



European General Practice Research Network (EGPRN)

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Abstracts

European General Practice Research Network (EGPRN)

Abstracts from the EGPRN meeting in Kudasi, Turkey, 16th – 19th May, 2013.

THEME: 'RISKY BEHAVIOURS AND HEALTHY OUTCOMES IN PRIMARY HEALTH CARE'

KEYNOTE LECTURES

Risky behaviour in high school students in Adana, Turkey

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Although adolescence is considered to be one of the healthiest periods in human life, many adolescents die prematurely due to high risk behaviours. Many habits and lifestyle choices during these critical years contribute greatly to the overall health of an adult. The World Health Organization (WHO) estimated that 70% of premature deaths in adults are largely due to behaviour initiated during adolescence. Every year, an estimated 1.7 million young people lose their lives—mostly through accidents, suicide, violence, pregnancy-related complications, and other illnesses that are either preventable or treatable.

Studies have indicated that the most common risky behaviours in Turkish adolescents are smoking, drinking, fighting, and traffic-related risk behaviours. We studied the prevalence of risky behaviours and related factors in high school students in Adana in 2000 and we repeated the study in 2010. Although there has been a significant increase in the prevalence of some behaviour such as smoking, alcohol and substance abuse there has been a significant improvement in some others such as unintentional injuries and violence. A multisectoral and multidisciplinary approach including accessible, available and acceptable health care via adolescent friendly clinics, training of physicians and teachers, parenthood classes, developing new curricula for schools, cultural, sports and art activities will help to promote adolescent health.

Risk taking is an important component of development for the human condition; it is how we learn about our environment, relationships and opportunities in life. But risk involves the chance of danger and potential harm, which may impact on the health and wellbeing of patients, their families and their communities. The challenge to clinicians is to be able to recognise challenges and to promote healthier outcomes. The excessive use of substances harmful to health is extensive and varied across Europe and the differing characteristics are poorly understood. Substance use and misuse in the community is a multi-factorial problem, which needs to be understood in terms of physical, psychological and social dependency. These issues go beyond the consultation room and require a concerted approach by many differing sectors of society. Until recently little has been done in general practice. This presentation is focussed directly at the consulting room and the doctor patient interaction.

There has been a steady shift across Europe that recognises the pivotal role of primary care in achieving good health outcomes. This is well documented in Starfield's work, but considerable barriers and challenges remain. The general practitioner's role in society has been largely reactive to the problems presented by its population but there is an increasing emphasis on prevention, multi-morbidity, chronic disease management and enhancing the wellbeing of the individual, families and communities. The numerous factors that affect a patient's wellbeing must be seen in totality and hence a greater understanding of a person's lifestyle is vital to place any risk taking behaviour into context.

Initial assessment is important to establish the level of risk and context of the behaviour: "What does it mean for the individual?" Young people try substances from curiosity and only once 'hooked' peer pressure continues to encourage a person's 'membership'. Others may have tried substances to solve a problem: abuse, deprivation, or pain (psychological and physical). Dependency is then established once an individual life revolves around the use of this substance; this may be socially acceptable (smoking, alcohol), illicit (heroin, cocaine, amphetamine) or iatrogenic (over the counter medicines, opiates, benzodiazepines). Each addiction generates a subculture of language, conduct and behaviour that should be understood to facilitate any challenge.

The clinical approach to substance abuse-misuse and addiction in primary care

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The various substances all have therapeutic properties and it is crucial to understand the effects of a drug on the individual and the impact that drug might have on the long term health of the individual. Many substances will have an adverse effect on standard medications or disease modalities; thus, the control of hypertension, diabetes, COPD etc., will all be adversely affected by taking further substances and should therefore be seen as another 'medication'. This approach is useful in the future management of an addiction.

No clinician works in isolation and carries his or her own views on substance use. Both these and those of society, will impact on the care and management of patients. Opinions such as lacking in moral fibre or 'sinful' or being labelled as a 'mental illness' prevent individuals seeking and accessing robust and restorative health care.

When faced with a patient with an addiction, clinicians should be able to understand the context of the problem, offer reasonable advice and support and point to a path of recovery.

A successfully implemented health promotion and prevention campaign against tobacco use: the Turkish experience

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Turkey, a country with high prevalence of smoking and high quantities of tobacco production, has made substantial progress in the last 4–5 years in tobacco control. Turkey is now pointed at as a model country at regional and global level in tobacco control. Turkey has become one of the leaders in tobacco control, not only in the WHO European Region but also globally. Turkey is the first – by 12 July 2012 – country in the world to attain the highest implementation score for all of WHO's MPOWER measures, the demand-reduction interventions contained in the WHO Framework Convention on Tobacco Control (FCTC). Because of this, tobacco use is declining at unprecedented rates in Turkey. The smoking prevalence significantly decreased among adults from 31.2% in 2008 to 27.1% in 2012. This represents a 13.4% relative decline of the smoking prevalence (13.5% decline for males; 13.7% decline for females).

Turkey ratified the WHO FCTC in 2004 and introduced a new tobacco control law in 2008, which turned all enclosed public places and workplaces in Turkey into smoke-free areas including restaurants, bars, cafés and teahouses. Since June 2007, WHO has provided technical assistance in tobacco control in Turkey as part of the Bloomberg Global Initiative to Reduce Tobacco Use. This support has been delivered through the Ministry of Health and other Governmental authorities, including the Health Commission of Turkish Parliament and several non-governmental organizations for developing and implementing evidence-based tobacco control activities to support various aspects of the WHO FCTC and MPOWER policies. Progress has been most remarkable in five areas: (1) smoke-free public places, incl. bars, teahouses and restaurants; (2) offer help to quit tobacco use (tobacco dependence

treatment); (3) anti-tobacco mass media campaigns and increase pictorial health warnings to at least 65% of both sides of cigarette packages;; (4) increase in cigarette prices and taxes (more than 80% of the price); and (5) total ban on tobacco advertisement, promotion and sponsorship (including brand sharing and brand stretching).

A key factor in this excellent achievement on tobacco control in Turkey has been the unified and holistic approach of the government led by the Prime Minister himself. Driven largely by Government leadership and policy initiatives, a complex system of intersectoral cooperation was established to fight the tobacco epidemic. Turkey is a remarkable example of WHO team work and complementarities across three levels of the organization and established solid partnership with key stakeholders, among which Bloomberg Initiative and consortium partners, and the EU, must be mentioned.

PRIZE WINNING POSTER

Chronic low back pain patient subgroups in primary care

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Background: Because of the inhomogeneous nature of chronic pain patients, several researchers pointed out the need for detecting subgroups. Knowledge about subgroup specific characteristics should enable the development of an effective group adapted therapy.

Research Question: Aim of this study was to identify subgroups of chronic low back pain patients in primary care setting.

Method: Fifty-eight German general practitioners recruited consecutively all eligible patients who consulted for chronic low back pain during a five months period. All patients received a questionnaire on sociodemographic data, pain characteristics, comorbidities, psychosomatic symptoms, and previous therapy course. Based on this dataset, a k-means cluster analysis was performed.

Results: Three clusters were found, which can be characterized as (a) 'pensioners with age associated pain because of degenerative diseases' (n = 179), (b) 'patients in the age of employees with high mental distress and worse coping resources' (n = 200), and (c) 'employees who are less pain affected and better positioned with regards to their mental conditions' (n = 255).

Conclusion: Subgroup specific treatment recommendations may be derived from the results. Patients of subgroup (a) could appropriately get a therapeutic orientation with regards to the guideline 'pain of older people', taking multi-morbidity into account; whereas patients of subgroup (b) could get multimodal pain therapy with a particular focus on psychotherapy improving the coping resources and the resilience.

THEME PAPERS

SMOKING

Gender differences in causes to start smoking

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Background: To understand the risk factors for smoking and the causes that effect people to start smoking will help the primary care physicians and also the public through smoking cessation interventions and public campaigns for prevention.

Research Question: Are there any differences between genders in starting smoking?

Method: In this cross-sectional descriptive study, sample size was 354 patients. The Delphi method was used to prepare the study questionnaire (behaviour and attitude scale). Chi-square and Fisher's exact tests were used to detect significant differences among categorical variables; t-tests for continuous ones. To measure reliability Cronbach's alpha was used. Regression analysis was completed to detect significant factors among genders.

Results: Of 391 participants, 51.2% was female. The 'still smoking' group was 43.5% (41.2% female), the 'stopped smoking' group was 22.3% (43.7% female) and the 'never smoked' group was 34.3% (68.7% female) ($P=0.00$). The reliability of the behaviour and attitude scale was reasonable ($0.60 < \alpha = 0.68 < 0.80$). The three most common causes to start smoking were 'to keep in step with the circle of friends', 'the pressure of peers' and 'existence of too many smokers in the community'; no gender difference was found.

Conclusion: It is more frequent among males to have tried smoking. Community is mostly held responsible.

The impact of exhaled carbon monoxide measurement in motivation to quit smoking

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Background: According to the smoking cessation treatment algorithm we must not only provide treatment for smokers who are ready to quit (preparation stage) but also enhance motivation for smokers who do not want (pre-contemplators) or are not ready (contemplators) to quit. It is a challenge to find an effective intervention that general practitioners (GPs) could use to increase smokers' awareness of personal risk and influence behavioural change. We hypothesised that providing smokers with biologically based evidence of smoking related harm (carbon monoxide exposure) was an effective way to induce individual change for transition to the other stage of motivation.

Method: A sample of 170 smoking patients received some advice and were opportunistically randomised to receive a booklet with general information about smoking cessation (booklet group) or carbon monoxide exposure tailored feedback (CO group). Participants were surveyed (motivational stage and nicotine dependence) immediately before intervention and telephoned one month later to assess the impact in motivation to quit.

Results: There were 82 patients in the booklet group and 88 in the CO group. The mean age was 34.5 ± 14.3 years, 86 were male. Nicotine dependence was mild in 106 smokers, in 58 moderate, and heavy in 6. At baseline there were 45 (26.5%) smokers in pre-contemplation, 53 (31.2%) in contemplation and 72 (42.4%) in preparation stages. Both groups did not differ in these characteristics. After intervention, 24 smokers (29.3%), changed to a higher motivational stage in the booklet group and 28 (31.8%) in CO group (no statistically significant difference, $P > 0.05$).

Conclusion: The results suggest that the CO exposure intervention was not superior to the simple intervention using a booklet to increase the motivation to quit smoking.

The short term effects of an anger control and stress management programme on smoking quittance

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Background: Both patients and family physicians experience disappointment and frustration after an unsuccessful attempt to quit smoking. Nearly 80% of the patients start smoking again after a quittance attempt within a month. Smokers who had insufficient stress coping and anger management skills are more prone to start smoking again.

Research Question: Can a 'stress coping and anger control programme' increase quittance ratio of smokers in short term?

Method: We designed a five session (90 minutes each) 'Cognitive Behavioural Therapy Oriented Anger Control and Stress Coping Programme' aiming to increase these skills of the smokers who want to quit smoking. We selected 250 volunteers who applied to Ondokuz Mayıs University Smoking Quittance Clinic. Smokers who had at least one quittance attempt before, using no medication without and any psychological disease history were included in the study. The volunteers were randomly divided into two groups. At baseline all participants were asked to response to the Fagerström Test for Nicotine Dependence (FTD), State Trait Anger Scale and The Stress Coping Inventory (pre-tests). After we carried out our clinic's standard quittance procedure to both groups, the anger control and stress coping program was applied to only the study group for five weeks. Smoking status of both groups of participants and their skills were compared with each other as soon as the program had been terminated (post-test results) and three months after their initial application (follow-up tests).

Results: There were no differences in pre-test scores between both groups at baseline. The study group improved their skills

after the program ($P < 0.001$). The study group had better quit-tance ratio after three months compared to the control group: 45% vs. 35%, $P < 0.001$.

Conclusion: The anger control and stress coping skills programme may increase smoking quittance success.

Assessment of anxiety and depression symptoms to provide a successful smoking cessation treatment

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Background: The probability of smoking cessation is reduced in patients with depression disorders. Smokers with a history of depression are more prone to relapses during the period of abstinence, when compared with smokers without the same history. There is also evidence of association between smoking and anxiety.

Research Question: Can screening for depression and anxiety prior to initiation of smoking cessation be beneficial in planning the nicotine dependence treatment?

Method: In this cross-sectional study, 88 smoking cessation patients (above 18 years old, with no diagnosed psychiatric disease) completed a socio-demographic and smoking history questionnaire, the Fagerström test for nicotine dependence and the Hospital Anxiety and Depression scale (HADS).

Results: Mean age was 37 years; 72 (81.8%) were male; 97.6% were consulted by their own desire to quit; 34.5% were not working. 44.3% demonstrated habit as a reason for initiating smoking, 59.4% had increased the number of cigarettes they smoke in years, 35.2% smoked > 20 cigarettes per day. 84.1% had attempted to quit previously, 65.9% had high and very high nicotine dependence degree, 35.2 % had high levels of anxiety and 46.6 % had high levels of depression scores. There were significant associations between age and depression level ($P = 0.001$), anxiety scores and female gender ($P = 0.001$), and between education level and depression symptoms ($P < 0.05$), respectively.

Conclusion: One-third of smokers had anxiety symptoms and nearly half had depression symptoms, which can be unfavourable for cessation success. Being aware of the patients' psychological state may help the physician in tailoring treatment.

ALCOHOL AND OTHER SUBSTANCE ABUSE

Can routine data help evaluate the implementation of a brief alcohol intervention in primary health care? A mixed-methods study to evaluate the delivery of 'Screening and Brief Interventions (SBI) for alcohol

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Background: UK health policy has sought to encourage alcohol screening and brief intervention (SBI) delivery in primary care, including the introduction of pay-for-performance (P4P) schemes in 2008. To measure the impact of such policies, a range of data exists, including General Practitioner (GP) Read codes, which record all clinical activity.

Research Question: Can routinely recorded Read code data help evaluate the implementation of alcohol SBI in primary healthcare?

Method: Sequential mixed methods design: descriptive statistical analysis of alcohol Read code data by systematically interrogating 16 GP practice IT systems in North East England; followed by 10 in-depth GP interviews to explore factors influencing recording behaviour.

Results: In total, 287 alcohol-related Read codes existed. However, only 40 (13.9%) were used between 2007–2011, generally relating to the recording of a patient's alcohol consumption status, BI delivery and screening tool administration (57.6%, 34.9% and 7.2%, respectively of all codes used 2007–2011). Further, many of the 287 available Read codes related to relatively rare alcohol conditions (52.2%) or duplicate/outmoded terminology (31%). Use of formal screening tools was rare before 2008, but rates increased steadily after this point. In 2010–2011, practices with higher SBI recording rates were typically signed up to P4P schemes (e.g. screening rates ranged from 3.7% (CI: 3.6–3.9) in P4P practices to 0.05% (CI: 0.03–0.08) in non-P4P practices ($P < 0.00$)). However, GP interviews suggested that nurse-led SBI was most likely to be coded and delivered consistently, whilst GP delivery of SBI was more ad hoc, with a strong reliance on weekly alcohol consumption measures rather than validated screening tools to assess risk.

Conclusion: Whilst routine data may detect more successfully embedded screening activity in primary care after 2008, measuring SBI delivery remains challenging, particularly for GPs.

GP's engagement in detecting and managing abuse of alcohol, illegal drugs, hypnotics and tranquilizers in the Belgian adult population

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Background: General practitioners (GPs) and Occupational physicians (OPs) can play an important role in detecting and managing substance abuse in the working population. The UP TO DATE project aims at identifying the difficulties these professionals encounter in this area, and to explore ways of collaboration in providing appropriate care.

Research Question: What are the experiences, attitudes and decision making of GPs regarding alcohol, illegal drugs, hypnotics and tranquilizers abuse from a physician's perspective?

Method: In this qualitative study, with a phenomenological perspective, 20 GPs, experienced with substance abuse in daily practice, got a face to face in-depth interview (Oct.-Dec. 2012). Along with the data collection process the analysis started with

a constant comparison between the data and the chosen Integrated Change Model (De Vries), using coding techniques of grounded theory.

Results: GPs meet important barriers to detect misuse of all substances. To address this issue and the patient's motivation for change, the doctor-patient relationship is crucial. The risk to disturb the relationship, and loose the patient's trust, is a major concern. An attitude of patient-centeredness, collaboration and empowerment of the patient is needed to make any progress, to get results and to overcome as a GP the burden of those demanding encounters. Self-care is an important concern. Collaboration with specialised health providers confronted GPs with various problems: not enough services, long waiting lists, unclear methods and criteria. GPs lack an insight in the OP's role, and experience problems to contact them. Whether the OP is a trustful health advocate for their patient is a major concern. Some OPs are perceived too linked to the employer, raising legitimate concerns about professional confidentiality.

Conclusion: To address substance abuse the doctor-patient relationship is crucial.

Drug self-prescription among general practitioners in France

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Background: Self-prescribing is an indicator of the management by physicians of their own health. By the nature of their profession, physicians are at risk of exhaustion, stress, aggression, osteoarticular disorders, and contact with infectious agents. Furthermore, physicians do not always adopt an appropriate attitude for their own health, with a tendency to play down symptoms, self-prescribe strong drugs, inappropriate doses, or take stimulants/psychotropic agents.

Research Question: To describe and evaluate drug self-prescription among general practitioners (GPs).

Method: Anonymous, self-reported, descriptive survey performed in July 2012 among 1200 GPs in the XX region. Questions were related to socio-professional profile of the GPs, their health needs, use of healthcare resources, and self-prescribing practices.

Results: Of the 413 physicians who replied, 279 (67.5%) said they acted as their own GP, and only 0.5% replied that they had never self-prescribed. For occasional self-prescriptions, the reasons reported were primarily to gain time (92.1%), and also because responders considered themselves capable of managing their own health (71.7%). Longer term self-prescribing was mainly reported among physicians over 50 years of age (52.8%), those who work alone (63.8%), those who work more than 50 hours a week (59.8%), and GPs in rural areas (59.8%). In total, 18.8% of responders acknowledged having been at risk of inappropriate use or drug addiction in the context of self-prescription, and 66.8% thought that self-prescribing could contribute to delayed diagnosis.

Conclusion: GPs widely self-prescribe. While they are conscious that this behaviour is not without risk, there is still a certain level of misuse.

INTERNET ADDICTION

Assessment of internet addiction among adolescents

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Background: Parallel to the increase of internet usage among adolescents, psychological, social and cognitive difficulties of problematic internet usage and internet addiction have emerged. Young's test is the most frequently used internet addiction questionnaire. We aimed to ascertain the internet addiction of youth, aged 11–24 years.

Research Question: What is the internet addiction rate and how does the adolescents' attitude towards internet differ?

Method: A cross-sectional descriptive study. A survey has been administered to adolescents aged 11–24 years between December 1, 2011 and June 15, 2012 in a family medicine setting. Young's questionnaire and a questionnaire to determine the socio-demographic situation was used. SPSS 16.0 Statistical package program for descriptive statistics, chi-square and ANOVA tests have been used. $P < 0.05$ has been accepted to be statistically significant.

Results: Ninety four (56.6 %) of a total of 166 adolescents were female. The time spent online was longer for males ($P: 0.003$, $d: 0.280$). Males also stated that they felt the urge to increase the amount of time logged in more frequently compared to females ($P: 0.021$, $d: -0.168$). Females thought more frequently than males that the internet affected their relation with their families ($P: 0.013$, $d: -0.223$). With increasing educational level, the presence of internet connection in the household declined ($P: 0.006$, $d: -0.179$) and internet use was preferred out-of-the-house ($P: 0.000$, $d: -0.176$). Those with a high non-attendance rate at school spent more time thinking intensively about the internet logging-in ($P: 0.033$, $d: 0.023$).

Conclusion: Internet usage is frequent among adolescents and addiction may be quite at hand.

The effect of internet addiction on sleep quality of preclinical medical students

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Background: With advancing technology, Internet has become an important part of our daily life. However, Internet addiction (IA) contributes to many problems like behaviour disorders,

eating disorders, obesity, orthopaedic problems, and academic failure. In literature, there is a limited number of articles about effects of Internet use on sleep quality (SQ). Because IA may cause poor sleep quality and poor sleep quality effects physical, psychological and social health, the relation between Internet addiction and SQ was studied. The objective of this study is to determine the effect of IA on SQ of preclinical medical students.

Research Question: How does IA affects the sleep quality in preclinical medical students?

Method: A cross-sectional study conducted in preclinical medical students. The questionnaire consisted of questions of demographic data, 'Online Cognition' scale (OCS) and the 'Pittsburgh Sleep Quality Index' scale (PSQI). Descriptive analysis, t-test, chi-square and correlation analysis were applied in statistical analysis.

Results: Of the 477 students 55.1% was male, mean age was 19.9 ± 1.4 . Students used Internet 16.4 ± 21.9 hour. Mean OCS score was 80.8 ± 36.3 ; mean PSQI score was 6.4 ± 2.1 . When the OCS score increases, PSQI scale score increases, but they have a poor correlation ($r = 0.15$; $P = 0.01$).

Conclusion: IA causes poor sleep quality in pre-clinical medical school students.

SEXUAL HEALTH

Perception of relationships and sexuality in young men belonging to the Turkish ethnic minority in Ghent

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Background: Sexually transmitted diseases (STDs) and other sexual health problems are an important task in general practice (GP). Ethnic minority groups are at risk: literature indicates that they have lesser safe sex attitudes and lesser consulting behaviour for sexual problems. Sexual behaviour is determined by different factors: social context, personal attitude, efficacy, risk perception and knowledge. Insight in these factors is necessary to understand and to eventually to give advice in the context of a more culturally sensitive, patient-oriented practice.

Research Question: What are relational and sexual attitudes of young Turkish migrants (YTM) in Ghent?

Method: Exploratory qualitative study. Twelve semi-structured interviews, audio taped and transcribed. Participants: YTM between 16 and 25 in Ghent. Analysis following Grounded Theory. Triangulation with literature.

Results: Sexual and relational behaviour of YTM shows little differences from their native peers. The typical relational career is: short-term relationships with native Belgian girls, where Turkish girls are elected for marriage. Virginity, family honour, and Islamic values are highly valued. Homosexuality remains taboo. YTM come up on their own ideas, such as on partner choice. They exhibit fear of gossip and disgrace. Open communication about relationships and sexuality is, except with a counsellor, out of the question. Condom use is rare and

knowledge on sexual health is limited. Some visit prostitutes. They exhibit a positive attitude towards STD testing and consult their GP. Internet is an important source of information. The doctor is counsellor in somatic complaints.

Conclusion: YTM are vulnerable in terms of sexual health. A personal approach, taking into account the fear of dishonour, is a way to discuss sexual health topics. For somatic complaints, GP's can play a role. New media as well as 'significant others,' are useful in approaching YTM.

How can a tool help general practitioners to better communicate with teenagers about sexual risk?

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Background: The general practitioner has an undeniable role to assume in educating young people in the management and promotion of their health. How can we help him to better communicate about sexuality with teenagers to avoid sexual risk?

Research Question: The main objective was to determine whether the doctors using the tool '5S' would more frequently discuss topics pertaining to sexuality in their consultations with adolescent patients. The secondary objective was to determine the feasibility, the acceptability and the interest of this tool by questioning the users.

Method: A randomized intervention trial with comparison before and after, involving 37 general practitioners from the French department of Vienne.

Results: The use of '5S' has allowed GPs to multiply by 3.6 the number of consultations during which topics on sexuality were discussed with teenagers whilst seeing a physician for other reasons (statistically significant, $P < 0.0001$). The intervention also multiplied by 1.3 the number of consultations during which the discussion went beyond the initial reason for the visit (significant, $P = 0.0335$). Finally, users of the tool multiplied by 1.7 the number of consultations during which a follow-up was proposed (significant, $P = 0.0002$). The feasibility and acceptability of the tool were mainly considered 'appropriate' or even 'totally suited.'

Conclusion: The tool '5S' allows doctors to more systematically approach themes focused on sexuality in consultations with teenagers, and encourages them to more frequently propose a follow-up.

Use of hormonal contraceptives among immigrant and native women in Norway: Data from the Norwegian Prescription Database

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Background: Immigrants comprise 10.9 % of the population in Norway. Immigrants are defined as persons who are born abroad to two foreign-born parents, and who have moved to

Norway. Several European studies suggest that female immigrants from non-western countries use less contraception and undergo induced abortion more commonly than native women.

Research Question: To analyse and compare use of hormonal contraceptives among immigrant and native women in Norway in 2008.

Method: Data on all prescriptions of hormonal contraceptives (for systemic use, intrauterine contraceptives, vaginal ring) dispensed at all pharmacies in Norway during 2008 were extracted from the Norwegian Prescription Database. This information was merged with demographic, socioeconomic and immigration data from Statistics Norway. The study population was divided into the following groups: (1) Norway, (2) other Nordic countries, (3) Western Europe, North America, Australia & New Zealand, (4) Eastern Europe, (5) Asia & Oceania except Australia & New Zealand, (6) Africa, and (7) South & Central America.

Result: A total of 893 073 women aged 16–45 years were included, of whom 130 080 were immigrants. Women from Asia and Eastern Europe constituted the largest groups of immigrants. More native women (38%) used hormonal contraceptives as compared to all immigrant groups (y15–24yy%). Working or being in education, length of stay and age on immigration to Norway, were predictors for using hormonal contraceptives.

Conclusion: Patterns of hormonal contraceptive use were different among native and immigrant women. This is important for general practitioners to keep in mind when counselling immigrant women on contraceptives.

Young people exposed to family violence: a qualitative research to their sexual and reproductive health, including wishes, needs and attitudes towards healthcare

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Background: Children living in families facing family violence are almost always exposed to the violence. Exposure to violence has the same consequences as being a victim of violence yourself and leads to physical and psychological health problems. Children exposed to violence have a one-out-of-three chance to be victim or perpetrator of violence in their adult life.

Research Question: What are the wishes, needs and attitudes of adolescents exposed to violence for healthcare?

Method: Semi-structured interviews were held with adolescents aged 12–25y exposed to violence at home. These adolescents were identified by their GP. The interviews were analysed in a qualitative manner using Atlas.ti. Themes were discussed and formulated in consensus.

Results: Adolescents exposed to family violence have three main needs: being in control, feeling safe, and trusting the other. These needs recur in wishes and needs for healthcare,

in interaction in (sexual) relationships, and in the consequences of the exposure to family violence.

Conclusion: Failing to provide the three basic needs might lead to a delay in disclosure of family violence to a healthcare professional. Healthcare should be educated on the wishes and needs of adolescents with a focus on the three main values.

CANCER

History of cancer and frequency of periodic health examination

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Background: The periodic health examination (PHE) contributes in to the protection of the health of individuals. A careful history is a very important part of PHE. An increased risk of cancer with a positive family history has been demonstrated by many studies.

Research Question: Does having a family history of cancer affect the frequency of application for PHE?

Method: During the y2010–2011y period, 249 Individuals (142 men and 107 women) admitted to Family Medicine clinic, were included in the study. Records were evaluated, retrospectively. PHE frequency was calculated. Those younger than 30 years, older than 74 years, and missing data were the excluding criteria's. Mann Whitney U test was used.

Results: Mean age of individuals was 49 (Min 30, Max 74). The average application for PHE is 1.5 ± 0.7 (Min 1, Max 5) in the last 2 years among those who had family history of cancer. Comparing with those without family history of cancer, the difference was not statistically significant ($P > 0.05$).

Conclusion: According this study, having family history of cancer does not increase the frequency of application for PHE. Awareness in population may be studied for further steps.

Skin cancer risk factors and risky behaviours – 'screening and awareness raising programme' in Aydın, Turkey

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Background: Turkey is a country where population is exposed to high level of UVR throughout the year. Our goals are: (1) to determine skin cancer risk factors, risky behaviours and protection behaviours in Aydın and (2) to provide data that can inform, develop or enhance sun protection programs for risky populations.

Research Question: Which risk factors and risky behaviours are most common and is there a need for sun protection programs in Aydın?

Method: The study was conducted in June – August 2010. Randomly chosen 800 adults and 205 children and adolescents from urban and rural areas of Aydın were included in the study.

Results: One hundred and sixty three (20.4%) of 800 adults did not have any of the risk factors while all of the 205 children had at least one risk factor. Average time spent under the sun was over 10 hours/ week. The most common risk factor was inability to tan. Parents with any of the risk factors did not sufficiently display protective behaviours for themselves or for their children. Most children had either severe or mild sunburn history in the last 3 years. Children of parents without sunburn history are more likely not to have sunburn. The most common protection behaviour was seeking shades. Adults with any of the risk factors did not show better protection behaviour.

Conclusion: There is a need to develop skin cancer protection programs and application of these programmes in family medicine practice in our municipality. We have started an 'Awareness raising project' in 2011.

Impact of a targeted screening on melanoma prevention behaviour. A randomised controlled trial

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Background: Targeted screening of melanoma needs evaluation.

Research Question: Assessing the effect of a targeted screening campaign on patient prevention behaviour.

Method: Design. Pilot clustered randomised controlled trial, comparing an intervention of targeted screening with a conventional information-based campaign. Setting. Private surgeries in Western France. Patients. At risk of melanoma. Intervention. Ten GPs had to identify patients at risk of melanoma through a validated assessment score (SAM Score), to examine the patient skin, and advise patients using leaflets. In the control group, ten GPs were asked to display a poster and information leaflets in their waiting room, and to perform an examination on their own initiative. Main outcome measures. Sunbathing and performing skin self-examinations were assessed five months later, thanks to a survey.

Results: In total 173 patients were included. In the intervention group, patients remembered the campaign better (81.4% [72.3%–88.6%] vs. 50.0% [38.3%–61.7%], $P = 0.0001$), and assessed their status in term of risk of melanoma better than in the control group (71.1% [61.1%–79.9%] vs. 42.1% [30.9%–54.0%], $P = 0.001$). The prevention behaviour of the patients was significantly more appropriate in the intervention group: 24.7% [16.5%–34.5%] vs. 40.8% [29.7%–52.7%] exposed to sunbathing during summer ($P = 0.048$); 52.6% [42.2%–62.8%] vs. 36.8% [26.1%–48.7%] performed a skin self-examination during the past 12 months ($P = 0.029$).

Conclusion: The use of the SAM Score combined with GP involvement during the consultation is an efficient way to enhance patient behaviour towards melanoma prevention.

Extending the time of follow-up, demonstrating an impact on morbidity, remain major issues for further research.

PSYCHOLOGY AND PSYCHIATRY

Among adolescents who have risk behaviour, what conditions are required for them to confide to their doctor? An epidemiological survey among 923 randomly selected French adolescents aged 15

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Background: About 20% of adolescents are in distress of unclear outline. Many of them have risk behaviour and consult their general practitioner for mostly somatic or administrative motives. Some of them confide their psychological or behavioural difficulties to their GP.

Research Question: What criteria determine the choice to confide their problems to their GP amongst 15 year old adolescents? Are they different among adolescents who have risk behaviour?

Method: In a French region, 1000 young people aged 15 were selected from about a hundred randomly drafted public schools. They answered a self-administered questionnaire under exam conditions. Most of the questionnaire was stemming from the Health Behaviour in School-aged Children (HBSC) study conducted by the World Health Organization collaborative cross-national survey. The contribution of the questionnaire assessing the level and the criteria of the confidences was validated by a former study.

Results: In total 99 schools fulfilled the conditions of the study; 923 questionnaires were processable. It was found that adolescents visit their GP for the following related health issues: 51%, for stress issues: 21%, for sexuality issues: 7%, for normality issues: 6%, and less than 4% for unlawful consumption issues, spirit issues or sustained aggressions. The adolescents who have risk behaviour show the same attitudes. The girls confide more than the boys their sustained aggressions, their state of stress and their difficulties with their parents. The first conditions required from the GP is that they know how to ask the right questions and be ready to listen this will make it easier for adolescents to confide in them.

Conclusion: The adolescents rarely confide their risk behaviour linked problems to their general practitioner. They request at first to do so that the practitioner knows how to ask the right questions and is available for listening.

Educational needs assessment on suicide and deliberate self harm to shape a course in primary care

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Background: Suicide is a major problem in Ireland with 486 suicides in 2010 and over 11000 cases of deliberate self harm (DSH) seen in Irish emergency departments annually. With many presenting to primary care in the months prior to the event, it is an obvious area for intervention.

Research Question: The aim of this project was to conduct an educational needs assessment of primary care team members in respect of dealing with patients who present with suicidal ideation and DSH to inform the training content and delivery of a course for primary care staff.

Method: An online survey of primary care and support staff and users and a consultation process with stakeholders were undertaken.

Results: In total 117 questionnaires were returned. One in four of all responses said their current level of knowledge of suicide risk assessment was below average. Over two thirds of professionals reported that no member of their practice or service had formal training in suicide risk assessment and management. Only one third felt that they were adequately trained and prepared in the assessment of suicide and 58.2% felt they were not adequately informed as to the best available local resources. Only 7.8% of all respondents felt that primary care was adequately resourced to deal with suicidal patients.

Conclusion: Irish primary care service providers feel inadequately trained and prepared in the assessment of suicide risk.

Risk behaviours, risk factors for dementia

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Background: This study focuses on behavioural risk factors (BRF), a translational personalized approach – based on new developments in basic science research concerning the bio-mechanisms of working brain – and clinical effectiveness.

Research Question: To identify neuropsychiatric symptoms (NPS) as BRF, their prevalence, besides other specifically risk factors (RF); to evaluate the effects of behavioural therapies (diet, walking, counselling on improving thinking and cognition); to find new markers for diagnosis referring to behavioural neurodegenerative syndromes like FTLT or dementia.

Method: Population-based data have been collected longitudinally since 1997. A total of 900 persons were observed, randomized in a double-blind placebo-controlled clinical trial.

Results: Of 821 eligible participants, 500 individuals exhibited neuropsychiatric symptoms (NPS) in the previous month; BRF reported in 90% of cases decreased 35% after personalized combination- therapy; 57% expressed symptoms of FTLT including behavioural changes with an aggressive or antisocial behaviour, due to a focal prefrontal damage similarly with the lesions observed in TBI.

Conclusion: Most of the RF considered to be adult BRF or BRF for dementia began early in life, usually associated with low educational level and poverty.

FREESTANDING PAPERS

MULTI-MORBIDITY

EGPRN's Multi-morbidity definition translation into eight European languages

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Background: The EGPRN working group has published a comprehensive definition of multi-morbidity. The definition had to be translated into different European languages to be used for collaborative research through the EGPRN

Research Question: What is the translation of Multi-morbidity definition in Bosnian, Bulgarian, Croatian, French, German, Greek, Italian and Polish.

Method: National teams undertook the translation using a forward backward translation system with a Delphi consensus procedure. In every country a group of 30 native expert GPs, English speaking, still in practice, and having teaching or research activities had to be found. A first translation issued by a group of three experienced local GP researchers was submitted by mail to the expert group. Consensus was defined as at least 70 % of the experts rating 7 or above the consensual definition. In case of low rating, a new translation had to be proposed taking into account expert's comments. After reaching consensus, a backward translation had to be undertaken by two other native/ English translators for a final validation with the whole group during the EGPRN meeting in Antwerp.

Results: All national groups achieved the translation process. The backward translation found some difficulties with the translations of Frailty, Somatic risk factors and burden of diseases in most countries. Final agreement between the international group and the native teams was achieved for all translations.

Conclusion: The multi-morbidity definition is now translated in Bosnian, Bulgarian, Croatian, French, German, Greek, Italian and Polish. It is usable for further research within the EGPRN. The translation protocol is available on demand for other languages.

For an international definition of multi-morbidity in general practice what lies behind the term 'condition' for French and Polish GPs?

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Background: Multi-morbidity is defined by WHO as the co occurrence of two medical conditions. 'Conditions' is vague and not usable for GP practice or research as a systematic

review of literature found 132 different definitions for that terminology.

Research Question: what lies behind 'condition' for GPs and what definition of multi-morbidity could be issued from GP practice in France and in Poland?

Method: Qualitative by focus groups and semi structured interviews with a purposive sample of in practice GPs. The focus/ interview guide was designed and tested by a group of seven researchers and translated into each language. Data collection was audio recorded and transcribed verbatim till saturation. Analysis was undertaken in a phenomenological perspective, using a grounded theory based method with four independent researchers and pooling at each coding step.

Results: Sample's maximal variation was reached in each country. Saturation on axial (or thematic) coding was achieved in each country. The conditions describing multi-morbidity were described with the following definition: Multi-morbidity is defined as the association of chronic and/or acute illnesses with somatic risk factors, and/or biopsychosocial factors. It is modulated by demographic factors, social factors, psychological factors, healthcare consumption, coping strategies of the patient, life habits, social network and management by the GPs. It could lead to dependence and instability.

Conclusion: The conditions defining multi-morbidity for GPs in France and Poland have been explored with this study. The exploration goes on for Bulgaria, Bosnia, Greece, Croatia, Germany and Italy.

Family Practice Depression and Multi-morbidity (FPDM): A European consensus on a diagnostic depression tool in primary care

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Background: Family Practice Depression and Multi-morbidity is a European study aimed to prevent depression in adult multi-morbid patients in primary care. A common validated diagnostic tool (effective, reliable and ergonomic) was mandatory for patient's inclusion in FPDM.

Research Question: What is the best (effective, reliable and ergonomics) tool for depression's diagnosis versus DSM-IV in primary care for adult patients?

Method: The modified RAND Appropriateness Method (RAM) or RAND/UCLA has been selected. This RAM consisted of a systematic literature review plus a consensus procedure (two Delphi rounds with an expert panel meeting inserted in between). The group of experts was purposive. They had to be European researchers and GPs. Aim of the systematic review was to extract validated diagnosis tools versus DSM-IV. The searched effectiveness criterion was Youden index. The searched reliability criterion was Cronbach's alpha. Ergonomics data were

extracted from the literature (structure, interrogation technique, duration...).

Results: Seven validated diagnostic tools were revealed. At the end of the first Delphi round, two instruments were considered sufficiently effective and reliable to be used: the Hospital Anxiety and Depression Scale (HADS) and the Hopkins Symptoms Checklist-25 (HSCL-25). Ergonomics was tested during the panel meeting during EGPRN Antwerp meeting (October 2012). With the second Delphi round the experts selected the HSCL-25 as the best consensus for its effectiveness, reliability and ergonomics.

Conclusion: The HSCL 25 is the best consensus tool for a depression diagnosis in adult patients in general practice setting. The best effective, reliable and ergonomic tool will enable the selection of homogeneous populations across Europe for FPDM.

Multi-morbidity and associated risk factors in the 'work active' population in socially deprived areas of Croatia – a pilot study

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Background: Multi-morbidity (MM) of chronic diseases (CD) in the 21st century is becoming a major problem even in the younger age population (< 65). Social deprivation, economical crisis, harmful habits are making this problem even more difficult in the areas of Croatia devastated in the war for independence.

Research Question: Explore the frequency of presence of MM of CD, social-economical factors and harmful habits of smoking and alcohol abuse, and medical services utilisation by the work-active population in socio-economically deprived areas in Croatia.

Method: During 2011, we conducted a retrospective research on prevalence and characteristics of CD multi-morbidity of 1 616 working population subjects (age 18–65) in GP practice in town Orahovica, region of East Slavonia. Multi-morbidity was defined as the presence of 2 or more CD in patients, and data of all noticed CD based on ICDX classification were collected from e-medical records. Out of 1 616 examinees, 1 218 (75.4%) were chronically ill patients (mono-morbidity 572 (47.6%), and multi-morbidity 646 (53.0%)). For this pilot-study we sampled every third chronic patient with CD multi-morbidity ((220 examinees, 113 (51.4%) women and 107 (48.6%) men). Collected were social-demographic data, data on economical status, all listed CD diagnosis, smoking and alcohol abuse, employment status, medical services usage and sick-leave absence in 2011.

Results: A total of 220 examinees with multi-morbidity, had 678 CD diagnoses (average 3.1 per examinee), and diagnostic groups included: mental 208(30.6%), cardiovascular 160 (23.6%) and musculoskeletal 93 (13.7%). Unemployed were 92 (42.3%), on disability 75 (32.7%) and employed 53 (25.0%). While low social-economical status had 50 (22.7%) subjects, only 11 (5%) had high social-economical status, 50% were

alcohol abusers, and 64.5% smokers. Employed people averaged sick-leave absence at 24.7 days per year.

Conclusion: Very high frequency of CD multi-morbidity, negative social-economical factors, multiple health risk factors and high utilization of medical service emphasizes complexity of medical care to work-active population in social-economical deprived areas of Croatia.

HOME CARE

Home health care service

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Background: According to the World Health Organisation (WHO) home care is a service that presents both formal and informal care by those who care in home environment (1). The definition of Home Care Services in Turkey has been stated by the 'Delivering of Home Care Services Regulation' on March 2005. In this study, the distribution of diagnosis of patients under our clinics home care during 2012 is to be determined.

Research Question: What about home care patients in Turkey?

Method: This study retrospectively retrieved from the archive of our clinics home care unit.

Results: At the beginning of the year there were 292 home care patients. New patients (341) were added during 2012; however 40 patients were excluded from follow up (75% of them deceased), 2.5% requested termination of home care, and 22.5% transferred to another home care unit. In 2012, the number of total patient visits was 787. About 517 out of 787 were women (65.6%). Most home care patients were aged between 66 and 85 (58.5%). The most common primary diagnoses at admission among health care patients were hypertension (13.2%), stroke (10.2%), Alzheimer disease (6.2%), arrhythmia (6.0%) diabetes mellitus (5.3%), heart failure (5.0%), hemiplegia (4.6%), decubitus ulcers (4.3%), Parkinson's disease (3.5%), depression (3.4%). Most common disease category was neuropsychiatric disorders (37.9%). Most common given service was physical examination, 30.2% of home care patients were bedridden.

Conclusion: Findings demonstrate that the number of home care patients will increase in time. This service in our country is configured recently so more studies are needed in this regard.

Expectations of the patients' caregivers who admitted to home care service

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Background: People with disabilities, the elderly with chronic diseases or inadequate maintenance of daily activities for

many reasons have an increasing need for home care by a health professional. Home care aims to provide a balanced and affordable continuous manner, health and social needs of people in their homes, by formal and informal caregivers through appropriate and high qualities health and social services.

Research Question: What are the expectations and needs of caregivers from home care service?

Method: The study was planned as cross sectional and held between June–October 2011 in Usak. From 96 patients requiring home care services, 84 (87.5%) have participated. A questionnaire was prepared and applied by face to face interview at first home visit. SPSS 16.0 was used for evaluation of data.

Results: In total, 61.9% of patients (n = 52) were females. Mean age was 58.39 ± 27.43 . The most common expectations of caregivers from home health care service is prescribing, to supply drugs for the patients (41.7%), to get medical devices, which are required (34.5%), and giving health care to the patient regularly (27.4%).

Conclusion: Home care health services in our country are currently developing. It is important to meet the expectations of patients and their relatives/caregivers and further studies need to be carried out on this.

Caring for caregivers of long-term home care patients

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Background: Increased numbers of individuals with complex healthcare needs are being cared at home by their families. There are high rates of stress, burden and psychological illness in family caregivers of those long-term home care patients.

Research Question: How much are the lives of caregivers/families affected psychologically?

Method: A descriptive study was carried out with 42 caregivers of chronically ill home care patients. Caregivers were asked to complete a demographic questionnaire, Beck Depression (BDI) and Beck Anxiety Inventory (BAI). It was considered to have depressive symptoms when the BDI total score was > 13 (total score > 28 = severe depression) and anxiety symptoms when the BAI total score was > 9 (total score > 29 = severe anxiety). From August to December 2012, data was collected by the team of Home Care Service of Family Medicine Department.

Results: Most caregivers were female (85.7%) and the daughter of the patient (54.8%). The mean BDI score of the sample was 18.4 with 76.2% meeting the criteria for at least mild depression and 9.5% meeting the criteria for severe depression. The mean BAI score of the sample was 21.6 with 76.2% meeting the criteria for at least mild anxiety and 33.3% meeting the criteria for severe anxiety. Care giving for more than 2 years is even more risky for anxiety ($P = 0.01$), but not for depression ($P = 0.06$).

Conclusion: Care giving is a kind of risky behaviour for health. This study showed a high prevalence of depressive and anxiety symptoms in caregivers.

OTHER TOPICS

Home-accidents seen in the elderly

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Background: Elderly and disabled people are defined as the risk groups for accidents by WHO.

Research Question: What is the prevalence of home-accidents among the elderly living in the community and awareness of taking precautions against home-accidents?

Method: We visited randomly selected 210 houses in a district of Istanbul to reach the community-dwelling elderly. Besides, we used the snowball method, since the rate of elderly was low. Additionally, all individuals older than 65 years of age living in a residency home in the region were included in the study. In total, 64 individuals were included. The survey consisted of the questions interrogative for demographic characteristics; knowledge about health status and number of falls experienced in the last 6 months. In addition, Barthel Scale, Timed Up and Go (TUP) Tests were applied. Chi-square and Mann Whitney-U tests for the comparative analysis were used by using the SPSS 11.5 programme.

Results: Of the participants, 57.8% were female. The average age was 70.6 (± 6.4). According to the Barthel Scale, 32.8% was dependent on at least one function. According to TUP Test, 28% were completely mobile. Of the participants, 70% declared that they took precaution against falls. In addition, 85% of them declared that they took precautions against home-accidents and five ($\pm 7.8\%$) stated a fall in last 6 months. No relationship between home-accidents and independent variables was indicated.

Conclusion: Approximately one third of the participants were dependent on at least one of the daily-life activities similar to other studies. Rate of falls was lower than the rates reported in the literature, possibly due to the considerably younger average age.

Barriers and facilitators for discussing about death and end of life care

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Background: Dying and talking about dying is taboo in the western culture. Many have problems talking about dying, and often it is preferred to postpone talking about this topic to the future. Consequently, people are not prepared on the issues of dying and death, and they frequently have unrealistic expectations.

Research Question: To find out if elderly discuss their opinion about dying and death with their relatives.

Method: Semi structured interviews were used with two main questions: barriers and facilitators for discussion about dying

and death, and understanding of end-of-life care. The participants (28) were divided into four groups: home-living elderly, elderly nursing home residents and relatives of both groups of elderly people. Two independent researchers coded each transcript, using grounded theory framework. Final result was groups of related subcategories, which explain the attitudes of participants.

Results: A total of 21 participants said that they could talk about dying and death, and only 15 participants had already talked about dying and death with their relatives. Several barriers were identified: fears about dying and death, death as a distant event, differences between people and tragic experiences with death and dying in the past. Facilitating factors for talking about death are the understanding of dying and death as a natural process, previous experiences with dying and death and belief in the life after death. Participants understood end of life care as relieving the symptoms, especially pain, non-aggressive treatment (without feeding tubes etc.), physical and physiological support and as a time in which medicine could not help.

Conclusion: Most people would like to talk about death and dying, but several barriers prevent them to talk about this topic. End of life care is complex, and medicine alone could not fulfil all the needs of dying person

Screening for developmental delay in primary care with Denver II Developmental Screening Test

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Background: Developmental deviations of young children are quite common and difficult to detect in a routine physical examination. Thus, screening with standardized tests is recommended at certain ages. Denver-II Developmental Screening Test is a standardized test and adapted for Turkey in 1992 by Hacettepe University, Paediatrics Neurology Association. However, to our knowledge, no studies reported its use in Turkish primary care setting yet.

Research Question: Is Denver II Developmental Screening Test useful in primary care setting as a screening tool for developmental deviations and is simple education addressed to the family effective to help children catch their peers?

Method: Children aged 6–36 months registered to 6 family physicians in Kadıköy/Istanbul were invited to participate in the study. The children whose parents gave informed consent and met the inclusion criteria were enrolled. A questionnaire covering socio-demographic characteristics and health history of the child was applied to the parent/care-giver face to face. Denver-II developmental Screening Test was applied to all children by a certified physician. The test indicates three outcomes; normal, equivocal or abnormal. After the screening, we gave a standardized education to the parents (whose children's tests results are equivocal), which were recommended by Turkish Paediatrics Neurology Association for improving the fields, which were underdeveloped.

Results: We screened 176 healthy children whose parents agreed to participate to the study. Of them, 42 (23.8%) were detected equivocal, so we gave interventional education to their parents. Three months later, those 42 children were screened again and as a result we found out that 35 of them caught their peers.

Conclusion: When Denver II Developmental Screening Test is used as a screening tool in primary care setting, developmental deviations might be detected early and simple education of the parents might help the children to catch their peers.

Variability in the registered prevalence of diabetes mellitus and its degree of control in two health care districts

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Background: Diabetes Mellitus (DM) is a public health problem, due to its incidence and morbimortality. But its identification and control have a high variability in clinical practice.

Research Question: What is the prevalence of DM recorded in the electronic medical record (EMR) in primary care (PHC) and control (HbA1c)? Is there variability by patient demographic factors and geographic area?

Method: Cross-sectional study in two health districts (Galicia, Spain) with 1 003 755 patients, in 2011. Sources of information: population database of Galicia Health Service; HCE_AP (CIAP-2 coded episodes); laboratory information system in each area. Variables: age, sex, CIAP (T89 and T90), HbA1c, health centre and health area. Specific rates are analysed by age and sex and adjusted by direct method for the Spanish population. Degree of control is described by qualitative and quantitative variables, with nonparametric bivariable analysis and logistic regression performed. An estimated rate of change, standardized utilization ratio (SUR), systematic component of variation and empirical Bayes statistical per facility are calculated.

Limitations: Bad coding and/or registration; there is no self-auditing software; existence of undiagnosed diabetes (1%); it is not possible to differentiate the unregistered well-controlled diabetics and non-diabetics with normal HbA1c.

Results: Specific rate in A Coruña is 4.00 (4.26 men, 3.76 women), and 4.17 in Vigo (4.49 males, 3.88 females). Adjusted rate was 3.38 and 3.94, respectively. The differences are significant for age, sex, area and DM type. Average HbA1c in A Coruña 7.47 (95% CI: 7.45–7.49) and 7.11 (95% CI: 7.09–7.13) in Vigo. Statistical variability is presented, SUR mapped and funnel plot by health centre and DM type.

Conclusion: Results show demographic and geographic variability reported prevalence of DM and degree of control, higher in DM2. Those aspects where intervention could have more impact on clinical outcomes are identified.

The role of general practitioners in the promotion and early detection of diabetic retinopathy

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Background: To prevent blindness caused by diabetic retinopathy collaboration between general practitioners and ophthalmologists needs to be established. General practitioners are the ones to give information to patients about the risk of diabetes for the vision and to refer patients for ophthalmic examination on time. This problem has not been investigated in Bulgaria by the moment.

Research Question: What is the role of general practitioners in promotion and early detection of diabetic retinopathy in Bulgaria?

Method: A prospective study was performed with written anonymous questionnaire consisting of 58 questions, given to general practitioners. Two hundred questionnaires were returned fit for analysis. A part of results—5 questions focused on GPs profile and 5 focused on promotion and early detection of diabetic retinopathy in general practice is reported here. SPSS 16 was used for statistic analysis.

Results: Most the GPs, participating in the survey (89.5%) inform their patients of possible eye complications of diabetes. General practitioners refer 61% of the patients with non-insulin dependent diabetes and 84.5% of insulin dependent patients to an ophthalmic examination annually. The referral was proper in 89% of non-insulin dependent patients and too early in 90% of insulin dependent patients (immediately after discovery of the disease).

Conclusion: Results show active participation of general practitioners in the promotion of visual complications of diabetes mellitus. However, they are not clear with the recommendations of the Bulgarian society of endocrinologists concerning eye complications of diabetic patients. According to Bulgarian regulations, general practitioners are responsible for non-insulin dependent diabetic patients. They definitely need significant improvement of their knowledge in this field.

Behavioural patterns of hypertensive patients at a primary care unit

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Background: Health promotion and chronic disease management are the major missions of family physicians. Unhealthy lifestyle, alcohol use, smoking cigarette and low health literacy are the major problems. So that, primary health care should take care for the behavioural patterns throughout chronic disease management.

Research Question: Do the behavioural patterns of hypertensive patients affect their blood pressure regulation?

Method: Cross-sectional descriptive question form study conducted in August 2012 at Urla 1st Family Health Care Unit representing a 455 registered person, admitted with diagnosis of hypertension who agreed to participate in the investigation. The questionnaire administered by researchers for the study was applied face to face to the patients who agreed to participate in the survey, then body mass index and blood pressure measurements were recorded. Descriptive statistics, chi-square and Fisher exact test was used for the statistical analysis of the obtained data. $P < 0.05$ was considered statistically significant. N15.0 for windows version of SPSS program was used for statistics.

Results: In total 455 participants taking antihypertensive medication involved with mean age 65 ± 10.973 years (min: 26, max: 89); 39.8% ($n = 181$) were male, 60.2% ($n = 274$) were female, and 13% were normal weight patients. The rates of alcohol use were 20.9% and cigarette use was 16%. Lifestyle changes compliance were lower for currently employees and in men ($P = 0.006$). Participants had the mean systolic blood pressure of 139.47 ± 19.382 , diastolic pressure of 79.82 ± 10.585 , respectively. In the study, 56.9% of participants ($n = 259$) provided blood pressure control were denoted.

Conclusion: Fight against cigarette smoking, obesity and alcohol should be given for hypertensive patients. Life style changes and risky behaviours should be questioned and reminded at every reference to the health facilities. Regulations relating to nutrition and exercise should be done at workplaces.

Peripheral arterial disease assessment by ankle-brachial index test in patients with cardiovascular disease

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Background: Peripheral arterial disease (PAD) refers to the obstruction of large arteries excluding the coronary, aortic arch vasculature, or brain. About 90% of patients with PAD may be asymptomatic and it's usually difficult to diagnose PAD by physical examination. The ankle brachial index (ABI) is a simple, non-invasive, sensitive and cost-effective screening tool for PAD. The ABI is widely accepted as the initial method for diagnosing Peripheral arterial disease.

Research Question: Can ABI measurements help in assessing the PAD in patients with cardiovascular disease?

Method: Descriptive, cross-sectional, non-interventional study was carried out at Tepecik Training and Research Hospital – Coronary Care Unit, Izmir, Turkey on March, 2012. ABI measurements of participants were investigated via portable Doppler device. Data were analysed using SPSS 16.0. Chi-square test was used to compare proportions and the ANOVA and T-Test were used to compare group means.

Results: A total of 91 participants, 66 males (72.5%) and 25 females (27.5%) were included in the study. Mean age was 62.3 ± 14.1 years (range, 21–85 years), with 43 (47.2%) aging

65–85 years. Normal range ABI is 1–1.29 in ratio. Lower and higher values might be a proof of ABI. The values of the people who participated in the study were significantly lower in patients with a chronic vascular disease. The frequency of low ABI (≤ 0.90) was 45.05% in the whole study population and 58.5% for patients older than 60 years. A total of 21.95% of the participants of the low ABI group were not aware of any disease before hospitalization. Hypertension, coronary artery disease and cerebrovascular disease were associated with peripheral arterial disease in 36.5%, 56.09% and 9.75%, respectively.

Conclusion: A significant higher prevalence of low ABI was found in patients with cardiovascular disease. And the ABI is a useful method to detect PAD and it may be suitable for its screening in the primary care setting.

Increased training of general practitioners in Ireland may increase the frequency and quality of exercise counselling in patients with chronic illness: a cross-sectional study

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Background: Recent systematic reviews have established that brief interventions in primary care are both effective and economic at promoting physical activity. Lack of training has previously been identified as a barrier to lifestyle counselling in Ireland. In Ireland, there is a lack of scientific data for the use of exercise counselling (EC) in primary care.

Research Question: What is the frequency of EC in patients with six chronic illnesses by general practitioners (GPs) and does previous training in EC increase the frequency of EC?

Method: A cross-sectional questionnaire survey of general practitioners based in the Mid-West of Ireland was conducted during February and March 2012. The questionnaire was handed out to 39 GPs at two CME meetings and then posted to 120 other, randomly selected GPs in the area. Mann-Whitney U tests were used to detect differences between groups in frequency of EC.

Results: In total, 64% ($n = 102$) of GPs responded. Frequency of exercise counselling varied among the chronic illnesses evaluated. Use of written advice and advice on resistance exercise in EC was low. Only 17% of GPs had previous training in EC. 94% of GPs would use guidelines to prescribe exercise in chronic illness if they were available to them. The association of previous training in EC with frequency of EC was variable, with significantly higher counselling rates found in type 2 diabetes mellitus, obesity and healthy adults (Mann Whitney U, all $P < 0.05$) but no significant difference was found in other patient groups. Previous training in EC had a positive effect on the use of written advice and advice on resistance exercise.

Conclusion: GPs in the Mid-West of Ireland often advise their chronic illness patients about physical activity. Improved training of GPs and development of guidelines are two areas, which

may improve the frequency and quality of exercise counselling in Ireland.

Dealing with ambiguity: Israeli Physician's attitudes and practices regarding pre-exercise certificates

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Background: It has become clear in recent years that a healthy lifestyle, including Physical exercise is crucial; nevertheless, most people do not exercise regularly. Physician intervention is beneficial in increasing patient exercise. In Israel, the 1994 'Sports Law' regarding exercising in a gymnasium requires a physician's written authorization, but does not direct the physicians what they should ascertain before issuing the certificate.

Research Question: How do primary physicians deal with the ambiguity of defining health criteria for issuing exercise authorization/certificates.

Method: We used an anonymous ten items attitude/knowledge questionnaire with an additional 13 personal/education and employment items. The survey was performed during 2008 – 2009, and analysed in 2010.

Results: In total 135 useable questionnaires were collected. Of the doctors, 43.7% will provide the pre-exercise certificate to all their patients. A total of 63% was aware of their HMO/employers guidelines for issuing certificates. In total, 62% stated they complied with these guidelines, and 16% stated they did not follow it. Of the physicians, 70% reported regular exercise (average 4.12 hours/week). These physicians tended to provide the pre-exercise certificate to all patients unconditionally, as compared to physicians that did not exercise regularly (46% vs. 14.5%, $P < 0.01$).

Conclusion: Most Israeli physicians will provide the required certificate allowing their patients to exercise in the gym. There is a wide variation as to what physicians check before providing the certificate. A large portion of physicians exercise regularly – and exercising physicians are more positive regarding pre-exercise certificates.

Our study clearly shows a gap in knowledge transfer and we call for a standardized approach to pre-exercise certificates utilizing computerized patient medical files.

COPD and HF a network care for early diagnosis

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Background: Chronic obstructive pulmonary disease (COPD) and Heart Failure (HF) are commonly associated chronic conditions, which require attentive care. Patients (25%) affected by COPD, suffer also from HF and vice versa. Symptoms are common in both diseases and the diagnosis is often

difficult in the setting of primary care especially in the early stages of HF without any additional tests. A precise assessment of these patients is therefore necessary to avoid therapeutic incongruence.

Research Question: Can a project based on the early detection of COPD and HF improve the care of these patients?

Method: The settings for the study were some primary care surgeries in the Province of Trento and Bologna (Northern Italy). GPs involved in the study were invited to take part in a practical training on the use of the current COPD-HF guidelines and on the early detection of COPD and HF. An agreement on an easy access to secondary care, for appropriate additional tests (e.g. echocardiography), was made with the hospital department in each area involved in the project.

Results: Included in the study, were 6650 patients over 65 years. A variable percentage of them (among 1.5 and 25 %) was affected by both HF and COPD. Most frequent co-morbidities were hypertension, osteoporosis and diabetes. Most frequent therapy in patients with COPD was the association between Long Acting Beta Agonists (LABA) and corticosteroids. Without any problems β blockers were used in COPD/HF. The agreement with the secondary care increased the percentage of the early diagnosis of both diseases.

Conclusion: An easy access to secondary care allows GPs to identify patients in the early stage of both COPD and HF and prescribe more appropriate care in subjects affected from these diseases.

Irritable bowel syndrome prevalence and characteristics in the centre of Canakkale

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Background: Irritable Bowel Syndrome (IBS) is a common gastrointestinal disease in primary care. IBS is the functional gastro-intestinal disease with various degrees of stomach ache, constipation or diarrhoea, abdominal distension recurrently in the upper or lower of the GIS. In the studies, prevalence of IBS is between 3%–22% with using a data collection based on the Manning or Roma Criteria.

Research Question: What is the prevalence of the IBS, and characteristics in the centre of Canakkale?

Method: In the centre of the Canakkale, one of the Primary Care Centre was studied, which is representing the number of the study sample. The Primary Care Centre is one of the health care centres where the population is approximately 15000. Patients were invited to come for any reason to the Primary Care Centre to be included in the study. We asked the participants about socio-demographic features, suffering, medical history, diet factors, etiological features, and performed a diagnostic questionnaire based on the modified Rome III criteria, and WHOQOL scale face to face between September–December 2011.

Results: A total of the 500 participants were interviewed, and 64 (12.8%) participants were diagnosed with IBS. Three (4.6%)

suffered from a diarrhoea type, 34 (53.2%) a constipation type, 14 (21.8%) a mix type, and 13 (20.3%) an undefined type of IBS. A total of 54 (84.3%) patients had taken medication for their condition. Anxiety disorders, migraine and hypertension were the most accompanying disorders with IBS. WHOQOL physiologic sub-score was affected negatively in IBS patients.

Conclusion: In the region of Canakkale, the prevalence of IBS is determined as 12.8%. The results of this study show that diagnosis of IBS can easily be detected in primary care by using diagnostic criteria. Despite intensive diagnosis and treatment, quality of life is affected negatively in IBS patients.

Rapidly increasing use of proton pump inhibitors in primary care: a nationwide observational study

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Background: Antisecretory drugs (ADs) are often prescribed in primary care for upper gastrointestinal symptoms. Reimbursement modifications have been made in Denmark to minimize costs related to use of ADs. However, knowledge about development in use of ADs over the past decade, and the impacts of the reimbursement modifications is sparse.

Research Question: How did the use of ADs develop in Denmark between 2001–2011? Which impact did the reimbursement modifications have on the use of ADs?

Method: The Register of Medicinal Product Statistics includes all sales and redeemed prescriptions nationwide covering the entire Danish population of currently 5.5 million inhabitants. The register was searched September 2012 for the ADs proton-pump inhibitors (PPIs) and histamine-2-receptor antagonists. The variables turnover, paid reimbursement, volume sold, sector (primary vs. hospital), age, gender and number of users through the years 2001–2011 were used. Data from prescriptions redeemed by persons younger than 20 years were excluded. Prescriptions for ulcerogenic drugs (acetylsalicylic acid and non-steroidal anti-inflammatory drugs) redeemed by persons aged 65 years and older were included since ulcer prophylaxis could be an indication for prescribing ADs to that age group.

Results: PPIs are the far most commonly prescribed AD, and 96.5 % are prescribed in primary care. Use of PPIs has increased by 243 % through the past decade. Both number of users and the average individual use has increased. There has not been a change in indications for use of PPIs in the same time range. Use of ulcerogenic drugs among the elderly has stagnated. Reimbursement modifications do not seem to have had a substantial influence on the steadily increasing use of PPIs.

Conclusion: Use of PPIs has increased substantially the past decade. Reimbursement modifications do not seem to have had a substantial influence on the steadily increasing use.

Syndromic approach to vulvovaginal candidiasis in primary care

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Background: Vulvovaginal candidiasis (VVC) is one of the major gynaecological problems of women in primary care (PC). Gold standard method in the diagnosis of vulvovaginal candidiasis is an expensive and time consuming procedure. Aim of this study is to form syndromic components in which anamnesis and gynaecological examination findings could be used for diagnosis of VVC in PC.

Research Question: Can we use syndromic approach for diagnosis of VVC in PC?

Method: It is a diagnosis test study. Sabouraud Dextrose Agar culture examination was utilized as a gold standard method in the diagnosis of vulvovaginal candidiasis. In the statistical assessment of the data; descriptive analyses, chi-square analysis were employed. The sensitivity, specificity, positive and negative likelihood ratio (LR) and post test probabilities of the criteria found significant were estimated. These criteria were divided into three groups as weak, medium and strong according to their + LR values. Post test probabilities were calculated by using chain LR method for variables in each group and variables in different groups.

Results: Twelve weak, six medium and two strong criteria were discovered. In the presence of five criteria out of 12 weak ones, three out of six medium ones and one out of two strong ones, post-test probability value can be obtained, which is able to approach to the level of diagnosis (> 65%). In the presence of one weak, one medium and one strong criteria having lowest + LR values, diagnosis can be reached with 86.24 % accuracy rate by post test probabilities calculated by chain LR method.

Conclusion: Physicians working at PC can diagnose VVC in women presenting with vaginal complaints by using the indexes of the syndromic approach (based on their medical history and results of their gynaecological examination).

Investigation of risk factors and treatment seeking behaviour in premenstrual syndrome

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Background: Premenstrual syndrome (PMS) is physical and emotional cyclic symptoms, which affects the performance on job or manner of life on luteal phase of menstrual cycle. Although there is no consensus on definition criteria of premenstrual syndrome, University of California at San Diego criteria can be used to define it.

Research Question: What are the risk factors of premenstrual syndrome and what women with PMS do to improve symptoms?

Method: Participants of our cross-sectional research were 268 women aged between 15–49 with regular menstruations and applied to a primary health care centre in İzmir Hatay between March and April 2011. Demographic characteristics, PMS risk factors, treatment seeking attitudes and behaviours were asked in a questionnaire, as well as PMS criteria of University of California at San Diego (UCSD) and premenstrual syndrome scale (PMSS). Data were analysed by using SPSS 15.0. Chi square, Fisher's exact test and t test were used in analysis; $P < 0.05$ was accepted as significant.

Results: Most frequent symptoms were irritability (85.4%) and fatigue (79.9%) according to the UCSD criteria. Appetite variations (69.4%) and swelling (63.1%) were leading complaints in subscales of PMSS. Most of the women with PMS were married (69.5%), had children (73.2%), experienced dysmenorrhoea in most of their cycles (39.5%) and used drugs regularly for chronic diseases (21.3%) ($P < 0.05$). Premenstrual symptoms or PMS were mostly present in their mothers (72.9%) or sisters (86.8%) ($P < 0.05$). While 37.7% of participants thought that their symptoms can be treatable, only 4.1% of them have received treatment. Most frequent reason for not seeking treatment was the perception of symptoms as normal.

Conclusion: Most women with PMS are not seeking treatment. Therefore, it will be feasible to monitor women in their reproductive period by their primary care physicians with respect to their premenstrual symptoms regularly.

What are the health issues of lesbians and bisexual women concerning Family Medicine/General Practice?

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Background: Gender-based approach and gender and sexual diversity needs in education and practice of family medicine discipline are important. However, no studies have examined needs or health behaviours or health risks of lesbian, gay, bisexual, transgender (LGBT) adults in family medicine/general practice (FM/GP) in our country. The purpose of this study is to investigate specific health needs, expectations and self-reported risks in a sample of lesbians and bisexual women concerning FM/GP to better respond to their health concerns.

Research Question: What are the specific health needs, expectations and self-reported risks of lesbians and bisexual women in Turkey concerning family medicine/general practice? Do they experience additional risk factors and barriers to care that can impact their health status?

Method: The research was planned as a descriptive study. A written questionnaire form with 33 questions was sent via mail to community of lesbians and bisexual women following mail groups of seven LGBT organizations in Turkey, 15 April 2013–10 May 2013. Descriptive statistics including means and percentages were used.

Results: To the survey 57 people responded, of which 40% were lesbians and 40% were bisexual women. Median age was

27, 33% had a family physician (FP), 80% did not discuss their health problems with FP. A total of 79% did not discuss about sexual orientation to any physician. Of the women, 66% had a gynaecological examination. A cervical smear was received by 58%. A total of 43% made a periodical self-examination of breast. Women > 40 years (87%) had no periodical mammography.

Global versus local inter-contact interval analysis for identifying frequent attenders, their diseases and demands in primary care

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Background: Frequent attenders with their many contacts require high amounts of time, man-power, technical exams and money in primary care. Inter-contact interval (ICI) in days is a feasible and useful measure for identifying frequent attenders. 'Short' ICI of 1 to 6 days and a patient's overall fraction of at least 60% short ICI are best suited for this purpose in a large German electronic patient record sample from 177 057 patients.

Research Question: 1. To detect clusters of short inter-contact intervals (ICI). 2. To relate the amount of patient's cluster to his overall fraction of short ICI, and to his diagnoses and demands.

Method: Each ICI (index) and its preceding ICI are examined in their sequence for 0 respectively up to 8 short ICI in a row, and via this the index ICI is assigned to a cluster. Patient's fractional amount of cluster, 1 to 8, within all his ICI is correlated with his overall fraction of short ICI (Spearman rank). Multivariate logistic regression at patient's annual quarter level associates frequent attender status, overall or from cluster, with 20 severe diseases and 8 care groups, here displayed as adjusted odds ratios with 99% confidence interval.

Results: In total, 1 606 729 (36.4%) of 4 408 033 ICI span less than 7 days, identifying 19 760 (11.2%) patients as frequent attenders. In total, 20 651 clusters of 8 short ICI in a row were found. The 2-short-ICI-cluster's amount in a patient correlated best with his overall fraction of short ICI ($\rho = 0.78$), less the 1-cluster's fraction (0.75), 3- (0.64), down to 8-short-ICI-cluster (0.33; all $P < 0.001$). Overall frequent attender status was mainly associated with pneumonia, skin infection, kidney failure and substance abuse. Cluster of 8 short ICI added association with osteoporosis, dementia, stroke, diabetes, and improved model prediction quality. Emergency attendance, home visits, extensive consultation and laboratory test were prominent demands from all frequent attenders.

Conclusion: Analysis of short-ICI-clusters adds to the precision in identifying frequent attenders, their typical diseases and primary care demands, compared to overall short ICI classification alone.

Turkish translation of the 4DSQ: the role of religion

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Background: The Four-Dimensional Symptom Questionnaire (4DSQ) has been translated into Turkish using forward and backward translation. The cross-cultural validity of the Turkish translation is unknown.

Research Question: Does the Turkish 4DSQ measure the same constructs (distress, depression, anxiety and somatisation) in the same way as the Dutch 4DSQ?

Method: Turkish 4DSQ data was collected in consecutive primary care attendees. Data was compared with the 4DSQ data of a matched sample of Dutch primary care attendees. Two methods of differential item functioning (DIF) analysis, ordinal logistic regression and generalized Mantel-Haenszel, were used to detect items with DIF. For each scale, Rasch analysis with concurrent item calibration was used to create a common metric for all patients and to judge the impact of DIF on the scale level.

Results: The sample comprised 352 Turkish and 352 Dutch patients of which 73% were female. The mean age was 37.4 and 38.3 years, respectively. Either method identified 9 out of 16 distress items, 4 out of 6 depression items, 4 out of 12 anxiety items and 4 out of 16 somatisation items as having DIF. The impact of DIF on the scale score was negligible for distress, anxiety and somatisation. However, a significant DIF-impact was found for the depression scale. This caused Turkish patients with moderate levels of depression (but not with severe levels of depression) to score about 1.5 points less on the depression scale. Discussion with the translators learned that responses of Turkish patients to at least one of the depression items were probably biased by Islamic religious beliefs.

Conclusion: The Turkish 4DSQ distress, anxiety and somatisation scales are cross-culturally valid. However, the 4DSQ depression score in Turkish patients cannot be interpreted in the same way as in Dutch patients because of the influence of culture and religion.

Cross-sectional study of the complex vulnerability to burn out syndrome among general practitioners

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Background: GPs coordinate medical and non-medical health problems of patients. These activities, working schedule and the need to provide continuous care makes GPs vulnerable group for the development of burnout syndrome.

Research Question: The aim of the study is to explore the profile of personality as related to psychological climate at

workplace as complex determinants of individual proneness to development of burn out among GPs.

Method: A cross-sectional study among 33GPs was performed using a battery of assessment tools: Temperament and Character Inventory (TCI-R) – 240 items courtesy of R. Cloninger; Inductive measurement of psychological climate (IMPC) – 40 items psychological climate inventory (courtesy of Koys and DeCotiis); Measurements of burn out as control condition – 22 items Maslach Burn-out Inventory. Data has been processed by SPSS 17 version, using descriptive statistics, correlation analysis, regression analysis and structural modelling, $P < 0.05$.

Results: The profile of personal vulnerability has been identified by the temperament traits as ambitious, shy, doubtful, but also enthusiastic and dedicated and character traits – purposeful, responsible, and empathic. MBI score indicated that 21.88% of the GPs were with high level of Emotional Exhaustion, 6.25% with high level of Depersonalization and 1/4 with reduced Personal Accomplishment. High scores of Pressure (IMPC) are associated with high scores of Emotional Exhaustion that lead to Burn-out syndrome. ($r_s = 0.564$, $P < 0.01$).

We found a low negative correlation between Depersonalization and Reward Dependence – TCI-R ($r_s = -0.355$), as well as between Depersonalization and Trust, Support and Recognition (IMPC). High scores in Harm Avoidance (TCI-R) are associated with low scores of Personal Accomplishment ($r_s = -0.426$).

Conclusion: The used battery, which consolidates evaluation of individual vulnerability, psychological climate and burnout reveals correlations that can be employed in the prevention of burnout syndrome by regulating such factors as Reward Dependence, obtaining Recognition and Support, avoiding Harm Avoidance.

Financial incentives related to quality indicators in European countries

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Background: The quality improvement of health care plays an important role for decades. The most commonly used measurement tools are the quality indicators nowadays. Pay for performance programs are being applied in several countries worldwide. There are also financial incentive schemes increasingly being implemented in many European countries. The efficiency of quality indicators with financial incentives is not proven. We aim to find, compare and analyse the national systems where some financial incentives are linked to quality indicators in European countries.

Research Question: 1. What is the current situation regarding the use of quality indicators' related to financial incentives in Europe? 2. Is there any research evidence about the efficiency of the indicators in these countries? 3. How can we evaluate the effectiveness and efficiency of quality indicators with pay for performance in primary care?

Method: Systematic literature review (including grey literature) and analysis of the governmental or official web sources, where these protocols and processes are published should be performed in native languages as well. We already contacted primary care experts and asked to fill out a short pre-study questionnaire about quality indicators and pay for performance in each country.

Results: The information about the legal background, national guidelines and regulations of the indicator systems are in native languages in most of the countries. We found 10 countries where primary care quality indicators are widely used with financial incentives so far. The number of quality indicators varies from 1 to 134. We identified only 8 countries where QI can influence the finances or salary of family physicians with a bonus of 1–25%.

Conclusion: not provided.

STUDY IDEAS & WORK IN PROGRESS

Special treatment for COPD smokers?

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Background: Smokers with chronic obstructive pulmonary disease (COPD) have a greater and more urgent need to stop smoking than the 'average smoker.' However, despite the well-known health risks of smoking and the availability of effective smoking cessation treatments, the prevalence of smoking in patients with COPD is still high and exceeds the rate of smoking in the general population. Various factors are associated with making an attempt to quit and using smoking cessation treatments. It is unclear, however, which factors are specific for smokers with COPD. Once we understand COPD smokers' specific needs and concerns regarding quitting and utilising cessation treatments, we can address these problems to increase smoking cessation in smokers with COPD.

Research Question: (1) What is the rate of quit attempts and use of evidence-based smoking cessation treatments in smokers with COPD compared to smokers without COPD? (2) Which factors, associated with quit attempts and utilisation of smoking cessation treatments, differentiate smokers with COPD from smokers without COPD? (3) From the patient's perspective: why do smokers with COPD choose not to quit and not to use treatments for smoking cessation that are available in primary care?

Method: We will conduct a case-cohort study in a large Dutch primary health care network. Two hundred cases (COPD smokers) will be compared to 250 controls (non-COPD smokers). Groups are matched for sex, age and health-care centre. Data will be collected using an extensive questionnaire (one COPD version, one non-COPD version). We are planning a short follow-up questionnaire in six months. Furthermore, subgroups of 10 cases and 10 controls will be interviewed based on several themes by using semi-structured in depth interviews. All participants will receive advice to quit smoking and the offer to use the smoking cessation treatments.

Evaluation of smoking cessation rates between patients who have been prescribed varenicline and underwent cognitive behavioural interview compared to patients who have been prescribed varenicline and have been subject to brief intervention about smoking c

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Background: Identifying the most effective intervention for behaviour change in smoking cessation is still a matter of interest in scientific research.

Research Question: Does informing patients about the mechanisms of developing nicotine addiction and the mode of action of the drug they are prescribed to quit smoking (varenicline) change the outcome of smoking cessation rates compared to patients who were prescribed varenicline and were subject to brief intervention about smoking cessation?

Method: Patients who presented to two periodic health examination outpatient clinics run by family physicians at a private hospital are eligible for this study. Inclusion criteria is smoking more than 10 cigarettes a day for the last consecutive year and giving informed consent. Exclusion criteria were diagnosis of mental disorders (e.g. depression, bipolar disorder). At outpatient clinic A, the patients will be given brief intervention about smoking cessation and prescribed varenicline (control group). At outpatient clinic B, patients will be prescribed varenicline and given additional information about the way nicotine dependence is developed and the mode of action of the drug they are prescribed to assist them quit smoking (varenicline) (intervention group). Patients will be assigned to intervention and control systematically by the receptionists of the hospital who give the appointments for the outpatient clinic visits. Primary outcome parameter will be smoking cessation rates of patients in both groups after six months. Sample size will be calculated to compute an estimated difference of smoking rates between two groups ($\alpha < 0.05$, $1-\beta$ 0.8, 95% CI). The estimated value will be extracted from the review of the recent relevant literature.

Which self-medications and traditional remedies do patients use when having a common cold? A cross-sectional study among patients at several European primary care sites

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Background: Common colds are self-limited diseases caused by viruses. Patients use various self-medications and home remedies to relieve symptoms. There are data about these self-selected measures, yet no analyses of patient preferences comparing different European countries.

Research Question: Which self-medications and home remedies do European patients use or take when having a common cold? Are there differences in country, age or gender, urban or rural living area?

Method: In a cross-sectional study we will survey primary care patients from at least three European countries: Macedonia, Bosnia and Herzegovina and Germany. All patients above age 18 who attend one of the participating sides on a predefined day will be asked to fill the one-page questionnaire. The questionnaire asks what they do if they have a cold, if they recommend these measures to others, and how they learned about the strategy. In addition, socio-demographic characteristics are obtained: age, gender, level of education and urban versus rural living conditions. The study is in the planning phase.

Clinician's Gut Feeling about dyspnoea and chest pain in primary care

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Background: Dyspnoea and chest pain are complaints linked with multiple pathologies from benign ones to life threatening pulmonary embolism. 'Gut Feeling' is known to play a substantial role in general practitioner's (GP's) diagnostic process. A questionnaire has been validated to measure the sense of alarm of the GP.

Research Question: Aim of the study is to measure the sensitivity and the specificity of the sense of alarm for patients who consult the GP with dyspnoea and chest pain.

Method: First step: linguistic validation procedure from English to French version of the gut feeling questionnaire including forward and backward translation with French and English native speakers. A cultural check with 10 French GPs will avoid misunderstandings. Second step: GPs will recruit adult patients who had consecutively presented with a chest pain (defined as a pressure, burning, or numbness in the chest) and/or a dyspnoea (defined as a difficult or laboured breathing). GPs will fulfil the questionnaire and describe if they perceive a sense of alarm and their level of confidence in their supposed diagnosis. Third step: follow up information after one month provided by GPs and patients. Fourth step: serious and non-serious diseases implying chest pain and/or dyspnoea will be defined using nominal group technique. A consensus panel blinded to the results of the index questionnaire will adjudicate outcomes between serious and non-serious diseases. Fifth step: statistical analysis to achieve the sensibility, specificity and likelihood ratio of the sense of alarm.

Management of patients consulting their general practitioner for low back pain

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Background: Low back pain (LBP) is a major public health problem, and one the most frequent reasons for encounter in general practice. In France, data is lacking on management of LBP by the general practitioners (GP).

Research Question: Aim of this on going study is to describe the management of patients from 18 to 65 consulting their GP for LBP.

Method: Ecogen is a French national descriptive study, undertaken in 128 different offices of general practice in 2012. One day by week, for all the consultations, all the reasons for encounter, the diagnosis and the procedures implemented by the GPs were recorded according to the International Classification of Primary Care (ICPC-2). All patients from 18 to 65 seeking care for LBP were selected. Then the population and all the diagnostic, therapeutic, preventive and administrative procedures related to these consultations were described. Finally, some typical associations of procedures were looked for, and compared according to the characteristics of the patients and of the GPs.

About 650 consultations will probably be selected. As suggested by international literature, prescriptions of radiological exams, drugs, physiotherapy, sick leave and occupational disease certifications may represent the main part of the procedures implemented by the GP.

The impact of peer education at high school students' internet addiction

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Background: Hazardous internet use is a new area of research. Studies are rapidly accumulating in this area. Many treatment modalities are being tried including cognitive behavioural therapy. Peer education is a popular method to create attitude change and is used by many disciplines. An intervention study for adolescents is planned based on the idea of peer education may also be useful in the treatment of internet addiction.

Research Question: What is the efficacy of peer education in the treatment of internet addiction among high school students?

Method: Research is designed as randomized controlled trial and will be conducted in two stages. Participants of the study will be selected from high school students in Izmir, Turkey. In the first stage, a questionnaire consisting of demographic variables and questions about attitudes regarding internet usage and 'Online Cognition Scale' developed by Davis will be implemented. This scale is reliable and valid in Turkish. This stage will determine the students with internet addiction. Students will be randomly assigned to intervention and control groups according to their level of dependency. The intervention stage will last six months. In the first step, the medical students will be trained about consultancy in internet

addiction. High school students will be interviewed by a peer and a faculty of family medicine. During next five months, there will be three group therapy sessions and telephone counselling as needed. At the end of intervention stage 'Online Cognition Scale,' an attitude questionnaire will be implemented again, to determine changes of attitude and behaviour about internet usage. Descriptive statistics and t-test on dependent and independent groups will be used in statistical analysis.

Youth risk behaviour surveillance, Izmir, 2013

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Background: Priority health-risk behaviours, which are behaviours that contribute to the leading causes of morbidity and mortality among youth and adults, often are established during childhood and adolescence, extend into adulthood, and are preventable. It was aimed to find out the surveillance of the risky behaviours in late adolescents, in Izmir, Turkey.

Research Question: What is the surveillance of late adolescent risk behaviours in Izmir, 2013?

Method: Study will be performed between January-December 2013 (one year). The sampling frame for our study consisted of all regular public and private medical schools with students between 17–20 years old. Study is designed to protect students' privacy by allowing for anonymous and voluntary participation. Standard questionnaire contains 56 questions. After explanation of the questionnaire, verbal approval will be asked. Statistical analyses will be conducted on weighted data using SPSS 18. Then the results will be assessed statistically by chi-square test. Differences between prevalence estimates will be considered statistically significant if the p value is < 0.05 for main effects. By using Cronbach's alpha value and the factor analysing of the questionnaire, the applicability of the questionnaire for our community will be checked.

Results: After the application; results will be shared with all the institutions.

Prevalence of intimate partner violence and the association with obstetric and gynaecological problems in family practice

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Background: Intimate partner violence is highly prevalent and has negative consequences for the physical and mental health of the victims. Although family physicians develop a long trusting relationship with their patients, IPV is often poorly recognized. To improve the identification, it is necessary to

know which symptoms are more prevalent in abused than non abused women.

Research Question: What is the prevalence of IPV in family practice? Is there a significant difference between abused and non abused women in their presentation of obstetric and gynaecological problems?

Method: A case control study was conducted in 11 family practices in Nijmegen and surroundings, the Netherlands. The study was focused on women of 18 years or older attending family practice. We used questionnaires to measure socio demographic factors, IPV (Composite Abuse Scale) and obstetric and gynaecological problems. Descriptive statistics will be to measure the prevalence of IPV. Chi square tests and logistic regression analysis will be used to find out if there are significant differences between abused and non abused women in their presentation of obstetric and gynaecological problems in family practice.

Co-morbidity of diabetes and depression – investigation in the primary care

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Background: Coexistence of depression and diabetes (Dia&Dep) is associated with a higher rate of morbidity and mortality compared to patients with diabetes or depression. Patients with diabetes and depression demonstrate poor adherence to diabetes management, which results in poor glycaemic control. Patients with Dia&Dep have higher rate of micro vascular and macro vascular diabetes complication. The higher rate of mortality is not related to cancer neither to cardiovascular diseases. Similar to other situations, depression accompanying diabetes is under diagnosed and undertreated in the primary care (PC).

Research Question: What characterises the visit in the PC of patients with diabetes who suffer also from depression? Is there a difference in characteristics between patients whose depression is diagnosed and/or treated?

Method: A cross-sectional study. The study will be conducted in the PC setting including patients of one GP. Patients with diabetes will be interviewed and examined. The instrument for diagnosing depression: BDI (Beck Inventory Instrument). The problem list would present the physical and mental problem raised during the visit and originate from the medical record.

Expected Results: We expect that data collected would be useful for GPs to identify their patients with Dia&Dep by parameters of health behaviour. That would help GPs to respond better to patients' needs.

Evaluation of mild cognitive impairment and dementia in primary care

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Background: Dementia is an important public health problem due either to severe morbidity and increased mortality among patients or heavy burden on the caregivers of such patients caused by the disease. Concerning progression in memory loss as a natural consequence of aging, a misbelieve makes dementia difficult to be diagnosed in early period. This leads to dementia to be frequently overlooked both by the patient's relatives and the physicians, even though it is a common disease in old population.

Research Question: The present study aimed to assess the prevalence of mild cognitive impairment and dementia via MMSE, clock-drawing and three objects remembering test in the patients presenting to primary care settings.

Method: The present study has been designed as a cross-sectional descriptive study. A total of 350 female and 500 male patients aged over 50 years, who have been registered to the Sultanbeyli Gazi Mahallesi FHC and Pendik Esenyali FHC, have been planned to be invited to participate in the study during their polyclinic visits between 1 January 2013 and 31 December 2013. A questionnaire, which inquires socio-demographic data and chronic diseases, other than presenting complaints, was planned to be completed via face-to-face interview in question-answer format based on voluntariness after obtaining the informed consents of the patients. MMSE (Mini mental state evaluation), clock-drawing and remembering three objects tests were planned to be performed.

Laboratory analyses and short geriatric depression scale were planned to be used for differential diagnosis of dementia.

Risk factors and fluid biomarkers for neurodegenerative disorders

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Background: This BioProject to be developed with broad applicability in clinics and primary care research settings, also for biotechnology works, focuses on the identification and study of specific biomarkers, which occur in plasma, cerebrospinal fluid (CSF) consisting of risk factors (RF) or outcomes risky behaviours released neurodegenerative syndromes.

Clinical data/standardization reveals logistics, availability of control samples, of pathology-time dividing the people into disease-specific cohort (total approximately: 300 individuals) and healthy cohort (total approximately: 400 individuals), availability of study and forward treatments as regards the patients with Alzheimer's Disease (AD), Parkinson Disease (PD), Frontotemporal Lobar Degeneration (FTLD)/ Frontotemporal Dementia (FTD), Vascular Dementia (VaD), Motor Neuron Disease (MND), Spinocerebral Ataxia (SCA), Huntington's Disease (HD), related combination-diseases.

Research Question: Considering some famous research findings, the underlying question is occurring in the thoughts of each research-worker: What would be single or mixed types of biomarkers to use as classification tool to discriminate Dementia's subjects from healthy people? What therapy would be the most appropriate to each other suffering?

Method: New methods incorporate conventional methods concerning biomedical and clinical practice; modern approaches of Nan- medicine will be practiced for the biomedical works and because, dementia (D) is not merely a memory problem, clinical considerations of one or more additional behavioural or cognitive disturbances including aphasia, apraxia using DSM4TR criteria, rating anxiety, rating scale for depression.

A reference searching routine spectrum of CSF/plasma would identify specific proteins such as phosphor-Tau protein (p-tau181) and lipids' disturbances.

Interventions and models to amend a shortage of general practitioners in rural and remote areas in Europe, IMAGinE Rural

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Background: In most European countries, there is a shortage of rural doctors, threatening access to healthcare for rural populations, and hampering the socioeconomic viability of rural areas. A recent WHO review points out that though interventions to recruit and retain rural doctors have been implemented; there is 'a remarkable shortage of evaluation and evidence for any model.' They also indicate a lack of methodological frameworks on how to assess the effectiveness of such strategies and interventions.

Research Question: IMAGinE Rural will provide a European inventory of interventions and organizational models intended to recruit and retain rural doctors, and/or to delegate care to non-physician providers to maintain good care in a situation of dearth.

Method: If funded, IMAGinE Rural shall include EGPRN and EURIPA member countries. Policy reports, published and grey literature will be retrieved and reviewed. Experiences and attitudes of health and rural policy stakeholders, primary healthcare providers and their organisations will be surveyed, and their concepts will be studied qualitatively in a subsample of countries. Healthcare use and outcome data will be used for evaluation if locally available. Models will be classified in their approach and evaluation status, and their effectiveness will be comparatively assessed against the various European health care systems. Stakeholder workshops will explore possibilities for implementation of promising models using a participatory learning and action approach.

Mother's knowledge and awareness about childhood vaccination in primary care

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Background: Vaccination is the basis of preventive health services in primary care. Many preventable infectious diseases have been controlled by vaccination. The number of diseases, which can be reduced by immunization, has been increased by Extended Immunization Program (EIP). Immunization prevents 2–3 million deaths each year. However, there are still 23 million people who remain unvaccinated all over the world.

Research Question: The mothers of the children, who were at the age of vaccination, have knowledge about vaccination and have accurate attitudes. In Family Health Centre (FHC), it was observed during immunization services that mothers are short of knowledge about vaccines, cannot develop accurate attitude, and leave initiative about the procedure to the physicians and nurses. Increased consciousness about immunization and effective vaccination would be possible only with compliant mothers that have been illuminated and informed about the procedure.

Method: The study was planned to be conducted between 1 January and 31 March 2013 after obtaining necessary permissions and approval of the ethical committee. A semi-structured questionnaire, which has been developed by the researches and includes questions inquiring socio-demographic characteristics and information about vaccines, as well as Likert-type questions inquiring attitudes, has been designed as the tool for data collection via face-to-face interview. The questionnaire was applied to 15 voluntary mothers as a pilot study. This questionnaire was used because participants experienced no problem of understanding the questionnaire. The present study is a cross-sectional descriptive study that evaluates knowledge and attitude. The study was planned to be conducted in Pendik Esenyali FHC and Sultanbeyli Gazi Mahalləsi FHC, and 200 mothers of the babies that are in the first 2 years of their lives and have been registered to these centres were planned to be invited to participate in the study.

Expected Results: Research in progress.

Do we need new and more classes in a coming ICPC-3 to adequately describe the content of Primary Care?

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Background: In many countries the second version of the International Classification of Primary Care (ICPC-2) is used in to describe the work of general practitioners in statistical terms. The classification reflects the characteristic distribution and content of major aspects of primary care. Strengths of the ICPC-2 are its simple structure, the mnemonic classes and the low granularity. However, for coding clinical data in medical records sometimes more granularity might be needed. Despite some updating work, the classes essentially remained the same since 1998. Changing clinical realities and new developments in family practice may have necessitated new classes.

Research Question: How well does ICPC-2 cover and adequately describe the domain of family medicine, and which new classes would need to be introduced in a coming ICPC-3 to make it a better tool for research in family medicine?

Method: The study design is cross sectional. Data analysis of the Dutch and Maltese Transition-Project, and the German CONTENT-Project collected from electronic patient records (EPR) of family practices in these countries was performed. In the EPRs of both projects, health problems (diagnoses) are double coded with ICPC-2 and ICD-10. This double coding was used to analyse the content of all classes of the ICPC-2 at a higher granularity to learn more about the necessity of possibly new classes needed. As a first step, focus was on health problems in the chapters 'General and unspecified,' 'Digestive system,' 'Psychological-' and 'Social Problems.' Proposals of new classes will be based on frequencies found, systematic requirements and agreement among the researchers.