monitoring during 24 hours and through a fasting biochemical profile, high-density lipoprotein cholesterol (HDL-C) and total cholesterol (TC).

**Results:** All HEALTHY variables were in normal values. Sample with SP showed overweight (body mass index=27.1±6.1 kg-m^-2^) and higher (P<0.001) smoking percentage than HEALTHY (69.8% vs. 16.1%). Both groups presented normotensive SBP values (SP=115±15 mmHg, HEALTHY=113±10 mmHg). Concerning cholesterol profile, SP showed lower to optimal values in HDL-C (39.0±12.0 mg/dL), yet both were in optimal TC levels (SP=189.7±44 mg/dL, HEALTHY=183.6±51.5 mg/dL). Considering SCORE, both groups were in low risk values with higher (P<0.001) values in SP (0.6±2.1 vs. 0.12±0.4). However, according to relative risk SCORE and FRS-CVD, SP showed medium risk (2.0±1.0; 6.7±12.3), and HEALTHY low (1.0±0.4; 2.6±2.8) risk, respectively. Vascular age was higher (P<0.001) in SP than HEALTHY (48.0±26.0 vs. 36.0±24.0 yr).

**Discussion:** Patients suffering from SP compared to HEALTHY showed higher CVD risk and vascular age. These results strongly suggest the promotion of a healthy lifestyle behavior in order to optimize risk factors.

T150. SEX DIFFERENCES IN PEOPLE WITH PSYCHOSIS: FINDINGS FROM A REPRESENTATIVE SAMPLE IN KOSOVO

Manuela Russo1*, Fitim Uka2, Jon Konjufo2, Fjolla Ramadani2, Dashamir Berxulli2, Aliriza Arelini2, Nikolina Jovanovic3
1Queen Mary University of London; 2University of Pristina (UNIP), Kosovo; 3Queen Mary University of London, Unit for Social and Community Psychiatry – WHO Collaborating Centre for Mental Health Services Development, London

**Background:** The need for mental health care services is particularly high in low and middle income countries (LMICs) where socio-economic factors have a deep impact on treatment and management of psychosis. Lack of funds and qualified professional represent the main challenge to treatment gap leaving between 36% and 45% of people with psychosis without care for their condition thus having a huge impact at individual and societal level. Although data from epidemiological research show that prevalence of psychosis is equal between sexes, some differences in terms of needs of care might be relevant, particularly in a context that has been affected by dramatic socio-economic and cultural changes.

In this study we explore in a representative sample of people with psychosis from Kosovo, as part of a large multi-country study (EU-funded IMPULSE project), whether demographic, socio-economic and clinical differences exist between male and female patients.

**Methods:** Data on demographic, socio-economic characteristics, use of psychosocial treatment and medication was collected; general level of psychopathology and negative symptoms were assessed through the Brief Psychiatric Rating Scale, Brief Symptom Inventory and Clinical Assessment Interview for Negative Symptoms. Male and female patients were compared in terms of demographic, socio-economic and clinical characteristics using Chi-square and independent sample t- test as appropriate.

**Results:** The sample (n=103) was composed by 33 female and 70 male patients with psychosis. The two groups did not show any statistically significant difference in age, employment, level of education; however, marital status seems to differ with higher proportion of women being separated (p=0.009). No differences emerged in monthly income, while a trend of significance (p=0.079) suggested that female patients had slightly higher financial benefits than their male counterpart. While there was no difference in terms of psychiatric diagnosis, higher depressive (p=0.017) and paranoid symptoms (at trend level, p=0.054) were reported by females patients. There were no differences on antipsychotic medication. Attendance of a psychosocial treatment was higher in male than in female patients (80% vs 57.6%; p=0.017) without any difference though in the type of approach. Overall, patients who attended a psychosocial treatment had lower negative symptoms (p<0.001) compared to those who did not.

**Discussion:** Female patients with psychosis were found to have a worse clinical presentation compared to male patients, and to have a lower attendance to psychosocial treatment. Regardless of sex, psychosocial treatment seems to be associated to less negative symptomatology.

More research is needed to better characterise clinical presentation of people with psychosis in LMICs and to understand whether access to mental health service, particularly psychosocial intervention, is accountable to clinical characteristics or to contextual factors, social and/or economic in nature. Offering psychosocial intervention to this clinical population could alleviate burden of the illness in this clinical population.

T151. THE FINDINGS OF CAROTID AND CARDIAC ULTRASONOGRAPHY IN YOUNG SCHIZOPHRENIC PATIENTS

SHANGYING TSAI1*, Cheng-Yi Hsiao2, Pao-Huan Chen1
1Taipei Medical University

**Background:** Patients with schizophrenia (SCZ) are at high risk of cardiovascular disease before reaching geriatric age and tend to prematurely die from CVD. Data of the direct measurement of cardiac function in patients with SCZ before middle age remain limited. We attempt to compare the results of carotid and cardiac ultrasonography of young schizophrenic patients with those of mentally healthy adults.

**Methods:** We recruited 27 physically healthy adults with schizophrenia (DSM-IV) aged less than 45 years and 27 age-matched controls to undergo the carotid and cardiac ultrasound echo-color Doppler to obtain the carotid intima-media thickness (cIMT, to detect the presence and extent of atherosclerosis in an artery) and cardiac function. Blood pressure, body mass index, and clinical information were also obtained.

**Results:** Among the echocardiography parameters, SCZ patients had significantly higher heart rate (p<0.005) and ejection fraction (EF, parameter of pumping ability of the heart) (p<0.001), and lower right ventricular diastolic pressure (RVSP, equaling the pulmonary artery pressure) (p<0.05) and pulse pressure (the systolic minus the diastolic pressure, predicting the risk of CVD) (p<0.01) than those of control subjects. The mean CPZ equivalent of second generation antipsychotics (SGA) taken by SCZ patients was significantly positively correlated to the RVSP (r=0.046, p=0.029). There were no differences in body mass index, cIMT, and other echocardiography parameters between these two groups.

**Discussion:** Higher heart rate and EF may reflect the autonomic over-activity in SCZ patients. Contrary to our hypothesis, the risk of pre-clinical cardiac dysfunction and vascular atherosclerosis is not elevated in SCZ patients before middle life. However, higher dosage of SGA may increase the risk of pulmonary hypertension.

T152. AZERI RECENT ONSET ACUTE PHASE PSYCHOSIS SURVEY (ARAS COHORT): PRELIMINARY REPORTS FROM AN OBSERVATIONAL COHORT OF FIRST EPISODE PSYCHOSIS IN IRAN

Sara Farhang1*, Mehrdad Ghaemmaghami2, Gholamreza Noorazar2, Wim Veling2, Ayyoub Malek2, Ali Reza Shafee-Kandjani1, Behrooz Z. Alizadeh1, Richard Bruggeman1
1University Center of Psychiatry, University of Groningen, University Medical Center Groningen; 2Tabriz University of Medical Sciences; 3University Medical Center Groningen

**Background:** Azeri Acute phase/Recent onset psychosis Survey (ARAS) is the first from central Asia to study the course of patients with recent onset...
psychosis. The aim is to reveal indicators for understanding the risk and resilience factors, and for choosing the best personalized treatment strategy.

**Methods:** The catchment area is north-west of Iran, with the majority having an Azeri ethnic background. All participants are evaluated for clinical signs and symptoms as well as risk and resilient factors and followed up for outcome in several domains. Here we give report of first 100 registered patients (male:female: 1.6).

**Results:** Patients are diagnosed with schizophrenia (23), brief psychotic disorder (4), schizophreniform (9), amphetamine induced psychotic disorder (12), psychotic disorder NOS and schizoaffective (27). The mean score of PANSS was 26.79±20.62. Their mean age is 29.8±11.5. High school diploma or higher was achieved by 45. While 60 were single, 21 were married at the moment and 35 had children. All of patients were Muslims, 30 scored moderate on religiosity and the remaining scored high. Level of multidimensional perceived social support was moderate and high in 80 patients. Only 4 were living alone. Level of internalized stigma was moderate and high in 16 patients. Metabolic syndrome was diagnosed in 11. Almost one third of patients had ever used substance including cigarette (20), alcohol (12), opioids (5), amphetamine (15) and cannabis (5). The most prevalent prescribed medication is risperidone (78). Metabolic syndrome criteria were fulfilled in 16 patients.

**Discussion:** Preliminary reports from ARAS cohort shows few differences between Iranian and European patients. Lower rate of metabolic syndrome, substance use (especially cannabis) and higher rate of religiosity, having social support, married situation and having children are noticed.

---

**T153. THE ECONOMIC BURDEN OF MENTAL DISORDERS: A SYSTEMATIC REVIEW**

Marie Christensen*,1, Carmen Lim1, Sukanta Saha2, Danielle Cannon2, Finley Presley3, Kim Iburg4, John McGrath4

1National Centre for Register-based Research, Aarhus University; 2Queensland Centre for Mental Health Research; 4Aarhus University; 5University of Queensland, Queensland Brain Institute

**Background:** About a third of the world’s population will develop a mental disorder over their lifetime. Having a mental disorder is a huge burden in health loss and cost for the individual, but also for society because of treatment cost, production loss and caregivers’ cost. The objective of this study is to synthesize the international published literature on the economic burden of mental disorders.

**Methods:** Systematic literature searches were conducted in the databases PubMed, Embase, Web of Science, EconLit, NHS York Database and PsychInfo using key terms for cost and mental disorders. Searches were restricted to 1980 until May 2019. The inclusion criteria were: (1) cost-of-illness studies or cost-analyses; (2) diagnosis of at least one mental disorder (3) samples based on the general population; (4) outcome in monetary units. 13,640 publications were screened by their title/abstract and 439 articles (3) samples based on the general population; (4) outcome in monetary units. 13,640 publications were screened by their title/abstract and 439 articles were full-text screened by two independent reviewers. 113 articles were included from the systematic searches and 31 articles from snowball searching, giving a total of 144 included articles. Of these, 41 studies had estimates of the economic burden among people with schizophrenia.

**Results:** Information about diagnosis, diagnostic criteria, sample size, age, sex, data sources, study perspective, study period, costing approach, cost categories, discount rate and production loss method and cost unit was extracted. The preliminary results show a substantial variety in the used perspective, methodology, costs components and outcomes in the included studies. An online tool is under development enabling the reader to explore the published information on costs by type of mental disorder, subgroup, country, methodology, and study quality.

**Discussion:** To the best of our knowledge, this is the first systematic review synthesizing the economic cost of mental disorders worldwide. The paper will provide an important and comprehensive overview over the economic burden of mental disorders, and the output from this review will inform policy-making.

---

**T154. WHITE MATTER INTEGRITY, DURATION OF UNTREATED PSYCHOSIS, AND ANTI-PYSCHOTIC TREATMENT RESPONSE IN MEDICATION-NAÏVE FIRST EPISODE PSYCHOSIS PATIENTS**

Nina Kraguljac*,1, Anthony Thomas1, Charity Morgan1, Ripu Jindal1, Adrienne Lahti1

1University of Alabama at Birmingham

**Background:** It is becoming increasingly clear that longer duration of untreated psychosis (DUP) is associated with adverse clinical outcomes in patients with psychosis spectrum disorders. Especially because this association is often cited when justifying early intervention efforts, it is imperative to better understand underlying biological mechanisms.

**Methods:** We recruited 74 antipsychotic-naïve first episode psychosis (FEP) patients and 45 matched healthy controls in this trial. At baseline, we used a human connectome style diffusion weighted imaging (DWI) sequence to quantify white matter integrity in both groups. Patients then received 16 weeks of treatment with risperidone. DWI scans were acquired with opposite phase encoding directions (TR/TE: 3200ms/80.20ms; multiband acceleration factor 4, Flip angle: 84°; slice thickness 1.5mm, 92 slices, voxel size 1.5x1.5mm, 92 diffusion weighted images distributed equally over 2 shells with b-values of 0-1000/mm2 and -3000/mm2, as well as 7 interpersed b=0 images). Preprocessing of DWI images was performed in TO TORTOISE (version 3.1.2). This included correction for thermal noise, Gibbs-ringing, high b-value based bulk motion and eddy-current distortions using a MAP-MRI model, resampling of images to 1mm3, and rotation of gradient tables independently for each DWI phase encoding direction. Then, DR-BUDDI was used to correct EPI distortions with input from the anatomical image and to combine the two datasets using geometric averaging to generate the final corrected dataset. Tensors were computed with DIFF_CALC using a linear fitting algorithm. To spatially normalize images to the Illinois Institute of Technology atlas (IIT4) space, we implemented an optimized non-linear image registration procedure using a modified version of 3dQwarp in AFNI. We compared whole brain fractional anisotropy (FA), mean diffusivity, axial diffusivity (AD) and radial diffusivity between groups. To test if structural white matter integrity mediates the relationship between longer DUP and poorer treatment response, we fit a mediator model and estimated indirect effects.

**Results:** Groups did not differ in age (FEP: 23.83±6.21 years; HC: 24.78±6.24 years), sex (FEP: 65.2% male; HC: 64.4% male), or parental socioeconomic status (FEP: 5.95±4.83; HC: 4.22±4.06). We found decreased whole brain FA and AD in medication-naive FEP compared to controls. In patients, lower FA was correlated with longer DUP (r=-0.32; p=0.03) and poorer subsequent response to antipsychotic treatment (r=0.40; p=0.01). Importantly, we found a significant mediation effect for FA (indirect effect: -2.70; 95% CI: -2.70 to -2.70). This indicates that FA exerts its effects on treatment response through affecting white matter integrity.

**Discussion:** To our knowledge, this is the first study to examine a putative role of white matter integrity in the observed association between DUP and clinical outcomes in first episode psychosis. Our data provide empirical support to the idea the DUP may have fundamental pathogenic effects on the natural history of psychosis, suggest a biological mechanism underlying this phenomenon, and underscore the importance of early intervention efforts in this disabling neuropsychiatric syndrome.

---

**T155. PROGRESSION OF NEUROANATOMICAL ABNORMALITIES AFTER FIRST-EPISODE OF PSYCHOSIS: A 3-YEAR LONGITUDINAL STRUCTURAL MRI STUDY**

Theophilus Akudjedu*,1, Giulia Tronchin2, Shane McInerney2, Cathy Scanlon2, Joanne Kenney3, John McFarland2

1Queensland Centre for Mental Health Research; National Centre for Register-based Research, Aarhus University; 2Queensland Centre for Mental Health Research; 3Aarhus University; 4University of Queensland, Queensland Brain Institute