CHAPTER 2

REVIEW OF LITERATURE
The review of literature suggests the growing interest in early detection of psychosis risk and in understanding the bio-psycho-social factors underlying prodrome psychosis as a factor of vulnerability to psychosis and other issues. The methodology used mostly includes birth cohort studies, surveys, risk detection studies, longitudinal prospective studies and retrospective studies. The method of obtaining data involves diagnostic tools, self report questionnaires and interviews.

Koren, Locoua, Rothschild-Yakar, and Parnas in 2016, conducted a study with non help seeking adolescents in general population (age group of 13-15years), in which 100 adolescents were assessed, utilizing multiple tools such as the Examination of Anomalous Self-Experience (EASE); prodromal symptoms and syndromes were assessed with the Structured Interview for Prodromal Syndromes (SIPS); psychosocial functioning was assessed with the “Social and Role Global Functioning Scales”; and level of distress with the Mood and Anxiety States Questionnaire (MASQ). They studied the self disturbance reported by the adolescents and their correlation with subclinical psychotic symptomatology. The self disturbances reported by the adolescents, specifically disturbances in mood and social functioning, showed significant correlation with subclinical psychotic symptoms (Koren, Lacoua, Rothschild-Yakar, & Parnas, 2016).

Zhang et al. in 2014, conducted a study to screen help seeking population at Shanghai Mental Health Centre in China, for risk of Prodromal Psychosis. Their focus was on frequency and clinical features of psychosis syndrome. The sample included 2101 patients between ages of 15-45years. The screening tool utilized was Prodromal Questionnaire (Brief version, PQ-B), followed by SIPS conducted on a
sub sample. They found that the frequency of Clinical high risk syndrome was maximum between the age of 16-21 years and it then declined with age (Zhang, et al., 2014).

Rietdijk et al. in 2013, assessed 201 patients with Ultra high risk for psychosis, to see the prevalence of depression and social anxiety among these individuals as compared to healthy controls. They utilized multiple tools such as The Prodromal Questionnaire, The comprehensive assessment of at risk mental states (CAARMS), The Beck Depression Inventory – II, and the Social Interaction Anxiety Scale. Their results indicated associations between anxiety, and subclinical psychotic symptoms, specifically more in females. This further indicated that these two variables (anxiety and depression) could also be taken into account while identifying at risk patients for psychosis risk (Rietdijk, et al., 2013).

A birth cohort study conducted in New Zealand, assessed a birth cohort of 1037 individuals. The study was prospective in nature and participants were first assessed at the age of 11 years, and then followed up at age of 18 years, 21 years, 26 years, and 32 years and 38 years of age. In the individuals who experienced psychotic symptoms at the age of 11 years, there was increase in risk for not just schizophrenia, but also for elevated suicide risk. This study highlighted that experiencing psychotic symptoms in adolescence, may or may not translate into psychotic disorders, and also that it suggests vulnerability to other psychiatric issues as well (Fisher, et al., 2013).

Interest in identification of psychotic experiences in general adolescent population has also led to developing curiosity about the nature of these experiences
and whether these can be not just identified but categorised to make the presentations more specific. A study conducted by Armando et al. in 2010, set forth to do the same. They focused on understanding whether the identified symptoms can be categorised into specific subtypes. Their study included a sample size of 1882 adolescents who were high school and university students. The tools used for the study included two subscales of Community Assessment of Psychic Experiences (CAPE) namely, depression and distress subscale, and the positive scale. Along with these tools they utilized the General Health Questionnaire -12 to assess the level of functioning of the adolescent participants. They proposed four subtypes for psychotic like experiences in general population namely, Perceptual abnormalities (PA), Persecutory Ideas (PI), Grandiosity (GR), and Bizarre experiences (BE). Their findings also indicated that subtypes BE and PI showed stronger associations with deteriorations in functioning, and with distress as well as depression as compared to the GR and PA subtypes. This study, thus, found that psychotic experiences can be of heterogeneous nature and better identification measures can help understand the risk of developing various psychotic or other psychiatric disorders (Armando, et al., 2010).

In an attempt to improve specificity for existing criteria of Prodrome psychosis, Ruhrmann et al. in 2010, conducted a study across early detection centres in Europe. Two hundred and forty five adolescents and young adults took part in the study, from six centres across Europe (Finland, England, Germany and the Netherlands). They were considered to be experiencing prodrome state based on the Ultra high risk criteria or the basic symptom based criterion for cognitive
disturbances. They conducted a follow up of 18 months to assess the transition to psychosis, which was then found to be 19%. Following this, they attempted to formulate a model in which they included positive symptoms, disturbances in sleep, level of functioning as altered over past one year and any alterations in academic performance. The limited frequency of transition to psychosis failed to allow them to do a more systematic statistical analysis by splitting of the data. However, it emphasized on proposing a model for early identification and understanding of the psychological and biological mechanisms that play a role in transition to psychosis from a prodrome experience (Ruhrmann, et al., 2010).

Studies have also focused on finding the antecedants signs and symptoms found during childhood and adolescence to understand the transition into psychotic disorders better. A study conducted by Welham, Scott, Williams & Najman in 2009, sought to understand the behavioural aspects and symptomatic aspects of individuals who develop non-affective psychotic disorders. They conducted detailed psychopathological assessment using the Child Behaviour Checklist, and the Youth self-report, of 3801 young adults at ages 5years and 14years. another assessment, namely, Screen-positive non-affective psychosis was then assessed at 21years of age by employing the Composite international diagnostic interview or through a self report checklist. Applying logistic regression analysis helped find that a total of 60 participants qualified for screen-positive non-affective psychotic syndrome; and presence of auditory hallucinations, a positive symptom, at the age of 14years was associated with the development of non-affective psychotic syndrome in both the sexes (Welham, Scott, Williams, & Najman, 2009).
In a study conducted by Loewy, Johnson & Cannon in 2007, 1020 college going adolescents were assessed on a self report to measure psychosis risk, namely Prodrome Questionnaire. The responses and results suggested that although attenuated experiences can get reported by normal individuals, the distress associated with these experiences aligns them more with the risk of developing psychotic spectrum disorders, and this also encourages screening for the same in general population (Loewy, Johnson, & Cannon, 2007).

Another longitudinal study was conducted by Yung et al. in 2003, in Australia, focusing on identifying and following up with adolescents and adults who were found to be experiencing prodromal symptoms. The age range of participants was between 14-29 years. Multiple tools were utilized by them which included Structured Clinical Interview for DSM-IV, The family interview for genetic studies, The quality of life scale, and global assessment of functioning scale, along with Hamilton rating scale for depression, Hamilton rating scale for anxiety, mania rating scale, and scale for the assessment of negative symptoms. After a twelve month follow up, they found out that 20 out of the 49 participants, developed psychotic disorder within the period of the assigned 12 months for the study; the percentage of transition thus being 40.8%. They acknowledged the presence of both False false positives and true false positives in the study and emphasized that the false false positives could get help at the clinic which they otherwise wouldn’t have due to the subthreshold presentations and no detection or help seeking (Yung, et al., 2003).

If left unidentified and no interventions are done, prodrome shows a possibility of conversion into frank symptoms of psychotic illness. A study was
conducted in Melbourne with 49 adolescent and young adult subjects to see the rate of conversion to psychotic illness in these individuals considered at risk of developing psychosis. It was found that 49% of the individuals made the transition to psychosis within one year of time, and the numbers eventually raised to 50% by the end of two years of observation (Thompson, McGorry, Phillips, & Yung, 2001).

Another study conducted in Israel compared a total of 9215 healthy adolescent males to 509 schizophrenia patients matched on the basis of gender, age and school attended at the time when the testing was conducted. The adolescents were assessed on multiple measures of intelligence, social functioning, individual autonomy, ability for organization, and inclination towards engaging in physical activities. It was found that the healthy individuals who went on to be diagnosed with schizophrenia, showed significantly lower scores on the multiple measures they were assessed on. The researchers also reported that among the deficits on various measures, social functioning, organizational ability and intellectual functioning, during adolescence were the major predictors of developing schizophrenia (Davidson, et al., 1999).

The review of literature thus, throws major concern on dearth of research regarding understanding, early detection and intervention of prodrome psychosis risk in Indian context.