Religious Delusions in a Xhosa Schizophrenia Population.

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Religious Delusions in a Xhosa Schizophrenia Population

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Abstract Here, we assessed for the first time the frequency of religious delusions and the effect of treatment on religiosity and the phenomena of religious delusions in a Xhosa schizophrenia population. Religious delusions were present in 42 (70 %) participants, and treatment significantly reduced religiosity ($p = 0.02$) as well as mean scores for certain phenomena associated with the delusions including changes in both thinking ($p = 0.0001$) and behaviour ($p = 0.0001$), as well as affective response to the delusion ($p = 0.0001$) The high frequency of religious delusions may indicate a higher tolerance for religious delusions in this community. It is therefore important to educate spiritual leaders on mental illness.

Keywords Religious delusions · Religiosity · Schizophrenia · Xhosa · South Africa

Introduction

Recent literature recommends that psychiatric evaluations should include the assessment of religious and spiritual beliefs (Whitley 2012; Penzner et al. 2010). These beliefs are possibly not routinely assessed due to the various challenges mental health workers face in this area (Blazer 2009). These include, but are not limited to, difficulties in expressing and

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quantifying certain spiritual experiences; bias in clinical judgments due to the beliefs of the assessor (Pierre 2001); poor insight into cultural beliefs that separate religion and pathology (Drinnan and Lavender 2006); and certain shared or religious beliefs considered as delusions by some clinicians (O'Connor 2010). Despite these challenges, we should not refrain from investigating a theme so prevalent during psychosis (Ng 2007).

Delusions related to religious beliefs are clinically significant as they have been associated with poorer global functioning, more severe psychotic symptoms, and higher doses of anti-psychotics (Siddle et al. 2002). The distress, anxiety, and depression following religious delusions may further maintain psychosis (Drinnan and Lavender 2006) and hence affect an individual's functioning and quality of life (Pechey and Halligan 2011). Furthermore, religious beliefs that threatened the individuals' safety in the world or afterlife have been found to augment psychiatric symptoms (Flannelly and Galek 2010). Alternatively, a psychotic episode may increase religiosity in at least a quarter of individuals (Kirov et al. 1998), whereas an increase in religiosity prior to a psychotic episode was associated with an increase in the number and frequency (Suhail and Ghauri 2010) of religious delusions.

Qualifying the phenomenology of religious belief is important when in doubt of the pathology of religious belief. Jones and Watson (1997) described religious delusions as being considered of greater importance and with more regularity, affect, and consequential actions than normal religious beliefs. Sims (1995) proposed a history and other co-occurring symptoms of mental illness to be more indicative of a religious delusion. Furthermore, Siddle et al. (2002) proposed that auditory hallucinations were more likely to be attributed to external than internal causes in those with religious delusions.

Two-thirds of schizophrenia patients consider spirituality as essential in everyday life (Borras et al. 2007). Yet, only 36 % of patients ever discuss their religious ideas with their clinicians (Huguelet et al. 2006). Studies have reported rates of religious delusions in schizophrenia as 7 % in Japanese and 23 % in German patients (Tateyama et al. 1993); 80 % in Afro-Caribbean populations (Kiev 1963); 36 % in Americans (Kushner 1967); 21.4 % in Austrian patients; 4.6 % in Pakistani patients (Stompe et al. 1999); and 24 % in the English (Siddle et al. 2002). Overall, the prevalence of religious delusions varies greatly over time due to changes in ritual observance and religious symbol exposure (Bhavsar and Bhugra 2008) as well as between populations due to the influence of religion on culture (Siddle et al. 2002). Specifically, culture is often a confounding factor in studies of religion and schizophrenia (Gearing et al. 2011).

The Xhosa people of Southern Africa have a wide diversity of religious beliefs ranging from African traditional healing methods and medicine, ancestor worship, witchcraft, revering of the Tokoloshe (an evil spirit) to Christianity, Islam, Atheism, and Agnosticism. There is, however, very limited literature on the religious beliefs and associated delusions in the Xhosa schizophrenia population. Scott (1967) reported that 10 out of 13 psychotic Xhosa females in his study presented with religious delusions. Then, Ensink et al. (1998) found that 43 Xhosa-speaking patients presented with more aggressive, disruptive, and bizarre behaviours compared with 20 English-speaking patients during the first psychotic episode. In 2002 Mbanga et al. evaluated beliefs and attitudes about schizophrenia in Xhosa families. They showed that many families felt that traditional healers' methods protected individuals from invasion by bad spirits and that Western treatment prevented the symptoms from getting worse.

Our descriptive study is the first in the Xhosa schizophrenia population to assess the frequency of religious delusions and the changes in religiosity as well as the phenomena associated with religious delusions pre- and post-treatment.

Methods

Study Population

Over a period of 6 months, a convenience sample was recruited from a group of potential participants who had all previously participated in an international genetic study for which the study methodology is fully documented in previous publications from our group (Niehaus et al. 2005). All of the participants were approached in consecutive order by a Xhosa-speaking social scientist to discuss possible participation in this study. Of the 73 patients approached, all agreed to participate.

Data Collection

Interviews consisted of a structured questionnaire specifically designed for the study. Where necessary, interviews were conducted in Xhosa with the help of an interpreter.

The structured questionnaire consisted of four parts: (1) demographics (age, gender, education, drug use, level of education, and religious denomination); (2) duration of untreated psychosis and type of delusions experienced; (3) open-ended questions about the participants' devotion to their faith/God/belief system (degree of religiosity), with variables for this section having been sourced from previous literature reporting on religious delusions (Drinnan and Lavender 2006; Jones and Watson 1997); and (4) phenomena related to religious delusions before and after psychiatric treatment based on a 10-point Likert's scale.

Statistical Analyses

The data were captured using excel and analysed using STATISTICA version 10 (STATISTICA data analysis software system, StatSoft Inc. 2011, www.statsoft.com). Continuous variables were summarized using means and standard deviations and categorical variables using frequencies. Differences in religiosity and phenomena of religious delusions before and after treatment were assessed using standard t tests. The level of significance was set at 0.05.

Ethical Considerations

The study was approved by the Committee for Human Research, Faculty of Health Sciences, Stellenbosch University (97/005), and all their regulations were strictly adhered to. All participants provided informed consent.

Findings

Participant Characteristics

A total of 73 participants were recruited for the study of which 56 (77 %) were male and 17 (23 %) were female. Participants had a mean age of 44 years (range 25–71). Most participants (70, 96 %) were unemployed or received state benefits and had a mean length of education of 2.7 years (range 0–12). Only 14 (19 %) admitted to lifetime history of

Table 1 Religious denominations of the participants ($N = 73$)

Denomination	Frequency
Traditional Xhosa beliefs[a]	2 (3 %)
No religion[b]	10 (14 %)
Pentecostal churches[c]	19 (26 %)
Mainstream churches[d]	23 (32 %)
Other[e]	15 (20 %)
Unaccounted for	4 (5 %)

[a] uThixo or uQamata is the name of the creator who is no longer directly concerned with the world but give ancestral spirits the power to control the daily affairs of the people and are appeased or honoured in rituals. Xhosa people have diviners, herbalists, healers and prophets, and practice witchcraft using familiars such as the lightning bird and *uthikoloshe*

[b] Not subscribing to any religious affiliation (agnostic or atheistic)

[c] Universal Church, St John's Apostolic Faith Mission Church, Full Gospel Church, Apostolic church of South Africa, Old Apostolic Church, New Apostolic Church, Raphael Luyolo Centre, Faith Healer Church, Christ Embassy Church

[d] Roman Catholic Church, Lutheran, Anglican, Methodist Church, Evangelist Church, Salvation Army Church

[e] African Independent Churches: Church of Sigxabayi, Zionist Church other Independent Churches: Jehovah's Witnesses, and United Church of God; and Christians who did not feel they belonged to a specific denomination

cannabis use or abuse, 1 (1.3 %) to a methaqualone history, and 1 (1.3 %) to a methamphetamine history. Most participants (23, 32 %) were members of mainstream churches (Table 1). The duration of initial untreated psychosis during first episode was less than 1 month in most participants (26, 35 %) (Table 2).

Delusions

Table 3 shows the frequency of different types of delusions in this sample. Of the participants, 60 (82 %) participants had experienced delusions, with 42 (70 %) endorsing religious delusions. In 23 (38 %) of the participants, the delusions resolved within 6 months; 43 (72 %) within 1 year; and 54 (90 %) within 5 years.

Effect of Treatment on the Phenomena of Religious Delusions and Religiosity

Mean scores for certain phenomena (see Table 4) related to religious delusions were significantly lower after treatment. These included changes in both thinking ($p = 0.0001$) and behaviour ($p = 0.0001$), as well as perceived benefit of the delusion ($p = 0.006$), and affective response to the delusion ($p = 0.0001$) (Table 4). The degree of religiosity was also significantly lower after treatment [mean (SD) before treatment = 3.7 (3.0) vs. mean (SD) after treatment = 3.3 (3.2), $p = 0.02$].

Discussion

This study assessed the frequency of religious delusions and changes in religiosity and phenomena associated with these delusions after treatment in a Xhosa schizophrenia

Table 2 Duration of initial untreated psychosis during first episode ($N = 73$)

Time from onset of symptoms to initiation of treatment	Frequency
Less than 1 month	26 (35 %)
1–6 months	19 (26 %)
7–12 months	6 (8.2 %)
1 year	8 (11 %)
2 years	5 (6.8 %)
3 years	4 (5.5 %)
4 years	3 (4.1 %)
5–10 years	1 (1.4 %)

Table 3 Types of delusions in participants ($N = 73$)

Type of delusion	Frequency
Persecutory	39 (65 %)
Grandiose	10 (16.6 %)
Delusion of sin or guilt	2 (3.3 %)
Delusion of control	7 (11.7 %)
Delusion of reference	7 (11.7 %)
Religious delusion	42 (70 %)
Somatic delusion	1 (1.7 %)

population. Participants had a mean age of 44 years, and most were men with a mean length of education of 2.7 years who were unemployed. The duration of initial untreated psychosis during first episode in this population was less than 1 month, and most participants were members of mainstream churches. The frequency of religious delusions was high (70 %) in this schizophrenia population, and treatment significantly reduced the degree of religiosity and mean scores for change in thinking as well as benefit and affective response to religious delusions. This is to our knowledge the first report on religious delusions and religiosity in a Xhosa schizophrenia population admitted for treatment. Furthermore, we are not aware of any literature on the effect of treatment on religiosity and the phenomena related to religious delusions in this population or others.

It is interesting to note that most participants were members of either mainstream or Pentecostal churches. This is in accordance with data from the national census in 2001 showing that Christianity and Pentecostal Christianity accounted for almost 80 % of the Xhosa population (Statistics South Africa 2004). Only a small (3 %) percentage of patients reported traditional Xhosa beliefs as their primary religion. This could possibly be ascribed to the formulation of questions related to "denomination" in the questionnaire. Alternatively, patients may consider Christianity and traditional beliefs as separate entities. It should also be borne in mind that for many Xhosa Christians, traditional beliefs remain important and that Christianity was accepted in addition to, rather than replacing traditional religious beliefs (Pauw 1975).

Fourteen percent of the sample did not have any religious denomination. This reflects other findings showing that schizophrenia patients do not often participate in religious activities (Robles-García et al. 2013; Huguelet et al. 2006). The social isolation created by the illness may hamper involvement in social activities related to religion. Furthermore, patients may not receive positive support for their illness in religious environments.

Table 4 Phenomena related to the religious delusions

Characteristics	Religious delusions ($n = 42$)			
	Before treatment (Mean ± SD)	After treatment (Mean ± SD)	t	p
Change in thinking	8.00 ± 2.04	3.05 ± 4.26	8.62	0.0001
Change in behaviour	8.62 ± 2.06	2.43 ± 3.87	9.56	0.0001
Importance of delusion	7.71 ± 2.83	2.48 ± 4.08	7.92	0.0001
Benefit of delusion	2.26 ± 3.61	1.10 ± 3.03	2.92	0.006
Frequency of delusion	2.36 ± 1.30	5.76 ± 3.00	−6.64	0.0001
Affective response	7.98 ± 2.30	1.90 ± 3.46	12.06	0.0001
Distress	7.57 ± 3.17	0.52 ± 1.47	14.74	0.0001

The frequency of religious delusions was high (70 %) in this population. The international literature report varying figures for religious delusions in schizophrenia due to the influence of culture (Mohr and Huguelet 2004). For example, the findings from Suhail and Ghauri (2010) show a prevalence of 62 % for religious delusion in Pakistani individuals with schizophrenia, while Huang et al. (2011) show a prevalence of 12.7 % for religious delusions in their schizophrenia sample in Taiwan. Nevertheless, the high frequency of religious delusions may be ascribed to a higher tolerance for religious delusions in this community. Siddle et al. (2002) theorized that there was a higher tolerance for those with religious delusions than for those with other types of delusions in their UK community. Although patients may be less likely to be stigmatized and maltreated under such conditions, a greater tolerance for religious delusions in communities may prolong the period of untreated psychosis, which in turn, may affect prognosis.

Maladaptive psychological coping (especially experiential avoidance) is one of the major contributing factors to delusions (Goldstone et al. 2011a, b). Religious coping is therefore clinically important (Koenig et al. 1992) and can have a positive or negative impact on a patient's mental health (Sulmacy 2009). Specifically, the presence of religious delusions may influence the help-seeking pathways chosen (Leavy 2010). For example, some patients may seek help via religious avenues, which necessitates the education of clergy and faith healers on mental illness. In South Africa, traditional healers and religious advisors play a prominent role in the delivery of mental health care in South Africa (Sorsdahl et al. 2009). Furthermore, adherence to treatment may be significantly influenced by religious beliefs as patients may feel that their illness can be cured through faith alone and therefore not acknowledge the need for treatment (Kelly et al. 1987).

This study has some limitations worth mentioning. A generalization of our results is not possible as this was a relatively small convenience sample. We also did not assess changes in the phenomena of religious delusions over time. It should also be born in mind that our population were of Xhosa ethnicity and that the content and form of delusions could have been influenced by the sociocultural background of the patients (Mohr and Huguelet 2004). Nevertheless, patients of Xhosa ethnicity constitute a large part of our service population and data from this study will aid us in treating our patients more holistically, keeping their spirituality in mind.

In conclusion, the results indicate that the frequency of religious delusions is high in this population, while some phenomena related to religious delusions remained persistent even after treatment. It is, however, still unclear exactly how traditional beliefs intertwine with

the expression of religion in this sample. These issues need to be kept in mind, while specific emphasis should also be placed on educating spiritual leaders on mental illness when developing services in communities to optimize pathways to care and adherence to treatment. Finally, the effect that religious delusions may have on prognosis and morbidity should further be noted as it may be possible to harness the positive aspects to improve outcomes.

Conflict of interest None.

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