SCZ, albeit not in SAD, were fewer than those required for the diagnosis of a MDE and a ME.

Discussion: The above results indicated that the diagnostic heterogeneity of psychotic disorders differed from that of mood disorders. SAD appeared to be the most heterogeneous disorder. DSM-5 criteria have limited the possible combinations of symptoms and have therefore improved the heterogeneity of SCZ and SAD, but not that of major mood disorders. The extent and the clinical implications of diagnostic heterogeneity in different psychotic and mood disorders remain to be elucidated by future research.

T93. RESHAPING THE DIAGNOSTIC BORDERS OF SCHIZOPHRENIA: THE LOOK OF HISTORY OF PSYCHIATRIC PRACTICES

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Background: The diagnostic concept of Schizophrenia as defined by DSM and ICD is increasingly being questioned. It is criticized above all for its lack of validity. It refers to very heterogeneous disorders in terms of signs and symptoms but also in terms of evolution and heritability. Clinicians and researchers are therefore considering how to rethink this concept, in the absence of known physiopathological mechanisms and etiology, by integrating various advances in fields such as genetics, molecular biology, brain imaging and cognitive sciences. However, the renewal of the concept of schizophrenia has yet to be explored in terms of its potential impact on psychiatric practice. It is an essential point because this diagnostic concept does not correspond to a theoretical entity that exists for itself but it is a tool of psychiatrists’ daily practice when they seek to name the disorders presented by a patient. Thus, a renewal of the concept of schizophrenia would necessarily have an impact on the diagnoses made by psychiatrists and we know how important the diagnosis in psychiatry is: for the medical care but also for the personal history of the patient. This impact that a renewal of the concept of schizophrenia could have on the diagnostic practices of psychiatrists can be better understood through the analysis of a historical example: the introduction of the concept of Schizophrenia at the Psychiatric Clinic of Strasbourg in France during the period 1920–1930. The concept of Schizophrenia was first discussed in 1908 by the swiss psychiatrist Eugen Bleuler at the Annual Meeting of the German Psychiatric Association in Berlin. At the Psychiatric Clinic of Strasbourg, it was first used by psychiatrists in 1922. How did this then new concept find its place among the other diagnostic concepts that had been used until then in this institution?

Methods: In an attempt to answer this question, we implemented a methodology that combined a quantitative and a qualitative approach. The first is a retrospective descriptive statistical study whose objective is to establish the evolution of the proportion of the different diagnoses made at the Psychiatric Clinic of Strasbourg during the period 1920–1930. This study includes all hospitalized patients and uses admission records for data collection. This quantitative approach was complemented by a qualitative approach that consists in reconstructing the diagnostic trajectory of some patients with a diagnosis of schizophrenia after the period of introduction of this concept. The diagnoses made during their previous hospitalizations were systematically collected and analyzed, this time using the medical records of these patients as sources.

Results: The diagnostic concept of Schizophrenia seems to have replaced the one of Dementia praecox within the diagnostic practices; the latter was given extensively in 1924, but hardly any longer in 1928. However, in the same period of time, other diagnostic concepts of the field of psychosis like Manic-depressive Illness were less commonly used while others like Catatonia were increasingly employed. The reconstruction of patients’ diagnostic trajectories tends to show that the diagnostic of schizophrenia would have taken over from the diagnostic of Dementia Praecox but also from some of the diagnoses of Manic-depressive Illness, Hebephrenia and Psychopathy.

Discussion: This historical perspective makes it possible to understand the impact on psychiatrist’s diagnostic practices of a “nosological innovation” that is theoretical, such as the renewal of the concept of schizophrenia could be. In the diagnostic practices, one diagnostic concept would not simply replace another, but it’s introduction could induce a broader reshaping of diagnostic mapping.

T94. VIRTUAL REALITY STRESS REDUCTION FOR PATIENTS WITH PSYCHIATRIC DISORDERS: CROSS-OVER RANDOMIZED CONTROLLED TRIAL

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Background: Psychosocial stress is associated with onset and relapse of psychosis, and stress-reactivity is high in patients with psychotic disorder. Stress management is an important part of treatment, but stress-reducing interventions are challenging for people with psychotic or other psychiatric disorder. We developed a virtual reality self-management relaxation tool (VRelax; 360° nature videos with interactive elements) and investigated its immediate effects on stress level, mood states and symptoms in patients with a psychotic or other psychiatric disorder, compared to standard relaxation exercises.

Methods: A randomized cross-over trial was conducted in 50 patients receiving ambulatory treatment for psychotic, anxiety, depressive or bipolar disorder. Participants were randomly assigned to start with VRelax or standard relaxation, and used both interventions for 10 days at home. They completed Visual Analogue Scales (VAS) of stress level and mood states before and after each session. Global perceived stress and psychiatric symptoms were measured before and after both intervention periods. Treatment effects were analyzed with multilevel repeated-measures regression models and two-way ANOVA.

Results: Both VRelax and standard relaxation exercises reduced subjective stress and improved momentary mood states. Compared to standard relaxation, VRelax resulted in a significantly greater immediate improvement of anxiety (B=-4.30, 95%CI=-5.86;-2.73), sadness (B=-3.65, 95%CI=-5.39;-1.91), cheerfulness (B=3.67, 95%CI=2.15;5.18), overall positive mood (B=7.59, 95%CI=2.28;12.89), and overall negative mood (B=10.88, 95%CI=5.89;15.87). There were no significant differences between short-term effects of the two treatments on symptoms and global perceived stress.

Discussion: If the results of this trial are replicated and extended, VRelax may provide a much needed effective self-management stress intervention to enhance treatment of patients with psychotic and other psychiatric disorders.

T95. A SMART HOME INTERVENTION IN COMMUNITY HOMES AND HOSPITAL APARTMENTS FOR INDIVIDUALS WITH SEVERE MENTAL ILLNESS

Abstract not included.

T96. RESULTS OF THE HUMMINGBIRD STUDY A MULTICENTRE, PRAGMATIC TRIAL OF A DIGITAL MEDICINE SYSTEM

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SIRS 2020 Abstracts
Background: This was a multicentre, 8-week, single-arm, open-label, pragmatic trial to explore the acceptance and performance of using the Digital Medicine System (DMS) with health care professionals (HCPs) and adult subjects with schizophrenia, schizoaffective disorder (SAD), or first episode psychosis (FEP) on an oral atypical antipsychotic (aripiprazole, olanzapine, quetiapine, or risperidone).

Methods: Subjects received an initial introduction to the DMS, and had HCP visits at screening/baseline, Week 4, Week 8/early termination (ET), and as directed by the HCP for the duration of the subject’s participation in the trial. Safety and tolerability data was collected and evaluated on an ongoing basis, as assessed by the frequency and severity of serious adverse events (SAEs), and device-related non-serious adverse events (AEs). Subjects were monitored on the DMS technology by the HCPs through review of the HCP dashboard data at a minimum of every 2 weeks and to make changes to the current treatment plan and therapy at their discretion. The study initiated in May 2018 and concluded in September 2019.

NCT03568500

Results: Fifty-five (55) subjects were screened, and forty-three (43) subjects were treated and included in the sample analysis. Subjects enrolled were on average 34.4 years old. There were twenty-eight (28) male and fifteen (15) female subjects in the study. The most common reasons for discontinuation was subject withdrawal of consent (5 subjects, 11.6%), loss to follow-up (4 subjects, 9.3%), and adverse events (4 subjects, 9.3%). The primary endpoint was the proportion of days with good patch coverage during the trial, calculated by the number of days with good patch coverage divided by the total number of trial days for each subject. Over the duration of the study, subjects had 63.4% (SD = 26.6%) of days with good patch coverage during the trial time. No notable differences were observed across the disease types, with schizophrenic subject 64.3% (SD = 20.2%), FEP subject 62.5% (SD = 27.5%), and SAD subject 63.0% (SD = 37.7%). The secondary endpoint was subject adherence, defined as the proportion of detected ingestible events markers (IEM) over the expected during the trial days with good patch coverage. Overall, subjects had a mean of 86.6% (SD = 14.5%) IEMs detected during the good patch coverage days. The proportion of IEM detected by disease type were: FEP 91.0% (SD = 7.4%), schizophrenic 88.9% (SD = 8.1%), and SAD 72.3% (SD = 25.7%). There were nine (9) subjects (20.9%) who had eleven (11) AEs during the study, all were non-serious. Out of all the AEs, nine (9) subjects had nine (9) treatment emergent adverse events (TEAE) that were all reported as medical device site irritation, and four (4) subjects discontinued the study due to AEs.

Discussion: In conclusion, during the 8-week treatment with the DMS, subjects reported good patch coverage 63.4% of the time on average for this pragmatic study. Using the DMS, subjects’ medication adherence reached 86.6% on average when subjects were having good patch coverage. The acceptance and performance of DMS is considered safe and there were no SAEs associated with its use.

Funding: This study was supported by Otsuka Pharmaceutical Development & Commercialization, Inc.

Background: Detection of individuals at-risk for psychosis is the rate-limiting step of primary indicated prevention. Improvement is imperative to improving clinical outcomes; to mitigate this, our group has developed a transdiagnostic, clinically-based, individualised risk calculator. The risk calculator uses simple predictors (age, gender, ethnicity, ICD-10 diagnosis and age*gender interaction) selected a priori and recorded as part of clinical routine. While there are numerous examples of prognostic tools in psychiatry that have been externally validated, there are none that have been implemented into clinical practice. This is the first study assessing the implementation of a prognostic tool in psychiatry.

Methods: A feasibility study was composed of both an initial in-vitro phase, aiming to successfully integrate the risk calculator into the local electronic case register, as well as an in-vivo phase to investigate the feasibility of real world implementation of the calculator in clinical routine. The in-vitro phase involved development of the risk calculator prototype, addressing of feasibility problems associated with its implementation in clinical practice, and conducting clinician engagement work prior to initiating in-vivo piloting. In the in-vivo phase, the risk calculator was implemented into the local electronic health records. Clinicians were not required to enter any new variables as predictors were recorded as part of clinical routine. All patients over the age of 14 receiving a non-organic, non-psychotic primary index diagnosis were automatically assessed for psychosis risk, with responsible clinicians being contacted if their patient was considered to be above 5% risk within 2 years. The primary outcome was adherence of clinicians to the use of the transdiagnostic risk calculator, as measured by the proportion of clinicians who responded to prompts sent on the recommendation of the calculator.

Results: Of the 88 patients included in the final sample, mean (SD) age was 39.05 (18.27) and 33 (37.5%) were male. The calculator was successfully integrated into the local electronic case register, running automatically to estimate psychosis risk on all new cases in our mental health trust. Clinician adherence was high (84%), providing evidence of successful implementation of the risk calculator in clinical routine. 55% of clinicians who responded also referred their patient for a refined psychosis risk assessment, highlighting the applicability of the calculator.

Discussion: This implementation study provides the rationale for a prospective effectiveness study for our transdiagnostic, clinically-based, individualised risk calculator. This risk calculator has the potential to significantly improve the identification of individuals at-risk for psychosis and has been shown to be feasible to use in clinical routine. Additionally, this highlights the absence of implementation research in psychiatry, in spite of the prolific publishing of prognostically accurate models.

T98. CHARACTERIZING THE CLINICAL COURSE IN SCHIZOPHRENIA WITH DIGITAL PHENOTYPING

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Background: Digital phenotyping methods offer the potential to better understand the lived experiences of patients with serious mental illnesses like schizophrenia. Yet to date it is unclear if the digital biomarkers offered from this method are unique to certain conditions like schizophrenia, or rather are shared by diverse populations, and to what degree digital phenotyping data are correlated with patient and clinician assessments.

Methods: 50 patients with schizophrenia and 50 matched healthy controls collected smartphone digital phenotyping data for a three month