Prevalence of Religious and Spiritual Experiences and the Perceived Influence Thereof in Patients With Bipolar Disorder in a Dutch Specialist Outpatient Center

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Published in:
JOURNAL OF NERVOUS AND MENTAL DISEASE

DOI:
10.1097/NMD.0000000000000965

Publication date:
2019

Prevalence of Religious and Spiritual Experiences and the Perceived Influence Thereof in Patients With Bipolar Disorder in a Dutch Specialist Outpatient Center

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Abstract: The aim of the current cross-sectional study was to estimate the prevalence of religious and spiritual (R/S) experiences and their perceived lasting influence in outpatients with bipolar disorder (BD; $n = 196$). A questionnaire with a range of R/S was constructed, building on the results of an earlier qualitative study. Experiences of horizontal transcendence (not necessarily referring to the divine) such as the experience of "intense happiness, love, peace, beauty, freedom" (77%) or "meaningful synchronicity" (66%) were the most prevalent. The experience of "divine presence" (vertical transcendence, referring to the divine) had a prevalence of 44%. Perceived lasting influence of the experiences was 20% to 67% of the total frequency, depending on the type. Most positive R/S experiences were significantly more related to BD I and mania, and on average, persons with BD I had more R/S experiences (mean = 4.5, SD = 2.6) than those with BD II (mean = 2.8, SD = 2.4, $p = 0.000$). Patient-reported R/S experiences in BD can have both R/S and pathological features.

Key Words: Religious/spiritual experiences, bipolar disorder, prevalence, religious affiliation, religious/spiritual self-definition

(*J Nerv Ment Dis* 2019;207: 291–299)

The complex relationship between religion and bipolar disorder (BD) is an understudied topic. Available studies show heterogeneity in aspects of religion and spirituality (Azorin et al., 2013; Cruz et al., 2010; Huguelet et al., 2016; Mitchell and Romans, 2003; Mizuno et al., 2018; Stroppa and Moreira-Almeida, 2013; Stroppa et al., 2018) and show mixed and sometimes conflicting results. Relevant conclusions for clinical practice are therefore difficult to draw. Two points of departure are seen in the sparse research into religious and spiritual (R/S) experiences in BD. R/S experiences are studied either from a perspective of religiosity, including religious experiences, or from the perspective of psychopathology as religious delusions and hallucinations. Of the former approach, as far as is known to the authors, only two studies have compared prevalence of religious experiences in BD and other populations. Gallemore et al. (1969) found a prevalence of 52% of conversion and salvation experiences ($n = 62$) in a group of patients with BD, against 20% in a healthy control group. In only four cases were the experiences related to mania. Kroll and Sheehan (1989) compared an inpatient group with several disorders with the existing population-based data on religion and spirituality and found 55% with "a personal religious experience" in the BD group ($n = 11$) versus 35% in the general population. In the latter approach, R/S experiences in psychiatric patients were usually viewed as delusions and hallucinations with religious content (Appelbaum et al., 1999; Brewerton, 1994; Cothran and Harvey, 1986; Getz et al., 2001). The prevalence of religious delusions in manic episodes in the United States is estimated to be 15% to 33% (Appelbaum et al., 1999; Koenig, 2009). According to Grover et al. (2016), 38% of their sample of patients with BD had psychopathology with religious content. Cook (2015), in his review study into religious delusions and hallucinations, points to a lack of agreed definition as to where the boundaries of what is truly "religious" and what is pathological lie.

"Religious experience" and "religious delusion" are concepts from different, sometimes conflicting, academic fields. In patients with BD, however, particularly in those who consider themselves as religious, the two seem to overlap. Disentanglement of "normal" R/S experiences and hyperreligiosity can be a challenge for patients with BD (Michalak et al., 2006; Ouwehand et al., 2014) and is an important issue for clinical practice. Renewed attention for narrative and descriptive phenomenology in psychiatry attempts to reconcile a patient-centered perspective on the meaning of psychosis with a strict psychopathological approach (Cook, 2016; Heriot-Maitland et al., 2012; Klapheck et al., 2012; Rieben et al., 2013). The present study combines descriptive phenomenology with a quantitative research design. The main focus is on the prevalence of R/S experiences in a Dutch bipolar outpatient clinic, building on the results of a former qualitative study that explored R/S experiences in 34 persons with BD (Ouwehand et al., 2018).

In the current study, we adopted the theoretical approach of Streib and Hood (2016a) described in "The Bielefeld-based cross-cultural study on 'spirituality'," as concepts for religion and spirituality. In a West-European country like the Netherlands, one of the general secularizing trends is a decreasing involvement with religious traditions and institutions and an increasing interest in the noninstitutional, personal, and experiential side of religion. The latter development emerges as an important feature of new forms of spirituality (De Hart, 2011; Possamai, 2005). In the current study, "spirituality" is viewed as one type of the broader concept of "religion," that is, "privatized, experience-oriented religion" (Streib and Hood, 2016b), beside other ideal types, namely, "church" and "sect." Streib and Hood derive this classification from the sociologist and theologian Ernst Troeltsch (1923). Following this approach, the concepts "religion," "religiosity," and "spirituality" are theoretically understood as belonging to the same family and not as opposites. At the same time, different meanings attached to those concepts by individuals or groups are taken into account in their studies; they are seen as emic concepts. In recent studies in the sociology of religion conducted in Western secularizing countries, not only "objective" measures such as religious affiliation or church attendance are used, but also R/S self-definition (Bernts and Berghuijs 2016; Streib and Hood, 2016b), whereby participants can mark how religious and/or spiritual they consider themselves. This approach results in a typology of religious involvement that makes a fourfold distinction based on the self-definition of individuals as religious or spiritual, "both

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ISSN: 0022-3018/19/20704–0291
DOI: 10.1097/NMD.0000000000000965

religious and spiritual," or "neither religious nor spiritual." The four groups are then analyzed in terms of belief, God images, experiences, practices, style of citizenship, etc. (Berghuijs et al., 2013; De Hart 2011; Streib and Hood, 2016b). In our view, this approach reflects the changing role of religion in modern Western societies more adequately than figures on denomination only. With regard to religious experiences, we adopt the distinction made by Hood et al. (2009) and used in the study of Streib and Hood (2016b) as well, between experiences of vertical and horizontal transcendence. Vertical transcendence in this sense refers to God or a divine reality. Horizontal transcendence does not refer to a heaven or supernatural agents, but to transcendence within and as part of this world, for example, an experience of feeling connected with nature or one's deepest self or a sudden insight in man's destiny. All are experiences of transcendence, breaking through a person's ordinary sense of reality. Horizontal transcendence experiences occur more often in the "only spiritual" group of persons who often characterize themselves as nontheistic or agnostic (Berghuijs et al., 2013; Streib and Hood, 2016b).

Apart from prevalence, the influence of R/S experiences on people's lives over time is a relevant issue for clinical practice. The transformative character of religious experience is an important theme in the psychology of religion (Hunt, 2000, Sandage and Moe, 2013), referring to the lasting impact of religious experience on personality, behavior, and beliefs. In a mixed-method design, Brett (2010) researched the phenomenology, appraisals, emotional reactions (level of distress), and social context of anomalous experiences in groups with and without a diagnosis of psychotic disorder. She concluded that there were clear overlaps between the phenomenology and the transformative impact of the experiences in the two groups. Most participants reported that their experiences had changed their worldview and self-understanding in a positive sense. However, in the diagnosed group, a few participants did report negative changes.

A practical way to distinguish between pathological and normal R/S experiences is to look at the results of the experience over time. Braam and Verhagen (2016) argue that James' criterion "By their fruits ye shall know them, not by their roots" is in fact similar to the assessment criterion of the *Diagnostic Statistical Manual of Mental Disorders* (*DSM*), that symptoms can only be classified as a disorder when they imply serious suffering and dysfunction in social/professional life (Braam and Verhagen, 2016, p. 19; James, 1902). Positively formulated, genuine religious experience will usually have a positive effect on lifestyle, goal directedness, and altruistic activity (Sims, 2016). However, the conditions for integrating potentially destabilizing experiences into one's life story and personality are not always present when people no longer live in an R/S context.

In the preceding qualitative study, we described R/S experiences of people with BD from their own perspective (Ouwehand et al., 2018). A variation in types was found, especially during mania. Participants considered their R/S experiences predominantly as meaningful, although a number of them struggled with the significance thereof. Depression was characterized by "divine absence" and the absence of religiosity in general. In the current study, the results of the previous study were used to assess the prevalence of R/S experiences in a Dutch specialized outpatient center for BD. The most frequently mentioned R/S experiences in mania and depression of the qualitative study were included in the current study (Table 3), with the possibility to add a personal description of an R/S experience. Because the experiences could be perceived as religious or spiritual, but as symptoms of BD as well, we also asked for their perceived lasting influence, as an indication of the religiousness of the experiences for the person in question.

The current study addresses the following objectives:

1. Estimation of the frequency of the different types of R/S experiences and of their perceived lasting influence.
2. Estimation of the distribution of the different types of R/S experiences and their perceived lasting influence in bipolar I and bipolar II disorder (BD I and BD II). A higher prevalence of positive R/S experiences was expected in BD I because psychotic experience during manic episodes is related to this type of BD. Second, the estimation of the distribution of the different types of R/S experiences over different types of self-reported mood episode was intended. It was hypothesized that positive experiences would occur more often during manic episodes than during depression or mood stability, based on the outcome of the previous qualitative study. Experiences of divine absence and absence of R/S were expected to occur more often during depressive episodes.
3. Estimation of the mean occurrence of positive R/S experiences (expected to be related to mania) and their lasting influence in different BD subtypes, in original/present affiliation, and R/S self-definition.

METHODS

Sample

The study was conducted between April 28 and July 8 2017 at Altrecht Mental Health Care in the Netherlands, a specialist outpatient center for BD in Utrecht. The study was approved by the Regional Medical Ethical Committee of the University Medical Centre Groningen (METc2014.475) and the Scientific Committee of Altrecht Mental Health Care (2016-40/oz1620).

Research Procedure

Therapists were encouraged to ask patients to participate in the study after patients had first been informed by letter. All participants provided written informed consent. A research assistant was available when needed. Included were adults aged 18 to 65 (mean = 46, SD = 12.8) who met the *DSM-V* (American Psychiatric Association, 2013) criteria for BD I and II, BD not otherwise specified, cyclothymia, or schizoaffective disorder of the bipolar type. Diagnostic data concerning type and severity of the illness were provided by the responsible therapist. Patients who were too ill to fill out the questionnaire were excluded. The Clinical Global Impression for BD (CGI-BP; Spearing et al., 1997) was filled out by the treating therapists to assess the severity of mood symptoms.

Questionnaire

A new questionnaire was constructed for the study because the only two other studies that had included a questionnaire on R/S experience had been conducted in a predominantly Christian context with corresponding items (Gallemore et al., 1969; Kroll and Sheehan, 1989). The current study was conducted in a much more secularized context. To that end, we developed a questionnaire based on the results of a former qualitative study on R/S experiences in BD (Ouwehand et al., 2018), with 12 sociodemographic and religious variables and 16 items on types of R/S experiences and their perceived frequency and perceived positive/negative influence on participants' lives. After a pilot among 11 participants in the previous qualitative study, a short version of the questionnaire for the current study was developed for patients who were not willing to fill out the standard version of the questionnaire. It includes general information and items on R/S experiences. This short-list takes 5 to 7 minutes to fill out. First, the standard version was offered to everyone, and only in second instance, when patients were reluctant to participate, the short version was offered. When patients did not want to participate, the therapist noted the reason and handed in those forms. The questionnaire was not tested on reliability and validity because of the explorative character of the study. All items, except for diagnosis and severity of the illness, were based on self-assessment and personal judgment.

Demographic and Diagnostic Variables

Demographic variables included sex, age, marital status, and level of education. Therapists provided the *DSM-5* diagnosis and the scores of the CGI-BP.

R/S Experiences With and Without Lasting Influence

Eleven questions were included to assess different types of R/S experiences (Table 3, 1–11). Two subquestions were included (9a and 11a) about perceived positive/negative content of apparitions and voices, and one open question (12) for any additional R/S experience the participant wished to report. Content of the answers was coded by the first author and is presented in Table 3. A separate question assessed the frequency of occurrence in five categories, ranging from 1 (never) to 5 (daily).

For every type of religious experience, response categories were as follows: "yes, with lasting influence," "yes, with no lasting influence," and "no," following the design of the survey "God in Nederland" [God in the Netherlands, GiN] 2006/7 (De Hart, 2011) for mystical experiences. A separate question assessed the positive or negative influence of the totality of the experiences in seven reponse categories, ranging from 1 (very positive) to 7 (very negative).

To estimate the distribution of the respective R/S experiences, answers were grouped in discrete categories: "All yes" versus "no experience" and "yes with lasting influence" versus "yes without influence" and "no experience."

To estimate the mean occurrence of the summation of R/S experiences expected to be related to mania (open question included), we computed a variable "any positive experience." The same procedure was followed for the variable "any positive experience with lasting influence."

Episode

For every type of experience, the phase of illness at which the experience occurred was assessed in four categories: "mania," "depression," "mood stability," and "N/A (not applicable)." Participants could mark several episodes, but for the estimation of frequencies, we used the variable with the values "mania" for experiences occurring during mania or mania marked with another episode, and "depression" for experiences occurring during depression or depression marked with "mood stability." "N/A" was marked when participants had never had the respective experience.

Religiosity

To assess religiosity, two questions were included, namely, whether participants belonged to a religious denomination, and if they were raised up in a religious denomination (hereinafter referred to as "original affiliation"). This was followed by the possibility to fill in predefined denominations or to add a denomination themselves. For analysis, we first categorized variables as "religious affiliation" (1) and "no affiliation" (0), and in the second case "original affiliation" (1) and "no original affiliation" (0), respectively. Third, we used the questions about self-definition as religious or spiritual from GiN (Bernts and Berghuijs 2016). Variables were computed as in GiN to attain a fourfold R/S typology: "religious nor spiritual," "only religious," and "only spiritual," "religious and spiritual."

General Sociological Data on R/S Experiences

The results of the current sample were compared in the discussion with general Dutch surveys including R/S experiences, that is, De Hart 2011 (source: God in Nederland [God in the Netherlands, GiN] 2006/7); Bernts and Berghuijs 2016 (source: God in Nederland [God in the Netherlands] 2015); Berghuijs et al. (2013) and Berghuijs (2016) (source: LISS [Longitudinal Internet Studies for the Social Sciences] panel of CentERdata 2009); and Berghuijs 2017 (source: Motivation Research and Strategy 2014, frequency tables received from the author). All studies were propensity-weighed databases with 2100 to 2600 respondents, representative of the general population.

Statistical Procedure

We started with the description of frequencies of the separate R/S experiences with and without lasting influence for the comparison with general sociological data, including all bipolar diagnoses (BD I and II, cyclothymia, schizoaffective disorder of the bipolar type, and BD not otherwise specified, $n = 196$). We then described the distribution of the R/S experiences and their perceived lasting influence across the following variables:

- -BD I and II.
- -Self-assessed episode of occurrence (mania, depression, and mood stability).
- -We used chi-square tests and the Fisher exact test when cells contained fewer than five observations. Participants with no R/S experiences were omitted from this chi-square test. Including them would distort the outcomes, since we especially wanted to establish whether a significant distribution across episodes was present and not across the groups with or without the respective experiences.
- -Present and original religious affiliation.
- -Religious or spiritual self-definition.

For estimation of the distribution of experiences with or without lasting influence, we excluded other bipolar diagnoses because of small numbers. We also excluded the "no" category (participants who did not have the pertaining R/S experience) to estimate distribution of experiences with and without lasting influence across diagnoses and religious variables.

Finally we used *t*-tests and a one-way analysis of variance with Bonferroni post hoc test to examine the association between the summation of positive R/S experiences and their lasting influence, and the variables used in the chi-square tests: BD I/II, original/present affiliation, and R/S self-definition. Statistical analyses were performed with version 22 of the Statistical Package for the Social Sciences.

RESULTS

Patient Characteristics

In total, 518 unique patients attended the Altrecht Outpatient Department for BD at the time of the study (the total population of the department is 705 patients). The net response rate was 38%: 196 participants (181 standard version, 15 short version). Sixty-nine questionnaires with reasons for nonparticipation were returned (40% not interested, 16% keeping distance from such experiences, 15% other worries, 10% tired of research, 7% too busy, and 13% other reasons). Although intended, scoring of the nonresponse rate was not consistently maintained. Patients' characteristics can be found in Table 1. The study sample had similar characteristics with regard to sex, age, and diagnosis as the total population of the Altrecht Outpatient Department for BD except for marital status, which was higher in the sample. In 0.5% of the participants, the CGI-BP[1] showed a value of 4 (moderately ill) for mania; in 10%, values greater than 3 (moderately to severely ill) for depression; and in 21%, greater than 3 for BD in general. The religious characteristics of the sample are presented in Table 2. Participants defined themselves more often as "only spiritual" or "religious and spiritual" compared with the general population. The "only religious" and the neither "religious

[1]In the CGI-BP, the severity of the illness is assessed separately for mania, depression, and the overall illness with the same rate for the three modalities: 1 = not ill; 2 = borderline mentally ill; 3 = mildly ill; 4 = moderately ill; 5 = markedly ill; 6 = severely ill; 7 = extremely ill.

TABLE 1. Sample Characteristics Compared With the Total Population of the Altrecht Bipolar Outpatient Department in 2017

	Altrecht Bipolar Outpatient Department	
	Sample (*N* = 196)	**Total Population (*N* = 705)**
General characteristics		
Women	60%	56%
Mean age in years	Mean = 46, SD = 12.8	Mean = 47, SD = 12.4
Married/cohabitating	52%	37%
University or higher vocational education	53%	N/A[a]
Diagnosis		
Bipolar I disorder	70%	73%
Bipolar II disorder	25.5%	20%
Not otherwise specified	3%	4%
Schizoaffective disorder	1%	3%
Cyclothymia	0.5%	0.1%
Severity of the illness (CGI-BP)		
Normal or lightly ill mania 1–3	99%	
Depression 1–3	90%	
Totality of the illness 1–3	79%	

[a]Educational level was not assessed in the total population.

nor spiritual" groups were smaller than in the general population. The "only religious" and the "only spiritual" groups were comparable in size to the American figures, but the "religious and spiritual" group was comparable to the European figures, whereas the "religious nor spiritual" group fell in between the European and American figures in size. Participants filled in a religious affiliation more often than the general population, except for Islam. However, in answering the question whether they belonged to a religious group (28% answered "yes"), the results were similar to the general population (27% yes).

Frequencies of R/S Experiences in Retrospect

Table 3 presents the frequencies of the different R/S experiences as mentioned in the questionnaire. The highest frequencies were found for experiences of horizontal transcendence, not specifically related to

TABLE 2. Sample Religious Characteristics of a Dutch Bipolar Outpatient Department, Compared With Sociological Data

		Sample[a]	**GiN 2015[b]**	**Barker Europe 1998[c]**	**Pew USA 2017[d]**
		***N* = 179**	***N* = 2140**	***N* = 7378**	***N* = 5002**
Self-definition	Religious nor spiritual	28%	47%	35%	18%
	Only religious	9%	22%	15%	6%
	Only spiritual	28%	11%	12%	27%
	Religious and spiritual	35%	20%	37%	48%
		***N* = 195**			
Present religious affiliation	Roman Catholic	19%	12%		
	Protestant	20%	13%		
	Other Christians	1%	1%		
	Islam	3%	5%		
	Other religions	5%	2%		
	No affiliation	52%	68%		
		***N* = 181**			
Original religious affiliation	Roman Catholic	34%			
	Protestant	30%			
	Other or unclear affiliation	3%			
	Islam	4%			
	No affiliation	29%			

[a]R/S self-definition was only filled out in the long questionnaire.

[b]Bernts and Berghuijs, God in the Netherlands (GiN) data collection 2015, publication 2016.

[c]Barker, data collection 1998, publication 2008 (Barker, 2008).

[d]Lipka and Gecewicz, Pew Research Center, data collection April–June 2017 (Washington, DC, 2017) (Lipka and Gecewicz, 2017).

TABLE 3. Prevalence of Religious or Spiritual Experiences With and Without Lasting Influence in the Current Sample ($N = 196$)

Sample Questions	Yes	Yes, With a Lasting Influence
1. An intense experience of happiness, love, peace, beauty, or freedom?[a]	77%	36%
2. Experience of meaningful synchronicity[a,b]	66%	25%
3. An intense experience of unity in your life?[a,c]	57%	28%
4. The feeling of having a mission in or for the world?[a,d]	51%	17%
5. An intense experience of the presence of the Divine, of God or Light?[a]	44%	22%
6. Have you ever experienced a period in which spirituality or faith were completely absent?[a]	44%	10%
7. Have you ever had a sudden profound spiritual insight or a sudden revelation or a vision[a,e]	37%	17%
8. Have you ever experienced a period of complete absence of the Divine, God, or Light?[a]	36%	8%
9. Have you ever seen a religious or spiritual apparition?[a]	21%	11%
9a. Of whom? (More answers possible)		
A benevolent spiritual being	16%	
An evil spiritual being	4%	
10. The feeling of being an important religious person?[a,f]	20%	4%
11. Have you ever heard a divine voice speaking to you?[a]	12%	8%
11a. Of whom? (More answers possible)		
A benevolent spiritual being	9%	
An evil spiritual being	2%	
12. Have you ever had any other religious or spiritual experiences than those mentioned above?[a] Could you describe this experience?	32%	18%
Contact with deceased, knowing somebody would die or had just died	$n = 16$	
Out-of-body experience	$n = 9$	
Clairvoyance, predictive dream, telepathy	$n = 8$	
Glossolalia, healing, conversion	$n = 7$	
Near death experience	$n = 4$	
Kundalini (transcendence experience in Kundalini Yoga, strong energy/heat rising upward along the spine)	$n = 3$	
Memories of former lives (reincarnation)	$n = 2$	
Other	$n = 21$	

[a] n varies from 187 to 195 because of different number of participants who answered the question.

[b] Added in the questionnaire: "An experience of extraordinary meaning in everything, an experience that everything has a special value. Nothing is coincidental. Everything you see or experience seems meaningfully synchronous?" Example qualitative study: "I thought I had just met the people who had some special message for me, or I had to do something for them. Each encounter had a special meaning."

[c] Added in the questionnaire: "For example with God or with the Divine. But an experience of unity with other people or with all humanity is also possible, or with nature or with the cosmos?" Example qualitative study: "I really had the feeling: I am one with everything…. It was so extraordinary! In the preceding weeks I have had similar experiences. Feeling a kind of unity, between human beings, and actually between everything you can see."

[d] Added in the questionnaire: "For example a strong vocation to help other people or to contribute to more justice in the world or an urge to convert others to your own religious persuasion?" Example qualitative study: "Especially in the train. I went by train on purpose and I thought that I had to tell the people I was sitting next to about God."

[e] Example qualitative study: "All kinds of pennies had dropped; suddenly I understood it all."

[f] Added in the questionnaire: "For example Christ, Mary, the Prophet, the Redeemer etc."

the divine: item 1 (intense happiness, love, peace, beauty, or freedom, 77%) and item 2 (meaningful synchronicity, 66%). The lowest frequencies were found for experiences that are usually associated with psychosis: item 9 (religious apparitions, 21%), item 10 (being an important religious person, 20%), and item 11 (divine voice, 12%). Both apparitions and voices were predominantly benign in nature. Evil apparitions or voices were always reported in combination with benign manifestations, never singularly.

When the frequencies of the separate experiences were totaled, only 8% of participants had had no experience. There was a discrepancy in the answer on the question "how often" participants had had one or more of the mentioned experiences because 34% answered this question with "never."

Perceived Lasting Influence of R/S Experiences

The occurrence of perceived lasting influence ranged from 4% to 36% and in six experiences (open question included) was about two times lower than the total frequency of the different R/S experiences (Table 3). The lowest frequency was found with item 10 (important religious person). In the latter experience, the perceived lasting influence was one fifth of the total frequency, and in the experiences related to depression (absence of faith/spirituality and divine absence), it was about a quarter of the total frequency of the experiences. Yet, in the experience of a divine voice, the perceived lasting influence was two thirds of the total frequency.

The question "When such experiences have a lasting influence on your life, could you indicate how positive or negative this influence is? How positively or negatively did your life change because of the experiences" was answered by 137 participants, of whom 58% indicated the influence was very or rather positive and 7% as very, rather, or somewhat negative.

Distribution of R/S Experiences Across Type of BD Diagnosis

The distribution of frequencies across subtypes of BD showed that the frequency of seven of the R/S experiences was significantly

higher in BD I (table available on request). In the group with BD II only, the more general experiences of transcendence (items 1 and 2) had a frequency higher than 50%. Items 6 and 8, related to depression, did not differ significantly for BD I and II. The distribution of R/S experiences with perceived lasting influence did not show significant associations across diagnoses, other than a weak association for the "experience of intense happiness etc." (1).

Distribution of R/S Experiences Across Type of Episode in Which They Were Occurring

As expected, the distribution of R/S experiences showed higher frequencies in mania (with or without R/S experiences during depression or mood stability) than in depression (with or without R/S experiences during mood stability but not in mania), or exclusively during mood stability, in seven experiences. The highest frequency of occurrence during mania was found for item 10, "important R/S person" (89% within groups). Items 6 and 8 (63% absence of faith, and 68% absence of the divine; within groups) occurred mostly during depression (Table 4).

Distribution of R/S Experiences Across Original and Present Affiliation, and Religious or Spiritual Self-Definition

The prevalence figures for experiences of vertical transcendence (item 5, divine presence, and item 8, divine absence) were significantly higher in both subgroups with an "original" (n = 181) or "present" (n = 179) religious affiliation (table available on request). The same result was found for two other types of experience: items 3 (experiences of unity) and 2 (meaningful synchronicity). Only the perceived lasting influence of the "experience of unity" occurred significantly more in persons with a "present religious affiliation" than in those "without present religious affiliation." For "original religious affiliation," no significant results were found pertaining to the lasting influence of the experiences.

The distribution of R/S experiences across the R/S self-definition groups showed significant results for all items except for item 10 (important religious person) with a complex pattern of associations (table available on request). In the "religious and spiritual group," the highest frequencies were found in 8 of the 11 R/S experiences. The experience of "unity" occurred most often (66%–69%) in all groups except for the "religious nor spiritual" group (32%). The lowest frequencies of all experiences were found in the neither "religious nor spiritual" group, compared with the other groups. However, more than half of this group still had had the "experience of intense happiness etc." (item 1).

With regard to the lasting influence of the experiences across the R/S self-definition groups, significant associations were found for three R/S experiences (df = 3): "intense happiness etc." (χ^2 = 16, p = 0.001), "unity" (χ^2 = 14, p = 0.002), and "divine presence" (χ^2 = 12, p = 0.005). In the "religious and spiritual" group, these three experiences occurred two times more with perceived lasting influence than without lasting influence. Perceived lasting influence in the "religious nor spiritual" group was 0% (divine presence) to 25% (intense happiness and unity).

Associations Between Mean Occurrence of Summated Positive and Negative R/S Experiences and Various Variables

Associations with the summation scores of all positive experiences can be found in Table 5. In the total sample, 92% of participants recognized one or more experiences and 52% one or more experiences with perceived lasting influence. The mean occurrence of positive experiences was significantly higher for those with BD I (mean = 4.5) as compared with those with BD II (mean = 2.8). When comparing the subgroups pertaining to religious affiliation, the mean occurrence for the group with original (mean = 4.6) or present R/S affiliation (mean = 5.0) was significantly higher than for the group without original (mean = 3.1) or without present (mean = 3.8) R/S affiliation. In the R/S self-definition groups, the mean occurrence was highest for the "religious and spiritual" group (mean = 5.3) and second highest for the "only spiritual" group (mean = 4.7). Although the groups without an "original" or "present affiliation" and the neither "religious nor spiritual" group had the lowest mean scores, they still had more than two R/S experiences on average. When combining "original" and "present affiliation," the group with an "original affiliation" combined with "present affiliation" had a mean score of 4.8, and combined with the group "without present affiliation" had mean score of 4.4. This was significantly higher than the score of the group with neither "original nor present affiliation"

TABLE 4. Distribution of Religious or Spiritual Experiences Across Types[a] of Episodes (Self-Rated)

		Mania[b]		Depression[c]		Mood Stability[d]		
Experience	Total No. "All Yes"[e]	%	% of Total Sample (No Included)	%	% of Total Sample (No Included)	%	% of Total Sample (No Included)	χ^2 df = 2
1. Happiness, love, etc.	129	66	43	4	3	30	20	75***
2. Meaningful synchr.	111	77	43	3	1.5	21	12	98***
3. Unity	99	66	33	9	5	25	13	50***
4. Mission, vocation	90	77	35	4	2	19	9	78***
5. Divine presence	74	76	39	8	3	16	6	60***
6. Absence of faith/spir.	62	13	4	63	20	24	8	26***
7. R/S insight, vision	58	67	20	12	4	21	6	31***
8. Divine absence	53	15	4	68	18	17	5	29***
9. Divine apparition	33	55	9	9	1.5	36	6	10**
10. Important rel. person	37	89	17	3	0.5	14	3	52***
11. Divine voice	13	54	4	0	0	46	3	7*

[a]BD not otherwise specified, schizoaffective disorder, and cyclothymia were excluded because of small numbers.

[b]Pertaining to "mania," as well as to "mania" when also other episodes ("depression" or "mood stability") had been indicated by the patient.

[c]Pertaining to "depression" as well as to "depression" when also "mood stability" had been indicated by the patient.

[d]Exclusively pertaining to "mood stability."

[e]"All yes" means: frequencies of yes with and without lasting influence. "No" is not included in analysis for reasons of distortion of the results.

*p < 0.05, **p < 0.01, ***p < 0.001.

TABLE 5. Associations Between "Any Positive Experience" or "Any Experience with Perceived Lasting Influence" and Diagnosis, Original/Present Affiliation, and Self-Definition as Religious or Spiritual

	"Any Positive Experience" (Summation Scores All Experiences Except 6 and 8)						"Any Positive Experience With Lasting Influence" (Summation Scores All Experiences Except 6 and 8)					
	n	Mean	SD	*t*/*F*	*df*	*p*	*n*	Mean	SD	*t*/*F*	*df*	*p*
Diagnosis, $n = 185$[a]												
Bipolar I	136	4.5	2.6	4.0	183	0.000	136	2.0	2.5	2.3	183	0.02
Bipolar II	49	2.8	2.4				49	1.1	2.0			
Original affiliation, $n = 172$												
Yes	125	4.6	2.4	−3.2	170	0.002	125	2.1	2.5	−2.3	170	0.02
No	47	3.1	2.7				47	1.1	2.1			
Present affiliation, $n = 170$												
Yes	49	5.0	2.5	2.5	168	0.012	49	2.8	2.8	3.1	168	0.002
No	121	3.8	2.7				121	1.5	2.2			
R/S self-definition, $n = 170$												
Religious nor spiritual	50	2.4[b]	2.1	15.3	3;166	0.000	50	0.5	1.0	11.3	3;166	0.000
Only religious	16	3.8	2.3				16	1.7	1.7			
Only spiritual	45	4.7	2.2				45	1.7	2.2			
Religious and spiritual	59	5.3	2.8				59	3.0[c]	3.0			

[a]BD not otherwise specified, schizoaffective disorder, and cyclothymia were excluded because of small numbers.

[b]Significant difference with subgroups "only spiritual" and "religious and spiritual."

[c]Significant difference with subgroups "only spiritual" and "religious nor spiritual."

(mean = 3.0; table available on request). Summated experiences with perceived lasting influence had a weak significant relationship with diagnosis and original and present religious affiliation, and a strong significant relationship with R/S self-definition.

DISCUSSION

The aim of the current study was to estimate the prevalence of a range of R/S experiences as assessed by a questionnaire in 196 Dutch bipolar outpatients. We will discuss the results first from the perspective of R/S experiences and second from the perspective of psychopathology. In the current study, the highest frequencies were found for experiences of horizontal transcendence, such as an "intense feeling of happiness, love, peace, beauty, or freedom" or "experiencing meaningful synchronicity." The lowest frequencies were found for experiences usually associated with psychotic symptoms such as "the feeling of being an important religious person" and "divine voices and apparitions."

Some tentative remarks can be made when comparing the results of the current sample with frequencies of R/S experiences in sociological surveys representative for the general Dutch population (Berghuijs, 2016; Berghuijs, 2017; Bernts and Berghuijs, 2016; De Hart, 2011; data collected between 2006 and 2015). The questions in sociological surveys of some of the experiences (*i.e.*, items 2, 3, 5, and 7) are similar to the questions in the current study, but still differ slightly in formulation. No robust conclusions can therefore be drawn from comparison of the data. Both in the general population, as well as in our study, experiences of horizontal transcendence occur more often than specific experiences of the presence of a higher power or God. The prevalence of an experience of "meaningful synchronicity" (2) occurs in 53% to 55% of the general population, over and against 66% in the current sample. "Divine presence" (5) is experienced by 32% to 50% of the general population and in 44% of our sample. An experience of "insight in the nature of reality" is experienced by 30% of the general population, whereas 37% of our sample had "a profound spiritual insight" (7). Only the experience of "unity" (3) (formulated as "experience of being one with all things" in De Hart 2011) occurred twice as often in our sample (57%), compared with the general population (28%).

Seen from the perspective of psychopathology, frequencies of positive experiences were significantly higher in BD I than in BD II, but not for the experience of "intense happiness, love, peace, beauty, or freedom" and "divine apparition." According to participants, R/S experiences occurred more often during mania than during other episodes. This result is inconsistent with the findings of Gallemore et al. (1969), who, on the one hand, found a prevalence of 52% of conversion/salvation experiences ($n = 62$) in a group of patients with BD versus 20% in a healthy control group. On the other hand, the experiences had occurred in only four cases during mania.

In a study on the phenomenology and impact of psychosis on the course of BD I, the prevalence of delusions of reference was 62% in the sample and that of grandiose delusions 61% (Keck et al., 2003). There certainly will be overlap with the experience of "meaningful synchronicity" (66%), "having a mission in the world" (51%), and "the feeling of being an important religious person" (20%) in our study. The same can be said for auditory and visual hallucinations (37%/32%) in the study of Keck et al. and the hearing of a divine voice (12%) and seeing a divine apparition (21%). Apparently, psychotic experience with religious or spiritual content can have a transitional nature for some but is interpreted religiously after psychosis and perceived as having life-changing influence by others. In the qualitative study preceding the current one, for more than half of the participants, there was a sliding scale between R/S experiences that occurred when they were recovered and during mania (Ouwehand et al. 2018).

Another point to be mentioned with regard to the perspective of psychopathology is that "original religious affiliation" had more influence on the mean score of positive religious experiences than "present affiliation." Braam et al. (2000) studied the influence of religious roots on symptom formation in depression in the elderly and suggest religion as a lifelong symptom formation factor that influences the type of symptoms expressed. This could be the case for BD as well.

The abovementioned results point to an intertwinement of genuine R/S experiences and pathology. A fruitful approach toward experiences that can potentially be destabilizing could be to look at their consequences in the long term. Several authors argue that not the experiences

as such determine possible pathological outcomes, but appraisals, emotional response, and social support (Brett et al., 2009, 2014; Lovatt et al., 2010). They examined the differences in impact of "anomalous" experiences on diagnosed and undiagnosed groups. One of the findings of those studies was that predictors of lower distress were spiritual appraisals, a greater perceived social support/understanding, a greater perceived controllability, and reaction with a "neutral response." Positive lasting influence on people's lives is one of the features of genuine religious experience (Braam and Verhagen, 2016; Sims, 2016).

In the current study, 58% of participants (n = 137) appreciated the influence of the totality of the experiences in the questionnaire as positive, and only 7% as negative. The perceived lasting influence for the separate experiences was a fifth to two thirds of the total frequency of the experience, depending on the type. A notable result is, for example, that 20% of persons with the experience "important religious person" perceived this as having lasting influence, against 67% of persons hearing a divine voice. In the current study, only few significant associations were found between the perceived lasting influence of various experiences and diagnosis, original/present R/S affiliation, and R/S self-definition. However, perceived lasting influence of the totality of experiences was significantly more present in BD I, in persons with original/present religious affiliation, and in persons who describe themselves as religious and spiritual. This last finding points to the conclusion that also R/S experiences with lasting influence can have pathological and R/S features.

How people integrate such experiences or reject them as pathological and how these illness narratives (Kleinman, 1988) influence their lives cannot be studied with a quantitative research design only due to the complexity of the concept religious experience and of the interpretation process in a psychiatric context. More in-depth qualitative research is needed to explore the impact of R/S experiences, along with longitudinal studies to clarify long-term consequences of such experiences.

LIMITATIONS

In the current study, considerable effort was made to include all visiting patients of the bipolar outpatient department. Sample characteristics were similar to the total outpatient population, although the religious affiliation of outpatients is not regularly assessed. The questionnaire was pretested on comprehensibility and length by participants of a former qualitative study on religious experience in BD, but not tested on reliability and validity. All items, except for diagnosis, were based on self-assessment and perception in retrospect. This had the advantage that participants, who were generally asymptomatic, were able to respond to items with relatively complex content. It could not be established whether the respondents had the R/S experiences during mood episodes as observed by others or were actually psychotic at that moment. Another limitation concerns the comparison with results on R/S experiences in the general population. National surveys and sociological studies included only a few of the R/S experiences of the current study with slightly different formulations. Therefore, comparison was tentative. The current study is explorative in a hitherto sparsely examined field. Yet, the outcomes provide material for hypothesis building and more rigorous research.

CONCLUSION

R/S experiences in patients with BD occur more often during manic episodes than during other episodes according to participants. They occur more often in BD I than in BD II. General experiences of transcendence had the highest frequencies; R/S experiences usually viewed as psychotic had the lowest frequencies. The R/S experiences were perceived as having a positive influence by more than half of those who had had at least one experience, but the perceived lasting influence per experience varied. The entanglement between pathological and R/S features of the experiences should be taken in thorough consideration in longitudinal research and in clinical practice to estimate long-term effects on recovery. Research would gain significance if a validated cross-cultural questionnaire on R/S experience would be available.

ACKNOWLEDGMENTS

We would like to thank the staff of the Altrecht Bipolar Department for their participation and support of the project and Hetty Vonk for her support with the English version of the manuscript.

DISCLOSURE

The study was financially supported by "de Stichting tot Steun VCVGZ," a foundation in the Netherlands that supports innovative projects and research in mental health care, and by the "Han Gerlach Foundation," a foundation that supports theological education and research.

The authors declare no conflict of interest.

REFERENCES

American Psychiatric Association (2013) *Diagnostic and statistical manual of mental disorder* (5th ed). Washington, DC.

Appelbaum PS, Robbins PC, Roth LH (1999) Dimensional approach to delusions: Comparions across types and diagnoses. *Am J Psychiatry*. 156: 1938–1943.

Azorin J-M, Kaladjian A, Fakra E, Adida M, Belzeaux R (2013) Religious involvement in major depression: Protective or risky behavior? The relevance of bipolar spectrum. *J Affect Disord*. 150:753–759.

Barker E (2008) The church without and the God within: Religiosity and/or spirituality? In Barker E (Ed), *The centrality of religion in social life*. Hampshire: Ashgate.

Berghuijs J (2016) Nieuwe spiritualiteit en sociale betrokkenheid [New Spirituality and Social Engagement]. *Psyche en Geloof*. 27:11–30.

Berghuijs J (2017) Multiple religious belonging in the Netherlands: An empirical approach to hybrid religiosity. *Open Theology*. 3:19–37.

Berghuijs J, Pieper J, Bakker C (2013) Being 'spiritual' and being 'religious'. *Journal of Contemporary Religion*. 18:15–32.

Bernts T, Berghuijs J (2016) *God in Nederland [God in the Netherlands] 1966–2015*. Utrecht: Ten Have.

Braam AW, Sonnenberg CM, Beekman AT, Deeg DJ, Van Tilburg W (2000) Religious denomination as a symptom-formation factor of depression in older Dutch citizens. *Int J Geriatr Psychiatry*. 15:458–466.

Braam AW, Verhagen PJ (2016) *Religie, spiritualiteit en psychiatrie [Religion, spirituality and psychiatry]*. Houten: Accredidact.

Brett C (2010) Transformative crises. In Clarke I (Ed), *Psychosis and spirituality. Consolidating the new paradigm* (pp 155–175). Chichester: John Wiley & Sons Ltd.

Brett C, Heriot-Maitland C, McGuire P, Peters E (2014) Predictors of distress associated with psychotic-like anomalous experiences in clinical and non-clinical populations. *Br J Clin Psychol*. 53:213–227.

Brett CM, Johns LC, Peters EP, McGuire PK (2009) The role of metacognitive beliefs in determining the impact of anomalous experiences: A comparison of help-seeking and non–help-seeking groups of people experiencing psychotic-like anomalies. *Psychol Med*. 39:939–950.

Brewerton TD (1994) Hyperreligiosity in psychotic disorders. *J Nerv Ment Dis*. 182: 302–304.

Cook CCH (2015) Religious psychopathology: The prevalence of religious content of delusions and hallucinations in mental disorder. *Int J Soc Psychiatry*. 61:404–425.

Cook CCH (2016) Narrative in psychiatry, theology and spirituality. In Cook CCH, Powell A, Sims A (Eds), *Spirituality and narrative in psychiatric practice* (pp 1–14). Glasgow, UK: Bell & Bain.

Cothran MM, Harvey PD (1986) Delusional thinking in psychotics: Correlates of religious content. *Psychol Rep*. 58:191–199.

Cruz M, Pincus HA, Welsh DE, Greenwald D, Lasky E, Kilbourne AM (2010) The relationship between religious involvement and clinical status of patients with bipolar disorder. *Bipolar Disord*. 12:68–76.

De Hart J (2011) *Zwevende gelovigen. Oude en nieuwe spiritualiteit [The floating faithful, old and new spirituality]*. Amsterdam: Uitgeverij Bert Bakker.

Gallemore JL Jr., Wilson WP, Rhoads JM (1969) The religious life of patients with affective disorders. *Dis Nerv Syst*. 30:483–487.

Getz GE, Fleck DE, Strakowski SM (2001) Frequency and severity of religious delusions in Christian patients with psychosis. *Psychiatry Res*. 103:87–91.

Grover S, Hazari N, Aneja J, Chakrabarti S, Avasthi A (2016) Influence of religion and supernatural beliefs on clinical manifestation and treatment practices in patients with bipolar disorder. *Nord J Psychiatry*. 70:442–449.

Heriot-Maitland C, Knight M, Peters E (2012) A qualitative comparison of psychotic-like phenomena in clinical and non-clinical populations. *Br J Clin Psychol*. 51:37–53.

Hood RW, Hill PC, Spilka B (2009) *The psychology of religion: An empirical approach* (4th ed). New York: Guilford Press.

Huguelet P, Mohr SM, Olié E, Vidal S, Hasler R, Prada P, Bancila M, Courtet P, Guillaume S, Perroud N (2016) Spiritual meaning in life and values in patients with severe mental disorders. *J Nerv Ment Dis*. 204:409–414.

Hunt HT (2000) Experiences of radical personal transformation in mysticism, religious conversion, and psychosis: A review of the varieties, processes, and consequences of the numinous. *J Mind Behav*. 21:353–398.

James W (1902) *Varieties of religious experience*. Available at: https://worldu.edu/library/william_james_var.pdf.

Keck PE Jr., McElroy SL, Havens JR, Altshuler LL, Nolen WA, Frye MA, Suppes T, Denicoff KD, Kupka R, Leverich GS, Rush AJ, Post RM (2003) Psychosis in bipolar disorder: Phenomenology and impact on morbidity and course of illness. *Compr Psychiatry*. 44:263–269.

Klapheck K, Nordmeyer S, Cronjäger H, Naber D, Bock T (2012) Subjective experience and meaning of psychoses: The German Subjective Sense in Psychosis Questionnaire (SUSE). *Psychol Med*. 42:61–71.

Kleinman A (1988) *The illness narratives*. New York, NY: Basic Books.

Koenig HG (2009) Research on religion, spirituality, and mental health: A review. *Can J Psychiatry*. 54:283–291.

Kroll J, Sheehan W (1989) Religious beliefs and practices among 52 psychiatric inpatients in Minnesota. *Am J Psychiatry*. 146:67–72.

Lipka M, Gecewicz C (2017) In Pew Research Center (Ed), *(2017, September 6). More Americans now say they're spiritual but not religious*. Washington, DC. Available at: http://www.pewresearch.org/fact-tank/2017/09/06/more-americans-now-say-theyre-spiritual-but-not-religious/. Accessed February 2018.

Lovatt A, Mason O, Brett C, Peters E (2010) Psychotic-like experiences, appraisals, and trauma. *J Nerv Ment Dis*. 198:813–819.

Michalak EE, Yatham LN, Kolesar S, Lam RW (2006) Bipolar disorder and quality of life: A patient-centered perspective. *Qual Life Res*. 15:25–37.

Mitchell L, Romans S (2003) Spiritual beliefs in bipolar affective disorder: Their relevance for illness management. *J Affect Disord*. 75:247–257.

Mizuno Y, Hofer A, Frajo-Apor B, Wartelsteiner F, Kemmler G, Pardeller S, Suzuki T, Mimura M, Fleischhacker WW, Uchida H (2018) Religiosity and psychological resilience in patients with schizophrenia and bipolar disorder: an international cross-sectional study. *Acta Psychiatr Scand*. 137:316–327.

Ouwehand E, Muthert JK, Zock TH, Boeije H, Braam AW (2018) Sweet delight and endless night: A qualitative exploration of ordinary and extraordinary religious and spiritual experiences in bipolar disorder. *Int J Psychol of Rel*. 28: 31–54.

Ouwehand E, Wong K, Boeije H, Braam A (2014) Revelation, delusion or desillusion: Subjective interpretation of religious and spiritual experiences in bipolar disorder. *Ment Health Relig and Culture*. 17:615–628.

Possamai A (2005) *Search of new age spiritualities*. Bodmin, Cornwall: MPG Books Ltd.

Rieben I, Mohr S, Borras L, Gillieron C, Brandt PY, Perroud N, Huguelet P (2013) A thematic analysis of delusion with religious contents in schizophrenia: Open, closed, and mixed dynamics. *J Nerv Ment Dis*. 201:665–673.

Sandage SJ, Moe SP (2013) Spiritual experience: Conversion and transformation. In Pargament K (Ed), *APA handbook of psychology, religion, and spirituality* (pp 407–422). Washington, DC: American Psychological Association.

Sims A (2016) Psychopathology and the clinical story. In Cook C, Powell A, Sims A (Eds), *Spirituality and narrative in psychiatric practice* (pp 25–39). Glasgow: RCPsych Publications, Bell & Bain Limited.

Spearing MK, Post RM, Leverich GS, Brandt D, Nolen W (1997) Modification of the Clinical Global Impressions (CGI) scale for use in bipolar illness (BP): The CGI-BP. *Psychiatry Res*. 73:159–171.

Streib H, Hood RW (2016b) Understanding "Spirituality"—Conceptual considerations. In Streib H, Hood RW (Eds), *Semantics and psychology of spirituality: A cross-cultural analysis* (pp 3–19). Cham, Switzerland: Springer International Publishing AG.

Streib H, Hood RW (Eds) (2016a) *Semantics and psychology of spirituality. A cross-cultural analysis. 2016a*. Cham, Switzerland: Springer International Publishing AG.

Stroppa A, Colugnati FA, Koenig HG, Moreira-Almeida A (2018) Religiosity, depression, and quality of life in bipolar disorder: A two-year prospective study. *Rev Bras Psiquiatr*. 40:238–243.

Stroppa A, Moreira-Almeida A (2013) Religiosity, mood symptoms and quality of life in bipolar disorder. *Bipolar Disord*. 15:385–393.

Troeltsch E (1923) Die Soziallehren der christlichen Kirchen und Gruppen [The social teaching of the Christian churches]. In Baron H (Ed), *Gesammelte Schriften [Collected Writings]* (3rd ed, Band 1). Tübingen, Germany: J.C.B. Mohr. Available at: https://archive.org/details/gesammelteschrif01troeuoft.