



Affective and cognitive empathy and social quality of life in schizophrenia: A comparison between a parallel process model and an integrative mediation model



Shani Ofir-Eyal, Ilanit Hasson-Ohayon*, Shlomo Kravetz

Bar-Ilan University, Department of Psychology, Ramat-Gan, Israel

ARTICLE INFO

Article history:

Received 11 August 2013
Received in revised form
25 February 2014
Accepted 25 June 2014
Available online 9 July 2014

Keywords:

Cognitive affective empathy
Schizophrenia
Symptoms

ABSTRACT

Two alternative models of impaired cognitive and affective processing that may underlie reduced social quality of life (SQoL) of persons with schizophrenia, were examined. According to the parallel process model, impaired cognitive empathy and affective empathy make relatively independent contributions to the symptoms of schizophrenia and to the consequent reduction in SQoL. According to the integrative mediation model, the symptoms of schizophrenia and the reduction in SQoL associated with these symptoms are the products of a process by which impairments of cognitive empathy are contingent on impairments of affective empathy. 90 persons with schizophrenia were assessed for SQoL, symptoms and cognitive and affective empathy. Results support the integrative mediation model only for cognitive empathy and negative psychiatric symptoms. Only the negative links between cognitive empathy and negative symptoms served to mediate the positive relation between affective empathy and SQoL. Positive symptoms had a limited negative impact on SQoL and did not play a role in the paths that linked affective empathy to SQoL. Age had a statistically significant and negative indirect relationship to SQoL. Results are consistent with recent approach that distinguish between cognitive and affective empathy and specify how these two processes are integrated.

© 2014 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Schizophrenia is a clinical syndrome that interferes with intra-personal and interpersonal functioning and, as a consequence, reduces social quality of life (SQoL) (Addington and Addington, 2000). The disruptive impact of these social difficulties can be even more debilitating than the psychotic symptoms (Carson et al., 2000). Accordingly, various researchers view schizophrenia as an interpersonal disturbance characterized by problems in understanding the social environment and the individual's place within it (Penn et al., 1997; Stanghellini, 2001).

The present study investigated two alternative models of the impaired cognitive and affective processing that may underlie the decline in SQoL of persons with schizophrenia. One of these models is termed the parallel process model. According to this model, impaired empathic cognitive and affective processes make relatively independent contributions to the initiation and maintenance of positive and negative symptoms of schizophrenia and to the consequent reduction in SQoL. The other model is termed the integrative mediation model. According to this model, the

positive and negative symptoms of schizophrenia and the reduction in SQoL associated with these symptoms are the products of a process by which impairments of cognitive empathy and the positive and negative symptoms of schizophrenia are contingent on impairments of affective empathy.

Both models stem from a conceptualization of empathy as a set of distinct processes by which one person attends to the inner experiences of another person (Zaki and Ochsner, 2012), and concern a major dichotomy that over the last decade has become the focus of theoretical and empirical research on empathy. This dichotomy distinguishes between affective empathy with its emphasis on phylogenetically early emotional contagion systems and cognitive empathy with its emphasis on phylogenetically advanced perspective taking and theory of mind (TOM) processes (Singer, 2006; Zaki and Ochsner, 2012). These two kinds of empathy are also thought to be sub-served by different neural systems (Shamay-Tsoory et al., 2008).

The parallel process model is partially based on Frith's (1992, 2004) meta-representation explanation of the etiology of the positive and negative symptoms associated with schizophrenia. Central assumptions of Frith's meta-representation account of the positive and negative symptoms of schizophrenia (Frith, 1992) are that the ability to develop and to make use of ToM processes are derived from the capacity to meta-represent the personal and

* Corresponding author.

E-mail address: ilanit.hasson-ohayon@biu.ac.il (I. Hasson-Ohayon).

social environment and that psychiatric symptoms of schizophrenia are the consequence of an impaired ability to meta-represent. Accordingly, impairment of cognitive processes plays a primary role in the etiology of the psychiatric symptoms of schizophrenia. However, this theory does not specify the extent to which and the manner in which affective empathy processes might contribute to the development and maintenance of the negative and positive symptoms of schizophrenia.

To test these claims, the proposed present study's parallel process model was based on the assumption that cognitive and affective empathic processes have a relatively independent influence on psychiatric symptoms and SQoL. However, in keeping with Frith's meta-representation theory, the impact of impaired cognitive empathic processes on SQoL was hypothesized as being mediated by the psychiatric symptoms of schizophrenia. The impact of impaired affective empathic processes was hypothesized as having a direct impact on the SQoL.

The integrative mediation model was influenced by the theories of Hobson (1990, 2007) and Gallese (2001, 2007). According to this model, the reduction in SQoL associated with schizophrenia is principally due to a disturbance of affective empathy. One of the indices of this disturbance is difficulty in identifying the emotions associated with facial expressions (Goldman and Sripada, 2005; Blair, 2005). According to the integrative mediation model, ToM capacity and the resulting attainment and maintenance of SQoL are based upon the ability to identify interpersonal emotional experiences by means of the affective content of the physical expressions of others. Therefore, impaired affect processing was hypothesized as a precursor of the impairment of ToM processes. This impairment, in turn, was expected to produce the positive and negative symptoms of schizophrenia that then limit interpersonal functioning and reduce SQoL.

Depending upon which of the above models of the relations between SQoL and affective and cognitive empathy are shown to be valid, persons with schizophrenia could experience different sets of interpersonal problems. The parallel process model implies that the latter persons may experience the negative and positive symptoms of schizophrenia when, for example, they do not fully grasp the goals, intentions, and beliefs of such significant others as their wives' or husbands'. These symptoms then may interfere with their attempts to carry-out the interpersonal activities required for the attainment of SQoL. In addition, the quality of these persons' intimate relationships may deteriorate due to their failure to respond spontaneously and appropriately to their wives' or husbands' moods. However, according to the integrative mediation model, the interpersonal problems of persons with schizophrenia emerge because their perception of other persons' emotions does not lead to attributing the appropriate goals, intentions, and beliefs to these persons.

To compare the above two models, the following structural hypotheses were derived from each of the above models. In keeping with the parallel process model, the negative and positive symptoms of schizophrenia were hypothesized as mediating the negative relations between ToM processes and SQoL whereas emotion recognition was hypothesized as directly and positively related to SQoL. In keeping with the integrative mediation model, the relation between emotion recognition and SQoL was hypothesized as being mediated by ToM processes and the negative and positive symptoms of schizophrenia.

2. Methods

2.1. Research participants

Participants comprised 106 persons who signed informed consent and waiver of confidentiality forms. Sixteen of the persons who volunteered to participate in the study failed to complete the research protocol. Thus, this study's sample

included 90 participants with an ICD-10 diagnosis of schizophrenia as reported by trained psychiatrists in their medical files, lived in the community, and were aged 21–68 years (mean=41.8 years, S.D.=12.3 years). Forty-seven of them were females, 71 were born in Israel, 18 in Western and Eastern Europe, and 1, in Africa. Fifteen participants were married, 19 divorced, and the remainder were single. Mean education was 11.39 years (S.D.=2.39). Average age of participants at first hospitalization was 21.76 years (S.D.=7.70). Mean length of time since last hospitalization was 4.82 years (S.D.=6.67) and the mean number of hospitalizations was 5.8 (S.D.=4.00). All participants were in personal contact with one care provider (psychiatrist, social worker, art therapist, or social aide) during, at least, the last 2 months, and were receiving psychiatric medication at the time of the study.

Exclusion criteria were any other ICD-10 diagnosis in addition to schizophrenia (e.g. depression), having a hearing or sight impairment that was not compensated for, immigration to Israel after the age of 20, residing in Israel for less than 8 years, and not speaking or reading Hebrew. These criteria were used to ascertain that the participants' level of Hebrew proficiency enabled them to carry out this study's cognitive and affective tasks. To control for attention and memory deficits or comprehension difficulties, participants who failed to answer more than two ToM Faux Pas control questions (see below the description of instrument) were excluded.

Fifty-four of the participants lived in supervised housing in the community, 19 lived with their family of origin, six lived by themselves, and 11 lived with a spouse or permanent partner. All but five of the participants were employed in a vocational rehabilitation setting.

2.2. Instruments

2.2.1. Social quality of life

SQoL was measured by the social relations/support subscale of Kravetz et al. (2002) Hebrew translation of the Wisconsin Quality of Life Index-Mental Health questionnaire (Becker et al., 1993). This subscale consists of three (client, clinician, and significant other) parallel multidimensional measures of the client's quality of life. For the purposes of this study, the clinician version of the SQoL subscale was used. The original clinician SQoL subscale was made-up of four items on which the clinician rated: the extent to which the participant (1) received family and social support, (2) the extent to which she/he developed and maintained social relations, (3) the extent to which she/he engaged in social activities, and (4) the general quality of her/his family relations. To increase the accuracy of this measure in this study, the first item was divided into two, one item that referred to family support and a second item that referred to social support. In addition, the second item was divided into two, one item that referred to the development of social relations and another item that referred to the maintenance of social relations. Internal consistency for the Hebrew version of the original subscale as estimated by Cronbach's alpha was 0.68 (Rabin et al., 2014). For the current study, Cronbach's alpha was estimated as 0.70.

2.2.2. Assessment of the attribution of false beliefs

This study made use of first order and second order false belief tasks as one of its measures of ToM capacity. A Hebrew translation (Leiser and Bonshtein, 2003) of the false belief tasks that were originally constructed by Frith and Corcoran (1996) was used to assess this capacity. These tasks consisted of six stories. The first three require the research participant to distinguish between the protagonist's belief about a given situation and the real situation and are, therefore, considered to be measures of the participant's capacity to appropriately attribute first order false belief. The last three stories require the participant to relate to the beliefs that one protagonist attributes to another protagonist and, therefore, are considered to be measures of the participant's capacity appropriately to attribute second order false beliefs.

The researcher read the six stories to each participant, emphasizing that the story would be re-read at the participant's request. The last three stories were accompanied by illustrations to ascertain that they were understood. After each story, the participant was asked two questions. The first question assessed the participant's capacity to attribute a false belief to the story's protagonist whereas the second question assessed the participant's understanding of the story. The participants' responses to the false belief question regarding a story were included in the calculation of the score for this task only if the participant's response to the control question concerning the story indicated that she/he understood the story. The task was scored as the percentage of correct answers to the false belief questions to those stories that the participants showed that they understood. Internal consistency of the responses to both the first and second false belief items as estimated by Cronbach's alpha was 0.65.

2.2.3. Faux pas comprehension

The attribution of affective states was assessed by a faux pas comprehension task developed by Stone et al. (1998) and translated into Hebrew by Shamay-Tooory et al. (2005). The original version of this task consisted of 10 research stories and 10 control stories. For the purpose of this study, on the basis of pre-tests and because

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات