

## **РЕЗЮМЕТА НА НАУЧНИ ПУБЛИКАЦИИ НА ДОЦ. Д-Р ХРИСТО ХИНКОВ, ДМ В СПЕЦИАЛИЗИРАНИ НАУЧНИ ИЗДАНИЯ СЛЕД ПРИДОБИВАНЕ НА АКАДЕМИЧНА ДЛЪЖНОСТ „ДОЦЕНТ“**

### **1) Perceived helpfulness of treatment for alcohol use disorders: Findings from the World Mental Health Surveys**

We examined prevalence and factors associated with receiving perceived helpful alcohol use disorder (AUD) treatment, and persistence in help-seeking after earlier unhelpful treatment. Methods: Data came from 27 community epidemiologic surveys of adults in 24 countries using the World Health Organization World Mental Health surveys (n = 93,843). Participants with a lifetime history of treated AUD were asked if they ever received helpful AUD treatment, and how many professionals they had talked to up to and including the first time they received helpful treatment (or how many ever, if they had not received helpful treatment). Results: 11.8% of respondents with lifetime AUD reported ever obtaining treatment (n = 9378); of these, 44% reported that treatment was helpful. The probability of obtaining helpful treatment from the first professional seen was 21.8%; the conditional probability of subsequent professionals being helpful after earlier unhelpful treatment tended to decrease as more professionals were seen. The cumulative probability of receiving helpful treatment at least once increased from 21.8% after the first professional to 79.7% after the seventh professional seen, following earlier unhelpful treatment. However, the cumulative probability of persisting with up to seven professionals in the face of prior treatments being unhelpful was only 13.2%. Conclusion: Fewer than half of people with AUDs who sought treatment found treatment helpful; the most important factor was persistence in seeking further treatment if a previous professional had not helped. Future research should examine how to increase the likelihood that AUD treatment is found to be helpful on any given contact.

### **2) Perceived helpfulness of treatment for generalized anxiety disorder: a World Mental Health Surveys report**

Background: Treatment guidelines for generalized anxiety disorder (GAD) are based on a relatively small number of randomized controlled trials and do not consider patient-centered perceptions of treatment helpfulness. We investigated the prevalence and predictors of patient-reported treatment helpfulness for DSM-5 GAD and its two main treatment pathways: encounter-level treatment helpfulness and persistence in help-seeking after prior unhelpful treatment. Methods: Data came from community epidemiologic surveys in 23 countries in the WHO World Mental Health surveys. DSM-5 GAD was assessed with the fully structured WHO Composite International Diagnostic Interview Version 3.0. Respondents with a history of GAD were asked whether they ever received treatment and, if so, whether they ever considered this treatment helpful. Number of professionals seen before obtaining helpful treatment was also assessed. Parallel survival models estimated probability and predictors of a given treatment being perceived as helpful and of persisting in help-seeking after prior unhelpful treatment. Results: The overall prevalence rate of GAD was 4.5%, with lower prevalence in low/middle-income countries (2.8%) than high-income countries (5.3%); 34.6% of respondents with lifetime GAD

reported ever obtaining treatment for their GAD, with lower proportions in low/middle-income countries (19.2%) than high-income countries (38.4%); 3) 70% of those who received treatment perceived the treatment to be helpful, with prevalence comparable in low/middle-income countries and high-income countries. Survival analysis suggested that virtually all patients would have obtained helpful treatment if they had persisted in help-seeking with up to 10 professionals. However, we estimated that only 29.7% of patients would have persisted that long. Obtaining helpful treatment at the person-level was associated with treatment type, comorbid panic/agoraphobia, and childhood adversities, but most of these predictors were important because they predicted persistence rather than encounter-level treatment helpfulness. Conclusions: The majority of individuals with GAD do not receive treatment. Most of those who receive treatment regard it as helpful, but receiving helpful treatment typically requires persistence in help-seeking. Future research should focus on ensuring that helpfulness is included as part of the evaluation. Clinicians need to emphasize the importance of persistence to patients beginning treatment

### **3) Perceived helpfulness of bipolar disorder treatment: Findings from the World Health Organization World Mental Health Surveys**

Objectives: To examine patterns and predictors of perceived treatment helpfulness for mania/hypomania and associated depression in the WHO World Mental Health Surveys. Methods: Face-to-face interviews with community samples across 15 countries found  $n = 2,178$  who received lifetime mania/hypomania treatment and  $n = 624$  with lifetime mania/hypomania who received lifetime major depression treatment. These respondents were asked whether treatment was ever helpful and, if so, the number of professionals seen before receiving helpful treatment. Patterns and predictors of treatment helpfulness were examined separately for mania/hypomania and depression. Results: 63.1% (mania/hypomania) and 65.1% (depression) of patients reported ever receiving helpful treatment. However, only 24.5–22.5% were helped by the first professional seen, which means that the others needed to persist in help seeking after initial unhelpful treatments in order to find helpful treatment. Projections find only 22.9% (mania/hypomania) and 43.3% (depression) would persist through a series of unhelpful treatments but that the proportion helped would increase substantially if persistence increased. Few patient-level significant predictors of helpful treatment emerged and none consistently either across the two components (i.e., provider-level helpfulness and persistence after earlier unhelpful treatment) or for both mania/hypomania and depression. Although prevalence of treatment was higher in high-income than low/middle-income countries, proportional helpfulness among treated cases was nearly identical in the two groups of countries. Conclusions: Probability of patients with mania/hypomania and associated depression obtaining helpful treatment might increase substantially if persistence in help-seeking increased after initially unhelpful treatments, although this could require seeing numerous additional treatment providers. In addition to investigating reasons for initial treatments not being helpful, messages reinforcing the importance of persistence should be emphasized to patients.

#### **4) Patterns of care and dropout rates from outpatient mental healthcare in low-, middle- And high-income countries from the World Health Organization's World Mental Health Survey Initiative**

Background There is a substantial proportion of patients who drop out of treatment before they receive minimally adequate care. They tend to have worse health outcomes than those who complete treatment. Our main goal is to describe the frequency and determinants of dropout from treatment for mental disorders in low-, middle-, and high-income countries. Methods Respondents from 13 low- or middle-income countries (N = 60 224) and 15 in high-income countries (N = 77 303) were screened for mental and substance use disorders. Cross-tabulations were used to examine the distribution of treatment and dropout rates for those who screened positive. The timing of dropout was examined using Kaplan-Meier curves. Predictors of dropout were examined with survival analysis using a logistic link function. Results Dropout rates are high, both in high-income (30%) and low/middle-income (45%) countries. Dropout mostly occurs during the first two visits. It is higher in general medical rather than in specialist settings (nearly 60% v. 20% in lower income settings). It is also higher for mild and moderate than for severe presentations. The lack of financial protection for mental health services is associated with overall increased dropout from care. Conclusions Extending financial protection and coverage for mental disorders may reduce dropout. Efficiency can be improved by managing the milder clinical presentations at the entry point to the mental health system, providing adequate training, support and specialist supervision for non-specialists, and streamlining referral to psychiatrists for more severe cases.

#### **5) Quality indicators for mental healthcare in the Danube region: results from a pilot feasibility study**

Quality indicators are vital for monitoring the transformation of institution-based mental health services towards the provision of person-centered mental healthcare. While several mental healthcare quality indicators have been identified as relevant and valid, their actual usability and utility for routine monitoring healthcare quality over time is significantly determined by the availability and trustworthiness of the underlying data. In this feasibility study, quality indicators that have been systematically identified for use in the Danube region countries of Bulgaria, the Czech Republic, Hungary, and Serbia were measured on the basis of existing mental healthcare data in the four countries. Data were collected retrospectively by means of the best available, most standardized, trustworthy, and up-to-date data in each country. Out of 21 proposed quality indicators, 18 could be measured in Hungary, 17 could be measured in Bulgaria and in the Czech Republic, and 8 could be measured in Serbia. The results demonstrate that a majority of quality indicators can be measured in most of the countries by means of already existing data, thereby demonstrating the feasibility of quality measurement and regular quality monitoring. However, data availability and usability are scattered across countries and care sectors, which leads to variations in the quality of the quality indicators themselves. Making the planning and outputs of national mental healthcare reforms more transparent and evidence-based requires (trans-)national standardization of healthcare quality data, their routine availability and standardized assessment, and the regular reporting of quality indicators. © 2020, Springer-Verlag GmbH Germany, part of Springer Nature.

## **6) Perceived helpfulness of treatment for posttraumatic stress disorder: Findings from the World Mental Health Surveys**

Background: Perceived helpfulness of treatment is an important healthcare quality indicator in the era of patient-centered care. We examine probability and predictors of two key components of this indicator for posttraumatic stress disorder (PTSD). Methods: Data come from World Mental Health surveys in 16 countries. Respondents who ever sought PTSD treatment (n = 779) were asked if treatment was ever helpful and, if so, the number of professionals they had to see to obtain helpful treatment. Patients whose treatment was never helpful were asked how many professionals they saw. Parallel survival models were estimated for obtaining helpful treatment in a specific encounter and persisting in help-seeking after earlier unhelpful encounters. Results: Fifty seven percent of patients eventually received helpful treatment, but survival analysis suggests that it would have been 85.7% if all patients had persisted in help-seeking with up to six professionals after earlier unhelpful treatment. Survival analysis suggests that only 23.6% of patients would persist to that extent. Odds of ever receiving helpful treatment were positively associated with receiving treatment from a mental health professional, short delays in initiating help-seeking after onset, absence of prior comorbid anxiety disorders and childhood adversities, and initiating treatment before 2000. Some of these variables predicted helpfulness of specific treatment encounters and others predicted persistence after earlier unhelpful encounters. Conclusions: The great majority of patients with PTSD would receive treatment they considered helpful if they persisted in help-seeking after initial unhelpful encounters, but most patients whose initial treatment is unhelpful give up before receiving helpful treatment. © 2020 Wiley Periodicals LLC

## **7) The epidemiology of alcohol use disorders cross-nationally: Findings from the World Mental Health Surveys**

Background: Prevalences of Alcohol Use Disorders (AUDs) and Mental Health Disorders (MHDs) in many individual countries have been reported but there are few cross-national studies. The WHO World Mental Health (WMH) Survey Initiative standardizes methodological factors facilitating comparison of the prevalences and associated factors of AUDs in a large number of countries to identify differences and commonalities. Methods: Lifetime and 12-month prevalence estimates of DSM-IV AUDs, MHDs, and associations were assessed in the 29 WMH surveys using the WHO CIDI 3.0. Results: Prevalence estimates of alcohol use and AUD across countries and WHO regions varied widely. Mean lifetime prevalence of alcohol use in all countries combined was 80%, ranging from 3.8% to 97.1%. Combined average population lifetime and 12-month prevalence of AUDs were 8.6% and 2.2% respectively and 10.7% and 4.4% among non-abstainers. Of individuals with a lifetime AUD, 43.9% had at least one lifetime MHD and 17.9% of respondents with a lifetime MHD had a lifetime AUD. For most comorbidity combinations, the MHD preceded the onset of the AUD. AUD prevalence was much higher for men than women. 15% of all lifetime AUD cases developed before age 18. Higher household income and being older at time of interview, married, and more educated, were associated with a lower risk for lifetime AUD and AUD persistence. Conclusions: Prevalence of alcohol use and AUD is high overall, with large variation worldwide. The WMH

surveys corroborate the wide geographic consistency of a number of well-documented clinical and epidemiological findings and patterns.

### **8) Pre-marital predictors of marital violence in the WHO World Mental Health (WMH) Surveys**

**Purpose:** Intimate partner violence (IPV) is a pervasive public health problem. Existing research has focused on reports from victims and few studies have considered pre-marital factors. The main objective of this study was to identify pre-marital predictors of IPV in the current marriage using information obtained from husbands and wives. **Methods:** Data from were obtained from married heterosexual couples in six countries. Potential predictors included demographic and relationship characteristics, adverse childhood experiences, dating violence, and psychiatric disorders. Reports of IPV and other characteristics from husbands and wives were considered independently and in relation to spousal reports. **Results:** Overall, 14.4% of women were victims of IPV in the current marriage. Analyses identified ten significant variables including age at first marriage (husband), education, relative number of previous marriages (wife), history of one or more categories of childhood adversity (husband or wife), history of dating violence (husband or wife), early initiation of sexual intercourse (husband or wife), and four combinations of internalizing and externalizing disorders. The final model was moderately predictive of marital violence, with the 5% of women accounting for 18.6% of all cases of marital IPV. **Conclusions:** Results from this study advance understanding of pre-marital predictors of IPV within current marriages, including the importance of considering differences in the experiences of partners prior to marriage and may provide a foundation for more targeted primary prevention efforts.

### **9) Cross-national patterns of substance use disorder treatment and associations with mental disorder comorbidity in the WHO World Mental Health Surveys**

**Aims:** To examine cross-national patterns of 12-month substance use disorder (SUD) treatment and minimally adequate treatment (MAT), and associations with mental disorder comorbidity. **Design:** Cross-sectional, representative household surveys. **Setting:** Twenty-seven surveys from 25 countries of the WHO World Mental Health Survey Initiative. **Participants:** A total of 2446 people with past-year DSM-IV SUD diagnoses (alcohol or illicit drug abuse and dependence). **Measurements:** Outcomes were SUD treatment, defined as having either received professional treatment or attended a self-help group for substance-related problems in the past 12 months, and MAT, defined as having either four or more SUD treatment visits to a health-care professional, six or more visits to a non-health-care professional or being in ongoing treatment at the time of interview. **Covariates** were mental disorder comorbidity and several socio-economic characteristics. Pooled estimates reflect country sample sizes rather than population sizes. **Findings:** Of respondents with past-year SUD, 11.0% [standard error (SE) = 0.8] received past 12-month SUD treatment. SUD treatment was more common among people with comorbid mental disorders than with pure SUDs (18.1%, SE = 1.6 versus 6.8%, SE = 0.7), as was MAT (84.0%, SE = 2.5 versus 68.3%, SE = 3.8) and treatment by health-care professionals (88.9%, SE = 1.9 versus 78.8%, SE = 3.0) among treated SUD cases. Adjusting for socio-economic characteristics, mental disorder comorbidity doubled the odds of SUD treatment [odds ratio (OR) = 2.34; 95% confidence interval (CI) = 1.71–3.20], MAT among SUD cases (OR = 2.75;

95% CI = 1.90–3.97) and MAT among treated cases (OR = 2.48; 95% CI = 1.23–5.02). Patterns were similar within country income groups, although the proportions receiving SUD treatment and MAT were higher in high- than low-/middle-income countries. Conclusions: Few people with past-year substance use disorders receive adequate 12-month substance use disorder treatment, even when comorbid with a mental disorder. This is largely due to the low proportion of people receiving any substance use disorder treatment, as the proportion of patients whose treatment is at least minimally adequate is high.

### **10) Association of Cohort and Individual Substance Use with Risk of Transitioning to Drug Use, Drug Use Disorder, and Remission from Disorder: Findings from the World Mental Health Surveys**

Importance: Limited empirical research has examined the extent to which cohort-level prevalence of substance use is associated with the onset of drug use and transitioning into greater involvement with drug use. Objective: To use cross-national data to examine time-space variation in cohort-level drug use to assess its associations with onset and transitions across stages of drug use, abuse, dependence, and remission. Design, Setting, and Participants: The World Health Organization World Mental Health Surveys carried out cross-sectional general population surveys in 25 countries using a consistent research protocol and assessment instrument. Adults from representative household samples were interviewed face-to-face in the community in relation to drug use disorders. The surveys were conducted between 2001 and 2015. Data analysis was performed from July 2017 to July 2018. Main Outcomes and Measures: Data on timing of onset of lifetime drug use, DSM-IV drug use disorders, and remission from these disorders was assessed using the Composite International Diagnostic Interview. Associations of cohort-level alcohol prevalence and drug use prevalence were examined as factors associated with these transitions. Results: Among the 90027 respondents (48.1% [SE, 0.2%] men; mean [SE] age, 42.1 [0.1] years), 1 in 4 (24.8% [SE, 0.2%]) reported either illicit drug use or extramedical use of prescription drugs at some point in their lifetime, but with substantial time-space variation in this prevalence. Among users, 9.1% (SE, 0.2%) met lifetime criteria for abuse, and 5.0% (SE, 0.2%) met criteria for dependence. Individuals who used 2 or more drugs had an increased risk of both abuse (odds ratio, 5.17 [95% CI, 4.66-5.73];  $P < .001$ ) and dependence (odds ratio, 5.99 [95% CI, 5.02-7.16];  $P < .001$ ) and reduced probability of remission from abuse (odds ratio, 0.86 [95% CI, 0.76-0.98];  $P = .02$ ). Birth cohort prevalence of drug use was also significantly associated with both initiation and illicit drug use transitions; for example, after controlling for individuals' experience of substance use and demographics, for each additional 10% of an individual's cohort using alcohol, a person's odds of initiating drug use increased by 28% (odds ratio, 1.28 [95% CI, 1.26-1.31]). Each 10% increase in a cohort's use of drug increased individual risk by 12% (1.12 [95% CI, 1.11-1.14]). Conclusions and Relevance: Birth cohort substance use is associated with drug use involvement beyond the outcomes of individual histories of alcohol and other drug use. This has important implications for understanding pathways into and out of problematic drug use.

### **11) Childhood generalized specific phobia as an early marker of internalizing psychopathology across the lifespan: Results from the World Mental Health Surveys**

Background: Specific phobia (SP) is a relatively common disorder associated with high levels of psychiatric comorbidity. Because of its early onset, SP may be a useful early marker of internalizing psychopathology, especially if generalized to multiple situations. This study aimed to evaluate the association of childhood generalized SP with comorbid internalizing disorders. Methods: We conducted retrospective analyses of the cross-sectional population-based World Mental Health Surveys using the Composite International Diagnostic Interview. Outcomes were lifetime prevalence, age of onset, and persistence of internalizing disorders; past-month disability; lifetime suicidality; and 12-month serious mental illness. Logistic and linear regressions were used to assess the association of these outcomes with the number of subtypes of childhood-onset (< 13 years) SP. Results: Among 123,628 respondents from 25 countries, retrospectively reported prevalence of childhood SP was 5.9%, 56% of whom reported one, 25% two, 10% three, and 8% four or more subtypes. Lifetime prevalence of internalizing disorders increased from 18.2% among those without childhood SP to 46.3% among those with one and 75.6% those with 4+ subtypes (OR = 2.4, 95% CI 2.3-2.5,  $p < 0.001$ ). Twelve-month persistence of lifetime internalizing comorbidity at interview increased from 47.9% among those without childhood SP to 59.0% and 79.1% among those with 1 and 4+ subtypes (OR = 1.4, 95% CI 1.4-1.5,  $p < 0.001$ ). Respondents with 4+ subtypes also reported significantly more disability (3.5 days out of role in the past month) than those without childhood SP (1.1 days) or with only 1 subtype (1.8 days) ( $B = 0.56$ , SE 0.06,  $p < 0.001$ ) and a much higher rate of lifetime suicide attempts (16.8%) than those without childhood SP (2.0%) or with only 1 subtype (6.5%) (OR = 1.7, 95% CI 1.7-1.8,  $p < 0.001$ ). Conclusions: This large international study shows that childhood-onset generalized SP is related to adverse outcomes in the internalizing domain throughout the life course. Comorbidity, persistence, and severity of internalizing disorders all increased with the number of childhood SP subtypes. Although our study cannot establish whether SP is causally associated with these poor outcomes or whether other factors, such as a shared underlying vulnerability, explain the association, our findings clearly show that childhood generalized SP identifies an important target group for early intervention.

### **12) The associations of earlier trauma exposures and history of mental disorders with PTSD after subsequent traumas**

Although earlier trauma exposure is known to predict posttraumatic stress disorder (PTSD) after subsequent traumas, it is unclear whether this association is limited to cases where the earlier trauma led to PTSD. Resolution of this uncertainty has important implications for research on pretrauma vulnerability to PTSD. We examined this issue in the World Health Organization (WHO) World Mental Health (WMH) Surveys with 34 676 respondents who reported lifetime trauma exposure. One lifetime trauma was selected randomly for each respondent. DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, 4th Edition) PTSD due to that trauma was assessed. We reported in a previous paper that four earlier traumas involving interpersonal violence significantly predicted PTSD after subsequent random traumas (odds ratio (OR)=1.3–2.5). We also assessed 14 lifetime DSM-IV mood, anxiety, disruptive behavior and substance disorders before random traumas. We show in the current report that only prior anxiety disorders

significantly predicted PTSD in a multivariate model (OR=1.5–4.3) and that these disorders interacted significantly with three of the earlier traumas (witnessing atrocities, physical violence victimization and rape). History of witnessing atrocities significantly predicted PTSD after subsequent random traumas only among respondents with prior PTSD (OR=5.6). Histories of physical violence victimization (OR=1.5) and rape after age 17 years (OR=17.6) significantly predicted only among respondents with no history of prior anxiety disorders. Although only preliminary due to reliance on retrospective reports, these results suggest that history of anxiety disorders and history of a limited number of earlier traumas might usefully be targeted in future prospective studies as distinct foci of research on individual differences in vulnerability to PTSD after subsequent traumas

### **13) Socio-economic variations in the mental health treatment gap for people with anxiety, mood, and substance use disorders: Results from the WHO World Mental Health (WMH) surveys**

**Background** The treatment gap between the number of people with mental disorders and the number treated represents a major public health challenge. We examine this gap by socio-economic status (SES; indicated by family income and respondent education) and service sector in a cross-national analysis of community epidemiological survey data. **Methods** Data come from 16 753 respondents with 12-month DSM-IV disorders from community surveys in 25 countries in the WHO World Mental Health Survey Initiative. DSM-IV anxiety, mood, or substance disorders and treatment of these disorders were assessed with the WHO Composite International Diagnostic Interview (CIDI). **Results** Only 13.7% of 12-month DSM-IV/CIDI cases in lower-middle-income countries, 22.0% in upper-middle-income countries, and 36.8% in high-income countries received treatment. Highest-SES respondents were somewhat more likely to receive treatment, but this was true mostly for specialty mental health treatment, where the association was positive with education (highest treatment among respondents with the highest education and a weak association of education with treatment among other respondents) but non-monotonic with income (somewhat lower treatment rates among middle-income respondents and equivalent among those with high and low incomes). **Conclusions** The modest, but nonetheless stronger, an association of education than income with treatment raises questions about a financial barriers interpretation of the inverse association of SES with treatment, although future within-country analyses that consider contextual factors might document other important specifications. While beyond the scope of this report, such an expanded analysis could have important implications for designing interventions aimed at increasing mental disorder treatment among socio-economically disadvantaged people.

### **14) Psychotic experiences and religiosity: data from the WHO World Mental Health Surveys**

**Objectives:** Religiosity is often associated with better health outcomes. The aim of the study was to examine associations between psychotic experiences (PEs) and religiosity in a large, cross-national sample. **Methods:** A total of 25 542 adult respondents across 18 countries from the WHO World Mental Health Surveys were assessed for PEs, religious affiliation and indices of religiosity, DSM-IV mental disorders and general medical conditions. Logistic regression models

were used to estimate the association between PEs and religiosity with various adjustments. Results: Of 25 542 included respondents, 85.6% (SE = 0.3) (n = 21 860) respondents reported having a religious affiliation. Overall, there was no association between religious affiliation status and PEs. Within the subgroup having a religious affiliation, four of five indices of religiosity were significantly associated with increased odds of PEs (odds ratios ranged from 1.3 to 1.9). The findings persisted after adjustments for mental disorders and/or general medical conditions, as well as religious denomination type. There was a significant association between increased religiosity and reporting more types of PEs. Conclusions: Among individuals with religious affiliations, those who reported more religiosity on four of five indices had increased odds of PEs. Focussed and more qualitative research will be required to unravel the interrelationship between religiosity and PEs.

### **15) Civilians in World War II and DSM-IV mental disorders: results from the World Mental Health Survey Initiative**

Purpose: Understanding the effects of war on mental disorders is important for developing effective post-conflict recovery policies and programs. The current study uses cross-sectional, retrospectively reported data collected as part of the World Mental Health (WMH) Survey Initiative to examine the associations of being a civilian in a war zone/region of terror in World War II with a range of DSM-IV mental disorders. Methods: Adults (n = 3370) who lived in countries directly involved in World War II in Europe and Japan were administered structured diagnostic interviews of lifetime DSM-IV mental disorders. The associations of war-related traumas with subsequent disorder onset-persistence were assessed with discrete-time survival analysis (lifetime prevalence) and conditional logistic regression (12-month prevalence). Results: Respondents who were civilians in a war zone/region of terror had higher lifetime risks than other respondents of major depressive disorder (MDD; OR 1.5, 95% CI 1.1, 1.9) and anxiety disorder (OR 1.5, 95% CI 1.1, 2.0). The association of war exposure with MDD was strongest in the early years after the war, whereas the association with anxiety disorders increased over time. Among lifetime cases, war exposure was associated with lower past year risk of anxiety disorders (OR 0.4, 95% CI 0.2, 0.7). Conclusions: Exposure to war in World War II was associated with higher lifetime risk of some mental disorders. Whether comparable patterns will be found among civilians living through more recent wars remains to be seen, but should be recognized as a possibility by those projecting future needs for treatment of mental disorders.

### **16) Recovery from DSM-IV post-traumatic stress disorder in the WHO World Mental Health surveys**

Background Research on post-traumatic stress disorder (PTSD) course finds a substantial proportion of cases remit within 6 months, a majority within 2 years, and a substantial minority persists for many years. Results are inconsistent about pre-trauma predictors. Methods The WHO World Mental Health surveys assessed lifetime DSM-IV PTSD presence-course after one randomly-selected trauma, allowing retrospective estimates of PTSD duration. Prior traumas, childhood adversities (CAs), and other lifetime DSM-IV mental disorders were examined as predictors using discrete-time person-month survival analysis among the 1575 respondents with lifetime PTSD. Results 20%, 27%, and 50% of cases recovered within 3, 6, and 24 months and

77% within 10 years (the longest duration allowing stable estimates). Time-related recall bias was found largely for recoveries after 24 months. Recovery was weakly related to most trauma types other than very low [odds-ratio (OR) 0.2-0.3] early-recovery (within 24 months) associated with purposefully injuring/torturing/killing and witnessing atrocities and very low later-recovery (25+ months) associated with being kidnapped. The significant ORs for prior traumas, CAs, and mental disorders were generally inconsistent between early- and later-recovery models. Cross-validated versions of final models nonetheless discriminated significantly between the 50% of respondents with highest and lowest predicted probabilities of both early-recovery (66-55% v. 43%) and later-recovery (75-68% v. 39%). Conclusions We found PTSD recovery trajectories similar to those in previous studies. The weak associations of pre-trauma factors with recovery, also consistent with previous studies, presumably are due to stronger influences of post-trauma factors.

### **18) Development of quality indicators for mental healthcare in the Danube region**

**Background:** Quality indicators are quality assurance instruments for the evaluation of mental healthcare systems. Quality indicators can be used to measure the effectiveness of mental healthcare structure and process reforms. This project aims to develop quality indicators for mental healthcare systems in Bulgaria, the Czech Republic, Hungary and Serbia to provide monitoring instruments for the transformation of mental healthcare systems in these countries. **Methods:** Quality indicators for mental healthcare systems were developed in a systematic, multidisciplinary approach. A systematic literature study was conducted to identify quality indicators that are used internationally in mental healthcare. Retrieved quality indicators were systematically selected by means of defined inclusion and exclusion criteria. Quality indicators were subsequently rated in a two-stage Delphi study for relevance, validity and feasibility (data availability and data collection effort). The Delphi panel included 22 individuals in the first round, and 18 individuals in the second and final round. **Results:** Overall, mental healthcare quality indicators were rated higher in relevance than in validity (Mean relevance=7.6, SD=0.8; Mean validity=7.1, SD=0.7). There was no statistically significant difference in scores between the four countries for relevance ( $X^2(3)=3.581$ ,  $p=0.310$ ) and validity ( $X^2(3)=1.145$ ,  $p=0.766$ ). For data availability, the appraisal of “YES” (data are available) ranged from 6% for “assisted housing” to 94% for “total beds for mental healthcare per 100,000 population” and “availability of mental health service facilities”. **Conclusion:** Quality indicators were developed in a systematic and multidisciplinary development process. There was a broad consensus among mental healthcare experts from the participating countries in terms of relevance and validity of the proposed quality indicators. In a next step, the feasibility of these twenty-two indicators will be evaluated in a pilot study in the participating countries.

### **19) Trauma and psychotic experiences: Transnational data from the World Mental Health survey**

**Background:** Traumatic events are associated with increased risk of psychotic experiences, but it is unclear whether this association is explained by mental disorders prior to psychotic experience onset. **Aims:** To investigate the associations between traumatic events and subsequent psychotic experience onset after adjusting for post-traumatic stress disorder and other mental disorders.

Method: We assessed 29 traumatic event types and psychotic experiences from the World Mental Health surveys and examined the associations of traumatic events with subsequent psychotic experience onset with and without adjustments for mental disorders. Results: Respondents with any traumatic events had three times the odds of other respondents of subsequently developing psychotic experiences (OR=3.1, 95% CI 2.7-3.7), with variability in strength of association across traumatic event types. These associations persisted after adjustment for mental disorders. Conclusions: Exposure to traumatic events predicts subsequent onset of psychotic experiences even after adjusting for comorbid mental disorders.

## **20) Estimating treatment coverage for people with substance use disorders: an analysis of data from the World Mental Health Surveys**

Substance use is a major cause of disability globally. This has been recognized in the recent United Nations Sustainable Development Goals (SDGs), in which treatment coverage for substance use disorders is identified as one of the indicators. There have been no estimates of this treatment coverage cross-nationally, making it difficult to know what is the baseline for that SDG target. Here we report data from the World Health Organization (WHO)'s World Mental Health Surveys (WMHS), based on representative community household surveys in 26 countries. We assessed the 12-month prevalence of substance use disorders (alcohol or drug abuse/dependence); the proportion of people with these disorders who were aware that they needed treatment and who wished to receive care; the proportion of those seeking care who received it; and the proportion of such treatment that met minimal standards for treatment quality ("minimally adequate treatment"). Among the 70,880 participants, 2.6% met 12-month criteria for substance use disorders; the prevalence was higher in upper-middle income (3.3%) than in high-income (2.6%) and low/lower-middle income (2.0%) countries. Overall, 39.1% of those with 12-month substance use disorders recognized a treatment need; this recognition was more common in high-income (43.1%) than in upper-middle (35.6%) and low/lower-middle income (31.5%) countries. Among those who recognized treatment need, 61.3% made at least one visit to a service provider, and 29.5% of the latter received minimally adequate treatment exposure (35.3% in high, 20.3% in upper-middle, and 8.6% in low/lower-middle income countries). Overall, only 7.1% of those with past-year substance use disorders received minimally adequate treatment: 10.3% in high income, 4.3% in upper-middle income and 1.0% in low/lower-middle income countries. These data suggest that only a small minority of people with substance use disorders receive even minimally adequate treatment. At least three barriers are involved: awareness/perceived treatment need, accessing treatment once a need is recognized, and compliance (on the part of both provider and client) to obtain adequate treatment. Various factors are likely to be involved in each of these three barriers, all of which need to be addressed to improve treatment coverage of substance use disorders. These data provide a baseline for the global monitoring of progress of treatment coverage for these disorders as an indicator within the SDGs.

## **21) A blind spot on the global mental health map: a scoping review of 25 years' development of mental health care for people with severe mental illnesses in central and eastern Europe**

Just over 25 years have passed since the major sociopolitical changes in central and eastern Europe; our aim was to map and analyze the development of mental health-care practice for people with severe mental illnesses in this region since then. A scoping review was complemented by an expert survey in 24 countries. Mental health-care practice in the region differs greatly across as well as within individual countries. National policies often exist but reforms remain mostly in the realm of aspiration. Services are predominantly based in psychiatric hospitals. Decision making on resource allocation is not transparent, and full economic evaluations of complex interventions and rigorous epidemiological studies are lacking. Stigma seems to be higher than in other European countries, but consideration of human rights and user involvement are increasing. The region has seen respectable development, which happened because of grassroots initiatives supported by international organizations, rather than by systematic implementation of government policies.

## **22) The cross-national epidemiology of social anxiety disorder: Data from the World Mental Health Survey Initiative**

**Background:** There is evidence that social anxiety disorder (SAD) is a prevalent and disabling disorder. However, most of the available data on the epidemiology of this condition originate from high income countries in the West. The World Mental Health (WMH) Survey Initiative provides an opportunity to investigate the prevalence, course, impairment, socio-demographic correlates, comorbidity, and treatment of this condition across a range of high, middle, and low income countries in different geographic regions of the world, and to address the question of whether differences in SAD merely reflect differences in threshold for diagnosis. **Methods:** Data from 28 community surveys in the WMH Survey Initiative, with 142,405 respondents, were analyzed. We assessed the 30-day, 12-month, and lifetime prevalence of SAD, age of onset, and severity of role impairment associated with SAD, across countries. In addition, we investigated socio-demographic correlates of SAD, comorbidity of SAD with other mental disorders, and treatment of SAD in the combined sample. Cross-tabulations were used to calculate prevalence, impairment, comorbidity, and treatment. Survival analysis was used to estimate age of onset, and logistic regression and survival analyses were used to examine socio-demographic correlates. **Results:** SAD 30-day, 12-month, and lifetime prevalence estimates are 1.3, 2.4, and 4.0% across all countries. SAD prevalence rates are lowest in low/lower-middle income countries and in the African and Eastern Mediterranean regions, and highest in high income countries and in the Americas and the Western Pacific regions. Age of onset is early across the globe, and persistence is highest in upper-middle income countries, Africa, and the Eastern Mediterranean. There are some differences in domains of severe role impairment by country income level and geographic region, but there are no significant differences across different income level and geographic region in the proportion of respondents with any severe role impairment. Also, across countries SAD is associated with specific socio-demographic features (younger age, female gender, unmarried status, lower education, and lower income) and with similar patterns of comorbidity. Treatment rates for those with any impairment are lowest in low/lower-middle income countries and highest in high income countries. **Conclusions:** While differences in SAD prevalence across

countries are apparent, we found a number of consistent patterns across the globe, including early age of onset, persistence, impairment in multiple domains, as well as characteristic socio-demographic correlates and associated psychiatric comorbidities. In addition, while there are some differences in the patterns of impairment associated with SAD across the globe, key similarities suggest that the threshold for diagnosis is similar regardless of country income levels or geographic location. Taken together, these cross-national data emphasize the international clinical and public health significance of SAD.

### **23) The association between psychotic experiences and disability: results from the WHO World Mental Health Surveys**

**Objective:** While psychotic experiences (PEs) are known to be associated with a range of mental and general medical disorders, little is known about the association between PEs and measures of disability. We aimed to investigate this question using the World Mental Health surveys. **Method:** Lifetime occurrences of six types of PEs were assessed along with 21 mental disorders and 14 general medical conditions. Disability was assessed with a modified version of the WHO Disability Assessment Schedule. Descriptive statistics and logistic regression models were used to investigate the association between PEs and high disability scores (top quartile) with various adjustments. **Results:** Respondents with PEs were more likely to have top quartile scores on global disability than respondents without PEs (19.1% vs. 7.5%;  $\chi^2 = 190.1$ ,  $P < 0.001$ ) as well as greater likelihood of cognitive, social, and role impairment. Relationships persisted in each adjusted model. A significant dose–response relationship was also found for the PE type measures with most of these outcomes. **Conclusions:** Psychotic experiences are associated with disability measures with a dose–response relationship. These results are consistent with the view that PEs are associated with disability regardless of the presence of comorbid mental or general medical disorders.

### **24) Cross-sectional comparison of the epidemiology of DSM-5 generalized anxiety disorder across the globe**

**Importance** Generalized anxiety disorder (GAD) is poorly understood compared with other anxiety disorders, and debates persist about the seriousness of this disorder. Few data exist on GAD outside a small number of affluent, industrialized nations. No population-based data exist on GAD as it is currently defined in DSM-5. **OBJECTIVE** To provide the first epidemiologic data on DSM-5 GAD and explore cross-national differences in its prevalence, course, correlates, and impact. **DESIGN, SETTING, AND PARTICIPANTS** Data come from the World Health Organization World Mental Health Survey Initiative. Cross-sectional general population surveys were carried out in 26 countries using a consistent research protocol and assessment instrument. A total of 147 261 adults from representative household samples were interviewed face-to-face in the community. The surveys were conducted between 2001 and 2012. Data analysis was performed from July 22, 2015, to December 12, 2016. **MAIN OUTCOMES AND MEASURES** The Composite International Diagnostic Interview was used to assess GAD along with comorbid disorders, role impairment, and help seeking. **RESULTS** Respondents were 147 261 adults aged 18 to 99 years. The surveys had a weighted mean response rate of 69.5%. Across surveys, DSM-5 GAD had a combined lifetime prevalence (SE) of 3.7% (0.1%), 12-month prevalence of 1.8%

(0.1%), and 30-day prevalence of 0.8% (0). Prevalence estimates varied widely across countries, with lifetime prevalence highest in high-income countries (5.0% [0.1%]), lower in middle-income countries (2.8% [0.1%]), and lowest in low-income countries (1.6% [0.1%]). Generalized anxiety disorder typically begins in adulthood and persists over time, although onset is later and clinical course is more persistent in lower-income countries. Lifetime comorbidity is high (81.9% [0.7%]), particularly with mood (63.0% [0.9%]) and other anxiety (51.7% [0.9%]) disorders. Severe role impairment is common across life domains (50.6% [1.2%]), particularly in high-income countries. Treatment is sought by approximately half of affected individuals (49.2% [1.2%]), especially those with severe role impairment (59.4% [1.8%]) or comorbid disorders (55.8% [1.4%]) and those living in high-income countries (59.0% [1.3%]).

**CONCLUSIONS AND RELEVANCE** The findings of this study show that DSM-5 GAD is more prevalent than DSM-IV GAD and is associated with substantial role impairment. The disorder is especially common and impairing in high-income countries despite a negative association between GAD and socioeconomic status within countries. These results underscore the public health significance of GAD across the globe while uncovering cross-national differences in prevalence, course, and impairment that require further investigation.

## **25) Association of DSM-IV posttraumatic stress disorder with traumatic experience type and history in the World Health Organization World Mental Health surveys**

**Importance:** Previous research has documented significant variation in the prevalence of posttraumatic stress disorder (PTSD) depending on the type of traumatic experience (TE) and history of TE exposure, but the relatively small sample sizes in these studies resulted in a number of unresolved basic questions. **Objective:** To examine disaggregated associations of type of TE history with PTSD in a large cross-national community epidemiologic data set. **Design, setting, and participants:** The World Health Organization World Mental Health surveys assessed 29 TE types (lifetime exposure, age at first exposure) with DSM-IV PTSD that was associated with 1 randomly selected TE exposure (the random TE) for each respondent. Surveys were administered in 20 countries (n = 34 676 respondents) from 2001 to 2012. Data were analyzed from October 1, 2015, to September 1, 2016. **Main outcomes and measures:** Prevalence of PTSD assessed with the Composite International Diagnostic Interview. **Results:** Among the 34 676 respondents (55.4% [SE, 0.6%] men and 44.6% [SE, 0.6%] women; mean [SE] age, 43.7 [0.2] years), lifetime TE exposure was reported by a weighted 70.3% of respondents (mean [SE] number of exposures, 4.5 [0.04] among respondents with any TE). Weighted (by TE frequency) prevalence of PTSD associated with random TEs was 4.0%. Odds ratios (ORs) of PTSD were elevated for TEs involving sexual violence (2.7; 95% CI, 2.0-3.8) and witnessing atrocities (4.2; 95% CI, 1.0-17.8). Prior exposure to some, but not all, same-type TEs was associated with increased vulnerability (eg, physical assault; OR, 3.2; 95% CI, 1.3-7.9) or resilience (eg, participation in sectarian violence; OR, 0.3; 95% CI, 0.1-0.9) to PTSD after the random TE. The finding of earlier studies that more general history of TE exposure was associated with increased vulnerability to PTSD across the full range of random TE types was replicated, but this generalized vulnerability was limited to prior TEs involving violence, including participation in organized violence (OR, 1.3; 95% CI, 1.0-1.6), experience of physical violence (OR, 1.4; 95% CI, 1.2-1.7), rape (OR, 2.5; 95% CI, 1.7-3.8), and other sexual assault (OR, 1.6; 95% CI, 1.1-2.3).

Conclusion and relevance: The World Mental Health survey findings advance understanding of the extent to which PTSD risk varies with the type of TE and history of TE exposure. Previous findings about the elevated PTSD risk associated with TEs involving assaultive violence was refined by showing agreement only for repeated occurrences. Some types of prior TE exposures are associated with increased resilience rather than increased vulnerability, connecting the literature on TE history with the literature on resilience after adversity. These results are valuable in providing an empirical rationale for more focused investigations of these specifications in future studies.

## **26) The descriptive epidemiology of DSM-IV Adult ADHD in the World Health Organization World Mental Health Surveys**

We previously reported on the cross-national epidemiology of ADHD from the first 10 countries in the WHO World Mental Health (WMH) Surveys. The current report expands those previous findings to the 20 nationally or regionally representative WMH surveys that have now collected data on adult ADHD. The Composite International Diagnostic Interview (CIDI) was administered to 26,744 respondents in these surveys in high-, upper-middle-, and low-/lower-middle-income countries (68.5% mean response rate). Current DSM-IV/CIDI adult ADHD prevalence averaged 2.8% across surveys and was higher in high (3.6%)- and upper-middle (3.0%)- than low-/lower-middle (1.4%)-income countries. Conditional prevalence of current ADHD averaged 57.0% among childhood cases and 41.1% among childhood subthreshold cases. Adult ADHD was significantly related to being male, previously married, and low education. Adult ADHD was highly comorbid with DSM-IV/CIDI anxiety, mood, behavior, and substance disorders and significantly associated with role impairments (days out of role, impaired cognition, and social interactions) when controlling for comorbidities. Treatment seeking was low in all countries and targeted largely to comorbid conditions rather than to ADHD. These results show that adult ADHD is prevalent, seriously impairing, and highly comorbid but vastly under-recognized and undertreated across countries and cultures.

## **27) The role of religious advisors in mental health care in the World Mental Health surveys**

Objectives: To examine the role of religious advisors in mental health care (MHC) according to disorder severity, socio-demographics, religious involvement and country income groups. Methods: Face to face household surveys in ten high income (HI), six upper-middle income (UMI) and five low/lower-middle (LLMI) income countries totalling 101,258 adults interviewed with the WMH CIDI plus questions on use of care for mental health problems and religiosity. Results: 1.1% of participants turned to religious providers for MHC in the past year. Among those using services, 12.3% used religious services; as much as 30% in some LLMI countries, around 20% in some UMI; in the HI income countries USA, Germany, Italy and Japan are between 15 and 10% whenever the remaining countries are much lower. In LLMI 20.9% used religious advisors for the most severe mental disorders compared to 12.3 in UMI and 9.5% in HI. For severe cases most of religious providers use occurred together with formal care except in Nigeria, Iraq and Ukraine where, respectively, 41.6, 25.7 and 17.7% of such services are outside any formal care. Frequency of attendance at religious services was a strong predictor of religious provider usage OR 6.5 for those who attended over once a week ( $p < 0.0001$ ); as seeking comfort

“often” through religion in case of difficulties OR was 3.6 ( $p = 0.004$ ) while gender and individual income did not predict use of religious advisors nor did the type of religious affiliation; in contrast young people use them more as well as divorced and widowed OR 1.4 ( $p = 0.02$ ). Some country differences persisted after controlling for all these factors. Conclusions: Religious advisors play an important role in mental health care and require appropriate training and collaboration with formal mental healthcare systems. Religious attitudes are strong predictors of religious advisors usage.

### **28) Undertreatment of people with major depressive disorder in 21 countries**

**Background** Major depressive disorder (MDD) is a leading cause of disability worldwide. **Aims** To examine the: (a) 12-month prevalence of DSM-IV MDD; (b) proportion aware that they have a problem needing treatment and who want care; (c) proportion of the latter receiving treatment; and (d) proportion of such treatment meeting minimal standards. **Method** Representative community household surveys from 21 countries as part of the World Health Organization World Mental Health Surveys. **Results** Of 51 547 respondents, 4.6% met 12-month criteria for DSM-IV MDD and of these 56.7% reported needing treatment. Among those who recognised their need for treatment, most (71.1%) made at least one visit to a service provider. Among those who received treatment, only 41.0% received treatment that met minimal standards. This resulted in only 16.5% of all individuals with 12-month MDD receiving minimally adequate treatment. **Conclusions** Only a minority of participants with MDD received minimally adequate treatment: 1 in 5 people in high-income and 1 in 27 in low-/lower-middle-income countries. Scaling up care for MDD requires fundamental transformations in community education and outreach, supply of treatment and quality of services. **Declaration of interest** In the past 3 years, R.C.K. received support for his epidemiological studies from Sanofi Aventis, was a consultant for Johnson & Johnson Wellness and Prevention and served on an advisory board for the Johnson & Johnson Services Inc. Lake Nona Life Project. R.C.K. is a co-owner of DataStat Inc., a market research firm that carries out healthcare research.

### **29) Health conditions and role limitation in three European Regions: a public-health perspective**

**Objective** To describe the distribution of role limitation in the European population aged 18-64 years and to examine the contribution of health conditions to role limitation using a public-health approach. **Methods** Representative samples of the adult general population ( $n = 13,666$ ) aged 18-64 years from 10 European countries of the World Mental Health (WMH) Surveys Initiative, grouped into three regions: Central-Western, Southern and Central-Eastern. The Composite International Diagnostic Interview (CIDI 3.0) was used to assess six mental disorders and standard checklists for seven physical conditions. Days with full and with partial role limitation in the month previous to the interview were reported (WMH-WHODAS). Population Attributable Fraction (PAFs) of full and partial role limitation were estimated. **Results** Health conditions explained a large proportion of full role limitation ( $PAF = 62.6\%$ ) and somewhat less of partial role limitation (46.6%). Chronic pain was the single condition that consistently contributed to explain both disability measures in all European Regions. Mental disorders were the most important contributors to full and partial role limitation in Central-Western and

Southern Europe. In Central-Eastern Europe, where mental disorders were less prevalent, physical conditions, especially cardiovascular diseases, were the highest contributors to disability. Conclusion The contribution of health conditions to role limitation in the three European regions studied is high. Mental disorders are associated with the largest impact in most of the regions. There is a need for mainstreaming disability in the public health agenda to reduce the role limitation associated with health conditions. The cross-regional differences found require further investigation.

### **30) Mental health legislation in Bulgaria - a brief overview**

Bulgaria has never had a separate law on mental health. Issues such as mandatory treatment, guardianship and legal capacity were regulated in the People's Health Act, which was in force until 2005, when it was replaced by a new Health Act. That Act has a chapter relating specifically to mental health, and this article describes its provisions.

### **31) The cross-national epidemiology of DSM-IV intermittent explosive disorder**

Background This is the first cross-national study of intermittent explosive disorder (IED). Method A total of 17 face-to-face cross-sectional household surveys of adults were conducted in 16 countries (n = 88 063) as part of the World Mental Health Surveys initiative. The World Health Organization Composite International Diagnostic Interview (CIDI 3.0) assessed DSM-IV IED, using a conservative definition. Results Lifetime prevalence of IED ranged across countries from 0.1 to 2.7% with a weighted average of 0.8%; 0.4 and 0.3% met criteria for 12-month and 30-day prevalence, respectively. Sociodemographic correlates of lifetime risk of IED were being male, young, unemployed, divorced or separated, and having less education. The median age of onset of IED was 17 years with an interquartile range across countries of 13-23 years. The vast majority (81.7%) of those with lifetime IED met criteria for at least one other lifetime disorder; co-morbidity was highest with alcohol abuse and depression. Of those with 12-month IED, 39% reported severe impairment in at least one domain, most commonly social or relationship functioning. Prior traumatic experiences involving physical (non-combat) or sexual violence were associated with increased risk of IED onset. Conclusions Conservatively defined, IED is a low prevalence disorder but this belies the true societal costs of IED in terms of the effects of explosive anger attacks on families and relationships. IED is more common among males, the young, the socially disadvantaged and among those with prior exposure to violence, especially in childhood.

### **32) Post-traumatic stress disorder associated with life-threatening motor vehicle collisions in the WHO World Mental Health Surveys**

Background: Motor vehicle collisions (MVCs) are a substantial contributor to the global burden of disease and lead to subsequent post-traumatic stress disorder (PTSD). However, the relevant literature originates in only a few countries, and much remains unknown about MVC-related PTSD prevalence and predictors. Methods: Data come from the World Mental Health Survey Initiative, a coordinated series of community epidemiological surveys of mental disorders throughout the world. The subset of 13 surveys (5 in high income countries, 8 in middle or low income countries) with respondents reporting PTSD after life-threatening MVCs are considered

here. Six classes of predictors were assessed: socio-demographics, characteristics of the MVC, childhood family adversities, MVCs, other traumatic experiences, and respondent history of prior mental disorders. Logistic regression was used to examine predictors of PTSD. Mental disorders were assessed with the fully-structured Composite International Diagnostic Interview using DSM-IV criteria. Results: Prevalence of PTSD associated with MVCs perceived to be life-threatening was 2.5 % overall and did not vary significantly across countries. PTSD was significantly associated with low respondent education, someone dying in the MVC, the respondent or someone else being seriously injured, childhood family adversities, prior MVCs (but not other traumatic experiences), and number of prior anxiety disorders. The final model was significantly predictive of PTSD, with 32 % of all PTSD occurring among the 5 % of respondents classified by the model as having highest PTSD risk. Conclusion: Although PTSD is a relatively rare outcome of life-threatening MVCs, a substantial minority of PTSD cases occur among the relatively small proportion of people with highest predicted risk. This raises the question whether MVC-related PTSD could be reduced with preventive interventions targeted to high-risk survivors using models based on predictors assessed in the immediate aftermath of the MVCs.

### **33) Proportion of patients without mental disorders being treated in mental health services worldwide**

Background: Previous research suggests that many people receiving mental health treatment do not meet criteria for a mental disorder but are rather 'the worried well'. Aims: To examine the association of past-year mental health treatment with DSM-IV disorders. Method: The World Health Organization's World Mental Health (WMH) Surveys interviewed community samples of adults in 23 countries (n = 62 305) about DSM-IV disorders and treatment in the past 12 months for problems with emotions, alcohol or drugs. Results: Roughly half (52%) of people who received treatment met criteria for a past-year DSM-IV disorder, an additional 18% for a lifetime disorder and an additional 13% for other indicators of need (multiple subthreshold disorders, recent stressors or suicidal behaviours). Dose-response associations were found between number of indicators of need and treatment. Conclusions: The vast majority of treatment in the WMH countries goes to patients with mental disorders or other problems expected to benefit from treatment.

### **34) How well can post-traumatic stress disorder be predicted from pre-trauma risk factors? An exploratory study in the WHO World Mental Health Surveys**

Post-traumatic stress disorder (PTSD) should be one of the most preventable mental disorders, since many people exposed to traumatic experiences (TEs) could be targeted in first response settings in the immediate aftermath of exposure for preventive intervention. However, these interventions are costly and the proportion of TE-exposed people who develop PTSD is small. To be cost-effective, risk prediction rules are needed to target high-risk people in the immediate aftermath of a TE. Although a number of studies have been carried out to examine prospective predictors of PTSD among people recently exposed to TEs, most were either small or focused on a narrow sample, making it unclear how well PTSD can be predicted in the total population of people exposed to TEs. The current report investigates this issue in a large sample based on the

World Health Organization (WHO)'s World Mental Health Surveys. Retrospective reports were obtained on the predictors of PTSD associated with 47,466 TE exposures in representative community surveys carried out in 24 countries. Machine learning methods (random forests, penalized regression, super learner) were used to develop a model predicting PTSD from information about TE type, sociodemographics, and prior histories of cumulative TE exposure and DSM-IV disorders. DSM-IV PTSD prevalence was 4.0% across the 47,466 TE exposures. 95.6% of these PTSD cases were associated with the 10.0% of exposures (i.e., 4,747) classified by machine learning algorithm as having highest predicted PTSD risk. The 47,466 exposures were divided into 20 ventiles (20 groups of equal size) ranked by predicted PTSD risk. PTSD occurred after 56.3% of the TEs in the highest-risk ventile, 20.0% of the TEs in the second highest ventile, and 0.0-1.3% of the TEs in the 18 remaining ventiles. These patterns of differential risk were quite stable across demographic-geographic sub-samples. These results demonstrate that a sensitive risk algorithm can be created using data collected in the immediate aftermath of TE exposure to target people at highest risk of PTSD. However, validation of the algorithm is needed in prospective samples, and additional work is warranted to refine the algorithm both in terms of determining a minimum required predictor set and developing a practical administration and scoring protocol that can be used in routine clinical practice.

### **35) Barriers to mental health treatment: Results from the WHO World Mental Health surveys**

**Background.** To examine barriers to initiation and continuation of mental health treatment among individuals with common mental disorders.

**Method.** Data were from the World Health Organization (WHO) World Mental Health (WMH) surveys. Representative household samples were interviewed face to face in 24 countries. Reasons to initiate and continue treatment were examined in a subsample (n = 636 78) and analyzed at different levels of clinical severity.

**Results.** Among those with a DSM-IV disorder in the past 12 months, low perceived need was the most common reason for not initiating treatment and more common among moderate and mild than severe cases. Women and younger people with disorders were more likely to recognize a need for treatment. A desire to handle the problem on one's own was the most common barrier among respondents with a disorder who perceived a need for treatment (63.8%). Attitudinal barriers were much more important than structural barriers to both initiating and continuing treatment. However, attitudinal barriers dominated for mild-moderate cases and structural barriers for severe cases. Perceived ineffectiveness of treatment was the most commonly reported reason for treatment drop-out (39.3%), followed by negative experiences with treatment providers (26.9% of respondents with severe disorders).

**Conclusions.** Low perceived need and attitudinal barriers are the major barriers to seeking and staying in treatment among individuals with common mental disorders worldwide. Apart from targeting structural barriers, mainly in countries with poor resources, increasing population mental health literacy is an important endeavor worldwide.

### **36) Mood and anxiety disorders across the adult lifespan: A European perspective**

**Background** The World Mental Health Survey Initiative (WMHSI) has advanced our understanding of mental disorders by providing data suitable for analysis across many countries. However, these data have not yet been fully explored from a cross-national lifespan perspective.

In particular, there is a shortage of research on the relationship between mood and anxiety disorders and age across countries. In this study we used multigroup methods to model the distribution of 12-month DSM-IV/CIDI mood and anxiety disorders across the adult lifespan in relation to determinants of mental health in 10 European Union (EU) countries. Method Logistic regression was used to model the odds of any mood or any anxiety disorder as a function of age, gender, marital status, urbanicity and employment using a multigroup approach (n = 35500). This allowed for the testing of specific lifespan hypotheses across participating countries. Results No simple geographical pattern exists with which to describe the relationship between 12-month prevalence of mood and anxiety disorders and age. Of the adults sampled, very few aged 80 years met DSM-IV diagnostic criteria for these disorders. The associations between these disorders and key sociodemographic variables were relatively homogeneous across countries after adjusting for age. Conclusions Further research is required to confirm that there are indeed stages in the lifespan where the reported prevalence of mental disorders is low, such as among younger adults in the East and older adults in the West. This project illustrates the difficulties in conducting research among different age groups simultaneously.

**37) A nationwide general practitioner training program to reduce suicide in Bulgaria: a non-randomized controlled trial**

**38) Recover-e project in Bulgaria. past, present and future of the mobile psychiatric teams.**

**39) Transitions in mental health care: The European Psychiatric Association contribution to reform in Bulgaria**

Background: The Bulgarian Ministry of Health invited the European Psychiatric Association (EPA) to evaluate Bulgarian mental health care service provision in 2018. Bulgarian mental health services face very significant challenges including a legacy of historic underfunding, internal conflicts, poor planning, and the emigration of very high numbers of younger skilled staff that had followed accession to the European Union. There were significant disputes between stakeholders regarding the way forward and had been at least two unsuccessful previous external agency interventions that had attempted to find solutions. Method: This EPA position paper describes in detail the EPA mission to Bulgaria including methodology, findings, recommendations, and finally the positive actions and changes that are now underway as a result of the EPA report and intervention aimed at contributing towards improving Bulgarian mental health services. Results: After meetings with multiple stakeholders in the Bulgarian mental health system and analysis of data on service delivery, workforce, funding and configuration the EPA Panel agreed a list of twenty recommendations for change. Conclusions: The EPA mission, with the collaboration of multiple stakeholders in Bulgaria, was successful in stimulating high level government action to improve mental health services. Despite longstanding differences, it was possible to involve the stakeholders in constructive dialogue. The importance of "speaking with one voice" was a key lesson learned.

**40) Trauma and posttraumatic stress disorder: global perspectives from the who world mental health survey in Motor Vehicle Collisions**

#### **41) Национална стратегия за психично здраве на гражданите на Република България 2020-2030**

Настоящата статия представлява програмен документ „Национална стратегия за психично здраве 2030“, изготвен от работна група, съставена със Заповед на министъра на здравеопазване-то през 2019 г. Изработването на тази стратегия следва публикуването на Доклад на европейската психиатрична асоциация за състоянието на психично-здравните грижи в България и Кръгла маса в Народното събрание, посветена на същите проблеми (2018). Документът се публикува след промени и допълнения, направени в съответствие с предложения по време на общественото обсъждане, проведено през ноември 2020 година. Основните положения на Стратегията включват оценка на системата за психично-здравно обслужване, актуализация на единните държавни изисквания за медицинското образование и специализация; преработване и допълване на нормативната уредба в областта на психичното здраве; реорганизация на инфраструктурата на психиатричната помощ чрез деинституционализация и разкриване на мрежа от центрове за комплексни грижи в общността; въвеждане на единни механизми за финансиране и стандарти за оценка на качеството.

#### **42) Национално представително епидемиологично проучване на чести психични разстройства в България ЕПИБУЛ 2, 2016-2017 г.: инструмент, методика, оценка на процеса**

Обект на статията е проведено национално представително епидемиологично изследване на болестността от чести психични болести ЕПИБУЛ 2. Изследването е повторение на проведено през 2002-2006 г. идентично изследване ЕПИБУЛ 1 [1] с използване на същия инструментариум, но с нова извадка. Изследването цели да установи разпространението на честите психични разстройства в България, в съпоставка с редица други променливи като жизнен стил, потребление на психиатрични услуги, нива на стрес, социално положение и пр. Използваният инструментариум е Съставно диагностично интервю CIDI 3.0, [2] в неговата компютърна версия (CAPI), за разлика от предишното изследване, където се използва хартиена версия на въпросника (PAPI). Въз основа на извадка от 2616 домакинства са проведени 1599 интервюта. Окончателната база данни е 1509 интервюта. Нивото на отзивчивост на анкетираните е 61%. Особена ценност на изследването е възможността за съпоставка на получените данни от първото изследване с новата база данни в рамките на десетгодишен период.

#### **43) Влиянието на здравния статус на населението върху работоспособността и чуждестранните инвестиции в България**

Въведение: Здравният статус на населението има пряко отношение към работоспособността, респ. производителността на труда, оттам и към нивото на инвестиции. Здравният статус на населението по икономически райони в България е различен и това се дължи на редица фактори, които действат комплексно.

Цел: Целта на настоящия анализ е да направи връзка между здравния статус на населението, измерен през показателите смъртност и трайна неработоспособност, и нивата на заетост и инвестиции по икономически райони в страната.

Материал и методи: Използван е документален метод. Направен е сравнителен анализ на различни показатели между отделните икономически райони в България.

Резултати: В икономическите райони с най-ниска трудоспособност поради заболяемост, смъртност и трайна неработоспособност нивата на заетост, респ. нивата на инвестиции, са най-ниски. Установена е възходяща тенденция на увеличение на тежката инвалидизация (над 90%) поради онкологични заболявания и намаляване на тази, причинена от сърдечносъдови заболявания в същата група. Описани са нивата на осигуреност с медицински служби, заболяемост и смъртност, трайна неработоспособност, заетост и производителност на труда.

Заклучение: Здравният статус на населението на страната е до голяма степен определящ за нивото на заетост, респ. работоспособност, като отчетените разлики в икономическите райони в страната показват неравномерно икономическо развитие и създаване на порочни кръгове. Отворен е въпросът доколко всичко това влияе върху преките чуждестранни инвестиции, които са съсредоточени основно в столицата.

#### **44) Самооценка на общото телесно и психично здраве на гражданите на Република България: данни от второто национално представително епидемиологично проучване на чести психични разстройства в България – ЕПИБУЛ 2**

##### **РЕЗЮМЕ**

Проведено е второ национално представително епидемиологично изследване на болестността от чести психични болести. Изследвана е самооценката за общото телесно и психично здраве по пол, възраст и местоживееене. Използвана е американска изследователска методика, която позволява задълбочено проучване на психиатричните оплаквания на населението от анкетьори, които не са специалисти в медицината. Методиката събира информация за нивото на разпространение на честите психични болести, връзката им с начина на живот и ползването на психично-здравни услуги. Проведени са анкети с 1599 души от цялата страна. Резултатите показват, че респондентите подценяват проблемите в психичното си функциониране, като изтъкват на преден план соматичните проблеми.

#### **45) Разпространение на суицидното поведение сред хората с чести психични разстройства в България. Резултати от епидемиологично проучване еpibul (2003-2007)**

Обосновка: По данни на СЗО самоубийството е една от водещите причини за смърт в света. За България умишленото самонараняване е на 8 място от водещите 10 причини за смърт. Наличието на психична болест може да предскаже суицидни намерения, но трудно може да се каже кои от хората със суицидни намерения и психична болест ще пристъпят към суицидни действия. Цели: В тази публикация се представят епидемиологични данни за разпространението на суицидното поведение: 1) суицидни идеи, 2) суицидни намерения със суицидни планове, 3) планиран суициден опит, 4) непланиран суициден опит. Методи: Проведено е Национално представително епидемиологично проучване на честите психични разстройства в България ЕPIBUL (2003-2007 г.). Изследвани са 16 заболявания от следните групи: тревожни разстройства, афективни разстройства, разстройства,

свързани с употребата на психоактивни вещества, разстройства в контрола над импулсите. Резултатите са получени след обобщаване на данни от 5318 интервюта.

Инструментът на изследването е съставното интернационално диагностично интервю СИДИ (CIDI Composite International Diagnostic Interview) [1]. Резултати: При 66.8% от хората, които сериозно са обмисляли самоубийство, се откриват данни за психично разстройство. 40.3% от хората с депресия са правили опит за самоубийство. Коморбидността между афективните разстройства с друго заболяване е най-рискова за самоубийствени опити (OR= 164.53).

Заклучение: Половината от респондентите, които обмислят самоубийство, имат предшестващо психично разстройство. Една от основните причини за суицидно поведение е наличието на психична болест. Депресията е предиктор на суицидни намерения. Коморбидността на афективните и тревожните разстройства с други заболявания, се очертава като най-сериозен предиктор на това кои от имащите суицидни намерения ще пристъпят към самоубийствени планове и опити.

#### **46) Психично-здравни аспекти на епидемията от Ковид 19 в България**

Тази статия има за цел да изследва влиянието на епидемията върху психичното здраве на гражданите на България от гледна точка на комуникационните аспекти в управлението на кризата, предизвиканата реакция и евентуалните дългосрочни последици в психологичен план. Предвид огромното поле за изследване авторите формулират три хипотези, които да потвърдят или отхвърлят, а именно дали епидемията е повишила нивата на тревожност сред населението, дали има повишени нива на агресия и автоагресия и как информационната (комуникационна) среда е повлияла на тези процеси. Разгледани са накратко формите на тревожност – нормална и патологична, и са очертани няколко предпоставки за реакцията, която предизвика пандемията. Направен е опит за измерване на повишени нива на обща тревожност, което включва както нормалните психологични реакции на тревога, така и патологичните, скрити засега форми, които ще бъдат обект на последващи специализирани изследвания. Направен е анализ на информационната и медийна среда по темата COVID-19, като са потърсени корелации и е направена интерпретация на събраните данни.

#### **47) Актуално състояние на системата на психиатрично обслужване в България. Проектът Recover-e**

Резюме: През 2020 г. психичните разстройства са втората водеща причина за увреждане в света. Въпреки това повишено разпространение, усилията за справяне не са достатъчни. Съществува значителна разлика между необходимостта от услуги за психично здраве и достъпа до тях, което е тенденция в световен мащаб. Политиките и програмите за психично здраве се разглеждат като ключови инструменти за определяне на стратегически приоритети, мерки за координация и намаляване на фрагментацията на услуги и ресурси в системата за психично здраве. С този анализ се прави опит да се направи преглед на настоящата система от психиатрични услуги в България по структурни звена, връзките между тях, тяхното ресурсно осигуряване и финансиране. Обръща се внимание на някои практики и политики, които не отговарят на нуждите на пациентите, не помагат за тяхното успешно лечение и социална рехабилитация и интеграция. Представя се и модел за

психичноздравна помощ в общността – мобилни екипи за психиатрична помощ, в които участват и „експерти от опит“.