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Background: In the European Union approximately 5 million people suffer from psychotic disorders. Patients with schizophrenia make up the largest subgroup of these, and between 30–50% of them are considered resistant to treatment. Despite the proven potential of m-health solutions, there remains a lack of technological solutions in the treatment of patients with this disease. To improve the quality of care of these outpatients, an m-health solution termed Mobile Therapeutic Attention for Patients with Treatment Resistant Schizophrenia (m-RESIST) has been created in European Union and implemented in three countries (Spain, Hungary and Israel). m-RESIST is an innovative project aimed to empower patients with Treatment Resistant Schizophrenia, which integrates pharmacological and psychosocial approaches, develops knowledge of the illness using predictive models, and includes the following m-Health tools: a Dashboard, a Smartwatch and a Smartphone. Prior to the implementation in the healthcare reality, the solution has been tested in pilot groups to assess the acceptability, usability and satisfaction of all m-RESIST components in each country. In addition to online and onsite visits, this phase has included an anonymous online questionnaire, with the aim of capturing more consistently the opinion of participants in their experience with m-RESIST. We summarize their opinions about services and devices included in the solution, as well as the improvement proposals of each group.
Methods: During three months (from August to October), a case manager from Spain sent out an interval question to the Spanish participants via m-RESIST Dashboard, in order to collect information about the users experience with the system. It was administered weekly on different days and at different times, being anonymous for both parts. We have obtained qualitative information from nine patients, one caregiver and two clinicians.
Results: Patients consider m-RESIST a useful tool, in terms of immediacy of contact with clinicians, improvement of disease awareness, better follow-up of their disease, less-worries from caregivers and feeling protected by having a team with whom they can share their concerns. As cons, patients have a strong feeling of being observed and with too much repetitive questionnaires to answer. They consider a bit difficult to use the devices, with several errors in its operation. They do not like to carrying the smartwatch and to check the battery of the devices. Also, the program is not available on weekends, which leads to a feeling of being somehow disregarded. For patients, this solution should also include the possibility of changing programmed location when on vacations and it should not be a substitute for traditional treatment. Regarding caregivers, m-RESIST is considered as a good tool to have in their daily lives, because it helps in terms of disease improvement, to have a better follow-up about pharmacological issues and symptoms, and to feel secure knowing there is a support for both patient and caregiver. No cons were reported. For clinicians, m-RESIST is a system with high potential, being easy, intuitive and useful, specially to share psychoeducational content with patients and to improve communication with them. However, several technological problems must be solved in the future, there still provide a poor patient monitoring and much more time is needed than regarding the traditional treatment.
Discussion: The three user groups consider m-RESIST as a useful tool, with pros and cons being described regarding their specific needs and provided proposals for improvement.

T238. THE ASSOCIATION OF PSYCHOSOCIAL FUNCTIONING WITH BRAIN VOLUME IN THE EARLY STAGES OF (PSYCHOTIC) ILLNESS

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Background: In recent years, psychosocial functioning has received a lot of attention with discussions around its importance in terms of early identification of illness, prediction of outcome, and targeting of treatment. Regardless of diagnostic outcome, both groups of individuals at ultra-high risk for psychosis (UHR) and those with a first episode of psychosis (FEP) show a wide range of functional outcomes. In light of these clinical outcomes, effort has been made to identify neuroanatomical markers for functioning and functional outcome independent of diagnostic status. The present study aimed to increase insight into the association of brain volume with psychosocial functioning in the early stages of (psychotic) illness by investigating the association between grey matter volume and current levels of social and occupational functioning (SOFAS) in healthy individuals, those with emerging mental health problems (EMH), UHR individuals, and those with a FEP.
Methods: Twenty nine healthy controls (12M:17F; mean age 20.97), 27 EMH individuals (6M:21F; mean age 21.24), 31 UHR individuals (14M:17F; mean age 24.40), and 31 FEP individuals (25M:6F; mean age 25.24) were recruited from mental health services, through posters, social media and opportunity sampling, in the wider area of Birmingham, UK. They underwent magnetic resonance imaging at the Birmingham University Imaging Centre and completed the Social and Occupational Functioning Assessment Scale (SOFAS: healthy controls mean 84.41, range 70–95; EMH mean 63.93, range 32–89; UHR mean 54.68, range 35–80; FEP SOFAS 56.65, range 21–95). Images were analysed using the CAT12 toolbox in SPM12. Grey matter volumes were examined controlling for age, gender and total intracranial volume.
Results: Compared to healthy controls, EMH individuals displayed a pattern of grey matter volume reduction in association with reduced functioning scores in medial prefrontal and cingulate areas. The areas spanning volumetric differences between the two groups in their association with SOFAS scores were similar to those identified in previous work investigating the association between brain volume and functional outcome in UHR individuals (Reniers et al., 2016, doi:10.1093/;schbul/sbw086) but were more widespread and disperse. Similar areas of association were observed in UHR and FEP individuals compared to healthy controls but here the pattern was much more specific and more pronounced in the FEP group than the UHR group in the comparison with healthy controls.
Discussion: The present findings provide novel evidence that while those in the early stages of psychotic illness present a unified pattern of association between psychosocial functioning scores and grey matter volume, those with EMH present with a more pronounced but more dispersed pattern, possibly reflecting a more disperse diagnostic outcome. This indicates specificity with psychotic illness in the association between psychosocial functioning and brain volume and suggests importance concerning our ability to predict outcome and target interventions. In addition, it provides support for the recent focus on functioning in addition to distinct diagnostic categories.

T239. SINGLE-SUBJECT PREDICTION OF FUNCTIONAL OUTCOMES IN CLINICAL HIGH RISK SUBJECTS USING CLINICAL DATA

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source: https://doi.org/10.7892/boris.114644 | downloaded: 12.10.2024
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Background: Psychotic disorders are associated with serious deterioration in functioning even before the first psychotic episode. Also on clinical high risk (CHR) states of developing a first psychotic episode, several studies reported a decreased global functioning. In a considerable proportion of CHR individuals, functional deterioration remains even after (transient) remission of symptomatic risk indicators. Furthermore, deficits in functioning cause immense costs for the health care system and are often more debilitating for individuals than other symptoms. However in the past, CHR research has mostly focused on clinical outcomes like transition and therefore, functioning in CHR patients is under-investigated. The current study aims at predicting functioning at a single subject level applying multi pattern recognition to clinical data for the first time.
Methods: PRONIA ('Personalized Prognostic Tools for Early Psychosis Management') is a prospective collaboration project funded by the European Union under the 7th Framework Programme (grant agreement n° 602152). Considering a broad set of variables (sMRI, rsMRI, DTI, psychopathological, life event related and sociobiographic data, neurocognition, genomics and other blood derived parameters) as well as advanced statistical methods, PRONIA aims at developing an innovative multivariate prognostic tool enabling an individualized prediction of illness trajectories and outcome. Seven university centers in five European countries and in Australia (Munich, Basel, Birmingham, Cologne, Melbourne, Milan/Udine, Turku) participate in the evaluation of three clinical groups (subjects clinically at high risk of developing a psychosis [CHR], patients with a recent onset psychosis [ROP] and patients with a recent onset depression [ROD]) as well as healthy controls.
In the current study, we analysed data of 114 CHR patients. Functioning was measured by the 'Global Functioning: Social and Role' Scales (GF S/R). Features were derived from the large pool of clinical data that were assessed in PRONIA including questionnaires measuring CHR criteria as well as psychopathology, family history of psychotic disorders or treatment and various self-rating scales. Feature Elimination method of a strict Wrapper was used to identify most predictive variables from the multitude of clinical data included into the analysis.
Results: Balanced Accuracy of predicting social functioning in CHR patients was acceptable (pooled cross-validation: BAC = 74.3%, Sens = 72.8%, Spec = 60.3%; leave-site-out cross-validation: BAC = 69.9%, Sens = 84.3%, Spec = 55.6%). In contrast, applying the strict wrapper model revealed worse prediction performance for role functioning. Which might indicate that predicting level of role functioning requires more information than social functioning. As expected, prior functioning levels were identified as main predictive factor but also distinct protective and risk factors were selected into the prediction models.
Discussion: Identifying single predictive variables is in purpose of a much more efficient prognostic process. Moreover, understanding the mechanisms underlying functional decline and its illness related pattern might enable an improved definition of targets for intervention. Future research should aim at further maximisation of prediction accuracy and cross-centre generalisation capacity. In addition, other functioning outcomes as well as clinical outcomes need to be focused on.

T240. CAREGIVER BURDEN OF OUTPATIENTS WITH SCHIZOPHRENIA IN UNIVERSITY CLINIC IN SAO PAULO, BRAZIL

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Background: The impact of schizophrenia on the family is complex[1] and affects not only the patient, but his/her whole family. The adverse consequences involve physical, emotional, social, and economic restrictions and imply an objective and subjective burden for caregivers.[2]
This study aims to evaluate the burden of caregiving in a sample of outpatients with schizophrenia, in Sao Paulo, Brazil.
Methods: Cross-sectional observational study. Patients with diagnosis of schizophrenia (DSM-5), 18–50 years, both sexes, and a relative/caregiver, both sexes, aged 18 to 70 years, living in contact with the patient at least 20 hours/week. Measures included patients and caregivers' demographic variables. Family burden was evaluated using the Brazilian version of the Family Burden Interview Schedule (FBIS-BR), a semi-structured interview, considering objective and/or subjective burden, distributed in five subscales (assistance to the patient in daily life [objective and subjective burden]; supervision of patients' problematic behaviors [objective and subjective burden]; financial burden; impact on family routine [objective and subjective]; worries about the patients' present and future life [subjective]). The questions of FBIS-BR refer to the last thirty days prior to the interview, except for one item, which evaluates the overload during the last year. The objective burden is assessed in a Likert scale (1 = never to 5 = every day), and subjective burden, in Likert scale (1 = not at all to 4 = very much).
Results: Patients: n= 56: 69.6% male; mean age: 36.04 ± 9.62 years; 89.3% single; duration of disease: 15.07 ± 9.83 years; number of hospitalizations: 2.95 ± 3.76; 76.8% with elementary or middle school; 66.1% without social security.
Caregivers n=56: 76.8% female; mean age: 56.30 ± 11.46 years; 57.1% mothers; 10.7 % fathers; 23.2% siblings; 57.1% married; 62.5% with elementary or middle school; in contact with the patient 81.71 ± 37.04 hours/week, most of them live with the patient; 53.6% without social security.
The mean total score of the objective and subjective burden was 2.43 ± 0.57 and 2.14 ± 0.53, respectively.
In the analysis of subscales the assistance to the patient in daily life (objective) was 3.26 ± 0.71 and it subjective aspect was 1.82 ± 0.89; supervision of patients' problematic behaviors (objective) was 1.80 ± 0.53 and it subjective aspect was 0.95 ± 0.71. The impact on family routine (objective and subjective) was 2.21 ± 0.93 and worries about the patients' present and future life (subjective) 3.64 ± 0.61; financial burden: 3.39 ± 1.54. The mean total family income was US$1008.49 ± $526.02.
There were no significant differences in FBIS-BR scores between male and female patients, except for "supervision of patients' problematic behaviors", both objective (p=.013, uncorrected for multiple comparisons) and subjective (p= .032. uncorrected for multiple comparisons) aspects, in which female patients were responsible for a higher burden for their caregivers. Regarding the family's perception of the financial burden in the last year, 57.3% considered their spending on patients as frequent, almost always or always heavy, in the same period.
Discussion: Our results are consistent with the study of Barroso et al. (2007), according to which providing care to psychiatric patients generates the feeling of overload, since the caregiver undergoes changes in his / her routine of life, failing to satisfy his / her needs to meet the needs of the patient. The burden affects almost equally male and female patients.
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T241. INTERPERSONAL COGNITIVE RIGIDITY AFFECTS SOCIAL FUNCTIONING IN PSYCHOSIS MORE THAN THEORY OF MIND: A STUDY WITH THE REPERTORY GRID TECHNIQUE

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