Ferdinando Petrazzuoli, Märit Wallander, Daniel Albertsson

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**Keywords:** Hip fracture, Pelvic Fracture, 20-year follow-up, Bone Mineral Density (BMD), Clinical Risk Factors, Fragility Fracture, Primary Care, Fracture Risk, Hazard ratios (HR), Dual X-ray and Laser (DXL)

**Background:**

Background: Hip and pelvic fractures have high mortality rates and incidence at advanced age. We wanted to evaluate possible long-term clinical risk factors in order to improve fracture prediction and thereby prevention.

**Research questions:**

Research question: Could clinical risk factors and heel bone mineral density (BMD) assessment in primary care predict long-term risk for hip and pelvic fractures?

**Method:**

Methods: From a population-based fracture prevention intervention study in rural Sweden we included 285 women aged 72-98 years who provided data in 2003, from a questionnaire with 15 clinical risk factors and heel BMD measurements using Dual X-ray and Laser (DXL). With fracture and mortality data from population registries and medical records, we calculated risk of first hip or pelvic fracture up to 20 years for their remaining lifetime measured with hazard ratios (HR) using Cox regression analyses.

**Results:**

Results: Data from 245 deceased women was analyzed. Median age at death was 90 years. Age and heel BMD were independent risk factors for suffering a first hip or pelvic fracture ( $n=60$ ); HR for continuous age was 1.09 (1.04-1.15,  $p<0.001$ ) indicating that fracture risk increased with 4-15% for each life year; HR for age  $\geq 80$  years was 2.81 (1.66-4.78,  $p<0.001$ ) indicating that fracture risk increased with 66-378% for women aged  $\geq 80$  years as compared to women  $<80$  years. HR for heel BMD was 1.58 (1.23-2.03,  $p<0.001$ ) per standard deviation decreased t-score, i.e. fracture risk increased by 23-103% for each standard deviation decrease in t-score.

**Conclusions:**

Conclusion: In a population-based study of women aged 72-98 years from rural Sweden, both continuous age, age  $\geq 80$  years, and heel BMD were independent of each other and associated with hip and pelvic fractures during a 20-year follow-up. No other clinical risk factors did significantly predict fractures. Thus, especially age, but also BMD appeared suitable as long-term fracture risk prediction.

**Points for discussion:**

Could age over 80 years be used in consultations for a reminder of high risk of fragility fractures?

Is long term BMD screening valuable in primary care?

**Poster / Published****Differences between SCORE, Framingham Risk Score, and Estimated Pulse Wave Velocity-Based Vascular Age Calculation Methods Based on Data from the Three Generations Health Program in Hungary**

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**Background:**

Early vascular ageing contributes to cardiovascular (CV) morbidity and mortality. There are different possibilities to calculate vascular age including methods based on CV risk scores, but different methods might identify different subjects with early vascular ageing.

**Research questions:**

We aimed to compare SCORE and Framingham Risk Score (FRS)-based vascular age calculation methods on subjects that were involved in a national screening program in Hungary. We also aimed to compare the distribution of subjects identified with early vascular ageing based on estimated pulse wave velocity (ePWV).

**Method:**

The Three Generations for Health program focuses on the development of primary health care in Hungary. Vascular ages based on the SCORE and FRS were calculated based on previous publications and were compared with chronological age and with each other in the total population and in patients with hypertension or diabetes. ePWV was calculated based on a method published previously. Supernormal, normal, and early vascular ageing were defined as <10%, 10-90%, and >90% ePWV values for the participants.

**Results:**

99,231 subjects were involved in the study, 49,191 patients had hypertension (HT) and 15,921 patients had diabetes (DM). The chronological age of the total population was 54.0 (48.0-60.0) years, the SCORE and FRS vascular ages were 59.0 (51.0-66.0) and 64.0 (51-80) years. In HT patients, the chronological, SCORE, and FRS vascular ages were 57.0 (51.0-62.0), 63.0 (56.0-68.0), and 79.0 (64.0-80.0) years. In the DM patients, the chronological, SCORE, and FRS vascular ages were 58.0 (52.0-62.0), 63.0 (56.0-68.0), and 80.0 (76.0-80.0) years. Based on ePWV, the FRS identified patients with elevated vascular age with high sensitivity (97.3%), while in the case of SCORE, the sensitivity was lower (13.3%).

**Conclusions:**

In conclusion, different vascular age calculation methods can provide different vascular age results in a population-based cohort. The importance of this finding for the implementation in CV preventive strategies requires further studies.

**Poster / Almost finished study****Plaque assessment as a potential cardiovascular risk modifier in primary care: A pilot study**

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**Keywords:** point-of-care ultrasound, plaque assessment, cardiovascular risk stratification

**Background:**

Cardiovascular diseases remain a leading cause of mortality worldwide, necessitating accurate risk stratification to enable early intervention. The SCORE2 algorithm is widely used to estimate cardiovascular risk, but it does not detect subclinical atherosclerosis.

**Research questions:**

This study explores the potential of detected plaque thickness with ultrasound to serve as a risk modifier, enhancing early detection and management of at-risk patients in primary care settings.

**Method:**

Point-of-care vascular ultrasound was used to assess plaque thickness in carotid and femoral arterial segments to calculate plaque score. High-sensitivity C-reactive protein (hsCRP) was measured with a point-of-care diagnostic device. All examinations were performed by a general practitioner, and the results were validated by an expert in cardiovascular ultrasonography.

**Results:**

A total of forty-two patients were enrolled (61.9% women) with a mean age of  $53.8 \pm 10.9$  years. Increased plaque scores may be associated with a higher cardiovascular risk, which may modify the value estimated by the ESC CVD risk calculator. Subsequently, 11.9% (n=5) of patients were reclassified according to carotid plaque score and 9.5% (n=4) according to femoral plaque score, using a cutoff score of >3 to discriminate high-risk patients. Notably, 11.9% of patients (n=5) had plaques detectable only in the femoral arterial system, including one patient who was initially in the low-risk group. Pearson correlation analysis revealed significant positive correlations between smoking status and femoral plaque score ( $r=0.439$ ,  $p=0.004$ ), and between cholesterol levels and both femoral ( $r=0.337$ ,  $p=0.029$ ) and carotid plaque scores ( $r=0.334$ ,  $p=0.030$ ). However, no significant correlation was observed between hsCRP levels and plaque scores.

**Conclusions:**

Integrating point-of-care vascular ultrasound to detect carotid and femoral plaques could potentially modify assessed risk, especially in patients initially classified as low or intermediate risk. This study suggests that plaque assessment can be a valuable tool in primary care, however further research with a larger cohort is warranted.

**Points for discussion:**

clinical relevance of plaque assessment in primary care

impact of plaque measurements on reclassification of cardiovascular risk

improvement of preventive care in general practice

**Poster / Ongoing study with preliminary results****Pre-screening of high-risk patients for osteoporosis in primary healthcare**

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**Keywords:** osteoporosis, FRAX, DEXA**Background:**

Osteoporosis (OP) and resulting fractures are associated with increased mortality. Each year OP leads to nearly 9 million fractures, and by 2040, more than 319 million people are projected to be at high risk of osteoporosis-related fractures, worldwide.

**Research questions:**

Aim: determine the feasibility of using the FRAX score in women who would not be screened based on their age.

**Method:**

Female patients aged 55-65 (n = 98) of a suburban GP practice in Budapest, Hungary were enrolled in August 2022. After recording demographic, anthropometric, and anamnestic data, we calculated the FRAX score. Finally, we performed bone density measurement using an Osteometer DTX-200 device. (MediTech 2747 Signal Parkway, CA 90755, USA)

**Results:**

The BMD measurements and the score calculated by FRAX were compared. The BMD significantly correlated with the FRAX score for hip fracture ( $r = -0.490$ ,  $p < 0.001$ ) and for overall fracture risk ( $r = 0.505$ ,  $p < 0.001$ ). Patients with abnormal FRAX score had significantly lower BMD ( $-2.56 \pm 0.59$  vs  $-0.77 \pm 1.26$  g/cm<sup>2</sup>,  $p < 0.001$ , Mann-Whitney U test). In multivariate analysis having bone fracture in the history ( $p = 0.049$ ) and lower BMI ( $p < 0.001$ ) were independent determinants of BMD.

Of the 98 patients, 25 had osteopenia (25.5%), and 11 had osteoporosis (11.2%). Eight patients (8.3%) had an abnormal FRAX score. Based on the measured BMD, six of the eight patients had osteoporosis, one had osteopenia and only one patient had normal bone density. Abnormal FRAX score had a 19.4% sensitivity and a 98.3% specificity for osteoporosis and osteopenia.

**Conclusions:**

Osteoporosis and osteopenia are common in women younger than the recommended age threshold for screening. The FRAX score has low sensitivity, but excellent specificity for identifying these conditions. Women younger than 65, who have bone fractures, have lower BMI and abnormal FRAX score should undergo bone density measurement.

**Points for discussion:**

Frax score

Pre screening of osteoporosis

High risk patients for osteoporosis

**Poster / Finished study****Risk factors for poor prognosis in outpatients with urinary tract infection: a systematic review and meta-analysis**

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**Keywords:** Urinary Tract Infections; Prognostic factors; Outpatients; Primary Care; Systematic Review; Meta-Analysis

**Background:**

Observational studies identified several risk factors of poor prognosis in outpatients with urinary tract infection (UTI). These findings have never been systematically reviewed.

**Research questions:**

Which are the risk factors for poor prognosis in adult outpatients with UTI?

**Method:**

We searched Medline, Embase, Scopus, Cinahl, and Web of Science through November 2023, and searched citations of included studies. In parallel, two reviewers screened all records, abstracted study characteristics, risk factor and outcome data, and assessed risk of bias. We grouped outcomes into two categories of increasing severity: reconsultation and hospital admission. For risk factors reported by three or more studies, we performed random-effects meta-analysis of relative risks (univariate data) and adjusted odds ratios (aORs, multivariate data). We assessed heterogeneity visually and using the I<sup>2</sup> statistic.

**Results:**

We included 36 studies with 1,948,814 adults aged 32 to 77 diagnosed with cystitis or pyelonephritis (PN). The only independent predictor of the outcome reconsultation was older age: the likelihood of experiencing this outcome for every additional 10 years of age increases by 18% (aOR 1.18). Independent predictors for hospital admission include age > 64 (aOR 3.51), male sex (aOR 1.41), and diabetes (aOR 1.34) for both patients with cystitis and with PN. Increased procalcitonin (PCT, aOR 5.12), low systolic blood pressure (aOR 3.29), fever > 38°C (aOR 2.08), C-reactive protein (aOR 1.62), and serum creatinine > 1.1 mg/dl (aOR 1.56) were also significantly associated with hospital admission in patients with PN.

**Conclusions:**

This is the first meta-analysis assessing risk factors for adverse outcomes in outpatients with UTI, either with acute cystitis or PN. We focused on clinical features, patient characteristics, and tests that are often available in the primary care setting. Until more evidence on prognosis of patients with UTI is available, clinical guidelines should take these risk factors into account when defining populations at risk of deterioration.

**Points for discussion:**

Do guidelines in your country / region identify patients at higher risk of poor prognosis?

How do you manage patients at risk of poor prognosis?

Are primary care databases with risk/prognostic factor and outcome data available for analysis in your country?

**Poster / Finished study****Underreporting of mortality related to fractures as compared to dementia in 641 women 75-105 years followed for 22 years in a population-based primary care study in Sweden.**

Katarina Walseth Krøgenes, Hans Thulesius, Brita Zilg, Robert Eggertsen, Anna Segernäs, Pär Wanby, Ulrica Molstad, Lisa Alvunger, Ferdinando Petrazzuoli, Daniel Albertsson

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**Keywords:** Fragility fractures. Dementia. Cause of death certificate.

**Background:**

Fragility fractures and dementia seem to have bidirectional associations. Overall, one-year mortality reaches 20-30% for hip fractures and similar figures are reported for dementia. Since accuracy of mortality statistics decreases with age, we aimed to investigate causes of death in a primary care cohort of 75-105 year old women in rural Sweden.

**Research questions:**

To what degree were fragility fractures and dementia mentioned in cause of death certificates? What percentage of death certificates were issued by primary care physicians? What was the autopsy rate?

**Method:**

Death certificates and hip, pelvis, humerus and vertebral fracture data 2002-2024 from patient records were categorized according to ICD in a population-based sample of 641 women born 1901-1931.

**Results:**

Mean death age was 90 years. Fragility fractures were found in patient records for 75 of 641 women (12%) within 1 year before death. Median time from fracture to death was 70 days (range 1-362 days). Fracture was noted in death certificates of 16 women (2.5%); as terminal or underlying cause of death in 4 cases, and as contributing cause of death in 12 cases. Of the 16 women, 3 died 1 day after their fracture - mentioned as contributing cause of death. For 59 women (9.2%), fracture was not mentioned in their death certificates. Dementia was noted in the death certificates of 114 of 641 women (18%); as terminal or underlying cause of death in 41 women, and as contributing cause of death in 73 women. Primary care physicians issued 75% of the death certificates. Autopsy rate was 1.4%.

**Conclusions:**

Cause of death according to death certificates included dementia in 18% and fragility fractures in 2.5%. We noted a seemingly higher fracture mortality clinically indicating an underreporting of fracture mortality as compared to dementia mortality. Most death certificates were issued by primary care physicians. Autopsy rate was low.

**Points for discussion:**

Are death certificates for people of high age issued by primary care physicians in your jurisdiction/country?

Are autopsies often performed for people of high age in your jurisdiction/country?

Were you surprised by the results of this study?

**Poster / Finished study****General practitioners' approach to young women's sexual health**

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**Keywords:** Sexuality ; Health communication ; General practitioners**Background:**

THE WHO defines sexual health (SH) as a positive and respectful respectful approach. The news about sexual violence, access to pornography or recommendations on STIs screening for people under 25 are a reminder of the role of primary care prevention role of primary care professionals. However, talking about sexuality with the youngest patients remains a difficulty for GPs during consultations.

**Research questions:**

What do GPs think about their role in talking to women aged between 15 and 25 about their sexual health?

**Method:**

Qualitative study

Inclusion criteria: active general practitioners.

Participants: initially recruited from GP close to the investigators, then by a snowball effect to ensure diversity of profiles.

Data collection: Semi-structured individual interviews at the place of practice

Analysis: inspired by grounded theory

**Results:**

16 GPs included (average length of interviews: 30 minutes). The GPs recalled their key role in tackling SH "Because if it's not us, who's going to do it?" but declared that their practice was rather opportunistic: "I bring it up when I feel there's something not quite right". The fear of being intrusive or of being "accused of something" was expressed: "As a male doctor, asking all the young teenagers the question 'have you had sexual relations' after getting the mother out of the house means risking ending up in the police straight away". An empathetic attitude and adapting to the patient's time frame seem to be the key: "You have to leave the door open to discussion, and when they're ready to talk about it, you have to be there to listen".

**Conclusions:**

This study explains GPs' apprehensions and the tricks they use in their day-to-day practice to talk about sexuality with their youngest patients. The short duration of the interviews was possibly due to the inexperience of the investigators.

**Points for discussion:**

Free STIs screening without a prescription for people under the age of 25 has recently been allowed in France: is this a way for GPs to take ownership of their SH, or is it one less opportunity for them to talk about sexuality?

**Poster / Finished study****Level of knowledge of the new Spanish law on euthanasia among healthcare professionals and students**

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**Keywords:** euthanasia; knowledge; health care professionals; students

**Background:**

Organic Law 3/2021 of March 24 regulates the right to euthanasia in the Spanish state and provides a legal, systematic and guaranteeing response to social demand. This new benefit is being conducted in Catalonia where the number of euthanasia is growing progressively.

**Research questions:**

What is the level of knowledge of health professionals and medical and nursing students about the new Spanish law on euthanasia?

**Method:**

Cross-sectional study using a self-administered online survey of 24 questions aimed at health professionals and medical and nursing students in Catalonia.

Descriptive analysis, comparative analysis of scores obtained according to profession and the number of cases of euthanasia in which they have participated using the ANOVA test with Bonferroni postestimation method for independent groups.

**Results:**

547 respondents, 70.4% of whom were doctors and 71% of whom worked in Primary Care (PC). 58.7% had never been involved in any case of euthanasia. 231 (42.2%) participants scored  $\geq 20$  (out of 24 points). Mean score was 18.7 (SD 3.8) for doctors, 17.7 (SD 5.1) for nurses and 14.2 for students ( $p < 0.001$ ). Regarding workplace, mean score was 18.7 (SD 3.6) for PC professionals and 16.9 (SD 4.9) for hospital professionals ( $p < 0.001$ ). Mean score was 16.6 (SD 4.6) for those who were never involved in any euthanasia case, whereas it was 19.5 (SD 3.6) ( $p < 0.001$ ) for those who had participated in at least one case.

**Conclusions:**

Health professionals have an insufficient knowledge about the euthanasia law. Doctors and professionals working in PC are the most knowledgeable professional group. Those professionals who have been involved in at least one euthanasia case show a greater knowledge of the law.

**Points for discussion:**

What are the reasons why health professionals and students are unfamiliar with the euthanasia law?

Is experience an appropriate way to learn about the law of euthanasia?

Presentation on 19/10/2024 11:00 in "Poster Session 5: Supporting GPs in Practice" by Eva Peguero.

**Poster / Almost finished study****Patient centered deprescribing in older adults by general practitioners**

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**Keywords:** Anticholinergic, sedative, medication, deprescribing, cognition, mental wellbeing**Background:**

Medication has a greater risk of side effects in older adults due to altered physiology, pharmacokinetics and pharmacodynamics. Nearly 9% of hospital admissions of older adults are officially attributed to side effects of medication (Doherty, Shahid et al. 2022, Chen, Liu et al. 2023). The cause of admission is often a fall, urinary tract infection or delirium.

**Research questions:**

1. Is a high anticholinergic and sedative load predictive for poor clinical outcomes (cognitive deterioration, falls, hospital admission or transition to long term care facilities)?
2. Is deprescribing by in general practice feasible?
3. Does a lower anticholinergic and sedative load benefit the patient (e.g. higher mental wellbeing and cognitive performance)?

**Method:**

A pre-post design is conducted with measures on:

- cognition
- depressive and psychotic symptomatology
- anticholinergic and sedative load

In older adults aged 80+

**Results:**

Results of our pilot study (Vermeulen et al., 2024):

On average we see a score of 1.67 on the ACB and a score of 0.87 on the DBI. The anticholinergic load in the ACB is mainly determined by antipsychotics ( $\beta = .647$ ,  $p < 0.001$ ), in the DBI we see an influence of all medications with anticholinergic properties ( $F = 6.764$ ,  $p < 0.001$ ). A risk score on the DBI has a statistically significant correlation with experiencing a urinary tract infection ( $F = 5.877$ ,  $p = 0.018$ ). This influence remains significant after adjusting for covariates.

**Conclusions:**

Deprescribing in general practice could be beneficial in preventing poor clinical outcomes in older adults aged 80+. Pre-post results will be discussed in detail.

**Points for discussion:**

Is anticholinergic and sedative load of medication schemes known in general practice

Can a tool be useful in calculating the anticholinergic and sedative load and giving recommendations on deprescribing

Are there opportunities for an interdisciplinary non-pharmacological approach to mental wellbeing in older adults

**Poster / Finished study****Talking about motivational interviewing : how do GPs use it in daily practice**

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**Keywords:** motivational interviewing, addiction, mental health, relationship

**Background:**

Ambivalence is a recurrent theme in primary care, significantly impacting mental health issues like addiction and behavior change difficulties. Motivational interviewing is one of the most effective tools to address this ambivalence. By helping patients explore and resolve their uncertainties, this approach fosters the motivation needed to adopt healthier and more sustainable behaviors.

**Research questions:**

The objective of this study was to evaluate how general practitioners address ambivalence in their daily practice.

**Method:**

A qualitative study using semi-structured interviews was conducted, inspired by grounded theory. The target population was general practitioners in the Finistère region of France. A thematic analysis was performed.

**Results:**

Eleven interviews were conducted. GPs had some knowledge of motivational interviewing but lacked a strong theoretical foundation. The techniques used included open-ended questions, reformulation, and positive reinforcement. The scope extended beyond addictions to include vaccination, chronic diseases, and restoring trust in the doctor-patient relationship. General practitioners felt more valued and more satisfied when using motivational interviewing. Barriers to its use included physician-related factors, such as fatigue or difficulty changing their practice, and patient-related factors, such as language or comprehension difficulties.

**Conclusions:**

The unique aspect of primary care is the significant autonomy the patient possesses. Patients are free to discuss topics with their doctor, choose whether to take their medications, and change their lifestyle habits. In this context, a paternalistic approach is not only ineffective but also exhausting for the GP. Motivational interviewing becomes a considerable asset for improving both the patient's mental health and that of the GP. It is essential to continue implementing this technique in practice.

**Points for discussion:**

What are the key tools to convey to novice general practitioners in motivational interviewing?

What is the proportion of general practitioners who actually use motivational interviewing in their practice?

Are the mental health of the general practitioner and that of their patient correlated?

**Poster / Finished study****The Health Care Worker Well-being Survey (WBS): An Assessment of the Impact of Well-being and Climate Change on Health Care Quality Improvement, Tajikistan, 2023.**

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**Keywords:** Health care workers, well-being, professional burnout, emotional state, stress level, climate change, quality improvement, Tajikistan

**Background:**

A comprehensive health care worker (HCW) well-being survey was conducted in Tajikistan by Healthy Mother, Healthy Baby (HMHB) Activity. The article highlights the significance of prioritizing the well-being and mental health of HCW, particularly in the context of providing quality care for women and children. The research demonstrates how professional burnout and stress as well as climate change can diminish quality of healthcare. Lessons learned validate how enhancing the well-being and support of HCWs contributes to improving quality of care, preventing burnout and improving job retention.

**Research questions:**

Does work environment and climate change impact Tajik HCW well-being and negatively impact quality of care?

**Method:**

HMHB received legal consent from the U.S. Health Resources and Services Administration and the Bureau of Primary Health Care to use and digitalize the survey tool in Tajik and Russian. An additional section on impacts of climate change was added. The survey was conducted in 12 HMHB-supported districts of Bokhtar Zone of the Khatlon region, Tajikistan. 252 respondent were surveyed.

**Results:**

7.1% of HCWs indicated that they feel professional burnout. Of these, respondents answered that they feel tired even before coming to work (49.4%), need more time to rest than before (52.6%), often feel emotionally exhausted while working (45.8%) and usually feel overwhelmed and tired after work (76.1%). The high frequency of communication with patients was noted by 74.1% of HCWs, and is one of the reasons leading to psychological stress and professional burnout. 72.8% of respondents confirmed that climate change significantly affects their mental and physical health

**Conclusions:**

The survey provided multi-level data to help identify health system strengths and weaknesses affecting HCW burnout and exhaustion which can lead to increased medical errors. The findings from the survey offer valuable data that can be used to shape policies and approaches to improve healthcare quality and outcomes.

**Points for discussion:**

Implement robust mental health support and stress management programs. Strategies and adequate approaches to mitigate burnout. Provide access to mental health resources, including counseling.

Create Professional Development and Recognition: provide opportunities for continuous education, career advancement, and recognizing the contributions of HCWs can enhance job satisfaction and motivation.

Implement programs on National level that promote decreased burnout and stress management can help HCWs maintain their well-being and improve health care quality.

**Poster / Finished study****Training experience: Suicide prevention scape room for primary health care workers**

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**Keywords:** Gamification training, Attitude of health personnel, Primary Health Care, Suicidal Behavior

**Background:**

Suicide is a significant public health issue that can be prevented. Primary Health Care plays a crucial role in the community, positioning itself strategically for detection, prevention, and follow-up. Training on this topic is essential to empower professionals. A gamified training experience was conducted at the Primary Health Care Center (CAP) Dr. Lluís Sayé, targeting both healthcare and non-healthcare professionals from SAP Litoral of Barcelona.

**Research questions:**

How does a gamified training intervention impact the self-reported knowledge, skills, and confidence of Primary Health Care professionals in addressing suicide risk, and what is their level of satisfaction with this training experience?

**Method:**

This study was a quasi-experimental pre-post intervention study without a control group. Participants completed a questionnaire on their mobile phones using a QR code, both before and after engaging in five different game-simulations focused on suicide prevention. The groups were compared to evaluate their self-reported changes in knowledge, skills, self-efficacy in addressing suicide, and satisfaction with the training method. Data analysis was performed using Chi-squared, Wilcoxon, and McNemar's tests to determine the statistical significance of the observed changes.

**Results:**

A total of 81 participants took part in the study, with 77.8% being women, an average age of 43.46 years, and an average of 13.8 years of work experience. Of the participants, 69.1% were healthcare workers. Before the intervention, 33.3% felt qualified to approach suicidal behavior, which significantly increased to 80.24% after completing the training ( $p < 0.05$ ). Perceived knowledge, skills, and confidence also showed significant improvements post-training ( $p < 0.05$ ). However, changes in myth-related questions were not significant. Satisfaction with the training was rated 4.86 out of 5.

**Conclusions:**

The positive results of this intervention, along with the high satisfaction and acceptance by primary care professionals, highlight the need to implement and expand these methods in primary care organizations and teams.

**Points for discussion:**

Effectiveness of Gamified Training in Enhancing Competence

Training primary health professionals in addressing suicide risk

Implications for Training Methods in Healthcare

**Poster / Ongoing study with preliminary results****Do Primary Healthcare professionals agree on the Primary Care core values?  
Preliminary Data on a Delphi study.**

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**Keywords:** COVID-19, Policy advocacy, primary health care, public health

**Background:**

Health systems oriented towards Primary Health Care (PHC) are more efficient and equitable. Integrating PHC core values into the processes, infrastructures, and innovations of healthcare systems is crucial. Establishing a consensus on these core values is essential. This study aims to provide policymakers with a roadmap for effective resource allocation and the enhancement of PHC within European health systems

**Research questions:**

Do PHC professionals agree on the common core values of Primary Care and their integration in the health care processes, infrastructures and future Innovation of PHC system?

**Method:**

570 professionals related to PHC were invited to participate in an online Delphi questionnaire.

The panel included the PHC workforce, public health workers, and PHC managers.

The survey had 28 items, structured in 4 sections.

A Likert scale was used to evaluate the results in terms of relevance, feasibility and political priorities.

Data collection took place between May and June 2024.

The consensus was defined as 70% of respondents agreeing or strongly agreeing.

**Results:**

170 experts participated in the first Delphi round. Women: 130 (61.9%); mean age: 48 (SD: 12) years. The participants were from 39 countries, with the largest groups coming from Spain (27.1%), Italy (8.4%), Croatia (6.4%), Portugal (6.4%), and Turkey (5.9%). Most of the experts were family doctors (89.9%), and 56.2% worked in PHC centers. The panel fully agreed on the importance of all the statements of the roadmap. However, they only found it feasible for PHC to be accessible, manage complex patients, follow up on chronic conditions, and provide end-of-life support. The panel found that the current policies did not prioritize any of them.

**Conclusions:**

All the statements collected from literature are perceived as highly important. However, there was less consensus on feasibility.

**Points for discussion:**

What is your opinion about the need of having common PHC values and competences in Europe?

Why do healthcare workers believe the core values are unfeasible in their countries, and what steps could be taken to initiate meaningful changes?

**Poster / Almost finished study****Are nurse-Led Patient consultations and nurse-led dose adjustments of permanent medication acceptable for the general practitioners and practice nurses in Germany? - Results from a survey in two federal states**

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**Keywords:** delegation; doctor-nurse-substitution; nurse-led care

**Background:**

Background: Practice nurse (PN)-led patient consultations (PN-led PC) and dose adjustments of permanent medication (DCPM) are uncommon and understudied in general practice offices (GPO) in Germany.

**Research questions:**

What are the attitudes of GPs and PNs towards PN-led PC and PN-led DCPM in GPO in Germany?

**Method:**

This is a cross-sectional survey of GPs and PNs in two federal German states, Saxony-Anhalt and Saxony. In Saxony-Anhalt, we contacted all registered GPs randomly either per post (printed questionnaire) or per email (online questionnaire via LimeSurvey), in Saxony, all registered GPs with available email data were invited. We asked GPs to invite their PNs in the study.

We used a self-developed, pre-tested questionnaire including items on attitudes towards PN-led PC and PN-led DCPM, specific reasons for encounter, sociodemographic variables and preferences for implementing PN-led care. For statistical analyses we use descriptive statistics and will use logistic regression analysis using IBM SPSS 25 software.

**Results:**

Data collection in Saxony is currently ongoing, we will present initial results. In Saxony-Anhalt 206 GPs and 123 PNs of 1444 contacted practices participated (14.3% response rate). Of those, 59.7% of GPs and 65.5% of PNs were willing or rather willing to implement PN-led PC in GPO, whereas 33.5% of GPs and 29.3% of PNs were not or rather not willing. Concerning PN-led DCPM, 41.6% of GPs and 40.5% of PNs were willing or rather willing to implement this in GPO, whereas 57.4% of GPs and 51.0% of PNs were not willing or rather not willing. We expect to report which participants characteristics are associated with openness for PN-led care and what aspects they perceive as important in the implementation process of PN-led care.

**Conclusions:**

We expect that the results will be helpful for future pilot studies and additionally highlight relevant factors to consider when implementing extended task shifting.

**Points for discussion:**

How would you set up a model project/pilot study with the aim to implement PN-led care starting from these data?

**Poster / Almost finished study****Can the GP practice location affect the uptake of colorectal cancer screening?**

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**Keywords:** colorectal cancer screening (CRS), IFOB test.

**Background:**

Colorectal cancer is the third most common oncology in Latvia. Finding colorectal cancer in the early stages provides the greatest chance for complete recovery. This study aimed to investigate whether there is a difference in colorectal cancer screening uptake in rural and urban general practitioner (GP) practices.

**Research questions:**

Can the GP practice location affect the uptake of colorectal cancer screening?

**Method:**

The study was conducted in two GP practices in Latvia – one in Madona town, and the second in - the rural area of Gulbene. An analysis of screening attendance was conducted based on data from administered, collected, and completed immunochemical fecal occult blood (I-FOBT) tests. Factors influencing I-FOBT performance (age, sex, and location) were compared. Microsoft Excel and IBM SPSS were used for statistical analysis.

**Results:**

All target group patients (n=633) aged 50-74 from both practices were included in the study (157 from urban settings and 476 from rural settings) and were offered the colorectal cancer screening test. Altogether 137 out of 633 patients (21,64%) collected the I-FOBT test (mean age 60,31 (IQR=6,55); 56,20% women and 43,80% men), but only 87 (63,50%) of them (mean age 61,10 (IQR = 6,88); 54,02% women and 45,98% men) returned it completed. No association was found between the completed I-FOBT and patients' sex or age ( $p > 0.05$ ). The number of returned i-FOBT was higher among patients of the urban practice (56 of 78 tests or 71,79%) than among those of the rural practice (31 of 59 tests or 52,54%) ( $p < 0,05$ ).

**Conclusions:**

Study results showed that the location of the GP's practice might affect the uptake of the screening test, with urban practices showing better compliance compared to rural settings. However, there was no difference in compliance between patients' sex or age.

**Points for discussion:**

How to improve colorectal cancer coverage?

What other factors could affect CRS uptake?

**Poster / Ongoing study with preliminary results****Exploring interprofessional collaboration in general practice: a survey among the general practitioners in Finland**

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**Keywords:** interprofessional collaboration; general practice

**Background:**

In a rapidly changing world, collaborative interprofessional work is essential in providing patient centred care when a patient has complex needs. General practitioners (GP) have a crucial role in collaborative practices of managing patients' diverse needs such as mental health problems and multimorbidity. However, implementing interprofessional practices can be challenging, and little is known on which collaborative practices GPs consider important.

**Research questions:**

The aim of this study was to analyse good implementation practices of interprofessional collaboration in the general practice setting.

**Method:**

We conducted a web-based survey among GPs working in Finland from May to October in 2023. The questionnaire with open-ended questions was developed by the research team. An invitation and link to the survey were sent by e-mail to the GPs through contact people in the wellbeing services areas. We analysed data using inductive thematic analysis. Analysis is ongoing and further results will be presented at the congress.

**Results:**

A total of 432 questionnaires were completed. The participants were spread all over Finland, 54% of them were specialists in general practice and 69% had more than five years of working experience as a GP. In the management of patients, integrating the expertise of different health care professionals was important for GPs. A prerequisite for this is enough staff, close communication (e.g. joint meetings) between team members. Regarding question about existing practices in implementing the interprofessional approach, GPs mentioned: joint appointments with a doctor and a nurse; direct (not via the doctor) access to other professionals (physiotherapist, mental health nurse, social worker); smaller centres that facilitate familiarisation with the team and support low-threshold consultation with other specialists.

**Conclusions:**

GPs valued interprofessional collaboration and working. GPs also identified existing interprofessional collaboration practices to enhance and implement in general practice.

**Points for discussion:**

further analysis

**Poster / Finished study****Patterns and Associated Factors in Health Service Utilization Among High School Students in Turkey**

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**Keywords:** Adolescents, primary health care centers, health care utilization, mental health

**Background:**

It is crucial for adolescents to benefit from health services, especially primary health care services to promote health and prevent diseases.

**Research questions:**

What is the health care utilization patterns of high school-aged adolescents?

**Method:**

This descriptive study took place in Istanbul, February 2024. The research population consisted of students attending a high school. Efforts were made to include the entire population in the study. A survey was conducted to the students via Google Forms, including their sociodemographic characteristics, diseases, medications, nutrition and exercise habits, risky behaviors, two-question depression screening questions, and the frequency and reasons for using health services. Data were analyzed using chi-square and One-Way ANOVA,  $p < 0.05$  was considered statistically significant.

**Results:**

675 people with a mean age of  $15.84 \pm 1.33$  participated in the study. 13.03% of them had a chronic disease and 27.70% were on regular medication. In the last year 96.44% of the participants had sought services from a health institution (private hospital 40.89%; public hospital 40.74%, family health centers 38.67%, emergency services 19.11%, training and research hospital 17.63%). Those with low income were more likely to visit public hospitals than those without ( $p = 0.041$ ). The most common reasons for applying to a health institution are cough (43.85%), sore throat (40.44%) and runny nose (39.70%). The participants first consult their families about their health problems (65.92%), then internet (13.63%) and a physician (13.03%). The individuals at risk of depression reported that they use the internet more frequently for health problems and more likely to share their thoughts with their families compared to those not at risk (14.4%, 6.7%;  $p = 0.016$ ; 60.9%, 50.8%;  $p = 0.042$ ).

**Conclusions:**

Our research indicates that high school students primarily utilize health services for acute issues and tend to use hospitals instead of primary health care centers for health issues. However, there is a significant demand for counseling on preventive services, particularly for mental health concerns.

**Points for discussion:**

Are there any study investigate the adolescents' health care utilization patterns in your country?

What do you think about high school students primarily utilize health services for acute issues and tend to use hospitals instead of primary health care centers for health issues although preventive health care needs?

**Poster / Finished study****Perspectives and Experiences of Healthcare Providers and Research Coordinators in Scientific Study Participation: A Qualitative Descriptive study**

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**Background:**

Scientific research in healthcare covers various areas, from primary to specialized hospital settings, focusing on healthcare professionals and patients as units of analysis. Health workers often face obstacles such as heavy workloads and time constraints which limits their own involvements in research. Recruiting an adequate number of healthcare providers poses a challenge, thereby influencing the sample size and impeding the research process. This qualitative descriptive study aims to elaborate on the experiences of healthcare providers in scientific research and master's theses, providing insights to enhance future research initiatives.

**Research questions:**

How do healthcare providers and research coordinators in primary and secondary care experience participation in scientific studies?

**Method:**

This descriptive qualitative study, used semi-structured interviews to gather information among health care providers and research coordinators. The subjects were qualified Dutch speaking health care providers working in primary and secondary care and involved in participating in research. There were 19 interviewees between February and April 2024, with each interview lasting 33 minutes on average. Data analysis was thematically done using an inductive method.

**Results:**

The intrinsic motivation and professional context of healthcare providers influenced their readiness for research, due to factors like knowledge, experience, personal satisfaction, time commitment, compensation, relationships with researchers and the subject. Trustful relationships facilitated recruitment through clear personalized communication about relevant research objectives. Research findings improving health of patients and direct dissemination into practice were crucial for participation. Supporting collaboration between researchers and practice as well as a bottom-up research designs were critical for successful involvement and practical relevance. Recruitment strategies which involved personalized approaches and adequate information were more effective.

**Conclusions:**

This study identifies multiple factors that influence healthcare providers' experiences with research participation, which could be valuable for consideration in future recruitment and execution of research. This study underscores the necessity for further research into healthcare providers' participation in research.

**Points for discussion:**

What kind of barriers do you experience in the recruitment of patients and health care providers in research?

Which solution are working in your context?

**Poster / Almost finished study****A novel approach in telemedicine – bringing hybrid, contact- and telemedicine-based mobile healthcare services in rural Hungarian areas**

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**Keywords:** telemedicine; rural health; underserved population;

**Background:**

Limited access to healthcare is one of the main problems affecting rural, socioeconomically underprivileged areas, such as the municipalities in the “Emerging settlements program” in Hungary.

**Research questions:**

We aimed to prove the feasibility of telemedicine-assisted care for underprivileged populations.

**Method:**

The Hungarian Charity Service of the Order of Malta operates a mobile healthcare program (MHP) in 30 “Emerging Settlements” in 5 clusters. MHP consists of 12 Mobile clinics: vans that are equipped with broadband internet connection, a high-resolution teleconference platform, devices enabling certain aspects of the physical examination via telemedicine, and additional diagnostic tools, such as point of care lab testing devices. A mobile clinic is operated by a trained nurse and a driver who meet the patients in person, while the medical doctor performs the consultation using the teleconference platform. The care focuses on screening for cardiovascular (CV) risk factors, manifest CV diseases and diabetes, and provides chronic care for those diagnosed. The mobile ultrasound clinic and the telespecialist network extend the delivered care beyond the realm of primary care.

**Results:**

We examined the care delivered at MHP in the period from 01.04.2023 to 31.10.2023. The 30 settlements had a total population of 15,294. 1889 people (1429 adults and 460 children, 12.35 % of the overall population) had at least one consultation in this period. The average number of care events was 2.44 for adults and 1.36 for children. Blood pressure and glucose levels of 1430 patients were checked, resulting in 105 new hypertension and 26 new diabetes diagnoses. 987 patients received a total of 2177 referrals (1024 within Maltese telemedicine providers and 1153 to external healthcare providers). A significant, 10% decrease in relative referral frequency was detected (RR change: 0.9 [0.86;0.95]).

**Conclusions:**

MHP can effectively deliver medical care, improve chronic disease management and enhance definitive treatment in the patients' vicinity in underprivileged regions.

**Points for discussion:**

Limits of telemedicine in general.

What part of primary care cannot be delivered in MHP?

Sustainability of MHP

**Poster / Finished study****Empowering middle-aged patients with multimorbidity through virtual co-creation**

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**Keywords:** Patient empowerment, multimorbidity management, virtual co-creation, healthcare innovation

**Background:**

Managing multimorbidity in middle-aged adults poses significant healthcare challenges. Virtual Communities of Practice (VCoP) offer a novel approach to empower patients by leveraging their experiences and insights alongside healthcare professionals.

**Research questions:**

How can a VCoP enhance patient empowerment for middle-aged individuals with multimorbidity?  
What are the key themes and concerns of patients that can be addressed through co-creation?

**Method:**

This study employed a tailored experiential design, engaging both patients (ages 30-60 with  $\geq 2$  chronic diseases) and healthcare professionals (i.e., multidisciplinary team) in a co-creation process. Through semi-structured interviews and collaborative sessions conducted from October 2023 to May 2024, participants developed the structural and thematic elements of the VCoP.

**Results:**

Fourteen middle-aged patients (mean age 49.84, SD 8.92, 9 females) with multimorbidity and healthcare professionals including GPs and nurses, identified seven key themes for effective health management. These themes, integrated into a Patient Journey Map, emphasize personalized medication management, crucial for daily health routines, and customized care plans tailored to individual emergency needs. The process also highlighted the importance of peer support and community engagement, fostering a supportive network that mitigates patient isolation. Access to expert advice ensures patients receive timely medical guidance, while health monitoring and alerts leverage technology to keep track of health changes proactively. Additionally, mental health support addresses the psychological effects of chronic conditions, and educational resources provide ongoing information, empowering patients with knowledge to manage their health confidently.

**Conclusions:**

The co-creation process with middle-aged multimorbid patients and healthcare professionals has highlighted the potential benefits of a patient-centered approach in managing complex health conditions. The development of the Patient Journey Map, featuring personalized care strategies and robust support systems, suggests a promising path toward enhancing patient autonomy and improving quality of life. This model could potentially be scaled to optimize healthcare delivery in similar settings, pending further evaluation of its effectiveness.

**Points for discussion:**

The implications of these findings for scaling up VCoP initiatives.

Potential strategies for integrating patient feedback into continuous VCoP development.

Evaluating the long-term impact of patient empowerment on health outcomes and healthcare utilization.

**Poster / Finished study****Empowering patients with diabetes by monitoring daily activities using a home activity monitoring system: a feasibility study**

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**Keywords:** diabetes mellitus; e-health; health behavior; self-care

**Background:**

Following healthy lifestyle behaviours (HLBs) is essential to prevent the complications of type 2 diabetes (T2DM). Involving the patient and helping them to follow up over time is key. A non-invasive home monitoring system (NIHMS) could help achieve this goal.

**Research questions:**

Will a NIHMS be feasible, and will it help to follow the HLBs agreed with the patient with T2DM, resulting in improved clinical targets?

**Method:**

A pilot feasibility randomised controlled trial (RCT) was conducted in 21 patients with T2DM attending a primary care centre (10 intervention/11 control group). AI2EPD is an activity monitoring solution that reports the daily activities. Both monitoring and activity recognition are performed transparently and frees the user from direct interaction with the devices, using sensors installed at home (motion, opening/closing and environment), and an activity wristband. Its main objective is to provide feedback on compliance with the agreement signed prior to the study on treatment, meals, exercise, and other lifestyle recommendations. Data on knowledge of diabetes management and clinical variables such as HbA1c and lipids, were collected at baseline and after 6 months. At the end of the study, satisfaction with the tool in the intervention group (IG) was assessed using a System Usability Scale (10 items with five response options, from 'Strongly agree' to 'Strongly disagree').

**Results:**

Subjects in the IG found the system easy to use (mean 4.2, CI95% 3.46 to 4.94), and felt very confident using the system (mean 4.2; CI95% 3.75 to 4.65). Improvements in abdominal circumference and amount of exercise were observed in IG subjects, without reaching statistical significance.

**Conclusions:**

The AI2EPD system was found to be viable and very well accepted. Despite the small sample size and short follow-up, there was a trend towards improvement in healthy behaviours and most clinical variables.

**Points for discussion:**

Do patients accept the use of minimally invasive technology in their homes for medical supervision and self-monitoring?

What are the challenges you anticipate for the conduct of a randomised clinical trial in your setting to study whether the AI2EPD system can improve adherence to healthy lifestyles in patients with T2DM?

**Poster / Finished study**

## **Opinions of Primary Care Physicians Working in Istanbul Province on Telehealth Applications**

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**Keywords:** Telehealth, family medicine, artificial intelligence, primary care

### **Background:**

Telehealth application is a framework that utilizes information and communication technologies, encompassing services such as video conferencing, secure messaging, internet-based computer, and phone applications, for the diagnosis, treatment, and prevention of diseases and injuries, as well as for research and evaluation purposes, accessible to all healthcare professionals. The aim of this study is to explore the opinions of primary care family physicians in our country regarding telehealth applications.

### **Research questions:**

What is the role of technological tools in the daily practice of family physicians?

What is the status of family physicians' knowledge and use of artificial intelligence?

What are family physicians' opinions about telehealth?

### **Method:**

102 Family Physician specialists and trainers included in this study. The survey form used consisted of three main sections: The first section included socio-demographic characteristics, second section included questions based on the Turkish-translated version of the validity and reliability study of the "Physicians Attitudes and Intentions to Use Telemedicine (PAIT)" scale, and the third section includes questions examining the opinions of family physicians on telehealth. Participants completed the survey online. Data were collected through voluntary participation with snowball sampling method. IBM SPSS 26.0 was used for data analysis.  $p < 0,05$  is accepted significant.

### **Results:**

Participants included 55.9% (n=57) males. The mean age of participants was  $40.0 \pm 9.3$  (min:26 max:63). 84.7% (n=86) of the participants were family medicine specialists. Average working time as a family physician was  $10.9 \pm 6.7$  years. When asked if they needed more information on the use of digital methods (1: Strongly Disagree, 7: Strongly Agree), participants had an average score of  $5.1 \pm 1.5$ . Average ratings of using artificial intelligence were: usefulness:  $3.9 \pm 1.7$ , goodness:  $4.1 \pm 1.7$ , suitability:  $3.6 \pm 1.7$ . Participants under 40 years of age and with less experience evaluated the use of artificial intelligence more positively. Family Medicine specialty trainees believed more strongly than Family Medicine specialists that telehealth applications will increase access to health services ( $p < 0,05$ ).

### **Conclusions:**

These results highlight differences in perception and usage of digital methods, technological tools, artificial intelligence and telehealth among family physicians.

### **Points for discussion:**

Can telemedicine contribute to our daily practice in primary care?

Do you think you need more information about telehealth practices in primary care?

Does using artificial intelligence methods improve clinical quality?

**Poster / Almost finished study****Tele dermatology- the solution or the problem**

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**Keywords:** telemedicine, dermatology, healthcare services

**Background:**

Tele dermatology services are becoming increasingly common due to their ability to reduce the bureaucratic and financial burden on patients. However, the impact of increasing availability by adding new technology on the workload and efficiency of face-to-face traditional dermatology services has not yet been studied.

**Research questions:**

To evaluate the impact of tele dermatology, mainly on the rate of follow-up visits, either remotely or face-to-face, and the potential for overuse.

**Method:**

This is a retrospective observational cohort study based on the database of Leumit Health Services and processed using MDclone© software. We compared all tele dermatology visits (N=15,148) to all face-to-face dermatologist visits (N=248,545) between 2022 and 2023.

Variables: age, socio-geographic area, number of follow-up visits, sex, diagnoses, and treatment received.

Recommendations were mapped using text analysis software (NLP) after categorizing typical keywords according to a manually generated glossary.

**Results:**

The total number of dermatology visits increased by approximately 10%. Tele dermatology was used by a younger population (average age  $30.75 \pm 16.57$  vs.  $41.76 \pm 18.41$ ,  $p < 0.001$ ). The distribution of sex and socio-geographic areas was similar. No specific diagnosis was recorded in 31% of Tele dermatology visits, compared to only 2% in face-to-face visits. Some diagnoses were rarely recorded in Tele dermatology visits but were relatively common in face-to-face visits, the most prominent being Seborrheic Keratosis (7% vs. 0%), Viral Wart (7% vs. 3%), and Nevus (6% vs. 1%).

In the 45 days following a Tele dermatology visit, there were an average of 1.45 follow-up visits in Tele dermatology and 0.86 face-to-face follow-up visits, compared to 0.48 follow-up visits in Tele dermatology and 2.28 dermatologist follow-up visits when the initial visit was with a face-to-face dermatologist.

**Conclusions:**

Tele dermatology increased supply and, consequently, demand and may contribute to increasing inequity. Such services should be introduced by efforts to navigate the right patient to the right service and reduce inequity.

**Points for discussion:**

How to evaluate the service in other ways?

How to make a better triage to patients that are using the service?

**Poster / Almost finished study****Telemedical services in Hungary. Are we on a right way?**

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**Keywords:** telemedicine, general practitioner, satisfaction

**Background:**

The integration of telemedicine into general practice represents a transformative advancement in healthcare delivery, offering significant potential to enhance patient care, accessibility, and efficiency. Telemedicine facilitates remote consultations, diagnosis, and treatment, thereby improving access to medical services for patients in rural or underserved areas.

**Research questions:**

Our study aims to find out how currently practising general practitioners (GPs) perceive the use of telemedicine systems. After the pressure generated by the pandemic, is the use of telemedicine systems evolving to improve care?

**Method:**

The online questionnaire-based cross-sectional study was delivered in Hungary, in 2024. Altogether 455 doctors, mainly GPs completed the questionnaire about doctors' demographic data, the use and attitude towards telemedicine. The data were analysed by descriptive and analytical statistics. IBM SPSS 28.0 software was used for the statistical procedure. The participation was voluntary and anonymous. Ethical permission: BMEÜ-1777-1-2022-EKU

**Results:**

The average age of the sample was  $56.8 \pm 11.9$  years, 64.5% were females, almost all participants were currently working as active GP. Most part (90.8%) of respondents regularly used telemedicine tools in their patient care. The major forms of telemedicine were prescribing medicines and providing telephone consultations. The non-use of telemedicine (9.2%) was explained by the shortage of knowledge (38%) or effective tools (31%). The range of subjective perceptions includes a decrease in professionalism of patient care, effective physician-patient communication, and patient compliance during the telemedical service use.

**Conclusions:**

Future advancements in telehealth technology and policy development are essential to address the challenges and realize the full potential of telemedicine in general practice. In order to provide high quality patient care using telemedicine systems, it is essential to educate the users of the system, both in terms of the use of the devices, data protection and communication.

**Points for discussion:**

how can we increase the quality of the telemedicine care?

what influences the use of telemedicine in everyday life?

how can the doctor patient communication in telemedicine be improved?

**Poster / Finished study****Benefits of Home-Based Services in Greece for the Homebound: Leveraging Insights and Perspectives from Primary Healthcare Professionals**

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**Keywords:** Homebound; Primary Healthcare services; Home-based primary care; Homecare; healthcare needs

**Background:**

Home-based primary care services are beneficial to those experiencing challenges in accessing healthcare services and the implementation of such programs can improve population health and address access inequalities for vulnerable populations such as the elderly.

**Research questions:**

What benefits do home-based primary care services offer for homebound populations, according to primary healthcare professionals with previous experience in the delivery of home care services?

**Method:**

This is a qualitative study, conducted from February to May 2022, part of a larger project on the development of a sustainable home-based primary care service in Greece. Purposeful sampling with maximum variation (primary healthcare professionals, public/private sector, urban/ rural/ island setting, participation in covid-19 home vaccination programme/ other home care experience) was used. Semi-structured interviews were conducted using an interview guide focused on the advantages of home-based primary care services, the obstacles and enabling factors and recommendations for implementing home-based primary care services. Participants were particularly asked to discuss the benefits of home-based primary care services for the patient, their families, and healthcare professionals. Audio files were transcribed verbatim, coded and thematic analysis was performed. Informed written consent was obtained from participants.

**Results:**

After 43 interviews, data saturation was reached. Five key themes emerged: service users empowerment, relationships' strengthening, healthcare professional and challenges, and system improvements. Patients gain from better care, self-care education, and support. Informal caregivers benefit from more time, education opportunities, and support. Relationships among patients, caregivers, and healthcare professionals improve, and families save on transportation costs. Healthcare professionals find empowerment through self-accomplishment and professional growth opportunities, despite challenges like external conditions, psychological burden, and organizational problems. Healthcare system advantages include reduced care costs, increased trust, and more job opportunities.

**Conclusions:**

Extending primary care to the home setting could provide multiple advantages, to both service users and the entire healthcare system increasing satisfaction and the quality of life.

**Points for discussion:**

What are the primary obstacles hindering the implementation of home healthcare services within health systems?

How could participatory research approaches accelerate the creation of cost-effective, comprehensive home-based healthcare services?

What strategies can be implemented to promote and expand home-based primary care services?

**Poster / Finished study****Differences in resilience and coping styles among women with asthma, dyspepsia, and the control**

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**Keywords:** resilience , coping styles , women , asthma, dyspepsia, the healthy control

**Background:**

Asthma and dyspepsia, often found in women of reproductive age, are linked to both psychological factors and immune dysregulation, indicating a potential connection between mood disorders and immune system function.

**Research questions:**

Are there differences in psychiatric or psychological disorders, lifestyles, resilience, and coping styles between women diagnosed with asthma or dyspepsia and those without these disorders, and among those with any of these diagnoses?

**Method:**

The study involved 110 women, ages 19 to 46, an average of 31.71 (SD 7.40). The participants were recruited during their appointments or by invitation from the Health Center Osijek and the Pulmonology and the Gastroenterology Outpatient Clinics. There were 40 (36%) participants with asthma, 22 (20%) with dyspepsia, 16 (15%) with both diagnoses, and 32 (29%) of participants had no comorbidities. Data on lifestyles and the diagnoses of psychiatric or psychological disorders were collected through interviews. Participants' resilience and coping styles were assessed using standard questionnaires (Resilience and Brief COPE). Chi-square tests and Welch ANOVA were used to test differences in characteristics between the groups. Statistically significant results were followed by the Games-Howell post-hoc test.

**Results:**

There were no statistically significant differences in psychiatric or psychological disorders and lifestyles between the four groups of participants. Resilience was more pronounced among participants without comorbidities, in comparison with participants with dyspepsia 3.54 (0.8 ) vs. 2.83 (0.62) ( $P=0.006$ ), posthoc ( $p < .01$ ). Among coping strategies, only positive reframing showed significant difference among the groups ( $p=0.009$ ). This strategy was more pronounced among participants with asthma 7.2 (1.14), compared to those with dyspepsia 5.82 (1.94) ( $p < 0.05$ ).

**Conclusions:**

Results indicate a low capacity of women with dyspepsia to cope with psychological distress and suggest intervention strategies.

**Poster / Finished study****Health-related quality of life of caregivers. A population-based study**

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**Keywords:** caregivers, quality of life, SF-36 questionnaire

**Background:**

A caregiver is that person who assists another person who needs help in caring for themselves. This labor can affect the physical, emotional or social health of the caregiver, which means, its quality of life.

**Research questions:**

Evaluating if being a caregiver affects the health-related quality of life, using the generic questionnaire SF-36 in a representative sample from a rural population

**Method:**

Cross-sectional study carried out in a randomized sample of 1512 individuals over the age of 18 from the municipality of A Estrada (Pontevedra) recruited between the years 2012 and 2015, and divided into two groups: caregivers and noncaregivers. Health related quality of life components adjusted by age and sex were compared between both groups by using additive linear regression models

**Results:**

Caregivers present worse scores in their physical function (median 85) with respect to non-caregivers (median 90); vitality (55 versus 60), mental health (72 vs. 76), social function (87 vs. 100) and body pain (67 vs. 70). There are no significant differences in their physical role, general health and self-perception of health. When adjusting by age and sex, only their emotional role and social function (average decrease of 6.1 and 3.8 points, respectively, with respect to non-caregivers) where significantly lower.

**Conclusions:**

Being an informal caregiver associates a worse perceived quality of life, only significant in its emotional role and social function. Additionally, our study allows us to recognize their sociodemographic profile and to uphold the creation of support networks for families of chronic disease patients. Further research is needed to be able to create a more vigorous information base.

**Points for discussion:**

Be aware of the special vulnerability that caregivers have to mental illnesses and the gender and social inequalities surrounding the sociodemographic profile of the caregiver

The need for the qualities and training that informal caregivers should have.

What tools and support instruments should we provide to caregivers to alleviate their burden?

**Poster / Finished study****Hospital-at-Home Costs and Outcomes: A Cohort Study**

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**Keywords:** Home hospitalizations, cellulitis, urinary tract infection, pneumonia

**Background:**

The challenges posed by increased life expectancy, aging populations, and chronic morbidity have become pressing concerns for healthcare systems globally. Simultaneously, there is a documented reduction in the number of hospital beds, facilities, and resources. Hospital care and services constitute the single most significant expenditure in healthcare and are significantly higher than community healthcare services, where comparable.

**Research questions:**

This study aims to evaluate and compare health outcomes and costs between home hospitalization and traditional hospitalization for three common diagnoses- cellulitis, urinary tract infection (UTI), and pneumonia.

**Method:**

In this retrospective cohort study, we followed 1,311 patients in home hospitalization and 992 patients in traditional hospitalization. Patients were hospitalized between 1.01.2019 and 31.12.2020 for cellulitis, UTI, and pneumonia treatment. We evaluated healthcare costs, length of hospitalization, referrals for further medical services, and mortality.

**Results:**

In this study, we were able to establish that home hospitalization is non-inferior to traditional hospitalization in metrics of mortality, rehospitalizations, and emergency department (ED) referrals for three common diagnoses – cellulitis, pneumonia, and UTI. In terms of hospitalization length, home hospitalizations were shorter for pneumonia and cellulitis compared to traditional hospitalization (5.01 vs. 6.05 days, p-value 0.001 and 5.3 vs. 6.1 days, p-value<0.001, respectively). Likewise, for cellulitis and pneumonia, home-hospitalized patients had fewer ED referrals compared to traditional hospitalization (13.5% vs. 19.8%, p-value 0.002 and 13.7% vs. 24% p-value<0.001, respectively) and lower associated costs (7,366 vs. 11,401 New Israeli Shekel (NIS), p-value 0.001, and 6,869 vs. 11,326 NIS, p-value 0.001).

**Conclusions:**

home-hospitalization may be a viable and even superior alternative for suitable patients for three common infectious diseases – cellulitis, pneumonia, and UTI – given an appropriate infrastructure.

**Points for discussion:**

Benefits of home hospitalization compared with traditional hospitalizations.

Presentation on 19/10/2024 11:00 in "Poster Session 8: Taking Care for Chronic Patients" by Ilan Yehoshua.

**Poster / Almost finished study****Life span differences after hip fracture – a pilot case control study from primary care in rural Sweden.**

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**Keywords:** Hip fractures. Excess mortality. Case control study.

**Background:**

Women in Sweden have a life time hip fracture risk of around 20%, and excess mortality after hip fracture is significant. Yet studies of the excess mortality in terms of lost years of life are rare.

**Research questions:**

What was the difference in average life span in women who suffered a hip fracture versus age matched women who did not suffer any fragility fractures during their remaining life?

**Method:**

Pilot case control study. Nested within a population-based fracture prevention study in primary care in rural Sweden, with an 85% participation rate, we recruited as cases 218 women, 70-100 years old at baseline 2001, who had suffered a hip fracture between 2002 and 2024 and were deceased in April 2024. We recruited 2 control participants for every case (n=436) who were alive at the time of the fracture (index timepoint) and did not suffer any fragility fractures during their remaining life until April 2024 when they also were deceased. Control I. was consecutively younger and control II. was consecutively older than the case. Comparisons of mean age was using t-test.

**Results:**

Mean age at baseline in 2001 was 79.5 years for case participants and 79.7 years for control participants (p=0.8). Median age at hip fracture was 87.8 years (n=218). Mean age at death was 90.9 years (sd 5.0) for the 218 cases and 92.1 years (sd 4.9) for the 436 controls who had no fragility fractures after the index timepoint (p=0.003). Remaining life span was 1 year shorter in cases than in controls (11.4 vs. 12.4 years). Cases lived on average 3 years after the hip fracture.

**Conclusions:**

In this case control study from rural Sweden we found a 1-year shorter life span after hip fractures in women who were followed from age 80 until their death at 91 (cases) and 92 years (controls).

**Points for discussion:**

Does it surprise you that average life span after hip fracture was 3 years?

Is excess mortality measured as difference in lifespan a useful measure?

**Poster / Almost finished study****Understanding of Long (Post)-COVID Definitions Across Europe**

Raquel Gomez Bravo, Sandra Leon Herrera, Sara Ares Blanco, Marina Guisado Clavero, Marina Dotsenko, Ferdinando Petrazzuoli, Ileana Gefaell, Sarah Moreels, Abel Perjes, Tatjana Meister, Davorina Petek, Philip Domeyer, Snezana Knezevic, Jako S. Burgers, Heidrun Lingner, Kadri Suija, Maria Bakola, Dragan Gjorgjievski, Naldy Parodi, Iliana-Carmen Busneag, Limor Adler, Nagu Penakacherla, Katarzyna Nessler, Thomas Frese, Achim Mortsiefer, Ana Luisa Neves, Bruno Heleno, Kathryn Hoffmann, Maria Pilar Astier-Peña

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**Keywords:** Long COVID (LC); Post Covid Syndrome PCC; Post-acute sequelae of SARS-CoV-2 infection (PASC); Europe

**Background:**

Standardizing the definition of Long COVID or post-COVID across Europe is imperative for ensuring consistent diagnosis, effective research, streamlined clinical management, targeted public health responses, enhanced patient support, international collaboration, and informed policy development. By harmonizing terminology and criteria for Long COVID, healthcare systems can improve patient care, facilitate research comparability, and optimize public health interventions in addressing the complexities of this persistent post-acute COVID-19 condition.

Currently, various definitions for Long COVID or post-COVID are in use across Europe, reflecting the diversity and complexity of approaches to characterize this persistent condition.

**Research questions:**

What terminology is used in each European country to describe the persistence of symptoms following the acute phase of COVID-19?

**Method:**

Descriptive, cross-sectional, retrospective study involving key informants from 31 European countries that took part in the Eurodata study.

**Results:**

Various countries align differently with international definitions. NICE criteria resonate with Portugal, Austria, Belgium, and Romania, while WHO framework applies in Portugal, Serbia, Spain, Romania, Israel, and Luxembourg. Slovenia adopts the USA NIH guidelines, and Greece uses ESCMID standards. ECDC criteria are prevalent in Germany and Hungary, whereas ICD classifications are employed in Serbia and Austria.

**Conclusions:**

The variation in definitions underscores the need for standardized protocols to streamline management and ensure effective communication within healthcare sectors. Divergent definitions of long COVID by European health organizations emphasize the urgency of uniform criteria to optimize management strategies and facilitate effective communication among healthcare professionals and patients. Discussions on the implications of diverse definitions on clinical practices and public health initiatives, challenges in diagnosis and management, and the significance of collaborative efforts in establishing unified guidelines are imperative in addressing the complexities of long COVID treatment and care.

**Points for discussion:**

Implications of disparate definitions on clinical practice and public health responses.

Challenges in diagnosing and managing long COVID amidst evolving understanding of post-acute sequelae.

Importance of collaborative efforts to establish unified guidelines for long COVID classification and management.

**Theme Paper / Finished study****General practitioner residents' mental health and satisfaction in relation to their professional training**

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**Keywords:** burnout, general practitioners, residents, specialisation training, satisfaction

**Background:**

Burnout, hopelessness and depression are prevalent among general practitioners in Hungary, and resident doctors are affected in a higher proportion than their elder colleagues. This situation may decrease doctors' wellbeing, can cause doctors' exit from primary care and affect patient care negatively.

**Research questions:**

How frequent are burnout, hopelessness and depression among GP residents?

How satisfied are the GP residents with their specialisation program and with the situation of the Hungarian healthcare system?

**Method:**

We collected data with a self-administered questionnaire in a cross-sectional study among GP residents (N=166). We assessed burnout with the Maslach Burnout Inventory and calculated the proportion of physicians suffering from low, intermediate and high degree of burnout. We used shortened Beck Depression Inventory and short Beck hopelessness scale to measure depression and hopelessness. Data collection was carried out between December 2023 and January 2024. Statistical significance was considered, as p-values derived from the statistical tests were below 0.05.

**Results:**

The prevalence of moderate and high-level emotional exhaustion was 26.2% and 15.2%, depersonalisation was 21.3% and 20.7%, impaired personal accomplishment was 30.2% and 40.7%. Age correlated negatively with depersonalization ( $p=0,019$ ) and personal accomplishment ( $p=0,012$ ). Mild, moderate and severe depression was indicated in 12.1%, 4.2% and 4.8%. 5.4% of the residents showed severe hopelessness. About two-thirds of the students (63.8%) considered the current situation of Hungarian health care system rather bad ( $\leq 2$  on a 5-point scale). More than two-thirds of the residents (69.8%) are satisfied with the specialization program and 87.3% of them would choose family medicine again if they should choose a speciality again.

**Conclusions:**

Although GP residents are mostly satisfied with the specialisation program and with their career decision, mental health problems occur frequently among them. Handling of this situation and a high-quality training program play a significant role in creating a sustainable strong primary care system.

**Points for discussion:**

Which are the most effective interventions to prevent burnout among GP residents?

How frequent is burnout among GP residents in other European countries?

How can we improve the GP specialisation program?

**Theme Paper / Almost finished study****Is the Thoughts and Health programme feasible in the context of Swedish schools?**

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**Keywords:** Mental health, public health, prevention, adolescence, collaboration, depression.

**Background:**

Clinical depression significantly increases among adolescents, impairing relationships and causing cognitive and emotional difficulties. An Icelandic preventive program "Thoughts and Health" program has showed preventive effect of depression and dysthymia for up to 12 months. This program is now being tested in Sweden to help eighth-grade students "at risk" to avoid depression and maintain mental health.

**Research questions:**

Can the "Thoughts and Health" program, effective in Iceland, be implemented in Sweden, and what effects on preventing depression among at-risk eighth-grade students does the program have.

**Method:**

A quasi-experimental controlled design using qualitative and quantitative methods involved adolescents from five Swedish communities. They were screened for depression, and eligible "at risk" individuals were assessed by a Primary Care Psychologist. Adolescents without prior depression were offered the 12-week "Thoughts and Health" course or a control group (standard school health care). The study evaluated the program's impact on clinical depression at the end, 6-, 12-, and 18-months post-course. Outcome variables included depression onset, school attendance, grades, adolescent experiences, and psychologist evaluations, analyzed via group-based statistics and systematic text condensation.

**Results:**

Our primary findings indicate that the "Thought and Health" program can be implemented successfully in Swedish schools in collaboration with primary care. It shows promise in preventing depression among at-risk adolescents. Screening involved 887 adolescents aged 14. Eligible "at-risk" individuals were evaluated by a Primary Care Psychologist. 24 participants completed the 12-week course. Initial data suggest potential decreases in depression onset compared to controls. These results aim to validate the program's effectiveness, informing primary depression prevention strategies with significant public health implications.

**Conclusions:**

The program "Thoughts and Health" has potential in preventing depression among at-risk adolescents when supported by primary care collaboration in Swedish schools. These results could significantly impact public health strategies, promoting youth mental well-being and early depression prevention.

**Points for discussion:**

Adaptations made to the program to suit the Swedish school environment and how these adaptations might have impacted its effectiveness.

What are the key challenges in implementing mental health programs like "Thoughts and Health" in school settings, and how were these challenges addressed in the study?

What are the implications of the study's findings for the long-term sustainability and broader implementation of preventive mental health programs in schools?

**Theme Paper / Finished study****Loneliness, problematic smartphone use and screen time among medical students in Germany**

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**Keywords:** Loneliness, problematic smartphone use, post pandemic, medical education, mental health, digitalization

**Background:**

In the course of the COVID-19 pandemic, loneliness, smartphone addiction and screen time have increased, especially among young people. The extent to which medical students in Germany are currently affected by this as well as the relationship between loneliness, problematic smartphone use (PSU) and screen time have not yet been examined.

**Research questions:**

- 1) What is the prevalence of loneliness, problematic smartphone use and screen time among medical students in Germany after the COVID-19 pandemic?
- 2) How can the relationship between loneliness, problematic smartphone use and screen time can be described?

**Method:**

Medical students at the Technical University of Dresden took part in a voluntary, pseudonymised online cross-sectional survey in 2022. Group comparisons, correlations, mixed-model analyses and mediation analyses were calculated to describe the relationship between loneliness (3-Item UCLA loneliness scale), PSU (SAS-SV) and screen time (h per day).

**Results:**

N = 580 medical students (M = 24 years, 73 % female) were included in the analysis. The students had an average loneliness score of M = 4.83 (SD = 2.8) and 17.1 % were categorised as lonely. The average SAS-SV score was M = 24.33 (SD = 8.3), with 17.2 % categorised as smartphone dependent. The students had an average screen time of M = 7.65 h (SD = 2.4) per day. A higher level of loneliness was associated with increased PSU ( $r = .211$ ,  $p < 0.001$ ) and increased screen time ( $r = .108$ ,  $p = 0.009$ ). The relationship between loneliness and increased screen time during leisure was partially mediated by PSU.

**Conclusions:**

Loneliness, problematic smartphone use and increased screen time are widespread and significantly associated among medical students in Germany. The results are relevant for future interventions to promote psychological and physiological well being of medical students.

**Points for discussion:**

How does problematic smartphone use affects medical students in their role as future physicians?

How can loneliness and problematic smartphone use can be prevented in medical school?

What should future studies taken into account if they examine loneliness and smartphone usage among medical students?

**Theme Paper / Almost finished study****The EARLY Study – "Evaluating, identifying, and reducing determinants of Mental Health Conditions in Youth"**

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**Keywords:** mental health; youth; public health; primary care.

**Background:**

Youth in and beyond Europe are affected by various mental health challenges, among which are relatively high rates of mental health conditions (MHCs) (e.g., anxiety, substance use disorders) compared to other age groups.

Research Question: This qualitative study is conducted in the context of the EU-funded EARLY project. We aim to explore the perceptions of youth mental health and the factors influencing perceptions, expectations, and preferences toward youth mental health interventions.

**Research questions:**

This study is conducted in the context of the EU-funded EARLY project. We aim to explore the perceptions of youth mental health and the factors influencing perceptions, expectations, and preferences toward youth mental health interventions.

**Method:**

This part of the EARLY project is a qualitative study that takes place in five countries, including Germany, Belgium, Poland, Serbia, and Israel. Each country conducted focus group discussions (FGD) with youth, parents, and stakeholders (professionals). Recruitment was done based on a theoretical sampling approach to select participants purposively via various channels.

**Results:**

We will present the FGD conducted in Israel during May and June 2024. We held 5 FGDs and interviewed nine youths (ages 15-24), eight parents, and eight stakeholders (physicians, teachers, school managers, and social workers). Several themes emerged, including the influence of social media and friends on mental health and mental health conditions, the hyper-sharing in social media compared to the difficulties in discussing thoughts and challenges related to mental health in one-on-one conversations with parents, teachers, and sometimes even with friends. Among the mental health conditions most influencing youth were eating problems, self-harm, anxiety, and depression.

**Conclusions:**

Mental health conditions are prevalent among youth. However, discussing it in "real life" remains challenging for youth, parents, and stakeholders.

**Points for discussion:**

Challenges and shame in discussing mental health with youth, parents and stakeholders

High prevalence of mental health conditions among youth

Lack of source for support and intervention programs for youth

**Freestanding Paper / Finished study****Changes in Hungarian family physicians' knowledge and attitudes regarding sleep apnoea over the past 15 years. What difficulties do they have in screening car drivers for OSAS?**

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**Keywords:** sleep apnoea, attitude, theoretical knowledge, family doctor, OSAKA

**Background:**

General practitioners (GPs) have an important role in the screening and care of obstructive sleep apnoea (OSA). Late detection can lead to serious cardiovascular, cardiorespiratory, neurological and other complications and accidents.

**Research questions:**

To assess changes in Hungarian GPs' knowledge of and attitudes towards sleep apnoea over 15 years, 2008, 2017 and 2023. Whether there has been a change in the attitudes of GPs since the introduction of the 2015 legislation requiring GPs to screen car drivers for OSA.

**Method:**

In our cross-sectional study, sociodemographic data were recorded among 950 GPs, and the validated OSAKA questionnaire was used to assess their knowledge about OSA.

**Results:**

The knowledge of Hungarian GPs about sleep apnoea improved significantly over the last 15 years (score  $12.1 \pm 2.7$  vs  $14.0 \pm 1.9$ ). The mean score of female physicians was significantly higher than that of male physicians in 2023 ( $14.4 \pm 1.6$  vs  $13.3 \pm 2.5$ ,  $p < 0.001$ ). The number of specialisations increased the mean score, the more specialisations a physician had, the higher the score, with  $13.4 \pm 1.6$  vs  $13.3 \pm 2.5$ ,  $8 \pm 1.8$  points. In our regression model, we found an inverse correlation between the physician's age and BMI and knowledge of sleep apnoea, with a positive correlation between the number of specialisations and practice location. While 86% of family doctors consider it important to identify patients suspected of having sleep apnoea, 45% are confident about treating the condition. We found an improvement in the OSA importance attitude question (A1-2) for both genders, with a significantly higher score in 2023 compared to 2017,  $4.6 \pm 0.8$  for women and  $4.3 \pm 0.9$  for men.

**Conclusions:**

GPs' knowledge of sleep apnoea has improved a lot in recent years, and they emphasize the importance of early disease detection. They are uncertain about the management of OSA, which they believe is due to the limited capacity of sleep laboratories and the inadequate number of nurses in the practice.

**Points for discussion:**

How can we improve the attitude of family doctors towards OSA screening?

How should OSA be screened in primary care?

**Freestanding Paper / Almost finished study****Evaluating a Chronic Disease Management Programme in General Practice: A Comparative Analysis of Healthcare Provider and Patient Perspectives**

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**Keywords:** chronic disease, reform, evaluation,

**Background:**

The Health Service Executive (HSE) In Ireland launched a structured Chronic Disease Management (CDM) programme in 2020 to enhance care for older patients with comorbidities in primary care settings with the aim of formalizing and improving chronic disease management.

**Research questions:**

How has the new CDM programme in Irish primary care settings impacted healthcare providers' (HCPs) perceptions of care quality and workload, and do these perceptions align with patients' experiences and views on self-management and structured care programmes?

**Method:**

The study investigates the CDM programme through:

1. HCPs perspectives – GPs and practice nurses – on the CDM programme and its impact on patient care, workload, and professional development.
2. Patient experiences, particularly regarding self-management of conditions and their views on the future role of structured care programmes.

For HCPs, a survey was used to gather data on their views and experiences. For patients, a survey administered in GP settings will capture their views.

**Results:**

Data from 220 HCPs, predominantly from medium-sized practices (2-4 GPs; 72%) in towns (62%), revealed:

- A positive overall impression of the CDM programme (87%).
- 95% noted improvements in patient care quality.
- Increased workload reported by 90%, with 62% experiencing a large increase.
- Thematic analysis of free text responses indicates HCPs are overall positive but have several concerns particularly around workload.

**Conclusions:**

Initial feedback from healthcare providers indicates a positive reception of the CDM programme, with nearly 9 in 10 approving its impact on enhancing patient care quality. However, 9 in 10 did report an increase in workload, 6 in 10 reporting a large increase, highlighting a major challenge. Future analysis will incorporate patient perspectives to assess alignment with HCP views.

The CDM programme is positively viewed by HCPs for improving patient care, though it significantly increases workload.

**Points for discussion:**

How to balance improved patient care quality with the increased workloads with new programme rollouts?

Exploring potential strategies to optimize the CDM programmes based on both healthcare provider feedback and patient experiences.

**Freestanding Paper / Finished study****How many diabetic patients are treated by the Hungarian Healthcare System and how? The role of GPs in an evidence-based care provision**

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**Keywords:** Type 2 diabetes, disease burden, primary care, prevention

**Background:**

Diabetes is an endemic affecting around 1 million Hungarians with poor outcomes of cardiovascular events and amenable death rates. Approximately 94 % of the patients have Type 2 diabetes, and their management belongs mainly to the general practitioners.

**Research questions:**

The study aimed to explore the total number of diabetic patients and to evaluate the provided services compared to guideline recommendations from the primary care perspective.

**Method:**

National Health Insurance Fund (NHIF) data were analysed based on the ICD10 code, International Classification of Procedures Codes in Medicine, and the ATC A10 code-related performance data of 2019.

**Results:**

The study revealed that the Hungarian healthcare system meets 1 million diabetic patients, while the number of patients redeeming prescribed antidiabetics with reimbursement in the pharmacies is far behind (618.459 patients in 2019.). The volume of the difference refers to the importance of stronger primary care. The structure of health expenditures shows that pharmaceutical and acute hospital care costs (37,8% and 28,6%) represent the most reimbursed services, whilst laboratory and outpatient spending made up a minor portion of total costs, 1,5% and 6,5% respectively. The medical treatment reimbursement took 79 % of diabetes-indicated health expenditures. The accessibility of preventive care services was poor: lower extremity Doppler examination affected 8,5% of patients, ABPM 1,6%, neuropathic diabetic feet examination 7,6%, and carotid artery duplex ultrasound examination affected 9,6% of patients. Most patients redeemed the cheapest medicines (metformin, sulphonylureas) and the lifesaving but expensive insulin-containing medications. The 40,1 % of patients redeemed novel antidiabetics.

**Conclusions:**

The overall healthcare spending can be called defensive: the critical, life-saving costs are dominant, while preventive care costs remain low. These characteristics do not have a favourable impact on healthcare-related amenable death. The accomplished study made it possible to identify reasonable interventions supporting prevention on the levels of primary care and outpatient care

**Points for discussion:**

1. The importance of national registries, continuous monitoring and feed-back to system development and financing
2. The role of competent GPs, APNs, GP clusters

**Freestanding Paper / Almost finished study****Incorporating Environmentally and Climate-Friendly Medication in GP Consultations: Patient Perspectives- Results from a qualitative Study**

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**Keywords:** climate change, environmental protection, doctor-patient relationship, medication

**Background:**

Since pharmaceuticals are the primary source of carbon emissions in primary care, avoiding the prescription of specific climate-harmful medications can significantly contribute to reducing greenhouse gases. GPs may include the environmental impact of medications in shared decision making, e.g. consider to prescribe less climate or environmental hazardous medications. It is not yet known how patients perceive the inclusion of these topics into the medical consultation and what they expect in this regard.

**Research questions:**

How do patients perceive the discussion of impact on environment/climate of drugs in GP encounters?  
Are patients willing to consider environmental and climate aspects? Are they open to change to a more environmental/climate-friendly medication?

**Method:**

A total of 25 qualitative, semi-structured interviews were conducted with adult patients with an ongoing drug prescription from German GP practices. Patients were selected applying a maximum variation approach. Interview transcripts were analyzed using structured content analysis.

**Results:**

The interviews will be completed and evaluated by September 2024. Preliminary analyses indicate that patients are surprised when environmental or climate protection is discussed during consultations with their GP. Most patients are unaware that medications can be harmful to the environment or climate. Many express willingness to switch to more environmentally friendly medications, accepting some disadvantages, such as more frequent intake, increased side effects, or co-payments. Patients trust their GPs' recommendations regarding behavior and medication in this context and seek more information and transparency on the subject.

**Conclusions:**

Patients are open to discussing these topics and willing to switch to more eco-friendly medications despite potential disadvantages. Integrating the views of both patients and GPs will be crucial for developing a patient-centered communication tool for discussing environmental impact and considering it in shared decision making.

**Points for discussion:**

How would GPs include the topic in the consultation

Are GPs open to this topic themselves

**Web Based Research Course Presentation / Finished study**

## **Analysing Turkish-Language Human Papillomavirus Vaccination Videos on YouTube: Assessing Content Quality and Educational Value**

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**Keywords:** HPV; Vaccination; Gardasil; YouTube; Quality; Primary Care

### **Background:**

Human papillomavirus (HPV) infection significantly impacts global health by leading HPV-related cancers. Despite effective vaccines, social media misinformation complicates public health efforts. Assessment of HPV vaccination content on YouTube is crucial due to its influence on public perception.

### **Research questions:**

What is the quality and educational value of Turkish-language YouTube videos about HPV vaccination?  
How understandable, actionable, transparent, reliable, and popular are these videos?

### **Method:**

Researchers conducted searches using YouTube with keywords: HPV aşısı (HPV vaccine); Gardasil aşısı (Gardasil vaccine); serviks kanseri aşısı (cervical cancer vaccine). The top 50 videos per keyword were included. Evaluation utilised validated scales: The Patient Education Materials Assessment Tool (PEMAT) for understandability&actionability, JAMA Score for transparency&reliability, Video Power Index (VPI) for popularity, Global Quality Scale (GQS) and Video Information&Quality Index (VIQI) for quality. Higher scores obtained from VIQI and VPI scales indicate higher quality and popularity, respectively.

### **Results:**

After duplications were removed, total of 83 videos were included; their median duration was 95 seconds (IQR=105). The median JAMA score of videos was 2 (IQR=1), indicating low transparency&reliability. The GQS median score was 3 (IQR=2), indicating moderate overall quality. PEMAT scores had medians of 66% (IQR=25). The median of VIQI scores was 15 (IQR=4), VPI scores was 144 (IQR=1274). There were no statistically significant differences in quality metrics between more and less popular videos, suggesting that popularity does not necessarily correlate with higher quality or more reliable content. 98.75% of the videos were produced by healthcare professionals (HCPs), predominantly gynaecologists (86.4%). There were no family doctors (FDs)/general practitioners (GPs) among the speakers.

### **Conclusions:**

Despite mostly being produced by HCPs, YouTube videos were of moderate quality and generally inadequate in promoting HPV vaccination. The involvement of FDs/GPs, which are the pillars of preventive healthcare, including HPV vaccination, could improve the preventive perspective of the information presented.

### **Points for discussion:**

What resources does the public use in your country when seeking information about HPV vaccines?

Considering the increasing use of video sharing and social media platforms, should family doctors/general practitioners actively provide information on these platforms?

What do you think about the videos' overall moderate quality and low reliability despite being produced by healthcare professionals, predominantly gynaecologists?

**Web Based Research Course Presentation / Study Proposal / Idea****Assessment of a code-based method compared with a questionnaire-based method for Influenza-Like Illness surveillance data collection in Belgian General Practices: Protocol**

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**Keywords:** Influenza, electronic health records, surveillance, general practitioners

**Background:**

The need to provide real-time estimates of influenza activity, coupled with the inherent limitations of sentinel general practitioners (SGP) surveillance systems, has prompted researchers worldwide to explore alternative data sources such as electronic medical records. However, there is limited literature comparing code-based and questionnaire-based primary care surveillance systems and evaluation of all the systems' characteristics is rare.

In Belgium, the COVID-19 barometer in general practices, a semi-automated tool, provided rapidly available COVID-19 data during the pandemic. This tool also captures daily data on Influenza-like Illness (ILI). Meanwhile, we observe that the current questionnaire-based ILI surveillance of the SGP network is hampered in its expansion.

**Research questions:**

What are the gains and losses of replacing the questionnaire-based method with the code-based method for ILI surveillance data collection in Belgian general practices?

**Method:**

The CDC guidelines for evaluating surveillance systems will be used as a framework to analyse retrospectively SGP and COVID-19 Barometer data collection methods.

Firstly, we will delineate the requirements for the ILI surveillance system in Belgium.

Subsequently, in order to assess both data collection methods in addressing the ILI surveillance system needs, we will conduct an evaluation based on nine attributes: ILI cases, data quality, timeliness, sensitivity, representativeness, acceptability, stability, simplicity and flexibility. For each attribute, we will establish quantitative and qualitative measures to ensure a robust and in-depth evaluation.

Additionally, the overarching research question will be divided into specific research questions corresponding to each attribute.

Eventually, we will define thresholds for each system characteristic in alignment with the predetermined requirements of the surveillance system.

**Results:**

The results obtained will highlight the elements to which attention needs to be paid concerning the replacement of the SGP data collection method.

**Conclusions:**

This assessment could be a key step towards a better understanding of ILI surveillance data collection methods and, consequently, towards improved data-based decision-making.

## **Chronic Care in Belgium: Crafting Effective Care Plans for Improved Patient Outcomes and Experiences**

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**Keywords:** chronic disease management; care plans; primary care; public health

### **Background:**

The rising prevalence of chronic conditions poses a major public health challenge globally. In Belgium, approximately 30% of the population currently lives with one chronic condition or more, with this number expected to increase by 15% by 2030. To address this issue, there is a pressing need to shift from a paternalistic approach to one of patient empowerment, aiming to understand and meet patients' needs. The Belgian health care system offers various components for managing chronic conditions, including multidisciplinary teams, integrated care initiatives and some specialized chronic care programs for some conditions such as diabetes type II. However, chronic disease management in Belgium is still characterized by fragmented care and inefficiencies, predominantly burdened on primary care providers who handle routine follow-ups. The current system often fails to provide person-centered and cohesive care plans, leaving patients at risk, particularly those with chronic conditions.

### **Research questions:**

How do primary health care providers and patients define essential elements that contribute to effective care plans for enhancing chronic care management?

### **Method:**

The study employs focus groups and in-depth interviews to collect data. Purposeful sampling will be used to recruit participants, including health care providers and patients across various sociodemographic profiles and chronic conditions. Data collection will stop when data saturation is achieved. Thematic and comparative analysis will be used to identify essential elements and areas for improvement in care plans, as defined by the participants.

### **Results:**

This study aims to reveal key findings from the thematic and comparative analysis, highlighting essential components of effective care plans and identifying existing gaps in the current system.

### **Conclusions:**

The project aims to address the critical need for consistency and effectiveness of chronic care management, ultimately improving patient experiences and outcomes. The expected impact includes identification of areas of improvement to elevate the outcomes and experiences of patients with chronic conditions in Belgium.

### **Points for discussion:**

Impact of practice characteristics and multidisciplinary teams

Impact of socio-economical status and health literacy of the patient

Integration of technology

**Web Based Research Course Presentation / Finished study****How digital screen education affects adolescents` physical and mental health?  
Cross-sectional research.**

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**Keywords:** adolescent, digital screen, education, health

**Background:**

Workplaces with digital screens determine well known risks to health: in terms of vision, musculoskeletal disorders (back pain), mental stress, etc. Health promotion and disease prevention is an essential in general practice.

The aim of the research is to investigate the impact and relationship between digital screen education and adolescents` physical and mental health. The survey compares two groups of adolescents from a language high school. The first group studying from paper textbooks only (41 participants), the other - studying without paper books, using digital screen devices (60 participants). The curriculum is one and the same for both groups, exposed to these environmental and working conditions (common for the groups, except the kind of their study materials: paper or digital) during the educational course (four to five years).

**Research questions:**

How digital screen education affects adolescents` physical and mental health?

**Method:**

Anonymous Google Form questionnaire, including closed and partially categorized questions, sent by e-mail to the students from 11-th and 12-th grade (average 300 students). Simple random sampling included 101 who submitted answers.

**Results:**

The results indicate that the two groups do not differ significantly in terms of the compared indicators (wearing dioptric glasses/contact lenses, having blurry vision/dry eyes, spending time outdoors, practicing sports/other physical activities, back pain, weight). A statistically significant difference is reported when it comes to the average school grades. Students using paper books tend to achieve higher school grades.

**Conclusions:**

In our study we conclude that digital education is not a crucial factor in the adolescents` health. In the light of the WHO definition of mental health as a state of mental well-being that enables people to realize their abilities, learn well and work well, it can be concluded that presenting information via paper-based sources is useful in the course of the learning process.

**Web Based Research Course Presentation / Study Proposal / Idea****Impact of a clinical communication skills course on communication and psychosocial competencies of 4th year family medicine residents**

Ander Portugal

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**Keywords:** communication skills ; Physician/patient relationship; Primary care education

**Background:**

Few studies examine the effectiveness of group video feedback in developing clinical communication skills with the use of pre-recorded videos from real-life settings. Dohms, Collares, Tibério (2020) found that this approach increased first year medical residents' self-reported empathy, but not self-reported or simulated patient-reported Perception of Patient-Centeredness and had no impact on third rater observed Calgary – Cambridge Observation Guide of Clinical Communication Skills. In the Basque Country, all fourth-year medical residents participate in a 8-session training course in clinical communication skills similar to the one described by Dohms, et al. (2020)

**Research questions:**

The impact of the course on residents' self-efficacy related to communicational, psychosocial, and family-oriented skill development

The determination of the content validity of an assessment tool designed for this purpose and the clinical relevance of the course .

**Method:**

Design – Longitudinal cohort study, pre-post design without a control group (since all medical residents participate in the course)

Sample – 4th year medical residents in family medicine during the 2024-2025 academic year who enroll in the Clinical Interviewing course in the Spring-Summer of 2025 (potential sample of up to 50 residents)

At the beginning of the course, residents who consent to participate in the study will complete the Jefferson Scale of Empathy and Likert-type questions about their self-efficacy in various communication, psychosocial, and family-orientated skills outlined in the national curriculum. At the end of the course, the residents who participate will complete the self-reported questionnaires and Likert-type questions to assess clinical relevance. All resident participants will be asked to submit a second video recording of a clinical consultation. The PI and a second coder trained in video-recording assessment will blindly assess all submitted videos (both in course and post-course). They will use a person-centred care with family orientation (PCC-FO) checklist being developed in our research group and the CICAA (Connect, Identify, Understand, Agree and Assist, in English) rating scale that has been developed and validated in a Spanish a multi-center study (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6875993/>). Discrepancies will be resolved by a third coder or the larger research group. Each video assessment will be summarized for the resident, including an evaluation of changes from the in-course to the post-course video, pre-post course self-reported score, and a comparison of objective evaluation to the resident's self-reported one. The resident will also be offered a verbal feedback session (in-person or via Zoom) to discuss the assessment. The residents who receive feedback (written and/or verbal) will evaluate the usefulness of the follow-up session to their clinical practice using the same Likert-type questions completed for clinical relevance in the post-course survey.

**Results:**

As it is a project, there are not results yet.

**Conclusions:**

As it is a project, there are not conclusions yet.

**Points for discussion:**

Real-life setting Vs Simulated patients

Videofeedback to learn communication skills

Assessment tools to evaluate person-centered care in Primary Care

Presentation on 19/10/2024 13:30 in "Parallel Session I: Web Based Research Course Presentations" by Ander Portugal.

**Web Based Research Course Presentation / Study Proposal / Idea****The GP infection barometer: Protocol of a real-time syndromic surveillance of multiple infectious diseases in primary care using electronic health records**

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**Keywords:** syndromic surveillance; electronic health records, infection, primary care

**Background:**

Traditional questionnaire-based surveillance methods face several challenges, including burdensome participation for general practitioners (GPs), limited networks, delays in reporting, and the ability to monitor only a small number of infections. In contrast, electronic health records (EHRs) based surveillance offers significant advantages. By automatically extracting data from EHRs, it eliminates registration burdens on GPs and enables rapid recruitment of a large number of participants. This approach allows for real-time data collection, enabling simultaneous monitoring of multiple types of infections. The nationwide COVID-19 GP barometer proved feasibility and usefulness of this type of syndromic surveillance.

**Research questions:**

The GP Infection Barometer aims to enhance syndromic infectious disease surveillance by using electronic health records (EHRs) in primary care settings, targeting episodes of selected acute respiratory infections, vaccine-preventable infections, sexually transmitted infections, gastrointestinal infections, and other infections, through the automatic extraction of aggregated diagnoses from the EHRs of general practices.

**Method:**

All labeled software packages for general practitioners in Belgium can implement the extraction tool. The national health institute Sciensano selected the diagnostic ICPC-2 codes and wrote the algorithms for data extraction from the GPs' EHRs for the participating softwares.

The software package of participating GPs conducts a daily clinical audit within the practices' EHRs, aggregating new diagnoses across specified age groups. Data is securely transmitted to Healthdata, Belgium's national health registry platform, for analysis by epidemiologists at Sciensano.

**Results:**

Based on the obtained data, aggregated time series and visualisations will be made publicly available weekly and shared with policy actors. Each participating GP practice receives weekly a summary of its own epidemiological data.

**Conclusions:**

Implementing the GP Infection Barometer supports health authorities in conducting infectious disease prevention and control and managing health crises, and provides general practitioners with insights into the impact of infectious diseases on their practice.

**Points for discussion:**

Can extraction of diagnostic data from EHR be implemented as a routine syndromic surveillance tool?

**Web Based Research Course Presentation / Study Proposal / Idea****The influence of the albuminuria screening on the control of risk factors for diabetic kidney disease progression by GPs in the Belgrade region**

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**Keywords:** diabetes, nephropathy, GPs awareness**Background:**

Diabetes kidney disease(DKD) is a common microvascular complication in people with diabetes, regardless of type, and one of the leading causes of dialysis in the world. The KDIGO initiative from the year 2019. tends to promote screening for kidney disease, including diabetic kidney disease. The efforts to implement screening for DKD in Serbia intensified in 2022., with the campaign among general practitioners in the Primary Healthcare Centers that consisted of several educational events throughout the entire country, including the City of Belgrade. This study aims to assess the effect of the mentioned campaign on controlling the risk factors for disease progression in the City of Belgrade.

**Research questions:**

1. Is there a difference in the risk factor control before and after the educational campaign on screening for chronic kidney disease?
2. Is there a difference in prescribing the reno-protective medications before and after the educational intervention?

**Method:**

The research will be conducted in 8 Primary Healthcare centres(PHCs) in Belgrade, in the departments for diabetes care or prevention. In this retrospective study, researchers will gather the data from the electronic medical records of the 400 patients per centre with diabetes screened for albuminuria, in two periods- 6 months before the screening started and 18 to 24 months after it. They will collect the social-demographic characteristics of the participants, type and duration of the disease, the presence of diabetes complications, Hba1c and glycaemia, lipids, and blood pressure levels, albuminuria presence/absence, creatinine, eGFR, smoking status, BMI and waist circumference, the amount of physical activity. The information about prescribed ACEI/ARB and SGLT2i and statins/antilipemic medications will also be gathered. The data will be compared according to the research questions.

Including criteria: diabetes type 2 in any stage, type 1 diabetes with 5 years duration or longer.

**Results:**

No results yet.

**Conclusions:**

No results yet.

**Points for discussion:**

Assessment of the effect of the screening on awareness of the GPs of their role in stopping the progression of DKD- is there any change and in what direction?

What are the "weak spots" for the GPs in better risk factors control and did their performance in this field change after they've started screening?

Were the GPs aware of all the protective effects of certain drug classes before the campaign and is there any difference now?

**Theme Paper / Finished study****Benzodiazepine Use and Incident Cancer – A Population-based Cohort Study**

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**Keywords:** Benzodiazepines, malignancy, cancer, population-based, routinely collected data**Background:**

Both long-term and sporadic use of benzodiazepines and Z-drugs are associated with various adverse effects, yet they are frequently prescribed for insomnia and anxiety in primary care. Although a link between their use and cancer incidence has been suggested, long-term population-based data is needed.

**Research questions:**

Does the use of benzodiazepines and related drugs predict future incident cancer?

**Method:**

A population-based historic cohort study was conducted, following all Clalit members aged 40-70 from 2006 to 2022. Cox regression models were fitted to assess the association between sporadic and chronic benzodiazepine use at baseline (based on cumulative claims during 2005) and subsequent incident cancer. Results were reported both in crude form and adjusted for age, sociodemographic characteristics (sex, ethnicity, socioeconomic status, peripherality), and baseline smoking and obesity.

**Results:**

We included 1,027,582 Clalit members without any malignancy diagnosis at baseline. The mean age was 53.0 years ( $\pm$ SD=8.1), and 52% were female. Of the participants, 102,619 (10.0%) were sporadic users of benzodiazepines at baseline, and 29,507 (2.9%) were chronic users, with at least nine monthly claims of a benzodiazepine in 2005. Over a median follow-up of 17.0 years, there were 153,956 cases of new cancer diagnoses. Sporadic use of a benzodiazepine was associated with a slightly increased incidence of cancer (adjHR 1.07, 95% CI 1.05-1.08,  $P<0.0001$ ), while chronic use was associated with a higher risk (adjHR 1.13, 95% CI 1.10-1.16,  $P<0.0001$ ), compatible with a linear association ( $P<0.0001$ ). The association remained robust regardless of age but was stronger among younger cohort participants. Subsequent analysis confirmed the same association for both anxiolytic and hypnotic medications but not for the use of Z-drugs (adjHR 1.03, 95% CI 0.99-1.07,  $P<0.0001$  for sporadic use, and adjHR 0.99, 95% CI 0.90-1.08,  $P<0.0001$  for chronic use).

**Conclusions:**

The use of benzodiazepines, but not Z-drugs, was associated with incident cancer, with evidence supporting a dose-response relationship.

**Theme Paper / Finished study****Regional distribution of suicide mortality rates in mainland Portugal: a community perspective from General and Family Medicine**

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**Keywords:** Suicide, Portugal

**Background:**

Suicide is an important public health issue, causing 700,000 annual deaths worldwide. Portugal has a lower suicide mortality rate (SMR) than other countries in the European Union, though with marked regional differences. Thus, it is essential to maintain a community approach in the practice of General and Family Medicine.

**Research questions:**

The primary aim of our study was to characterize the regional differences in SMR in mainland Portugal in 2020. Additionally, we aimed to identify the impact of specific socio-economic determinants and healthcare accessibility.

**Method:**

We developed an ecological, descriptive study. Data from 2020 (the last available) was obtained from Eurostat, INE and BI-CSP. The SMR of each region was defined as the independent variable, and the dependent variables were: illiteracy, elderly dependency index, use of Primary Healthcare appointments, registered physicians, general practitioners (GP) and psychiatrists per 10,000 inhabitants, unemployment, atheism, population density, rurality index and Gross Disposable Income (GDI). Pearson correlation was used to correlate the SMR with the dependent variables and linear regression was used for bivariate analysis.

**Results:**

In 2020, the SMR's (per 100,000 inhabitants) regional distribution in Portugal was: North (6.25), Algarve (15.63), Center (8.39), Lisbon Metropolitan Area (7.09) and Alentejo (16.34).

There was a greater male excess mortality by suicide in the Center and Alentejo regions, whereas the elderly excess mortality rate was greater in Alentejo.

There was a strong correlation between SMR, and doctors ( $r=-0.82$ ), GPs ( $r=-0.92$ ) and psychiatrists ( $r=-0.89$ ); a moderate correlation with the illiteracy rate ( $r=0.65$ ) and the rurality index ( $r=0.63$ ); and a weak correlation for all others. In linear regression, there was an association between SMR and total physicians, GPs and psychiatrists per population ( $p\text{ value}<0,05$ ).

**Conclusions:**

The geographical suicide differences in Portugal could be related to physicians' regional distribution, however the interaction between biopsychosocial and accessibility determinants must be further characterized to improve suicide prevention.

**Points for discussion:**

Why do physicians' number could be related to suicide?

How do you think access to health can impact suicide rates trends?

How do you explain the familial or communitarian pattern often seen in suicide?

**Theme Paper / Finished study****The course of psychological symptoms and the initial management strategies in primary care**

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**Keywords:** psychological symptoms, primary care, electronic health records**Background:**

Psychological symptoms in primary care are common. It is unknown how these symptoms evolve

**Research questions:**

What is the course of psychological symptoms?

What are the management strategies during the first year of care for psychological symptoms that persisted for more than a year and those that evolved into psychiatric conditions?

**Method:**

We performed a retrospective longitudinal cohort study using the Family Medicine Network (FaMe-Net) database. We included all Episodes of Care (EoC) that started with a psychological symptom diagnosis between 2008 and 2021. We performed descriptive statistics to explore the course of each EoC and logistic regression analyses to evaluate management strategies highly associated with symptoms evolving into psychiatric conditions and symptoms evolving into persistent psychological symptoms

**Results:**

Out of the 14,633 included episodes, 12.8% evolved into persistent psychological symptoms and 7.8% evolved into psychiatric conditions. Out of all EoC, only 4.5% were referred to psychiatrists. Sleep disturbance (42%) and feeling anxious (24.2%) were the most common psychological symptoms that evolved into psychiatric conditions and persisted respectively. A higher number of contacts with the GP (RR = 1.15, 95% CI [1.10, 1.20]), types of interventions (RR = 1.02, 95%CI [ 1.00, 1.03]), contact with a mental health nurse (OR= 3.26, 95%CI [1.96, 5.41]), and a lower number of different medications (RR = 0.77, 95%CI [0.60, 0.99]) were highly associated with symptoms that evolved into psychiatric conditions compared to those that persisted.

**Conclusions:**

In primary care, a considerable number of psychological symptoms persist and only a few evolve into a psychiatric disease. Future research should focus on developing management strategies for psychological symptoms, specific to primary care, as most of these episodes are managed in primary care.

**Theme Paper / Finished study****Internal Medicine physicians' struggle with family planning and infertility**

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**Keywords:** Internal Medicine physicians, family planning, infertility

**Background:**

Physicians in Europe are more likely to experience family planning conflicts than other university graduates. Furthermore, literature from the U.S. suggests that female physicians have higher infertility rates than the general population. However, literature on these topics for Switzerland, a country with a well-funded healthcare system, is lacking.

**Research questions:**

We aimed to determine the prevalence of infertility and age at birth of first child among Swiss female Internal Medicine (IM) physicians. Furthermore, we determined the intent to delay having children among medical students and IM physicians.

**Method:**

We used a cross-sectional web-based anonymous survey, which was distributed by e-mail among Swiss IM physicians via IM societies and hospital departments. Medical students at the University of Bern were contacted by the medical faculty. Data about the following questions were collected and analysed by descriptive statistics: Demographics, self-reported infertility, age at birth of first child, and delaying having children.

**Results:**

This study included 682 physicians (59% women) and 321 medical students (70% women). Median age of physicians was 32 (interquartile range (IQR) 30-42) years and of medical students 24 (IQR 23-25) years. Among 148 female physicians who had tried to conceive, 41 (28%) fulfilled the criteria of infertility. Median age at birth of first child was 31 years (IQR: 29-35). Among those physicians who already have children, 42% of female and 22% of male physicians delayed having children ( $p = < 0.001$ ). Among medical students, 63% of female and 44% of male students are planning to delay having children ( $p = 0.013$ ).

**Conclusions:**

Swiss physicians' estimated infertility prevalence is roughly twice as high as the general population's (28% vs. 10-15%), possibly due to delaying having children. Our results suggest that infertility awareness, more flexibility for family planning and workplace restructuring in medicine in Switzerland is required to accommodate physicians' family planning needs.

**Points for discussion:**

What could (further) reasons for the high infertility prevalence of female physicians be?

How could medical training be restructured so that physicians can follow through with their family planning earlier instead of delaying?

What are the experiences in family planning among physicians in your country?

**Theme Paper / Finished study**

## **The Impact of Earthquake-Induced Migration on Access to Primary Health Care Services: A Case Study of Istanbul Following the Kahramanmaraş Earthquakes on February 6, 2023**

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**Keywords:** Earthquake, Migration, Primary Health Care Services, Family medicine, Preventive medicine

### **Background:**

One of the effects of earthquake disaster is that people leave their place of residence for safety, i.e. forced migration. However it is suggested that the primary health care system has the potential to reduce the health impact of disasters by acting effectively at each stage of the disaster management cycle.

### **Research questions:**

What is the primary care utilisation behaviour of the people who migrated to Istanbul after the major earthquakes and aftershocks in the centre of Kahramanmaraş on 6 February, 2023?

### **Method:**

The study gathered data via a survey about the demographics, and the behaviors of the earthquake victims to utilize primary care services in their home towns and mini-depression screening test. The participants are recruited from the lists provided by one of the main reference hospitals for the earthquake victims on Asian side of Istanbul from 06.02-30.03.2023 under ethical approval. The study involved the list of 256 individuals. After an individual could be contacted snowball method is used to contact the other earthquake victims who moved on Istanbul. A total of 48 individuals with 4 participants recruited via the snowball method recruited. The data were analyzed using the SPSS 25.0 program, with Chi-square, Student's T Test and McNemar tests.

### **Results:**

64.6%(n=31) of the participants were women, the average age was 44.4, after migrating to Istanbul 43.8%(n=21) rented home, 39.6%(n=19) lived with a relative, 6.3%(n=3) live in dormitories/mansions. Although 89.6%(n=43) had a family doctor in the home town before the earthquake and 54.2%(n=26) visit their family physicians in every 1-2 months, 62.5%(n=30) have a chronic disease, 54.2%(n=26) use medication regularly, 18.8%(n=9) had a psychiatric illness requiring treatment before/after the earthquake, 68.8%(n=33) experienced an acute health problem in the last month and 85.4% was positive with the "2-Question Depression Screening Test".

### **Conclusions:**

The accessibility of the primary healthcare services is very weak after the "6th February earthquake".

### **Points for discussion:**

Are you ready for delivering primary health care services in your country in case of disaster?

**Theme Paper / Published****Trajectories of resilience in advanced cancer caregiving.**

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**Keywords:** resilience, mental wellbeing, mental distress, qualitative study, ideal-type, advanced cancer caregiving

**Background:**

Research on resilience in advanced cancer caregiving often explores how resilience-promoting resources and coping strategies interact. However, the emergence of resilience and distress trajectories in individuals facing a loved one's cancer diagnosis remains unexamined.

**Research questions:**

- What different types of resilience trajectories can be distinguished in partners of patients diagnosed with advanced cancer?
- How are resilience-promoting resources involved in the development of these trajectories?

**Method:**

This study utilized ideal-type analysis to construct typologies from qualitative data. Over three years, fifty-four interviews were conducted with seventeen partners of patients recently diagnosed with advanced cancer, identifying trajectories of resilience and distress.

**Results:**

Six distinct trajectories emerged: three reflecting resilience (rapidly adapting resilience, gradually adapting resilience, and slowly adapting resilience) and three indicating less optimal adjustment (continuing distress, delayed distress, and frozen disconnection). These trajectories were influenced by the individual characteristics of partners, the behavior of their support networks, and the interactions between the two.

**Conclusions:**

Differentiating these trajectories enhances our understanding of resilience in adversity and aids healthcare professionals in optimizing support for partners of patients diagnosed with cancer.

**Points for discussion:**

What should a communication tool meet to detect these pathways early?

Do you recognize these trajectories in other situations or in caregivers for patients other than advanced cancer patients?

**Freestanding Paper / Finished study****A comparative Randomized Trial among different types of low and high power laser therapy, associated with steroid or visco-elastic joint injection under ultrasound guidance in the management of knee osteoarthritis in primary care.**

Mihai Iacob

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**Keywords:** Knee ultrasonography, knee osteoarthritis, Low-Power-Lasertherapy-LLLT, High-Intensity-Lasertherapy (HILT), Steroid Joint Injection(SJI), Hialuronic acid joint injection(HAI), knee pain management, Knee POCUS Applications.

**Background:**

Knee osteoarthritis is a degenerative arthropathy, progressive, disabling, affecting elders, characterized by joint stiffness and pain and structural changes with degradation of joint cartilage, bone remodeling, and inflammatory changes.

This study aims to present the results of Low-Power-Lasertherapy-LLLT, associated with local steroid infiltration, compared with the results after treatment with High-Intensity-Lasertherapy-HILT in infrared emission followed by hyaluronic acid injection with ultrasound guidance.

**Research questions:**

Which type of therapy is more effective in knee osteoarthritis management?

**Method:**

Inclusion criteria were patients with moderate or severe knee osteoarthritis in different stages. We conducted a prospective unblinded trial(RCT) over three years, on 750 patients, using two laser devices (semiconductor source). The steroid used in Joint Injections(SJI) was Dexamethasone. We used knee-ultrasonography for diagnostic and therapeutic purposes in all cases. The cases studied were divided into three groups: First, the Control Group included patients without medication, the second included patients treated with LLLT with SJI, and the third group included patients treated with HILT followed by joint-injection of the hyaluronic acid(HAI). Elements evaluated by each patient were: pain on a visual analog scale(VAS), a motion-functional-scale(MFS) of the knee disability, and the WOMAC-Score.

**Results:**

Our healing rate was only 10% in the first, 77% in the second, and 88% in the third group with significant pain reduction.

Analysis of risk and data obtained on patients by VAS/WOMAC/MFS-scales, before and after treatment, within each group was compared by

Student's t-test, and among all three groups after the final evaluation of patients by ANOVA,  $p < 0,001$ . The results of 2x2 Contingency-Table were: Relative-Risk(RR):0,46 (Benefit), Odds Ratio(OR):0,30-between LLLT/SJI versus Control Group and RR between HILT/HAI was 0,20, 95%CI=0,13-0,29, Odds Ratio=0,11,  $p < 0,0001$ .

**Conclusions:**

The combination of HILT and HAI significantly improved the outcome by 48% compared to conventional therapy and may be considered the most effective treatment. HILT followed by a joint-visco-elastic-injection was more effective than LLLT with SJI in knee-osteoarthritis management.

**Points for discussion:**

What is the contribution of laser therapy to knee osteoarthritis beside SJI or Hyaluronic acid injection?

Can family physicians use laser therapy and knee ultrasonography for diagnostic and therapeutic purposes in their practice?

What are the risks of the Laser-therapy vs SJI vs HAI and what contraindications exist?

Presentation on 19/10/2024 15:50 in "Parallel Session L - Freestanding Papers: Technical Support in Practice" by Mihai Iacob.

**Freestanding Paper / Finished study****Estimated pulse wave velocity can help in patient selection for ambulatory blood pressure monitoring to detect masked hypertension**

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**Keywords:** hypertension, ambulatory blood pressure monitoring, pulse wave velocity

**Background:**

Arterial stiffening can predict the development of hypertension. Estimated pulse wave velocity (ePWV) can provide an approximation of the progression arterial stiffness.

**Research questions:**

The aim of our study was to explore the utility of ePWV to predict masked hypertension (MH) in patients with optimal, normal or high-normal office blood pressure (oBP), to help patient selection for ambulatory blood pressure monitoring (ABPM).

**Method:**

Data of the Hungarian ABPM Registry between September 2020 and November 2023 were used in our analysis. ePWV was calculated based on previously published formulas.

**Results:**

Out of 38 720 uploaded ABPM curves with clinical data, 7386 participants had optimal, normal or high-normal oBP. 5644 (76.4%) of them were on regular antihypertensive medication. MH was diagnosed with ABPM in 4348 cases. Mean ePWV was  $9.27 \pm 2.02$  m/s, which did not differ in MH or non-MH groups ( $9.28 \pm 1.98$  m/s and  $9.25 \pm 2.07$  m/s, respectively). In MH group male sex and obesity were more frequent compared to non-MH (46.1% versus 28.1% and 23% versus 14.6% respectively,  $p < 0.05$ ). In a model adjusted for male sex and obesity, ePWV  $> 8$  m/s was independently associated with MH in the total population (adjusted odds ratio (aOR):1.15 (95% confidence interval (CI):1.04-1.27),  $B=0.140$ ,  $p=0.007$ ). This association was more pronounced in untreated subjects (aOR:1.44 (95%CI: 1.18-1.76),  $B=0.365$ ,  $p < 0.001$ ), where the model had 40.3% sensitivity and 78.7% specificity.

**Conclusions:**

In obese male subjects besides normal oBP, ePWV  $> 8$  m/s can be a marker of MH, a finding, which can help in patient selection for ABPM, especially in untreated patients.

**Points for discussion:**

The clinical importance of masked hypertension.

The usefulness of ABPM in the GP practice.

**Freestanding Paper / Almost finished study****Point-of-care ultrasound for differential diagnosis of dyspnea in primary care: A pilot study**

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**Keywords:** point-of-care ultrasound; lung ultrasound; focused cardiac ultrasound; dyspnea

**Background:**

Shortness of breath is a common clinical complaint that often arises as a diagnostic challenge due to its multifactorial aetiology. However, imaging tools to facilitate diagnosis are increasingly becoming more available at the primary care level.

**Research questions:**

The primary aim of this validation pilot study was to determine whether general practitioners (GPs), after a short training period, are able to detect the number of B-lines and qualitatively assess the left ventricular systolic function in patients presenting with dyspnea.

**Method:**

Four GPs received training in point-of-care ultrasound (PoCUS). Patients underwent an eight-sector lung and a qualitative focused cardiac ultrasound examination to estimate the number of B-lines and left ventricular systolic function using a portable ultrasound device. A cardiologist validated the GPs' findings. Additionally, the suitability of PoCUS for monitoring diuretic therapy was evaluated.

**Results:**

A total of forty-two patients were enrolled (69.0% women), with a mean age of  $68.1 \pm 12.9$  years. There was a significant correlation between the number of B-lines detected by GPs and those measured by the cardiologist in patients not receiving diuretic therapy ( $r=0.972$ ;  $p<0.001$ ). A substantial interrater agreement was found between the GPs' and cardiologist's assessments of left ventricular systolic function ( $\kappa=0.627$ , 95% CI: 0.241-1.000;  $p<0.001$ ). In patients with heart failure who received diuretic therapy ( $n=10$ ), the last intake of loop diuretic before the expert's examination did not significantly affect the number of B-lines ( $p=0.093$ ). The diagnostic accuracy of GPs considerably improved after PoCUS, with moderate agreement with the validating cardiologist's diagnoses before PoCUS ( $\kappa=0.460$ ; 95% CI: 0.258-0.662;  $p<0.001$ ), and substantial agreement after PoCUS ( $\kappa=0.731$ ; 95% CI: 0.562-0.900;  $p<0.001$ ).

**Conclusions:**

Our study suggests that the semi-quantitative assessment of B-lines and qualitative estimation of left ventricular systolic function with point-of-care ultrasonography can be rapidly acquired by GPs and used reliably for the differential diagnosis of dyspnea.

**Points for discussion:**

effectiveness of short training programs

reproducibility of PoCUS examination techniques

improvement in diagnostic accuracy

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