Anxiety, depression, and religiosity—a controlled clinical study

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ABSTRACT *Studies on religiosity and mental health have yielded mixed results. There are few studies in clinical settings, many of which are limited to an older population. This study had the goal of firstly exploring the interrelation of neuroticism and religiosity in clinically diagnosed patients compared with a group of healthy controls, and secondly, exploring differential aspects of positive or negative perceptions of religion in the individual.* Method: *Measurements of religiosity and neuroticism were conducted in 44 patients (mean age 34.4 years) with affective, anxiety and personality disorders, and 45 healthy controls. In addition, a battery of questions regarding the interaction of religion and mental health was applied.* Results: *There was no correlation between neuroticism and religiosity, neither in the patient nor in the control group. However, marked differences were found in causal attributions and religious experience between patients and healthy controls. Anxiety concerning sexuality, super-ego conflicts and childhood fears of God was primarily associated with neuroticism and not with religious commitment. Healthy subjects consented significantly more often to the statement that 'religion can make a person sick' than patients with affective and anxiety disorders, who experienced religion rather as support than as a burden. However, they perceived their illness-related problems as an obstacle to express their faith.* Conclusions: *The findings support the clinical observation that the primary factor in explaining neurotic functioning in religious patients is not their personal religious commitment but their underlying psychopathology. Patients and healthy controls differ in the way they experience supportive and conflicting aspects of religiosity.*

Introduction

If cultural diversity is defined on the basis of divergent basic assumptions, beliefs and causal attributions, one finds that even within our Western culture there are groups who hold markedly different views on many aspects of life despite their outward assimilation to the predominant culture in which they live. Such subcultural values especially pertain to modes of existential experiencing, questions of meaning and ways to preserve and regain health. A person's religious values seem to be an important factor shaping these attitudes. Yet religious issues have been strongly underepresented in psychiatric research (Larson *et al.*, 1992) and inadequately reflected in diagnostic manuals (Lukoff

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et al., 1992). Only in the last five years has there been a significant increase in publications on religion and mental health (Dein & Loewenthal, 1998). However, the growing field of literature is contrasted by the still popular notion that religion is either a negligible part of one's private life, or, even worse, a source of mental health problems.

Historical concepts: religion as a 'universal neurosis' and 'ecclesiogenic neurosis'

Stark (1971) calls the 'notion that there is a positive association between psychopathology and religious commitment ... a hoary proposition handed down from the founding fathers even unto the *n*th generation of social scientists' (p. 165). Since Freud's (1927/1961) critique of religion as a psychopathological phenomenon there have been numerous publications describing religion as a major factor contributing to psychopathology.

Although research over the last 30 years has shown far more beneficial associations between religion and mental well-being than adverse effects of religion on mental health (Dein & Stygall, 1997), causal links between religious experience and mental problems are still being made—by therapists, by patients and by a vast segment of secular public opinion. In the German-speaking world, causative labelling of emotional problems in religious patients has crystallised in the term *Ecclesiogenic Neurosis* (Schaetzing, 1955). Coined by a Berlin gynaecologist, the concept centres around sexual problems in religious individuals, based on a variety of anecdotal reports. The term inherently proposes a causal relation between religious upbringing or religious commitment and the development of neurotic disorders. This raises several questions pertaining to all models of pathology associated with religious factors (Schumaker, 1992):

> How can we define "healthy"/"functional" versus "pathological"/"dysfunctional" religion (Spilka, 1989)?
>
> How is abnormality or psychopathology defined?
>
> What is the nature and the definition of the term "Neurosis"?
>
> How are negative effects of religion in neurotic patients defined and explained?
>
> In what way and in which personalities do religious issues cause tension?

Does religion help or hinder mental health?

Reviews of empirical studies drawing conclusions on the interrelation of religiosity and mental health have revealed serious methodological limitations. Gartner *et al.* (1991) distinguished between hard and soft variables in assessing psychopathology. Whereas hard variables are value-neutral or reflect consensually held

values, soft or intrapsychic variables tend to express implicit values as to what constitutes mental health (Strupp & Hadley, 1977). Assessment of mental health, therefore, should follow the general guidelines of applied psychopathology without prematurely implicating underlying causes, religious or otherwise.

The majority of research reports on religion and mental health over the last 20 years has come from psychological studies and sociological surveys (Bergin, 1983). The wide variety of definitions and measuring instruments has made the interpretation and comparative evaluation of the published studies difficult (Lea, 1982). Sampling techniques proved to be problematic, as findings often pertained to student samples which, for practical reasons, were easily accessible on campus, or to more or less representative samples of the general population. Often psychometric variables were not correlated with additional demographic information, and religious measurement was confined to church affiliation. The major difference between the two views of religion and psychopathology seems to be methodological: the assertion of the pathogenic influence of religion on mental health is primarily based on analytically oriented single case studies and rather value-oriented non-empirical observations.

Defining and assessing 'neurosis'

Another important issue in assessment is the definition of diagnostic terms. What is meant when proponents of religiously induced pathology speak of 'ecclesiogenic neurosis'? Although Schaetzing (1955) never gave exact definitions of his use of the term 'neurosis', he seemed to apply it to a very wide range of psychological problems, from short-time adjustment disorders to severe chronic depressive and anxiety disorders.

Research on the interactions of religion and neurosis has been complicated by the introduction of the DSM-III and the ICD-10 which have brought major changes in the diagnosis of mental disorders, largely abandoning the term 'neurosis' (Bayer & Spitzer, 1985). Although the term has vanished from contemporary diagnostic vocabulary, it has retained its importance in a psychodynamic approach towards mental health. The psychiatric conditions that were described as 'neuroses' still exist, albeit under different labels. British researchers (Tyrer *et al.*, 1986) have been able to demonstrate the validity of the neurotic concept despite the change in diagnostic criteria. Andrews *et al.* (1990) found a 'general neurotic syndrome' in six psychiatric syndromes (major depressive episode without psychosis or melancholia, dysthymia, obsessive–compulsive disorder, social phobia, panic with and without agoraphobia, and generalised anxiety disorder). Among other tests that were used in their study, the Eysenck Personality Inventory (EPIN) (Eysenck, 1961) proved to be a sensitive and valid instrument to measure the degree of neuroticism.

The available data and clinical experience do not allow for the assumption that neurotic disorders are more common in any subcultural group, including religious subgroups. Rather, they seem to be equally distributed in the popu-

lation. A study on the vulnerability of Jews to affective disorders (Levav *et al.*, 1997) comes to the conclusion that

> the results support only in part the earlier reports that Jews have higher rates of major depression. The equal gender distribution of major depression among Jews may be associated with the lower rate of alcoholism among Jewish males. (p. 941)

Loewenthal *et al.* (1995) found a similar distribution of depression among men and women in a sample of 339 Jews affiliated to orthodox synagogues.

It was the goal of the following study to further explore the relationship between neuroticism and religiosity, thus testing the construct of 'ecclesiogenic neurosis'. There have been various studies with apparently healthy subjects exploring the relationship of personality and religiosity (for a recent overview, cf. Eysenck, 1998). However, to our knowledge, there are no studies with patients currently in psychiatric care.

Moreover, we wanted to analyse the factors affecting an individual's perception of experiences commonly associated with the influence of religion, such as an over-anxious image of God in childhood, an overly sensitive conscience or anxiety related to sexuality.

A third goal was to explore the question, if there are differences in the function of religion in patients affected by depression and anxiety versus healthy subjects.

Method

Inventories

A 51-item inventory was constructed (Pfeifer & Waelty, 1995), containing the 20 items of the Allport–Ross Religious Orientation Scale (Donahue, 1985) as well as questions from two German studies (Hark, 1984; Doerr, 1987) to explore religious attitudes, beliefs and practices. The full text of the inventory is being published in Hill and Hood (in press) or can be obtained from the first author. The *level of religiosity* (REL) was computed from 15 items which wereweighted for their significance in expressing religiosity. The computed scores (between 0 and 20) were then used as a basis to divide the subjects into two levels of religiosity: low religiosity (≤ 11 points), and high religiosity (> 11 points). Statistical tests yielded good correlations of these groups with other measures for religiosity, especially the intrinsic factor ($R = 0.882$, $p < 0.0001$) and, inversely, with the extrinsic factor ($R = -0.480$, $p < 0.0001$). Fourteen items addressed various questions regarding general life satisfaction, attitudes toward sexuality, religious education, religious causal attributions. To measure neuroticism the Eysenck Personality Inventory (EPIN; Eysenck & Eysenck, 1964; German version: Eggert 1974/1983) was administered to all patients and controls.

Statistical analysis was carried out using the SPSS statistical package.

Subjects

The clinical sample ($N = 44$) was derived from patients aged 18–65 years who were treated as outpatients at the Psychiatric Clinic Sonnenhalde. The clinic is treating a high proportion of religious patients as the concept allows for an integration of psychiatry and Christian counselling, while at the same time being included in the regional network of psychiatric institutions of Basel metropolitan area. Diagnoses were established according to the DSM-III-R (American Psychiatric Association, 1987) by the first author. Patients with organic disorders, schizophrenia and major depression with psychotic features or melancholia were excluded. The severity of the condition was coded 1 to 3, according to the following three items: (a) current medical or psychotherapeutic treatment for psychological problems; (b) former hospitalisation for psychological problems; and (c) problems at work (loss of job, change of job) because of psychological problems. Of the 50 patients who consented to fill in the questionnaires, 6 had to be excluded, 1 case because of incomplete data and 5 cases because of a Lies Score of >5 in the EPIN.

The control group ($N = 45$) was recruited from apparently healthy subjects in a church choir, a Bible study group and students at Basel university. Care was taken to ascertain a sample that matched in terms of the level of religiosity. Per definition they had to score 0 on the severity scale. Control subjects were given the same questionnaires as the patient group. Of the 50 persons in the control group, who completed the questionnaires, 2 had to be excluded because of a Lie Score of >5 in the EPIN, and 3 because they indicated mental health problems (severity of problem >0). Demographic and diagnostic data are described in Table 1.

Results

Although all subjects and controls were nominally affiliated with a church, they showed a broad variety of religiosity scores, ranging from 0 to 20 (mean 14.05, SD 4.93). Religious variables are described in Table 2.

On the basis of their religious commitment score (REL), patients and subjects were divided into four groups: (a) patients with low REL ($N = 10$); (b) patients with high REL ($N = 34$); (c) controls with low REL ($N = 10$); and (d) controls with high REL ($N = 35$).

There was a substantial difference in neuroticism (NEU) between the patient group and the controls, confirming the clinical diagnosis of psychopathology. On the other hand, the construct of extroversion did not yield a significant distinction between the groups (only mildly higher extroversion in the control group). However, no significant difference could be found between subgroups of high and low religiosity. This was not only true for the patient sample but also for the controls. Statistical analysis of the odd's ratio for neuroticism in highly religious subjects (patients and controls) yielded no significant risk of higher neuroticism in highly religious individuals (Table 3).

TABLE 1. Demographic properties of the sample ($N = 89$)

	Patients ($N = 44$)	Controls ($N = 45$)
Gender		
male	13 (30%)	17 (38%)
female	31 (70%)	28 (62%)
Age	34.41 (SD 10.14)	36.56 (SD 16.30)
Social status		
social class I and II	8 (18%)	12 (27%)
social class III–V	36 (82%)	33 (73%)
Marital Status		
single	18 (41%)	23 (51%)
ever married	26 (59%)	22 (49%)
Educational level		
university degree	2 (5%)	2 (4%)
A-level ('Matura')	7 (16%)	11 (24%)
high school/trade	25 (57%)	28 (62%)
unqualified	10 (24%)	4 (9%)
Diagnostic groups		
mood disorders	29 (66%)	not applicable
anxiety disorders	8 (18%)	
personality disorders	7 (16%)	
Severity of neurotic disorder		
mild	14 (32%)	not applicable
moderate	16 (36%)	
severe	14 (32%)	
Neuroticism (EPIN)[a]	15.54; SD 4.81	10.02; SD 3.86
Extroversion (EPIN)	10.82; SD 4.12	11.18; SD 4.24

[a] $p < 0.001$; all other group differences: n.s.

Several of the additional items in our questionnaire yielded significant correlations with neuroticism (NEU) or religiosity (REL), either in the patient group or in the control group (Table 4). *General life satisfaction* was negatively correlated with NEU, but positively with REL in the patient group. A similar tendency was found in the control group, but did not reach significance. *Super-ego conflicts* ('annoying conscience') were positively associated with NEU in the patient group but negatively with REL. *Anxiety concerning sexuality* did not correlate with NEU nor REL in the patient group; however, there was a significant correlation with NEU in the control group and a non-significant correlation with REL. Table 4 gives an overview of correlations concerning some key questions of our study.

Discussion

The study tried to amend several deficiencies of earlier studies on psychopathology and religious commitment. First, the sample was derived from a *clinical*

TABLE 2. Religious variables of patients and controls

	Patients ($N = 44$)	Controls ($N = 45$)
Religiosity score	mean 14.32; SD 5.28	mean 13.78; SD 4.60
low ($\leqslant 11$)	10 (22.7%)	10 (22.2%)
high (> 11)	34 (77.3%)	35 (77.8%)
Intrinsic religiosity	mean 6.41; SD 2.54	mean 6.82; SD 2.23
low ($\leqslant 11$)	2.50; SD 1.43	3.60; SD 2.22
high (> 11)	7.56; SD 1.35	7.74; SD 1.09
Extrinsic religiosity	mean 2.77; SD 1.60	mean 2.76, SD 2.14
low ($\leqslant 11$)	4.40; SD 1.84	4.60; SD 1.96
high (> 11)	2.29; SD 1.17	2.23; SD 1.91
Church affiliation		
Catholic	6 (14%)	5 (11%)
Protestant	38 (86%)	40 (89%)

population of patients with an established diagnosis of depression, anxiety or personality disorders who were actually in psychiatric treatment (32% of whom had already been hospitalised for their condition). Compared with studies of older populations, which have been published over the last few years (Braam *et al.*, 1997; Dein & Stygall, 1997; Koenig *et al.*, 1992; Koenig *et al.*, 1998), the average age of the sample was 34.4 years, thus representing a patient selection that is often seen in a psychotherapy setting.

Secondly, care was taken to measure religious commitment in a broad and differentiated way. In their chapter on 'Religion and Mental Disorder', Hood *et al.* (1996) deplore the fact that

> virtually no study dealing with mental disorder goes beyond some vague breakdown of religiosity based on frequency of church attendance or a designation of individuals as Protestant, Catholic, Jewish and other. (p. 409)

TABLE 3. Neuroticism in patients and controls with high and low religiosity

Groups	Patients with high religiosity ($N = 34$)	Patients with low religiosity ($N = 10$)	Controls with high religiosity ($N = 35$)	Controls with low religiosity ($N = 10$)
Neuroticism	15.59; SD 4.58	15.40; SD 5.76	10.09; SD 4.06	9.80; SD 3.22
	$\chi^2 = 0.2738$; df = 1; $p = 0.92$		$\chi^2 = 0.6349$; df = 1; $p = 0.84$	

Notes: Odd's ratio for neuroticism in highly religious subjects (patients and controls): 1.0224 (95% confidence bounds: 0.8099–1.2905), n.s. Odd's ratio for neuroticism in low religiosity subjects (patients and controls): 0.9273 (95% confidence bounds: 0.4226–2.0346), n.s.

TABLE 4. Correlations of neuroticism and religiosity with life satisfaction, religious education, attitudes toward various areas of interest

	Patients ($N = 44$)		Controls ($N = 45$)	
	Neuroticism	Religiosity	Neuroticism	Religiosity
Neuroticism		−0.020		−0.095
Life satisfaction	−0.398[a]	0.397[a]	−0.172	0.256
Religious education (Q19)	0.118	0.095	0.362[b]	−0.206
Childhood fear of God (Q23)	0.037	−0.093	0.491[a]	−0.085
Conscience sometimes annoying (Q11)	0.386[a]	−0.223	0.173	0.183
Anxiety concerning sex (Q22)	0.039	−0.108	0.390[a]	0.122
'Religion can make a person sick' (Q48)	−0.321[b]	0.212	−0.212	0.113
Religion more burden than support (Q49)	−0.067	−0.288	0.078	0.007
Emotional problems make practice of religion difficult (Q40)	0.096	−0.343[b]	0.223	−0.127
Faith in God helps me not to despair (Q35)	−0.015	0.657[a]	−0.092	0.613[a]

[a] $p < 0.01$.
[b] $p < 0.05$.

Thus it seems important, that this study is using internationally comparable measurement batteries. None the less, religiosity in its broad phenomenological diversity remains difficult to be operationalized. As a cultural phenomenon, we regarded it as important to adapt the scales to the regional and denominational particularities without losing sight of common factors of religious functioning. The good correlations with the Religious Orientation Scale (Allport & Ross, 1967; Donahue, 1985) support the validity of our measurement. A limitation of the study is the restriction to Christian religiosity. The conclusions, therefore, cannot be uncritically transferred to other religious cultures. However, there are indications for comparable validity of the findings, at least for an Israeli sample (Francis & Katz, 1992).

Third, meta-analyses of mental health measurements (Gartner, 1985) have shown that several paper-and-pencil tests were based on assumptions, which may penalise a subject holding traditional religious beliefs. Thus, 'self-actualization' in the Personal Orientation Inventory (POI) (Shostrom, 1974) was rated lower if a person endorsed the item 'I am orthodoxly religious'. In a similar fashion, points are deducted for the beneficial value of repentance, restraint of impulses, and self-sacrifice—values that are endorsed by many religions. In order not to draw conclusions from correlational figures alone, in this study patients and controls were asked about their own views of the influence of religion on their condition.

The role of religiosity in coping with illness

Illness as existential suffering, especially neurotic illness with diffuse anxiety and worry, depression and feelings of personal inadequacy, with disability and social isolation leads a person into a state of mind that often is not easily accessible to treatment. The disease concepts of somatic medicine and the dynamic constructs of psychotherapy often do not satisfy a patient's need for meaning, for comfort and inner peace.

It is this existential suffering where self-reliant behavioural strategies are of limited value, and logical reasoning does not reduce the deep inner yearning for relief. The values of the healthy person do not give support, opening the mind for a deeper quest for the meaning of life (Batson *et al.*, 1993). The importance of religion in coping with the illness-related distress is reflected in the values for life satisfaction, which, in our study, was negatively correlated with neuroticism (as an expression of suffering and distress), but positively with religious commitment in the patient group. Religion thus seems to be an important factor in coping with depression and anxiety. This is especially true in the area of meaning and hope that goes beyond the actual life situation.

Several questions tried to explore subjects' view of the influence of religion on mental health, reflected in the statement: 'Religion can make a person sick'. Interestingly, more than half of the religious subjects (patients and controls) consent to this assertion. Are they aware of the possibility that dysfunctional religiosity can be problematic in their own life or in their religious fellowship? However, there is a significant negative correlation for the same item with neuroticism in the patient group. Thus, suffering patients seem to reject this monocausal attribution, as they probably see a wider variety of factors that have led to their condition. The answers tend to support a reversed dynamic: it is not primarily religion that causes illness, but it is illness that makes the practice of religion difficult. Thus, 71% of the religious patient group consented to the statement: 'My psychological problems make it difficult for me to live my faith in the way I would like to'. Personal interviews with patients often revealed that anxiety and social withdrawal reduce their capacity to express their religious needs and convictions in socially visible forms, which in turn can increase social isolation.

Religiosity and neurotic conflict

Neurotic anxiety does not only relate to coping with life in general, but also to religious life. The conflict between cultural demands and personal drives and desires is strongly influenced by the framework of reference in the individual patient. If cultural demands are religious, neurotic conflicts and anxieties will tend to be expressed, at least in part, in a religious way. It was therefore interesting to look at correlations of areas that were attributed to religion in the literature on psychopathology associated with religion, especially anxieties related to sexuality, conscience and childhood fears of God. The results have

shown that in no instance were these three items related with religious commitment but rather with neuroticism. Although these preliminary findings do not allow far-reaching conclusions, they do not support a monocausal correlation of neurotic conflicts with the religiosity of an individual. Rather they raise the question, if neurotic conflicts in religious patients have their origin in the individual's neuroticism, which is secondarily intertwined with his or her religiosity.

An important *limitation* of all larger statistical studies is the fact that individual differences can be neutralised and result in zero-correlations. The notion that religion exerts a negative influence on mental health in patients could not be supported by our findings. This does not exclude the possibility that certain individuals within our sample did experience religion in a distressing way. There is an indication that subjects with neurotic tendencies have a higher conflict potential in various areas of life, including religion. The primary factor in patients who display religious conflicts and anxieties seems not to be the degree of religious commitment itself but rather their underlying psychopathology. The nature of religious belief systems seems to make them 'prone to serve as vehicle for the expression of neurotic tendencies and needs' (Meissner, 1991). We hope that the study serves as a stimulus for further empirical research in the nature of religion and mental health.

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