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Background: Studies have shown that the risk of developing schizophrenia is associated with an increased risk of most other psychiatric disorders¹ and that the familial transmission of risk extends across diagnostic categories.² In twin studies, unaffected twins may not be completely free of symptomatology even when they do not fulfill diagnostic criteria for a psychiatric illness, but this has not been systematically tested in a twin design.

The aim of the study was to investigate subtle psychopathology in unaffected co-twins from proband twin pairs, where one twin had a schizophrenia spectrum disorder diagnosis (ICD-10: F2x.x), and compare the level of psychopathology of F2x.x-unaffected co-twins to that of healthy twins.

Methods: We conducted a multimodal, cross-sectional combined clinical and register-based nation-wide twin study, by including twin pairs where one or both twins had a diagnosis in the schizophrenia spectrum (identified by linking The Danish Twin Register and the Danish Psychiatric Central Research Register). A group of age- and gender-matched healthy twin pairs were included. All subjects underwent ratings of psychopathology with Positive and Negative Syndrome Scale (PANSS), Comprehensive Assessment of At Risk Mental State (CAARMS), and Clinical Global Impression (CGI). The current level of functioning was estimated with Global Assessment of Function (GAF).

Results: A total of 219 twins were included; i.e. proband twins (n=65), F2x.x-unaffected co-twins (n=56) and healthy twins (n=98). For unaffected co-twins, the mean PANSS total score was 38 (SD 12.6), the CGI score was 1.7 (SD 1.1) and the GAF score was 74 (SD 13.3), which were all significantly higher than in healthy twins (all $p < 0.02$), who had a mean PANSS total score of 32 (SD 5.7), a CGI score of 1 (SD 0.3) and a GAF score of 85 (SD 7.3). For CAARMS, the following items were significantly more severe in the unaffected co-twins compared to healthy twins: anxiety ($p=0.021$), OCD ($p=0.008$), stress tolerance ($p=0.001$), aggression ($p=0.01$), inappropriate affect ($p=0.03$), social isolation ($p=0.01$), and impaired role-function ($p=0.001$).

Discussion: These preliminary results indicate a subtle but significant level of psychopathology in unaffected co-twins of probands affected with a schizophrenia spectrum disorder compared to healthy twins, measured by PANSS and CGI. Results from CAARMS indicate specific areas of interest, clustered around emotional and behavioral symptoms like anxiety, stress intolerance, social isolation, inappropriate affect/aggression and impaired role-function. This may suggest subtle symptomatology in the f2x.x-unaffected co-twins, which may contribute to the significantly lower level of function in the co-twins compared to healthy twins. The heritability of these measures of psychopathology will be examined using Structural Equation Modelling on the whole cohort of probands, unaffected co-twins and healthy twins.

References:

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2. Rasic D, Hajek T, Alda M, Uher R. Risk of mental illness in offspring of parents with schizophrenia, bipolar disorder, and major depressive disorder: a meta-analysis of family high-risk studies. *Schizophr Bull* 2014; 40: 28–38.

T249. THE ROYAL AUSTRALIAN AND NEW ZEALAND CLINICAL PRACTICE GUIDELINES FOR SCHIZOPHRENIA AND RELATED DISORDERS (2016) – A STEP TOWARDS BETTER CARE?

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Abstracts for the Sixth Biennial SIRS Conference

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Background: Clinical Practice Guidelines are developed to improve clinical standards, encourage use of evidence-based treatments, and provide a foundation for audits, service evaluation, and research. This presentation by the expert writing group responsible for the updated RANZCP Clinical Practice Guidelines for Schizophrenia and Related Disorders describes the process, the challenges and the barriers in writing these new clinical guidelines. Once published, dissemination, discussion and utilisation of new clinical practice guidelines is crucial.

Methods: The RANZCP Clinical Practice Guidelines (CPG) for Schizophrenia and Related Disorders were developed using the existing RANZCP and international guidelines, research evidence, and in the absence of clear evidence, expert consensus. The NHMRC levels of evidence for intervention studies were used as a benchmark for each recommendation. A clinical staging model was proposed. There was an increased emphasis on physical health comorbidities, psychological treatments, and vocational recovery. The draft document was subjected to extensive review and revision involving independent psychiatrists, other clinicians and stakeholders, consumer groups, RANZCP committees and reviewers for the ANZJP. The Guidelines are available for open access on the RANZCP website at <https://www.ranzcp.org/Publications/Guidelines-and-resources-for-practice.aspx>.

Results: The Guidelines have been widely cited. The RANZCP has developed a Consumer Guide and Clinical Audit Tools based on the CPG recommendations. The recommendations made in the guidelines have resulted in some controversy – most notably about the use of depot antipsychotics, and antipsychotic medication discontinuation after recovery from first episode psychosis. As with most CPGs, there is no mechanism for ongoing updating of treatment recommendations in response to new evidence, so regular revisions of CPGs will be needed.

Discussion: The Guidelines provide a comprehensive summary of the evidence for interventions to treat schizophrenia and related disorders, set out a recommended standard of care to be adopted by clinicians in Australia and New Zealand, and create a benchmark against which individual practice and services can be compared. The debate generated by the publication of the guidelines has highlighted the gap between the recommended standard of care and existing practice, especially as it relates to the physical care and psycho-social interventions offered to people with these conditions.

T250. CLINICAL CORRELATES OF SUBJECTIVE QUALITY OF LIFE IN INDIVIDUALS WITH AT-RISK MENTAL STATE FOR PSYCHOSIS IN HONG KONG

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Background: Subjective quality of life (SQoL) is an important outcome domain in individuals with at-risk mental state (ARMS) for psychosis. In an effort to better understand and maximize SQoL in ARMS populations, an increasing number of research has been conducted to investigate factors determining SQoL. This study aimed to examine clinical, functional and cognitive correlates of SQoL in Chinese young people presenting with ARMS in Hong Kong.

Methods: This is a naturalistic prospective study examining the longitudinal course of ARMS and prediction of psychosis in Hong Kong. In total, 110 Chinese participants aged 15 to 40 years presenting with ARMS were recruited

from a territory-wide specialized early intervention service for psychosis. ARMS status was verified using Comprehensive Assessment for At-Risk Mental State (CAARMS). Assessments encompassing symptom profiles (Positive and Negative Syndrome Scale, PANSS; Montgomery-Asberg Depression Rating Scale, MADRS; Brief Negative Symptom Scale, BNSS), functioning (Social and Occupational Functioning Rating Scale, SOFAS) and a brief battery of cognitive tests was conducted. A validated Chinese version of SF12 questionnaire was used to measure SQoL. The current analysis focused on data collected at baseline.

Results: Of 110 ARMS participants, 48.2% were male. The mean age and educational level of the sample was 20.9 years (S.D.=6.7) and 11.4 years (S.D.=2.6), respectively. Correlation analyses revealed that SF12 mental health score was correlated with MADRS total score, BNSS total score and SOFAS score, while SF12 physical health score was correlated with PANSS positive symptom score only ($p<0.05$). Multiple linear regression analysis showed that only MADRS total score was independently associated with SF12 mental health score ($p<0.001$). SQoL measures were not correlated with any cognitive functions.

Discussion: Our results were consistent with the literature which indicates that psychological domain of SQoL is significantly related to depressive symptoms in ARMS individuals. Further analysis on the longitudinal data regarding our prospective ARMS cohort will clarify variables predictive of SQoL at follow-up.

T251. THE STUDY OF QUALITY OF LIFE AND A GLOBAL FUNCTIONING FOR THE SCHIZOPHRENIA PATIENTS IN COMMUNITY BY THEIR RESIDENTIAL ENVIRONMENT

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Background: Mental health is so deeply related to our residential environment that the difficulties of residence could worsen it for schizophrenia patients. Moreover, patients with schizophrenia might induce severe residential problems such as poverty, discrimination, failure to education, frequent migration, homeless, and etc. This study investigated the quality of life and a global functioning for schizophrenia patients in community by their residential environment.

Methods: Total 648 patients with schizophrenia living in Jeollabukdo(province) were tested demographic and clinical characteristics. Housing and residential satisfaction were measured by the questionnaires established by Ministry of Land, Transport and Maritime Affairs and modified for this study. Psychiatric and psychological variables were assessed by Global Assessment Function (GAF) and World Health Organization Quality of Life Assessment Instrument Brief Form (WHOQOL - BREF). Correlations among variables were analyzed using frequency analysis and Pearson's product moment correlation coefficient.

Results: As the results of correlations between quality of life and housing satisfaction, correlations were shown at a global quality of life ($r=0.312$, $p<.01$), physical health ($r=0.227$, $p<.01$), psychological domain ($r=0.215$, $p<.01$), social relation domain ($r=0.170$, $p<.01$), and environmental domain ($r=0.372$, $p<.01$). For the correlation between quality of life and residential area satisfaction, a general quality of life ($r=0.307$, $p<.01$), physical health ($r=0.242$, $p<.01$), psychological domain ($r=0.243$, $p<.01$), social relation domain ($r=0.169$, $p<.01$), and environmental domain ($r=0.306$, $p<.01$) were correlated.

Discussion: The correlations among residential environment, quality of life, and a global functioning were significant. Consequently, it is necessary for the government policy that can improve housing and residential environment for the mentally disordered and ultimately contribute to enhance their welfare.

T252. TREATMENT DELAY AND OUTCOME COMPARISON OF EXTENDED EARLY INTERVENTION SERVICE AND STANDARD PSYCHIATRIC CARE FOR ADULTS PRESENTING WITH FIRST-EPISEDE PSYCHOSIS IN HONG KONG

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Background: A territory-wide specialized early intervention (EI) service for psychosis (EASY) has been implemented in Hong Kong since 2001, providing 2-year phase-specific early assessment and clinical care to young people aged 15–25 years presenting with first-episode psychosis (FEP). Previous evaluation demonstrated superiority of EASY programme over standard care in outcome improvement in FEP. Recently, EASY has been extended to provide 3-year EI service to FEP patients aged 15 to 64 years. However, effectiveness of EI on adult FEP populations has not been well examined.

Methods: This study adopted case versus historical-control design, comparing patients received 3-year EASY treatment (EI group) with those managed by standard psychiatric care (SC group) prior to implementation of EASY extension in terms of treatment delay and outcomes in symptom and functioning. In total, 320 Chinese adult FEP patients aged 26–55 years (160 in EI group, 160 in SC group) were included in the study. Retrospective record review detailing service utilization over 3-year treatment period was conducted. Follow-up interview assessment (on average 48.3 months after service entry) encompassing premorbid adjustment, duration of untreated psychosis (DUP), clinical (Positive and Negative Syndrome Scale, PANSS; Calgary Depression Scale, CDS), functional (Role Functioning Scale, RFS) and treatment profiles was administered. Comparison analyses on DUP and service utilization were based on record review data of 320 patients. Clinical and functional outcome analyses focused on data collected from follow-up interview assessment (251 patients completed follow-up assessment, 130 from EI and 121 from SC groups).

Results: EI and SC groups were comparable regarding demographics, premorbid and baseline characteristics, except the use of second-generation antipsychotic (SGA) treatment (EI patients were more likely to receive SGA than SC patients). EI patients had significantly shorter DUP than SC counterparts ($p=0.015$). Regarding follow-up outcomes, EI patients displayed lower levels of negative ($p=0.044$) and depressive symptoms ($p=0.055$), higher scores in RFS immediate social network ($p=0.027$) and lower rates of service disengagement ($p=0.048$) than SC patients even when SGA use and DUP were adjusted as covariates in analysis of covariance for comparison. There were no significant group differences in admission and suicide rates.

Discussion: Our results indicate that extended EASY service achieve favorable outcomes in adult FEP patients on shortening of treatment delay and improvement in negative symptoms and social functioning, and service disengagement reduction. Further evaluation is required to assess the sustainability of positive effects.

T253. THE CORRELATION ANALYSIS BETWEEN RENAMING SCHIZOPHRENIA AND VISITING FREQUENCY OF MENTAL HEALTH SERVICES BY BIG DATA ANALYSIS (INTERNET SEARCHES AND NEWSPAPER ARTICLES) IN SOUTH KOREA

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