

## **Interpersonal Sensitivity in Youth for the At-Risk Mental State for Psychosis in Karachi, Pakistan**

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Individuals having high interpersonal sensitivity are sensitive to relationships and self-deficits in comparison to others. Studies report that high interpersonal sensitivity can cause low self-esteem and feelings of insecurity. The objective of the study was to assess the interpersonal sensitivity in people with an at-risk mental state (ARMS) for psychosis compared to the individuals not at risk. A total sample of 50 individuals aged 18 to 35 years was recruited from Bahria University, Karwan-e-Hayat and Karachi Psychiatric Hospital: 25 with ARMS and 25 participants who were not ARMS, according to scores on Schizophrenia Proneness Inventory-Adult (SPI-A). All of the participants then responded to self-report questionnaire on Interpersonal Sensitivity Measure. Results showed a significant difference ( $p < .001$ ), between both the groups where individuals screened positive for ARMS reported higher sensitivity to interpersonal relations compared to those who were not at risk. The findings of the present study indicate that increased sensitivity to social interactions is a manifestation of the potentially early phase of psychosis. Early intervention to those identified as sensitive to interpersonal relations can help avert serious disorders.

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Accurately assessing others' states, traits, and abilities from nonverbal cues is known as "interpersonal sensitivity", referring to both emotional and social cues" (Carney & Harrigan, 2003). Interpersonal sensitivity can also be explained as a personality trait in which there is an excessive and expanded awareness of the behavior and emotions of others. The significant impact of interpersonal relations on both the growth of personality and psychopathology pose a serious challenge to researchers. Evidence suggests that individuals with high interpersonal sensitivity are sensitive to social relationships and self-defects, and their actions tend to mitigate the risk of a negative review (Davidson, Zisook, Giller, & Helms, 1989; Davidson JT, Giller EL, Zisook S, & Overall JE, 1988). Studies report that high interpersonal sensitivity can cause low self-esteem and feelings of insecurity (Boyce & Parker, 1989).

An individual sensitive to interpersonal relationships may experience several psychological effects on the basis of his / her perceptions, anxiety, signs of depression, and phobias. These changes lead to psychosis at later stages and begin to show symptoms of major depressive disorders, schizophrenia, and others psychosis. Individuals having a threat of the emergence of psychosis or schizophrenia are said to be At Risk of Mental State (ARMS). These people are mostly between the ages of 14-35 years. Individuals experiencing psychosis are linked to a variety of co-morbid psychiatric syndromes, and the same appears to be true for those with ARMS (WELSH, 2013).

The objective of global mental health workers is to delay the start of psychosis, or prevent the first event of psychosis. The initial development of psychosis, and the changes one goes through, can be stressful, even if the individual does not experience specific psychotic symptoms. Generally, the risk phase includes several fluctuations, and the symptoms and changes progress slowly over time. Some changes include a change in cognition, for instance; difficulty in concentration or memory, a change in affect, anxiety and irritability, mild thought disturbance, ideas of reference, suspicion, and odd beliefs and perceptual distortions that are much lesser than the intensity or duration of psychosis. In addition to these changes, an individual may also experience physical changes including disturbed sleep, energy loss, and a withdrawal from social circles.

People can be at risk of mental state due to various bio psychosocial factors like social influences (relationships, family), psychological factors (beliefs about themselves and others), and biological influences (genetics, brain chemicals). Given genetic factors are one of the etiological factors of schizophrenia; it is likely that a person whose parents or siblings are diagnosed with psychosis might be at risk of mental state (ARMS). Children who have a schizophrenic parent have approximately 13% risk of developing the disease. If both parents are schizophrenics, the chance of having schizophrenia increases by 40%. If an individual's first-degree relative is schizophrenic, the likelihood of developing schizophrenia increases by five times in parents, and eight times in siblings (Erlenmeyer-Kimling et al., 1995; Keshavan, Diwadkar, Montrose, Stanley, & Pettegrew, 2004; Mednick, Moffitt, & Stack, 1987; Mirsky, Kugelmass, Ingraham, Frenkel, & Nathan, 1995). Many studies have looked at the risk of developing schizophrenia and related disorders during risk periods, and during adolescence and onward. Prevalence of schizophrenia and other psychotic disorders among the children of parents with schizophrenia lay from 8% to 21%, which is significantly higher than children with non-schizophrenic parents. Children whose parents have schizophrenia also have extensively prominent risk for personality disorders.

Individuals having ARMS may function poorly regardless of whether they develop psychosis or not. It is highly important that these people should seek help even though, for many people, these experiences are short-lived. They are often a reaction to stress and stop without any mental health intervention. Studies indicate that people who are ARMS for psychosis are more likely to seek and accept professional assistance rather than people with such disorders (Lappin et al., 2007). This can be an opportunity to understand the risks and sensitivities associated with ARMS and provide interventions to delay the onset of psychosis, or prevent it.

The study aimed to study if the sensitivity to interpersonal interactions in individuals who are at risk of mental state (ARMS) for psychosis is higher than those who are not at risk. The findings can guide interventions focusing on reducing interpersonal sensitivity to help delay or prevent onset of psychosis. It was hypothesized that participants with ARMS for psychosis will have higher interpersonal sensitivity than individuals who are not at risk of mental state (ARMS) for psychosis.

### **Objectives**

1. To find the difference between sensitivity towards interpersonal interaction in individuals who are at risk of mental state for psychosis than those who are not at risk.
2. To investigate the gender difference on sensitivity towards interpersonal interaction in individuals who are at risk of mental state for psychosis.
3. To recommend strategies based on the findings of the study for effective intervention for reducing interpersonal sensitivity.

### **Hypotheses**

1. The participants with at risk of mental state (ARMS) for psychosis will have higher interpersonal sensitivity than individuals who are not at risk of mental state (ARMS) for psychosis.
2. Females will be more prone to interpersonal sensitivity than males

### **Method**

The Study was conducted in Karachi, Pakistan from Jan 2015 to June 2015. Ethical approval was granted by the ethical review committee of Bahria University. Participants were recruited from Bahria University Karachi campus, Karwan-e-Hayat Rehabilitation Centre, and Karachi Psychiatric Hospital of Karachi, Pakistan.

### **Participants**

A total of 50 participants within the age range of 18-35 years were recruited in the study. The study sample comprised of two groups: at risk or mental state (ARMS) and healthy individuals. All those who consented to participate in the study were screened with the Schizophrenia Proneness Inventory- Adult version (SPIA-A) to determine if they were at risk of mental state for psychosis (ARMS), and were assigned to each group accordingly.

### **Inclusion criteria**

Participants meeting any of the following criteria on SPIA-A were considered at risk and were included in the ARMS group.

- Those who obtained at least one score ranging from 3-6 on items that met the 'Cognitive perceptual' (COPER) criteria of SPI-A were considered at risk of mental state (ARMS) for psychosis.
- Those who obtained at least two scores ranging from 3-6 on items that met the 'Cognitive disturbance' (COGDIS) criteria of SPI-A were considered at risk.

Participants meeting both the criterion were also considered at risk. Participants not meeting the above criteria were included in the healthy individuals group.

## Measures

### Schizophrenia proneness inventory- adult version (SPI-A).

Schizophrenia proneness inventory SPI-A was used to screen participants for being at risk of mental state or not. It was developed by Schultze-Lutter and Klosterkötter (Schultze-Lutter, Steinmeyer, Ruhrmann, & Klosterkötter, 2008). The SPI-A is based on the Alike the Bonn Scale for the Assessment of Basic Symptoms (BSABS), that has been shown to have good inter-rater reliability, after 10 training sessions (Gross et al., 1990). SPI-A is a semi-structured interview which is comprised of the following 6 sub-scales of 5 to 6 items each: affective-dynamic disturbance, cognitive-attentional impediments, cognitive disturbances, disturbances in experiencing the self and surroundings, body perception disturbances, and perception disturbances.

### Interpersonal sensitivity measure questionnaire (IPSM)

The interpersonal sensitivity was measured using the Interpersonal Sensitivity Measure questionnaire (IPSM) (Boyce & Parker, 1989). It is a 36 item survey questionnaire. Statements are rated on a four-point rating scale (1= very unlike self, 4 = very like self). The scale total score ranges from 36 to 144, where higher scores indicate greater interpersonal sensitivity. It has five sub-scales: interpersonal awareness, need for approval, separation anxiety, timidity, and fragile inner self. The IPSM has been reported to have good internal consistency (values from 0.85 to 0.86), test – retest reliability ( $r=0.70$ ), and correlation with clinical judgment ratings of interpersonal sensitivity ( $r=0.72$ ).

### Procedure

Consent was sought for all data collection. Participants were approached individually by trained researchers and asked to participate in the study through the informed consent process. Participants were asked to fill out the demographic sheet, Schizophrenia Proneness Inventory SPI- A, and the Interpersonal Sensitivity Measure (IPSM). Participants screened for ARMS and healthy participants were placed in the respective categories using their completed Schizophrenia Proneness Inventory SPI- A. They were then assessed for their sensitivity in interpersonal relationships by using the Interpersonal Sensitivity Measure (IPSM). It took approximately 15-20 minutes with each participant to conduct the interview and get the questionnaire completed. Data was analyzed using SPSS.

### Results

The hypothesis was tested using inferential and descriptive statistical methods. Independent *t* test was applied using SPSS to explore differences between the two groups.

Table 1

*Sample Characteristics*

Variables	N	%	M	SD
<i>Gender</i>				
Male	23	46		
Female	27	54		
<i>Age</i>	50	100	24.38	3.9
<i>Family history of psychiatric illness</i>				
Yes	13	26		
No	37	74		

The sample consisted of 50 participants with the average age of 24.38 (SD 3.9) years, out of which 23 were males and 27 were females. Out of the participants, 13 (26%) had a family history of psychiatric illness, whereas 37 (74 %) participants reported no family history of any psychiatric illness.

Table 2

*Interpersonal Sensitivity in at Risk Mental State (ARMS) for Psychosis and Healthy Individuals*

	Interpersonal sensitivity						
	N	Mean	SD	<i>t</i>	Sig	95% CI	
						LL	UL
At risk	25	112.5	12.3	-5.04	.001	29.02	12.49
Not at risk	25	91.8	16.4				

Table 2 shows that the group with ARMS had a significantly higher interpersonal sensitivity on average (112.5) as compared to healthy individuals (91.8). Results show significant difference in both of the groups ( $t = -5.049$   $p < .001$ ) indicating that interpersonal sensitivity in people with ARMS is relatively high compared to those who are not at risk.

Table 3

*Interpersonal Sensitivity Scores in At-Risk and Not At-Risk Group's Gender Wise*

	Average IPSM Score	
	ARMS	No ARMS
Male	112.75	93.08
Female	113.08	94.87

### Discussion

The study investigated sensitivity to interpersonal relationships in participants with at risk of mental state (ARMS) for psychosis compared to the participants without the risk. It was found that participants with ARMS for psychosis had significantly higher interpersonal sensitivity in comparison with the healthy individuals.

Studies conducted elsewhere also report the similar findings. A research conducted by Masillo et al, 2012 showed that 'hypersensitivity' in relational interactions is a subjective feeling experienced by people with ARMS for psychosis (Masillo et al., 2012). Therefore, it can be speculated that interpersonal sensitivity may lead to a decline in functional activities in the pre-psychotic period, contributing to poorer

functional outcomes in the long run (Fusar-Poli et al., 2010). Individuals who are at risk of mental state experience changes at various emotional, perceptual, and interpersonal levels. These individuals tend to manifest anxiety and depressive symptoms as they become sensitive at the interpersonal level.

Interpersonal Sensitivity has mainly been studied as sensitivity to interpersonal rejection as a risk factor for major depression. Sensitivity to interpersonal rejection could be associated with depressive disorders (Boyce et al., 1990, 1993). However, the sensitivity to rejection to interpersonal relationship represents a more persistent personality traits (Boyce & Parker, 1989). Individuals who are at risk for mental state of psychosis may have a fear of discussing painful emotions and seeking counseling. As a result, these individuals may find treatment or counseling risky and embarrassing. (MacBeth, Gumley, Schwannauer, & Fisher, 2013).

Past researchers have indicated gender differences exist in sensitivity interpersonal relationships and report that women tend to be more sensitive to interpersonal relationships in comparison with men. However, our study findings did not show any difference in the interpersonal sensitivity of men and women in either group. However, past evidence does indicate that there are differences in psychotic symptoms experienced by women and men (Lindamer, Lohr, Harris, McAdams, & Jeste, 1999; Thorup et al., 2014). Additionally, research has shown that women achieve higher accuracy in assessing intelligence (Murphy, Hall, & Colvin, 2003) and emotions (Hall, 2016; Hall & Mast, 2008) compared to men. A meta-analysis reported that, in general, women are more sensitive to social interactions than men (McClure, 2000). Therefore, it is crucial to control the results for gender when assessing interpersonal sensitivity.

It is pertinent to highlight the relationship between the concept of interpersonal sensitivity and the model of self-disturbance, which is the basic clinical aspect of schizophrenic disorders (Parnas, Handest, Sæbye, & Jansson, 2003) found in youth who are at risk of psychosis (Davidsen, 2009). The hyper self-critical characteristic of this model may be similar to self-interpersonal awareness and weak internal self-aspects of interpersonal sensitivity (Parnas et al., 2003). Hyper-reflectivity is defined by Parnas 2005 as increased disposition to reflect one's own feelings, behavior, thinking, and inability to respond and behave spontaneously; an inclination towards monitoring inner life, while



simultaneously interacting in the world. It was validated by a recent study that found interpersonal difficulties and social cognition that exist in psychotic disorders may be caused by the distortion of the basic sense of self (Nelson et al., 2009).

### **Conclusion**

We found that sensitivity to interpersonal interactions was related to psychological characteristics that may be seen during the ARMS phase. Therefore, interpersonal sensitivity can be considered an active ingredient in worsening functionality during the pre-psychotic phase and contribute to poor elongated functioning outcomes. Thus, screening for sensitiveness in interpersonal relationships and providing early psychotherapeutic interventions can be beneficial, not only in averting serious illness, but preventing loss to individual and national productivity.

### **Limitations**

This study was cross-sectional and correlational. It is not possible to draw any causal inference of effect of interpersonal sensitivity on At Risk Mental State (ARMS) for psychosis.

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