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REVIEW

Influence of religious aspects and personal beliefs on psychological behavior: focus on anxiety disorders

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Abstract: The current paper presents literature relevant to the relationship of religiosity, spirituality, and personal beliefs with mental health and, in particular, anxiety disorders as an empirical narrative review, providing an overview on the most important and clinically relevant research results on the topic. The relationship between religiosity/spirituality, personal beliefs (ie, magical ideation and paranormal beliefs), and mental health has lately been studied extensively, and results have indicated significant associations among these variables. However, scientific approaches to this field are complex and multidimensional, partly leading to poor operationalization, incomparable data, and contradictory results. Literature demonstrates that higher religiosity/spirituality and magical ideation scores have often been associated with increased obsessive–compulsive traits. Similar results could not be confidently replicated for other anxiety disorders. However, it is still unclear if these differences suggest a specific association with obsessive–compulsive traits and reflect deviating etiopathogenetic and cognitive aspects between obsessive–compulsive disorder and other anxiety disorders, or if these results are biased through other factors. Religiosity/spirituality and personal beliefs constitute important parameters of human experience and deserve greater consideration in the psychotherapeutic treatment of psychiatric disorders.

Keywords: spirituality, religiosity, religion, paranormal beliefs, magical ideation anxiety disorders, obsessive compulsive disorder, OCD, anxiety, coping

Introduction

The relationship between religious and personal beliefs and mental health has been studied extensively, indicating considerable correlations among these variables.[1] However, scientific approaches to this field are complex and multidimensional. With respect to anxiety disorders, the empirical evidence is scarce and warranting of further research. The current review discusses research findings on the relation of religiosity/spirituality (R/S), paranormal beliefs, and magical ideation to mental health and – in particular – anxiety disorders. Results on obsessive–compulsive disorders (OCD) and other anxiety disorders (excluding acute stress and post-traumatic stress disorder) are presented separately, in order to investigate possible etiopathogenetic and cognitive differences between both groups. The literature is presented as an empirical narrative review, providing an introduction of the topic, an overview on the most important and clinically relevant publications with respect to R/S, personal beliefs, and anxiety disorders and, finally, particular emphasis on the dimensional constructs of R/S and possible treatment options.

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Religion, religiosity, and spirituality

Religion is a universal human pursuit, affecting many different cultural parameters, moral concepts, and ideals, and influencing human thinking and behavior by offering answers on the meaning of human existence.[2] Religion provides a comprehensive and sympathetic insight on the human orientation in the world and is an important element of human culture. The practice of dealing with the sacred sphere through ritual or nonritual cults, the interpretation of everyday and special experiences, the concordance with social norms, the contact with aesthetic and artistic expressions and symbols, as well as many other life domains, are all comparably embedded in this individual and complex system.[3–5]

On the other hand, religiosity as a term reflects various aspects of religious beliefs and activities in a person's life. In the literature, intrinsic religiosity is commonly distinguished from extrinsic religiosity.[6,7] Intrinsic religiosity implies the internalization of the religions' teachings and the finding of personal master motives in religion, whereas extrinsic religiosity reflects more instrumental and utilitarian aspects of religion, providing security and solace, sociability and distraction, status, and self-justification.[6,7] During previous years, an additional emphasis has been given to spirituality, as an entity different and independent from religiosity. Spirituality is suggested to be a transcultural and transreligious parameter of human experience constituting a complex, idiographic, and multidimensional construct, not closely associated to a particular belief system, church, or cult.[8]

Personal beliefs: paranormal and magical ideation

Apart from R/S, paranormal and magical ideation are also associated with a person's individual belief system. Paranormal beliefs relate to paranormal phenomena that violate basic limiting principles in science.[9,10] The term "magical ideation" refers to beliefs about causality, in which individuals believe they have some degree of control over events that defies currently accepted physical laws.[11] Many studies support a significant positive but complex correlation between religious and paranormal belief variables, where higher religious scores have been associated with stronger paranormal beliefs.[12–15] Yet, R/S, religious practices, and personal beliefs are not only important for culture and social life, but they also seem to play a significant role with respect to individual physical and mental health.

Religiosity/spirituality, physical health, and well-being

Many studies indicate that R/S and religious practices may have a persistent and significant positive influence on general physical health, life satisfaction, and subjective well-being.[1,16–20] This positive impact of R/S on human well-being becomes more obvious among people under stressful circumstances and physical illness.[21,22] R/S is therefore considered a major coping factor in difficult or stressful life circumstances.[18,23] Terminal illness, cardiovascular disease, cancer, pain, and immune and endocrine diseases are only some examples in which the importance of religious coping has been put forth in the literature.[1] For some individuals, religious faith may enhance the ability to cope with negative life events, whereas for others, negative life events may result in greater religious faith.[24]

Religiosity/spirituality and mental health

For the last three decades, the relationship between R/S and mental health has been extensively studied, indicating significant associations among these variables.[1,25] R/S has been found to be inversely correlated with the prevalence of any mental disorder[26–30] and, in particular, to have a positive impact on depression,[27,31,32] suicidal thoughts and behavior,[33,34] and alcohol dependence and drug abuse.[30,35–37] Furthermore, it is suggested that R/S is not only a protective factor for mental health, but that it also may positively influence the treatment outcomes for some mental disorders.[31,38,39] However, research has also pointed out many contradictory results.[1,40] For example, higher intrinsic orientation has been found to be associated with reduced risk for depression,[27,32] yet it also has been correlated with higher risk for most psychiatric disorders in general[23] and for depression specifically.[41]

The role of religious coping

Personal R/S beliefs are shown to be multidimensional, whereas several R/S aspects seem to have different and not always positive impact on mental health.[42–45] Accordingly, Kendler et al[43] reported that different R/S aspects show different relationships to particular externalizing mental disorders (substance dependencies and antisocial behavior) and internalizing mental disorders (major depression, generalized anxiety disorder, phobia, panic disorder, and bulimia nervosa), suggesting that different aspects of R/S can have both positive and negative influences on the individual.

Lately, research has suggested that with respect to mental health, the greatest importance seems not to lie

on R/S beliefs in general, but rather on specific religious coping strategies.[23] Religious coping reflects the functional expressions of R/S in stressful situations. Positive religious coping is suggested to have a positive impact on mental health. In particular, higher worship frequency,[23,46] general religious involvement,[27] and prayer and scripture reading[32,47] have been shown to exert an overall positive effect and to be associated with better mental health. These effects could not be explained by possible meditative components of religious activity.[48] On the other hand, negative religious coping (ie, wondering whether God has abandoned someone or believing in a punishing, vengeful, or simply indifferent God), although less frequent than positive religious coping, has been repeatedly found in close association to negative psychological adjustment,[42] higher psychopathology scores, and worse mental health status and treatment outcomes.[44,45,49–54] However, although religious coping has been an increasing research focus over the last years, most studies have investigated the relationship of religious coping and depression. Only a few studies assess this parameter in association with anxiety,[51,55] and this research has mostly been conducted with hospitalized somatically ill patients.[56]

Religiosity/spirituality and personal beliefs in anxiety disorders

Anxiety and anxiety disorders

Anxiety is an agonizing basic human emotion of constriction, fear, and inner restlessness that appears physiologically in unfamiliar or threatening situations and is always accompanied by a physical stress reaction.[57] The person and the specific triggering situation (stressor) are important in determining levels of provoked anxiety. Trait anxiety reflects a stable tendency to respond with state anxiety in the anticipation of threatening situations. Thus, anxiety should be viewed as a dimensional construct, where personality variables as well as congruent stressors both are influencing the increase of the level of state anxiety.[58]

Anxiety disorders are characterized by a longer-lasting, pathologically intensified, and unfounded emotion of anxiety, which palsies physical and mental functions and leads to avoidance behavior. Anxiety disorders are often associated with an underlying psychobiological dysfunction[59,60] and lead to clinically significant distress, becoming a major disability for the patient. Here, the anxiety response is not an expectable or culturally sanctioned response to a stressor and does not primarily result from a social deviance or conflicts with the society.

Although R/S and other personal beliefs, such as paranormal and magical ideation, have been repeatedly suggested as important factors in the expression and course of psychiatric disorders and coping with psychiatric disorders, relevant empirical evidence is still scarce,[1] warranting further research. Research findings on the relation of R/S, paranormal beliefs, and magical ideation to anxiety and OCD are presented below.

Religiosity/spirituality and anxiety

In comparison to other psychiatric disorders, there are only a few exploratory studies investigating the specific relation between R/S and anxiety.[61] Hereby, two main theories become apparent. The first one promotes the Freudian hypothesis that anxiety can arise through negative religious conflicts and that there is a positive relation between R/S and anxiety symptoms.[62] There are only a few studies that support this hypothesis,[63] while most of them indicate a specific positive correlation only between anxiety and extrinsic religiosity.[64–66] Two studies support also a positive relationship only between negative religious coping and anxiety symptoms.[54,67]

The second thesis suggests religiosity is negatively associated with anxiety and buffers the effects of stress, leading to lowered distress[18,19,61] and even to better outcome in the treatment of anxiety disorders.[68] Results associating positive religious coping strategies (eg, particularly regular church attendance) with lower anxiety scores have been often replicated,[61] whereas other studies report results of lower anxiety levels among the more religious in samples of both healthy and medically ill subjects.[69,70]

Nevertheless, many studies failed to find any significant correlation between anxiety and R/S.[54,71–75] Interestingly, Baker and Gorsuch[64] suggested a positive correlation of extrinsicness and a negative correlation of intrinsicness to trait anxiety. Accordingly, the proportion of extrinsic-oriented versus intrinsic-oriented subjects in a study could possibly affect its results.

Religiosity/spirituality and OCD

In contrast to other anxiety disorders, the specific relation of R/S and OCD has been investigated more thoroughly in the literature, as R/S has been considered to play some role in the etiopathogenesis of this disorder. The hypothesis of OCD as being to some extent an "ecclesiogenic" neurosis was postulated early in the literature.[76] Higgins et al[77] found that, indeed, the percentage of patients with reported religious conflicts was significantly higher in the OCD group than in other anxiety and nonanxiety control subjects.

Many researchers have come to the conclusion that there is a relation between R/S and some OCD traits. Especially, higher religiosity has been repeatedly found to be positively correlated with subclinical OCD symptoms and cognitions,[78–82] beliefs about overimportance of thoughts,[80] intolerance for uncertainty,[79] misinterpretation of the significance of thoughts,[83,84] control of thoughts, perfectionism, and responsibility,[81] poorer insight, and more perceptual distortions.[85] Higher religiosity has also been found to correlate positively with the presence of religious themes in obsessive thoughts and compulsive rituals,[86] even across different religions.[80] In addition, patients with religious obsessions and compulsions also display significantly higher religious scores[78] than patients without these kinds of obsessions. Such results make the conclusion that OCD may be fostered by higher religiosity (ie, by the overzealous wish for spiritual purity) very tempting. Interestingly, there is an overall high percentage of OCD patients with religious obsessions.[87] Many authors found that the possibility of a diagnosis of OCD by a clinician is higher when a patient describes himself as religiously active, suggesting tautological inferences in some cases.[88,89]

On the other hand, there are also many studies suggesting only a minor or a missing relationship between R/S and OCD.[79,81,87,90–93] In marked contrast to the results mentioned above, a demographic study by Neziroglu et al[94] found more atheist/agnostic individuals amongst OCD patients compared to other disorders. Our recent study also showed no significant differences between OCD patients and healthy samples concerning most of the R/S subscales.[54] OCD patients showed higher scores of negative religious coping only.

Paranormal beliefs in anxiety and OCD

The role of paranormal beliefs in OCD and other anxiety disorders has hardly been investigated. The few available study results are similarly antithetic, with some studies suggesting an association between belief in the paranormal and lower anxiety/neuroticism,[95–97] and others reporting no significant[98] or even a negative correlation.[99]

To our knowledge, the only study directly investigating and comparing differences in paranormal beliefs between healthy subjects, patients with anxiety disorders, and patients with OCD was conducted by our research group and found no differences in paranormal belief between OCD patients, anxiety patients, and healthy controls, no differences between healthy and nonhealthy subjects, and also no differences among the various anxiety subgroups.[54]

Magical ideation in anxiety and OCD

Most exploratory studies investigating the specific relation of magical ideation and OCD have reported a positive correlation between magical ideation scores and OCD symptoms in clinical and nonclinical populations.[100–108] Magical ideation has generally been found to be positively related to obsessive–compulsive symptoms[103] and to many specific symptoms frequently found in OCD patients,[109] such as neutralizing behavior,[110] perceptual distortions,[85] and thought–action fusion.[110] In addition, OCD patients score higher in magical ideation scales than do healthy controls or patients with other anxiety disorders,[103] and magical ideation has been shown to predict negative outcome in OCD patients.[111] Interestingly, patients with religious obsessions and compulsions also display significantly higher magical ideation scores than do patients without these kinds of obsessions.[85]

The relation between magical ideation and other anxiety disorders, on the other hand, has barely been investigated. There are only two studies found in the literature. In the first one, magical ideation scores did not differ significantly between OCD and generalized anxiety disorder, while the OCD group showed significantly higher scores than the healthy sample.[106] In the second study, panic-disorder patients reported significantly lower magical ideation scores compared to OCD patients.[104] Panic-disorder patients were found to score similarly to healthy control groups.[104]

Our recent study showed no significant differences in magical ideation traits between OCD patients, patients with other anxiety disorders, and healthy controls.[54] We additionally suggested that the presence of four OCD-specific items in the original magical ideation scale questionnaire might result in higher magical ideation scores in OCD patients, as seen in other studies.

Discussion

Despite many encouraging clinical results and experimental data, the specific relationship between R/S and anxiety disorders has received even less attention than has the relationship of R/S with other disorders. According to available study results, specific R/S traits and magical ideation were more often correlated to subclinical OCD traits in particular, but also to clinical OCD traits, than to measures of general anxiety or other specific anxiety disorders. However, it cannot be concluded that individuals with higher OCD traits are also more religious or vice versa, and it is still unclear if these differences suggest a true association to obsessive–compulsive traits only and reflect deviating etiopathogenetic and cognitive aspects between OCD and other anxiety disorders, or if

these results are biased through other factors. For example, personality traits associated with both R/S and OCD, or OCD-specific items in used questionnaires, might influence the abovementioned findings and result in a virtually closer relationship between OCD and R/S traits.

In addition, most findings suggest negative religious coping as a factor that is closely associated with various forms of psychopathology in OCD and anxiety disorders. Yet, it remains unclear whether negative religious coping represents a common expression of a mentally ill condition at a symptomatic level or a common cognitive vulnerability factor, leading to negative psychological adjustment to stress[42] and therefore more frequently found among the symptomatic population.[112]

Challenges in the assessment of R/S and personal beliefs

Despite the growing focus on the impact of R/S and personal beliefs on mental health in the last decades, the failure to incorporate a broader concept of religious and spiritual constructs in relevant research represents an important limiting factor. The lack of defined and generally accepted multidimensional measures of R/S has led to poor operationalization, unmatchable and incomparable data, and to contradictory results.[61,113] For example, a recent literature review listed more than 70 different psychometric instruments designed to assess spirituality and related constructs.[114] Most studies tend to dichotomize their results by using only a static religious variable and avoid multidimensional measures and quantified religious variables. Further limitations of the available literature include small sample sizes[61] and research lacking methodological sophistication.[115]

The complexity of the field becomes clearer when considering many of the other factors that could potentially influence investigative parameters and R/S in particular. For example, age, sex, education, religious affiliation, and race show a strong relationship with R/S parameters.[115] For example, general and social religiosity are closely associated with female sex and older age,[27,41,43] suggesting that the age and sex distribution of study samples could have a significant impact on study results.

Influence of religion and culture

Anxiety disorders belong to the most common mental disorders, with an ubiquitous presence across all continents and cultures. Thereby, cross-cultural and cross-religious norm deviations, differences in psychopathology, and prominence of various symptoms are of particular importance.[116,117] In addition, cultural and religious effects are considered not only pathoplastic, but also pathogenetic, especially in anxiety disorders.[117,118]

Anxiety symptoms, but also R/S experiences and beliefs, individually manifest at a cognitive, affective, physical and behavioral level. Cultural background can strongly influence the way of manifestation in all of these areas. Thus, anxiety core symptoms may and can appear differently across religions and cultures, often leading to potential bias.[118] The form and variety of anxiety symptoms related to religious themes is, thus, sometimes associated with certain cultures/religions.[119] This does not, however, indicate one religion as being more pathological than others, but rather the religious symptoms as being an inseparable part of the specific culture and, thus, not pathological.[120,121] Studies in different religious contexts indicate similar results with respect to mental health.[121] There are actually only sparse and controversial findings indicating a certain religious affiliation being more prevalent among, for example, OCD patients than among others,[46,78] although religions with very strict rites and regulations should be considered separately.[122] To our knowledge, no study has investigated this topic with respect to other anxiety disorders. Nevertheless, R/S appears not to be a distinctive topic of OCD, but rather a precondition in the setting of religious patients.[82,123,124] Respectively, in a study by Siev et al,[90] thought–action fusion was shown to be a pathological marker only when such beliefs were not culturally normative.

On the other hand, specific religious affiliation might have a direct negative influence on mental health when is it the reason for discrimination, as for example among migrants.[117,125]

Cognitive aspects of belief and psychotherapy

It has been recently suggested that among religious parameters, the individual cognitive aspects of religion, but not the organizational ones, show the greatest effect.[16,19] This becomes even more important when considering that religious and spiritual themes could also have an impact on the psychotherapeutic treatment and outcome of psychiatric disorders in general and of OCD and anxiety disorders in particular.[117,118] There have been studies that show the importance of personal and spiritual beliefs in the individual psychiatric and psychotherapeutic treatment.[126–128] In a study by Shafranske and Malony,[129] more than 60% of the patients expressed themselves through religious language. In accordance with this finding, religious psychotherapy for religious

subjects has been proven to be significantly more effective than standard psychotherapeutic treatment.[129–133] These effects were mediated through reduction of religious and spiritual distress, which is particularly desirable in the treatment of depression and anxiety.[134] Similarly, the emotional support in a religious/spiritual group has been proven to be so effective that it is also used as a major therapeutic tool in many forms of counseling and psychotherapy.[130,131]

These results suggest that religious patients may benefit more from a different form of psychotherapy that emphasizes better religious coping and that promotes positive and prevents negative religious coping and its cognitive manifestations. Over the course of the psychotherapeutic treatment, R/S-specific topics, values, and norms are often in the forefront, having a great influence on diagnosis, etiology, treatment concepts, and therapeutic goals.[1] R/S-sensitive psychotherapy might especially focus on the negative R/S cognitive assumptions (belief of being abandoned by God, etc) and give patients the opportunity to deal with their religious and spiritual struggles though an alternative kind of spiritual guidance.[128] Clinicians should, thus, strive to obtain skills in the understanding of different R/S aspects, whereby an attitude of religious openness could result in individualized therapeutic objectives and methods that are adjusted for personal beliefs.[1,121]

Nevertheless, the "religiosity gap" between patients and therapists remains present, especially in some forms of psychotherapy,[135] and unheeded in scientific research,[130–132] emphasizing the need for additional religious-sensitive assessments in the research and treatment of mental disorders.[126]

Conclusion

Although R/S and personal beliefs are complex and multidimensional parameters, relevant research has failed to incorporate a broader, generally accepted concept of religious and spiritual constructs, leading to poor operationalization and, thus, incomparable data and contradictory results. Nevertheless, religiosity, spirituality, and personal beliefs are important parameters of human experience and deserve greater consideration in the psychotherapeutic treatment of psychiatric disorders.

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