

The association of religiosity, spirituality, and ethnic background with ego-pathology in acute schizophrenia

Frank Röhricht^{a*}, Raphaela Basdekis-Jozsa^b, Juggy Sidhu^c, Amer Mukhtar^c,
Iris Suzuki^c and Stefan Priebe^d

^a*School for Social Community & Health Studies, University of Hertfordshire, Glen Road, London E13 8SP, UK;* ^b*Klinik und Poliklinik für Psychiatrie und Psychotherapie, Institut für Sexualforschung und Forensische Psychiatrie, Hamburg, Germany;* ^c*East London NHS Foundation Trust, London, UK;* ^d*Unit for Social and Community Psychiatry, Newham Centre for Mental Health, London E13 8SP, UK*

(Received 28 November 2008; final version received 5 February 2009)

Studies have highlighted the impact of ego-consciousness, religiosity and spirituality on psychotic symptoms, although so far no study has investigated if and how these factors may be interrelated. In this exploratory cross-sectional study, involving 42 patients with a diagnosis of acute paranoid schizophrenia (DSM-IV), we assessed religiosity (Religious Orientation Test) spirituality (Spiritual Transcendence Scale) and ego-pathology (Ego Pathology Inventory) and analysed any relationship with these and psychopathological symptoms (Positive and Negative Symptom Scale). The subjects were divided into four ethnic groups (Caucasian, Afro-Caribbean, African, and Asian) and a structured, qualitative interview on religious needs and self-concepts was also conducted. Using a multivariate analysis, we found statistically significant negative associations between the scores on ego and common pathology and religiosity and spirituality as covariates. This was seen across all ethnic groups. The findings are discussed in respect of the potential clinical importance of ethnic, religious and spiritual factors for assessment and management of patients with schizophrenia.

Keywords: schizophrenia; religion; spirituality; ego; psychopathology; ethnicity

Introduction

There is a body of evidence and literature that focuses on schizophrenia as a severe ego disorder (e.g., Scharfetter, 1981; Fabrega, 1989; Parnas, 2003; Röhricht & Priebe, 2004). In this conceptualization, the authors lay special emphasis on disturbed self-experiences in schizophrenia, particularly concentrating on those psychopathological processes leading to the loss of an individuals' natural self-evidence ("disturbed ipseity," Blankenburg, 1971). The two central facets of self-experience affected in schizophrenia are described by Sass and Parnas (2003): "decline in the fundamental sense of existing as a subject of awareness and action (diminished self affection) and exaggerated, reflexive awareness of aspects of experience that are normally tacit or presupposed (hyper-reflexivity)." It is however important to recognize, that between different cultures and ethnic groups the constructs of

*Corresponding author. Email: frank.rohricht@eastlondon.nhs.uk

the ego and self vary greatly, and this appears particularly related to religiosity and spirituality. Given the conceptualization of schizophrenia as severe ego-disorder, these dimensions may hence be impacting on degree and nature of core psychopathological symptoms in schizophrenia (Scharfetter, 1995; Röhricht & Priebe, 2004; Röhricht, Papadopoulos, Suzuki, & Priebe, 2009). The relationship between these concepts and cultural/ethnic, religious and spiritual characteristics of individuals, and any variants therein remains unclear.

Both spirituality (addressing ultimate questions about the meaning of life and transcendence) and religiosity (specific social and behavioural characteristics), are regarded as valuable factors in an individuals' personal belief system, social functioning and self conceptualization. They assist in defining intra and inter personal relationships and act as regulators within society as a whole. Jones (1994) has emphasized that religion provides an integrative framework by which reality is understood, while Idehen (2001), has summarized observations made in African cultures, identifying that individuals, who are living in severely deprived circumstances, nevertheless manage to remain future-oriented because of their deep religious orientation. The results of a study on the impact of religious coping on severe mental illness (Tepper, Rogers, Coleman, & Malony, 2001) concluded that increased religious activity may be associated with reduced symptoms and that religion may serve as a pervasive and potentially effective method of coping for persons with mental illness. Schizophrenia is known to be a very heterogeneous disease. However, the reasons for the variation in psychopathological symptoms, as well as effective coping mechanisms, remain poorly understood. Recent studies have highlighted the impact of religiosity and spirituality on psychosis with regard to psychopathology (Compton & Furman, 2005; Mohr, Gillieron, Borrás, Brandt, & Huguélet, 2007). This includes illness representation and treatment adherence (Borrás et al., 2007), as having a protective role on suicidality (Huguélet et al., 2007), and also having a role as a coping mechanism (Mohr & Huguélet, 2004). Lastly, in clinical practice in the United Kingdom, within the new Care Programme Approach (CPA) it is important to address the concepts of culture/ethnicity, religion and spirituality as part of the integrated care plan and the patient oriented focus of care. Thus, it is important to embrace and try and understand these concepts fully in the context of treating individuals with severe and enduring mental illness.

Research aims/questions of the exploratory cross-sectional study

The following question will be addressed: Do ego-psychopathology, common psychopathological symptom scores and subjective quality of life in a sample of acute schizophrenia patients vary depending on: (a) ethnic group, (b) religiosity, and (c) spirituality?

Methods

Prior to conducting the study, ethical approval was obtained from North-East London Strategic Health Authority ethics committee.

Patients with a diagnosis of schizophrenia, admitted to the Newham Centre of Mental Health (acute psychiatric unit based in East London with a wide spectrum of cultural and ethnic diversity in its catchment area) were recruited via their Consultant Psychiatrist, who requested consent to participate in the study from the patient during the first week of inpatient treatment.

After referral potential participants were screened using an interview, by an independent researcher (doctors in advanced stage of psychiatric training) to establish whether they meet inclusion criteria of: aged 20–60 years, capable of giving informed consent, established diagnosis of schizophrenia (according to DSM-IV and as confirmed through Structured Clinical Interview for DSM-IV Mental Disorders (SCID), no evidence of substance abuse as the primary problem, and no evidence of organic brain disease.

Once eligibility was confirmed, a full assessment/interview was carried out over two sessions (1 h each) by the researcher (not involved in the treatment of the patient) after 1 week's inpatient treatment.

The following instruments/methods were used:

- Structured Clinical Interview for DSM-IV Mental Disorders (SCID), to establish inclusion criteria.
- Assessment of sociodemographic information and basic clinical characteristics.
- The Positive and Negative Symptom Scale (PANSS; Kay, Fiszbein, & Opler, 1987), used to rate degree of common psychopathological symptoms.
- Ego Psychopathological Inventory (EPP; Scharfetter, 1995); this instrument has been validated and is used to specifically assess ego-pathology indicative of an ego-disorder. Unlike the symptoms of ego-disorder classified as Schneiderian first rank symptoms, these dimensions capture basic qualities of ego-consciousness. It is a psychopathometric assessment tool, containing items from five ego-pathology symptom factors which capture the basic qualities of ego-consciousness and its corresponding pathology. The interview schedule is based on a collection of patients' statements concerning their self experience. Conducting the interview, the interviewer relates open questions to a set of 53 itemised statements and a rating is made based on the presence or absence of experiences in each of the five basic dimensions. The five dimensions are defined as follows: Ego-vitality: the self-experience of being present as a living being (i.e., "I felt that my life was disintegrating, that I was dying"); Ego-activity: functioning as a self-directing unity (i.e., "I felt like a tool, a puppet"); Ego-consistency: the quality and coherence of self-experience as structured and organized (i.e., "I felt that I was dissolving or falling to pieces"); Ego-demarcation: self-boundaries and the differentiation between ego and non ego spheres (i.e., "I felt I was defenceless"); and Ego-identity: prereflexively given certainty of one's own definite selfhood (i.e., "I had the feeling I was someone different"). Scores for the rating in each dimension range from 0 = No, never experienced, 1 = questionable, to symptom severity/intensity of 2–5 = Yes, experienced once or several times.
- The Manchester Short Assessment of Quality of Life (MANSA; Priebe & Bröker, 1999), used to assess subjective quality of life/SQOL (providing a mean score of satisfaction ratings in 12 life domains, each ranging on a Likert scale of 1 = "could not be worse" to 7 = "could not be better").
- The Spiritual Transcendence Scale (STS; Piedmont, 2001; Piedmont & Leach, 2002): a validated 24-item scale, covering three factors "Prayer Fulfilment" ("an experienced feeling of joy and contentment that results from prayer and/or meditation"), "Universality" ("a belief in the unity and purpose of life") and "Connectedness" ("a sense of personal responsibility and connection to others") as well as one total sum-score.
- The Religious Orientation Test (ROT; Idehen, 2001): a validated six-item inventory used as a measure of religious orientations (deep and superficial,

capturing the strength of subjective belief, observance of religious rituals and practices and the importance of religious belief in secular life); respondents are asked to answer on a 5-point likert-type scale. Responses to items are scored from most positive (1) to most negative (5); low scores indicating a deep religious orientation, high scores a superficial religious orientation.

- A semistructured, qualitative interview, aimed to capture additional and potentially meaningful information (mediating factors) on religious needs and self-concepts including the following questions. The researchers, who conducted the interviews assisted patients' if and when further explanation was needed in order to fully understand the question:
 - Do you regard yourself as a religious and/or spiritually minded person?
 - Have you ever felt discriminated due to your religious and/or spiritual beliefs?
 - Do you think that religion can help or support you in dealing with problems?
 - What do the terms "self" and "ego" mean to you?
 - What do you think is the most important quality of everybody's "ego"? The results of the semi structured interview) were divided into two groups: A) Answers to questions 1–3 on degree of religiosity/spirituality were categorized into ordinal measures (0 = no/never, 1 = sometimes, 2 = yes/always); B) Answers to questions 4–5 on definitions and understanding of characteristics of "self" and "ego" were qualitatively grouped based on similarities in the content of responses.

Results

Forty-two (out of 56 referred) patients fulfilled the inclusion criteria and were included in the study; 6 patients did not fulfil inclusion criteria and 8 patients did not consent to participate. Demographic data, quality of life scores and mean ego-pathology and common symptom factor scores are described in Table 1. The mean duration of illness (6.4–15.5 years across ethnic groups) suggests that the entire sample can be best characterized as chronic schizophrenia patients with acute exacerbation.

First, no significant differences between ethnic groups (one-way ANOVA) were observed regarding degree of ego-pathology, common psychopathology and subjective Quality of Life scores, and most of the religiosity/spirituality scores. There was however a lower frequency of attendance at religious services and a tendency towards a more superficial degree of religious orientation in the White Caucasian group.

The sample as a whole had scores lower than those established as mean benchmark scores in the general population while establishing the psychometric properties of the scales. Descriptive results for religiosity and spirituality across the whole sample are illustrated in Tables 2–3.

The results of the qualitative interview indicate a high degree of religiosity/spirituality with over 50% of the sample reporting to be religious/spiritually minded and regarding religion as helpful. Detailed results are as follows:

- Question 1 (Do you regard yourself as a religious and/or spiritually minded person?): 0 – $N=7$, 1 – $N=4$, 2 – $N=27$;
- Question 2 (Have you ever felt discriminated due to your religious and/or spiritual beliefs?): 0 – $N=23$, 1 – $N=5$, 2 – $N=10$;
- Question 3 (Do you think that religion can help or support you in dealing with problems?): 0 – $N=3$, 1 – $N=9$, 2 – $N=26$.

Table 1. Demographic, clinical data and Quality of Life scores.

	White Caucasian N=9		Black Caribbean N=8		Black African N=10		Asian N=15		One-way ANOVA	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F	Significance
Age	36.8	8.9	39.9	13.9	39.4	9.6	29.4	7.1	3.0	0.045
Gender	1.3	0.5	1.6	0.5	1.5	0.5	1.2	0.4		
No hospitalisations	4.3	4.0	5.3	3.2	5.9	4.4	4.6	5.4	0.2	ns
Duration illness (years)	10.0	7.0	15.5	9.6	11.0	8.7	6.4	3.9	0.6	ns
PANSS-Negative	25.8	9.7	19.1	8.9	21.9	12.4	23.7	12.1	0.6	ns
PANSS-Positive	25.1	4.7	21.3	8.7	20.7	3.6	20.7	5.6	1.3	ns
PANSS-General	48.6	19.2	36.3	10.3	34.7	13.1	37.4	8.4	2.3	ns
EPP-Activity	3.1	1.3	1.8	2.0	3.1	1.7	2.3	2.0	1.2	ns
EPP-Vitality	1.4	1.6	1.4	1.8	1.6	1.6	1.9	1.9	0.2	ns
EPP-Identity	2.6	1.8	0.9	1.1	2.3	1.8	1.7	1.4	2.0	ns
EPP-Consistency	3.1	1.3	2.8	1.7	2.5	1.4	2.8	2.0	0.2	ns
EPP-Demarcation	2.6	1.7	1.6	1.8	2.1	1.4	1.9	1.9	.442	ns
MANSA-total mean	3.8	0.6	4.3	1.1	4.5	1.2	4.1	1.1	.09	ns

Note: EPP: Ego-Psychopathology Inventory, MANSA: Manchester Short Assessment of Quality of Life; PANSS: Positive and Negative Symptom Scale.

Table 2. Religious orientation test.

	White Caucasian $N=9$		Black Caribbean $N=8$		Black African $N=10$		Asian $N=15$		One-way ANOVA	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F	Significance
How religious do you consider yourself to be?	3.1	1.8	2.6	1.7	2.0	0.9	2.9	1.3	1.2	<i>ns</i>
How often do you attend religious services?	4.4	0.7	2.8	1.6	2.3	1.2	2.8	1.6	4.6	0.008
How often do you pray?	3.8	1.4	2.9	1.4	3.0	1.1	3.3	1.5	0.8	<i>ns</i>
How often do you read the holy scriptures?	4.2	1.4	2.8	1.6	3.3	1.6	3.2	1.4	1.5	<i>ns</i>
How often do you watch/listen religious programmes?	4.0	0.9	3.4	1.3	3.5	1.2	3.1	1.2	1.2	<i>ns</i>
How important is your religious belief in your daily life?	3.2	1.6	2.4	1.1	2.1	1.5	2.1	1.2	1.6	<i>ns</i>
ROT-total score	22.8	5.9	16.8	6.6	16.2	4.9	17.4	6.3	2.4	.084

Table 3. Spiritual Transcendence Scale.

	White Caucasian <i>N</i> =9		Black Caribbean <i>N</i> =8		Black African <i>N</i> =10		Asian <i>N</i> =15		One-way ANOVA	
	Mean	<i>SD</i>	Mean	<i>SD</i>	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>F</i>	Significance
Universality	23.2	11.1	20.9	5.2	18.0	7.5	23.5	9.5	1.5	<i>ns</i>
Prayer Fulfilment	26.0	11.0	23.6	2.6	20.6	6.1	27.7	9.5	0.9	<i>ns</i>
Connectedness	15.3	5.8	17.1	4.0	17.1	4.9	18.1	5.7	0.5	<i>ns</i>
STT-total score	64.6	25.6	61.6	9.2	55.7	12.4	69.3	23.8	0.9	<i>ns</i>

No group differences for any psychopathology/quality of life variables were detected in subsequent analysis (non-parametric, Kruskal–Wallis test).

Answers to the qualitative questions 4/5 clustered around the following categories:

- Question 4 (What do the terms “self” and “ego” mean to you?);
- Question 5 (What do you think is the most important quality of everybody’s “ego”?);
- Category A: “I don’t know”: $N = 16$;
- Category B: “Negative definition”: $N = 6$;
- Category C: “Functionality/Ability, positive definition”: $N = 11$;
- Category D: “Unity”: $N = 6$;
- Category E: “Religious definition”: $N = 3$.

No group differences for any psychopathology/quality of life variables were detected in subsequent analysis (non-parametric, Kruskal–Wallis test).

Second, in a multivariate analysis using ego-pathology or common psychopathology symptom scores as dependent variables, and religiosity and spirituality scores as covariates across all ethnic groups (fixed factor), we identified significant between-subjects differences, as follows:

- for the STS (sum score) a positive association with the degree of ego-vitality scores ($F = 6.1$, $p = 0.017$, $r = -0.34$),
- for the ROT (sum score) a positive association with the degree of PANSS-negative scores ($F = 4.4$, $p < 0.05$, $r = 0.39$),

This indicates a lower degree of spirituality and religiosity for those patients with higher psychopathology scores and vice versa.

Third, the Quality of Life (MANSA) scores did not correlate with measures of spirituality and religiosity; however, MANSA scores were negatively associated with all five ego-pathology dimensions ($r = -0.30$ to -0.39 , $p < 0.05$), whereas no interaction was observed between MANSA and common psychopathology scores ($r = 0.01 - r = 0.08$, *ns*).

Discussion

Disorders of the self have been re-emphasized in psychiatric literature on schizophrenia, with descriptions of “impairment of self-functioning involving self-awareness, definition, and regulation” and a “fragile constitution of self-hood” as core psychopathological phenomena (e.g., Fabrega, 1989; Parnas & Sass, 2001). Concomitantly, the past decade has also seen an increased importance in addressing religion/religiosity and spirituality in psychiatric care, as evidenced in the literature and with a growing interest in transcultural psychiatry. This is also evident in the client-centered focus of the new Care Programme Approach, where the assessment of cultural, spiritual, and religious characteristics is an essential element.

Furthermore, it has been acknowledged that these subjective dimensions are important in the understanding of one’s ego/self and having a sense of connectedness with the outer world. Boehnlein (2006) has emphasized that “psychiatry and religion can be parallel and complementary frames of reference for understanding and describing the human experience and human behaviour” (p. 635). Some studies have already tried to address the impact of religious beliefs on psychological distress and/or well-being and on psychiatric outcomes; however, it has been emphasized that further studies are necessary

to evaluate the effects of religious coping with those of nonreligious coping behaviours on mental health (Koenig, 2000).

To our knowledge, this is the first study aiming to investigate religiosity, spirituality and ego-consciousness within different ethnic groups alongside common psychopathological symptoms in acute schizophrenia.

No ethnic differences were detected regarding ego-pathology scores, supporting the use of the EPP as a uniform valid measure of disturbed ego-consciousness, independent of cultural variations of ego-self-concepts. This compares equally with scores described in other studies (e.g., Scharfetter, 1995; Röhricht and Priebe, 2002, 2004; Röhricht et al., 2009) and the results provide further evidence for the notion of schizophrenia as severe ego-disorder (Scharfetter, 1981; Parnas, 2003; Röhricht and Priebe, 2002, 2004), emphasizing disturbed ego-pathology as core psychopathological phenomena. Scharfetter (1995) pointed out that despite cultural influences in the formation of ego and self, "... the cohesive dynamics that form the basic ego/self must be universal, as is the weakness of that unifying power which predisposes a subject to ego-fragmentation" (p. 37). The two questions aiming to capture subjective definitions and qualitative connotations regarding the terms "ego" and "self" failed to reveal any additional meaningful information. Most patients answered these questions with "I don't know" or offered a vague but positive definition regarding functional aspects. One may argue that this is a methodological issue. These questions are phrased in a specific technical way and might therefore not be suitable for this patient group, whereas the EPP interview is based on statements directly derived from personal accounts of patients suffering from acute schizophrenia.

Asian, African, and Afro-Caribbean groups were found to be more religious than White Caucasian patients. Interestingly, Weisman, Rosales, Kymalainen, and Armesto (2005) did not find any ethnic differences in religiosity in their study on schizophrenia patients, although summarized findings from previous studies, suggesting that ethnic minorities often identify themselves as more religious than do Anglo-Americans.

The lower than average ROT/STS scale scores of the patient sample compared with the benchmarks obtained from healthy volunteers, do not appear to be significant. The answers obtained from the semistructured interviews indicate that the majority of patients in this sample in fact hold strong religious beliefs, and think that religion can help or support them in dealing with problems. It is important to note that the degree of religiosity was defined in this study on the basis of religious practice and beliefs rather than an affiliation to one of the main religions. This method was chosen, because of previous findings. Hackney and Sanders (2003) found that using institutional religiosity as the defining characteristic produces the weakest (and the only negative) correlations on various health-related measures, whereas personal devotion showed the strongest correlations. The findings did not however suggest that religiosity was associated with higher overall quality of life scores.

Across the sample as a whole, spirituality was found to be inversely correlated with ego-vitality scores (self-experience of being present as a living being) and religiosity was found to be negatively associated with negative psychopathological symptoms.

The interpretation of this association, for various reasons, must be speculative. Given the cross-sectional nature of this study, only associations and no causal relations between the various patient characteristics can be described. The relationship between psychopathology and spirituality appears to be a complex one, with findings suggestive of both negative and positive correlations between degree of psychopathology and religious beliefs. In an outpatient base study on individuals with a diagnosis of schizophrenia

or schizoaffective disorder (Mohr et al., 2007), those with religious beliefs had more psychotic symptoms; interpreted by the authors as “religious coping” in psychosis. Otherwise, religion was not associated with the length of illness, hospitalizations (frequency and duration), current clinical global impression, or subjective quality of life. Other studies have shown that in patients with schizophrenia, higher degrees of religious activities are associated with a better course of the illness (e.g., Verghese et al., 1989). However, other research suggests that a greater need for religiosity and spirituality may be directly associated with increasing psychopathology in different ways. Siddle, Haddock, TARRIER, and Faragher (2002) found that patients with schizophrenia reported a lesser degree of need for religion after treatment, at a time when their symptoms had been reduced. Religiosity was not significantly related to psychiatric symptoms in a study conducted by Weisman et al. (2005), who investigated religiosity, family coherence and emotional distress in a sample of 57 outpatients with schizophrenia and schizoaffective disorder. Discussing their findings and those from other studies, the authors concluded: “. . . when assessing religiosity in schizophrenia research, it may be more useful to include questions that assess how a person is religious rather than whether a person is religious, and to incorporate measures that tap a broad range of religious beliefs and behaviours” (p. 365).

Addressing the finding of an inverse correlation between spirituality and ego-vitality, one may speculate that a higher degree of spirituality entails a less narrowly minded/less bounded definition/understanding and a more transpersonal concept of ego/self, which consequently allows for a higher degree of social interaction and a more vitalized mode of self-consciousness.

The finding of a negative association between degree of negative symptoms and religiosity in this study deserves further and particular attention, as it is consistent with findings of previous studies. Mohr et al. (2007) found that religion was more central in the life of patients with fewer negative symptoms, and the analysis of correlation scores in another study (Compton and Furman, 2005) revealed that negative symptom scores were inversely correlated with religious well-being scores, which was interpreted as an indicator of a potential impact of religious well-being on degree and nature of symptomatology. Given the specific nature of negative symptoms and their impact on influencing the development of healthy interpersonal and psychosocial rapport and relationships, this result could be interpreted within the context of the growing body of literature suggesting that religion and spirituality may provide “positive coping,” and protection against severity of negative symptoms, to patients with schizophrenia (Koenig, McCullough, & Larson, 2001; Wagner & King, 2005).

Spirituality as a resource of finding meaning and hope in suffering has been identified as a key component of the process of psychological recovery (Mohr et al., 2007). Reger and Rogers (2002) found that participants with schizophrenia and schizoaffective disorder reported using religion significantly more often and reported more benefit from religious coping than did patients with other disorders such as depression.

In summary, the results of this cross-sectional study are consistent with previous findings, suggesting that religiosity seems to exert a positive effect on health, and that there is a trend towards better health and less morbidity in the presence of higher levels of religiosity (Levin, 1994). This study also adds more evidence to the conceptualization of schizophrenia as severe ego-disorder. Religiosity and ego-consciousness are meaningful dimensions, thus warranting its integration into psychiatric practice as frequently suggested in recent years (e.g., Mohr, Brandt, Borrás, Gillieron, & Huguelet, 2006).

Finally, within current day to day clinical practice, and in the management of patients with schizophrenia, with specific reference to the Care Programme Approach, these findings are important. Clinicians need to be more mindful to fully address religious, spiritual and cultural factors in individual patients, and incorporating knowledge from such research findings may assist in increasing meaningful clinical competencies

References

- Blankenburg, W. (1971). *Der Verlust der natürlichen Selbstverständlichkeit: ein Beitrag zur Psychopathologie symptomarmer Schizophrenien*. Stuttgart: Enke-Verlag.
- Boehnlein, J.K. (2006). Religion and spirituality in psychiatric care: looking back, looking ahead. *Transcultural Psychiatry*, *43*, 634–651.
- Borras, L., Mohr, S., Brandt, P.-Y., Gillieron, C., Eytan, A., & Huguelet, P. (2007). Religious beliefs in schizophrenia: their relevance for adherence to treatment. *Schizophrenia Bulletin*, *33*, 1238–1246.
- Compton, M.T., & Furman, A.C. (2005). Inverse correlations between symptom scores and spiritual well-being among African American patients with first-episode schizophrenia spectrum disorders. *The Journal of Nervous and Mental Disease*, *193*, 346–349.
- Fabrega, H. (1989). The self and schizophrenia: a cultural perspective. *Schizophrenia Bulletin*, *15*, 277–290.
- Hackney, C.H., & Sanders, G.S. (2003). Religiosity and mental health: A metaanalysis of recent studies. *Journal for the Scientific Study of Religion*, *42*, 43–55.
- Huguelet, P., Mohr, S., Jung, V., Gillieron, C., Brandt, P.Y., & Borras, L. (2007). Effect of religion on suicide attempts in outpatients with schizophrenia or schizo-affective disorders compared with inpatients with non-psychotic disorders. *European Psychiatry*, *22*, 188–194.
- Idehen, E. (2001). The development and evaluation of a religiosity scale. *IFE Psychologia*, *9*, 58–69.
- Jones, S.E. (1994). A constructive relationship for religion with the science and profession of psychology. *American Psychologist*, *49*, 184–199.
- Kay, S.R., Fiszbein, A., & Opler, L.A. (1987). The positive and negative syndrome scale (P.A.N.S.S.) for schizophrenia. *Schizophrenia Bulletin*, *13*, 261–276.
- Koenig, H.G. (2000). Religion and future psychiatric nosology and treatment. In J.K. Boehnlein (Ed.), *Psychiatry and religion: The convergence of mind and spirit* (pp. 169–185). Washington, DC: American Psychiatric Press.
- Koenig, H.G., McCullough, M.E., & Larson, D.B. (2001). Summary and conclusions. In H.G. Koenig (Ed.), *Handbook of religion and health* (pp. 391–393). Oxford: Oxford University Press.
- Levin, J.S. (1994). Religion and health: Is there an association, is it valid, and is it causal? *Social Science and Medicine*, *38*, 1475–1482.
- Mohr, S., & Huguelet, P. (2004). The relationship between schizophrenia and religion and its implications for care. *Swiss Medical Weekly*, *134*, 369–376.
- Mohr, S., Brandt, P.-Y., Borras, L., Gillieron, Ch., & Huguelet, P. (2006). Toward an integration of spirituality and religiousness into the psychosocial dimension of schizophrenia. *The American Journal of Psychiatry*, *163*, 1952–1959.
- Mohr, S., Gillieron, Ch., Borras, L., Brandt, P.-Y., & Huguelet, P. (2007). The Assessment of Spirituality and Religiousness in Schizophrenia. *Journal of Nervous and Mental Disease*, *195*, 247–253.
- Parnas, J. (2003). Self and schizophrenia: a phenomenological perspective. In T. Kircher, & A. David (Eds.), *The self in neuroscience and psychiatry* (pp. 217–241). Cambridge: Cambridge University Press.
- Parnas, J., & Sass, L.A. (2001). Self, solipism, and schizophrenic delusions. *Philosophy, Psychiatry, & Psychology*, *8*, 101–120.

- Piedmont, R.L., & Leach, M. (2002). Cross-cultural generalizability of the spiritual transcendence scale in India. *American Behavioral Scientist*, 45, 1888–1901.
- Piedmont, R.L. (2001). Spiritual transcendence and the scientific study of spirituality. *Journal of Psychology and Theology*, 27, 338–350.
- Priebe, S., & Bröker, M. (1999). Prediction of hospitalisations by schizophrenia patients' assessment of treatment: an expanded study. *Journal of Psychiatric Research*, 33, 113–119.
- Reger, G.M., & Rogers, S.A. (2002). Diagnostic differences in religious coping among individuals with persistent mental illness. *Journal of Psychology and Christianity*, 21, 341–348.
- Röhricht, F., & Priebe, S. (2002). Do anesthetics and body image aberration characterise a subgroup in schizophrenia. *Acta Psychiatrica Scandinavica*, 105, 276–282.
- Röhricht, F., & Priebe, S. (2004). Ego-pathology and common symptom factors in schizophrenia. *Journal of Nervous & Mental Disease*, 192, 446–449.
- Röhricht, F., Papadopoulos, N., Suzuki, I., & Priebe, S. (2009). Ego-pathology, body experience and body psychotherapy in chronic schizophrenia. *Psychology and Psychotherapy: Theory, Research and Practice*, 82, 19–30.
- Sass, L.A., & Parnas, J. (2003). Schizophrenia, consciousness, and the self. *Schizophrenia Bulletin*, 29, 427–444.
- Scharfetter, C. (1981). Ego-psychopathology: the concept and its empirical evaluation. *Psychological Medicine*, 11, 273–280.
- Scharfetter, C. (1995). *The self-experience of schizophrenics. Empirical studies of the ego/self in schizophrenia, borderline disorders and depression*. Zürich: Private Publication.
- Siddle, R., Haddock, G., Tarrier, N., & Faragher, E.B. (2002). The validation of a religiosity measure for individuals with schizophrenia. *Mental Health Religion & Culture*, 5, 267–284.
- Tepper, L., Rogers, S.A., Coleman, E.M., & Malony, H.N. (2001). The prevalence of religious coping among persons with persistent mental illness. *Psychiatric Services*, 52, 660–665.
- Verghese, A., John, J.K., Rajkumar, S., Richard, J., Sethi, B.B., & Trivedi, J.K. (1989). Factors associated with the course and outcome of schizophrenia in India: Results of a two-year multicentre follow-up study. *British Journal of Psychiatry*, 154, 499–503.
- Wagner, L.C., & King, M. (2005). Existential needs of people with psychotic disorders in Porto Alegre, Brazil. *British Journal of Psychiatry*, 186, 141–145.
- Weisman, A., Rosales, G., Kymalainen, J., & Armesto, J. (2005). Ethnicity, family cohesion, religiosity and general emotional distress in patients with schizophrenia and their relatives. *Journal of Nervous & Mental Disease*, 193, 359–368.