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Comorbid Anxiety Disorders in Schizophrenia

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Abstract

Anxiety disorders commonly co-occur in patients of schizophrenia and have significant influence on course and prognosis of schizophrenia. However, probably due to diagnostic and treatment hierarchical reductionism anxiety disorders have been overlooked in schizophrenia. Review of the literature reveal great differences in prevalence estimates as a result of variations in symptom descriptions and different diagnostic instruments. There are significant differences in psychopathology of individuals with Schizophrenia with and without anxiety disorders. With regard to treatment response it is seen that subjects with Schizophrenia and anxiety disorders respond poorly to only antipsychotics but respond better to antipsychotics plus the SSRIs. Further, the duration of illness of schizophrenia subjects with anxiety disorder is comparatively briefer. The presence of comorbid anxiety disorder in schizophrenia patients may indicate a better prognosis. It is essential that schizophrenia patients undergo proper psychiatric screening and detailed evaluation to detect and treat comorbid anxiety disorders, since this may improve their quality of life and future prospects.

Keywords: Schizophrenia; anxiety disorders; prevalence; management.

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Introduction

In general medicine, Feinstein has defined comorbidity as, any separate and supplementary disorder that has coexisted or that may occur while the patient is suffering from the index disease under study.[1] In recent times this expression is frequently used in clinical psychiatry to describe patients who receive a medical diagnosis in addition to their psychiatric disorder (e.g. major depression and hypertension), but much more frequently patients who are diagnosed with two or more psychiatric disorders.[2] Dual diagnosis are associated with a number of undesirable sequels comprising higher dose and/or number of medicines, non-compliance, psychosocial problems, depression, deliberate self-harm, relapse, increased load on family and vagrancy . In addition, they often have a poorer treatment outcome than those with a single diagnosis of a mental disorder.[3]

In the past two decades a number of studies have concluded that the co-occurrence of psychiatric disorders along with schizophrenia is frequent especially depression, substance abuse, anxiety disorders and obsessive-compulsive disorder (OCD).[4-5] Despite these findings, there is paucity of well-planned studies in order to determine the prevalence and correlates of these co-morbid disorders. Furthermore, conclusive studies have not been done on the treatability of such conditions, although it is widely recognized that without comorbid schizophrenia these disorders are eminently treatable. Apart from all this, these co-morbid conditions may increase the infirmity of such patients as well. [6]

In classical phenomenology, certain unusual

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mental experiences are objectified as psychiatric symptoms which in turn form the components of classification. However mental experiences may also be seen as stages in a psychopathological process. The role of affect in schizophrenia has recently been a focus of psychological accounts of positive symptoms like hallucinations and delusions. Birchwood and Iqbal [7], have concentrated on depression, while Garety et al.[8] believed in the centrality of anxiety, at the minimum in some patients. This group has studied the cognitive concomitants of anxiety : attentional biases; metacognitive processes like worry and views about the controllability of thoughts; Safety behaviors i.e. avoidance.[9-11] Their findings imply that the intellectual procedures that accompany anxiety play a role in maintaining the symptoms of psychosis.[9-11] Anxiety at the inception of insanity is fundamental to the neuropsychological explanation put forward by Gray et al., who implicated arousal in the development of delusions.[12]

It has been postulated that anxiety is a vital forerunner of schizophrenia. If this were true then a high prevalence of co-morbid anxiety disorders is expected in schizophrenia. The relationship can be established by studies either at the symptom level or at the level of diagnostic classes- both are potentially illuminating but unfortunately the psychiatric literature provides few references to a link between the symptoms of anxiety and schizophrenia as discussed earlier. This is despite the fact that various phenomenologists have been aware of the link. From early in the 20th century Eugen Bleuler described non psychotic abnormalities precede the commencement of schizophrenia. These were reported by him as well as others as anxiety, panic, depression, vague somatic complaints, obsessions and compulsions. [13]

Fish also accepted that anxiety exists in individuals with schizophrenia. He believed that anxiety generally accompanied hallucinations and delusions of persecution during the acute phase of the illness. Conspicuous anxiety and depression was produced due to the abrupt inception of hallucinations . The patient with self-reference hallucinosis is usually very anxious and frightened. He therefore clearly saw anxiety arising secondary to the symptoms of the illness, though he also recognized that severe anxiety states might precede the inception of schizophrenic symptoms.[14] Leonhard wrote about anxiety in relation to his concept of the cycloid psychoses. He named one variety the anxiety elation psychosis. He stated the basic disorder is a mood change of either anxiety or ecstasy. Anxiety is associated with typical ideas of reference and sometimes with illusions and hallucinations. These paranoid symptoms are understood as arising from the mood. The pre psychotic personality is often anxious or hypomanic. He also has written about anxiety and other affective disorders sometimes occurring as accessory symptoms in the acute stage or systematic peripheries.[15] In paranoid schizophrenia there is a morbid distortion of subject's beliefs or attitudes concerning relationship between themselves and other people. In chronic schizophrenia social withdrawal and emotional apathy are prominent features. Anxiety might therefore be specifically attached to other people in a way similar to the social anxiety syndromes. If this were so, one would certainly expect these disorders to be more prevalent in schizophrenia. On the other hand, non-social anxiety might lead to relatively more specific distortions in the capacity to evaluate the evidence in an objective way providing another potential route to distorted thinking.

Anxiety as a sign or as a disorder is common. Therefore its occurrence in subjects with schizophrenia is expected. The association could be no more than chance. However, anxiety may have been already present in the individual who later developed schizophrenia. The cause of anxiety could be the same neurodevelopmental abnormality that results in schizophrenia. It might also be secondary to distressing psychotic symptoms.[16] In clinical practice however, the occurrence of anxiety disorders in schizophrenia is not very common. The reasons may be numerous. Clinicians often discount the presence of anxiety disorders in schizophrenia due to hierarchical considerations. The symptoms of anxiety disorders are attributed only to schizophrenia. Patients often conceal the syndromes due to shame. Symptoms of psychosis are intense and demand urgent action. In the presence of these symptoms minor signs of anxiety tend to be neglected. Additionally impaired cognitions and negative symptoms may interfere with the assessment of anxiety disorders in schizophrenia patients. Sometimes effects of antipsychotic medications may impede the identification of anxiety disorders in schizophrenia. Lastly few second generation antipsychotic drugs are reported to have precipitated symptoms of panic disorder (PD) [17] and social anxiety disorder. [18] Despite the clinical confounders, numerous recent studies have reported growing frequency of anxiety disorders in schizophrenia.[4-6, 19-25] Thus to illuminate the problems in recognizing anxiety disorders in schizophrenia, the recent and past

literature was reviewed. First of all addressing the prevalence of anxiety disorders in schizophrenia, and then concentrating on the various correlates of such an association and lastly on those few treatment studies available for such conditions.

Comorbid anxiety and schizophrenia: earlier views:

Early observations on the co-occurrence of anxiety in patients with schizophrenia is found in some of the first observational studies. Eugen Bleuler's[13] monograph and Kraeplin's [26] Dementia Praecox and Paraphrenia, both describe commonly occurring and profound levels of anxiety in schizophrenia. Both discuss in particular, how often individuals with schizophrenia experience intense worry, over concern and panic, fearfully avoid others and are beset by a myriad of obsessions and compulsions. Particularly in the work of Bleuler, symptoms of anxiety are best described as commonly intervened with other more central schizophrenic symptoms and were noted to complicate the course of the disorder. In Bleuler's work, anxiety symptoms are associated with even greater withdrawal from social situations. Thus examination of Bleuler and Kraeplin's early works make it apparent that anxiety disorders have been identified in individuals with schizophrenia for nearly a century. In addition it has been posited that comorbid anxiety disorders may worsen the outcome of schizophrenia.

Prevalence of various anxiety disorders in schizophrenia

Boyd et al. conducted an epidemiological study in five US cities. All subjects were diagnosed using the NIMD- Diagnostic Interview Schedule (DIS). The prevalence of panic attacks was 37.9%. [27] Different studies with clinical samples tried to evaluate the presence of comorbidities, principally concentrating on the different anxiety disorders. But due to the peculiarities inherent to the clinical samples and to the small sample size included in the studies, the results are highly variable and sometimes difficult to pool together.

Garvey et al., assessed ninety-five psychiatric inpatients for the coexisting anxiety disorders, out of which eighteen met the DSM-III criteria for schizophrenia. They reported that 44% of the individuals had comorbid anxiety disorder of which 17% had a current PD and 22% with generalized anxiety disorder. They also hypothesized that individuals with comorbid anxiety disorder possibly had a better prognosis.[28] Strakowski et al. studied one hundred and two acutely psychotic, hospitalized first episode patients with ten having disorders in schizophrenia spectrum and found a rate of 6% for PD. They also said that comorbidity in schizophrenia was associated with longer hospitalization.[29] Sixty schizophrenia or schizoaffective disorder outpatients were randomly selected by Zarate et al. Out of which twenty-eight were with a comorbidity and thirty-two without a comorbidity. Of the patients having a comorbidity, 56.7% had a lifetime anxiety disorder, and 19.4% had PD. Also the individuals with comorbidity had poorer overall functioning.[30] Cassano et al. evaluated ninety-six consecutively hospitalized currently psychotic patients out of which ten had a diagnosis of schizophrenia as per the DSM-IV criteria and found a prevalence of 19.4% for PD in these patients. [19]

Cosoff and Hafner, in sixty schizophrenia inpatients diagnosed using SCID DSM-III-R, identified 33% to have a comorbid anxiety disorder . The prevalence of the specific anxiety disorder was PD 5%, social phobia 17% and generalized anxiety disorder 12%. Although symptoms of psychiatric disorders were significantly higher in those with anxiety disorders on self-rating scales, hospital admissions rate were not. They also said that patients regularly admitted to hospital have elevated prevalence of anxiety disorders compared to those treated primarily in the community.[20] But this was in contrast to what was found by Soni et al. who found higher levels of anxiety in patients who were managed in the community. [31]
Bermanzohn et al. too found a prevalence rate of 40% of comorbid anxiety disorder in thirty-seven schizophrenic day care patients using the SCID-DSM-IV to find a prevalence of 29.7% for OCD and 10.8% for PD.[21] Goodwin et al. while assessing 184 schizophrenic inpatients using DIGS, DSM-III-R found a prevalence of 42.5% for the anxiety disorder which constituted 5.4% of OCD patients, 7.1% with PD, 8.2% for agoraphobia as well as social phobia, 13.6% for the specific phobias.[22]

While assessing thirty schizophrenic outpatients using MINI-DSM-IV, Tibbo et al. observed a rate of 26.7% (N=8) for generalized anxiety disorder, 23.3% (N=7) for social phobia, 6.6% (N=2) for PD with or without agoraphobia, 26.7% (N=8) for agoraphobia. These rates decreased when anxiety signs associated with symptoms of psychosis were excluded. Further they concluded that the comorbid anxiety disorders did not alter the outcome of schizophrenia in their study.[23] Pallanti et al. found a much higher prevalence rate of 60.2% using SCID DSM-IV in a group of eighty schizophrenic

outpatients. Out of which 36.3% were detected with social phobia, 22.5% with OCD, 13.8% with PD and a lower percentage of 3.8% with agoraphobia, 2.5% with specific phobia and generalized anxiety disorder each and a rate of 1.3% with PTSD. [6]

While following a group of twenty-three schizophrenic out patients, Ciapparelli et al. found a prevalence of 47% for the comorbid anxiety disorders, which was quite similar to the most of the studies. It consisted of 40% of social phobia as well as PD and a rate of 20% for OCD and almost 33% of the patients received multiple anxiety diagnosis. Moreover patients with panic disorder and OCD showed greater severity of illness at baseline whereas patients with social anxiety disorder showed greater illness severity in remission.[25]

Apart from the above studies there are several others which have frequently reported a high level of anxiety as a common symptom and a cause of disability in schizophrenic patients. It is frequently related to the positive symptoms of schizophrenia. So it is not taken into account as it has been established as a common symptom associated with schizophrenia. There are other studies which have concentrated on a single anxiety disorder comorbid with schizophrenic illness rather than focusing on the entire anxiety disorder spectrum. Of which most of them have concentrated on the epidemiology of PD and the rest of the disorders have obtained less attention. The following paragraphs will discuss about these studies.

Panic disorder in schizophrenia

Boyd reviewed the ECA data that included five large community samples (N=18,572). He observed the prevalence of panic attacks in individuals with schizophrenia varied from 28% to 63% in different communities. He specified panic attacks, not PD, and so the problem was more prevalent. Due to differences amongst DIS diagnosis and clinical diagnosis, he clearly mentioned that diagnoses were made as per DIS criteria and not DSM-III criteria.[32] Tien and Eaton reexamined the ECA data and observed that individuals with panic attacks had increased odds (relative risk=2.28) of subsequently suffering from schizophrenia. This relation however, was not statistically significant (p=0.062). [33]

A Canadian community-based study also utilized the DIS instrument, also found that schizophrenia patients had an increased occurrence of PD. They also reported that onset of PD was prior to the onset of schizophrenia. [34] Argyle reported that 7 (35%) of twenty consecutive outpatients on maintenance treatment of schizophrenia complained of panic attacks that was occurring regularly. Four of the seven patients (18%) met the DSM III R criteria for PD, while three (15%) met the criteria for agoraphobia with panic attacks and one (5%) had agoraphobia without panic attacks.[35] After this Cutler and Siris interviewed a series of forty-five outpatients with schizophrenia and schizoaffective disorder with post psychotic depression and found panic attacks in eleven (25%) patients. [36]

Bermanzohn et al. evaluating 37 chronic schizophrenia or schizo-affective disorder outpatients and found twelve (32.4%) had panic attacks, while eight (21.6%) had PD, five of whom also had agoraphobia. [37] Another study included 60 schizophrenia or schizo-affective disorder patients. The authors reported PD in 8 (13%) patients, out of whom 5 (8%) had agoraphobia while 3 (5%) did not have agoraphobia. [30]

A prevalence rate of 43% (n=21) for PD was found by Labbate et al. in thirty outpatients of schizophrenia using the SCID DSM-IV diagnostic instrument. Out of which 33% had (n=16) PD currently of in the past. [38] On the other hand Bayle et al. in forty schizophrenia in and outpatients reported PD in 36.8%. Twelve of which were related to paranoid ideations.[39] Craig et al. found a low prevalence of 5% of PD using SCID DSM-III-R in two hundred twenty five of his patients suffering from schizophrenia and schizoaffective disorder, 14% of the patients had symptoms of PD.[40] Ulas et al. evaluated 49 schizophrenia patients and observed that fifteen patients had suffered panic attacks during their illness, seven of which had a lifetime history of PD. [41]

Social anxiety disorder in schizophrenia

Pilkonis et al. initially reported that schizophrenia patients had high social anxiety compared to controls.[42] Penn et al. evaluated social anxiety in thirty eight schizophrenic patients by means of a battery of self-report measures of anxiety, a modified stroop task and an unstructured role play and found that the intensity of social anxiety was within the clinical range reported by pretreatment social phobic patients.[43] The full diagnosis of social phobia was first assessed in the Argyle study. They found social phobia in four (20%) of twenty consecutive schizophrenia patients on maintenance treatment.[35]

Pallanti et al. evaluated eighty schizophrenia outpatients using SCID-DSM-IV-TR and found

Table 1. Frequency of Comorbid Anxiety Disorders in Schizophrenia.

First Author (Year)	Sample (size)	Diagnostic Instrument	PD	SP	GAD	Agora-phobia	Specific Phobia	AD NOS
Kessler (1994) [46]	National Co-morbidity survey	CIDI DSM-III-R	2.3%	7.9%	3.1%	2.8%	8.8%	-
Cosoff (1998) [20]	In-patients (60)	SCID DSM-III-R	5%	17%	12%	5%	5%	-
Bijl (1998) [47]	Netherlands Mental Health Survey and Incidence Study	CIDI DSM-III-R	2.2%	4.8%	1.2%	1.6%	7.1%	-
Labbate (1999) [38]	Out-patients (30)	SCID DSM-IV	43%	-	-	-	-	-
Henderson (2000) [48]	Australian adult population survey	CIDI ICD -10	1.3%	2.7%	9.7%	1.1%	-	-
Bermanzohn (2000) [21]	Day hospital (37)	SCID DSM-IV	10.8%	-	-	-	-	-
McConnell (2002) [49]	Out-patients (100)	SCAN ICD-10	2.4%	-	0.15%	0.7%	0.2%	-
Tibbo (2003) [23]	Out-patients (32)	MINI DSM-IV	3.3%	13.3%	16.7%	16.7%	-	-
Goodwin (2003) [22]	In-patients (184)	DIGS (SMIIIR)	7.1%†	8.2%	-	8.2%	13.6%	-
Pallanti (2004) [6]	Out-patients (80)	SCID DSM-IV	13.8%	36.3%	2.5%	3.8%	2.5%	-
Huppert (2005) [50]	Outpatients (32)	ADIS IV DSM IV	18.8%	37.5%	12.5%	-	-	-
Seedat (2007) [51]	Inpatients (70)	MINI DSM-IV	-	5.7%	8.6%	-	-	-
Nebioglu (2009) [52]	Out-patients (82)	SCID DSM-IV	8.5%	13.4%	8.5%	2.4%	9.7%	1.2%
Belene (2010) [53]	Out-patients (105)	SCID DSM-IV	4.76%	4.76%	NA	0.95%	14.28%	2.85%
Rapp (2012) [54]	Out-patients (255)	DIGS DSM IIIR	27.5%	-	-	-	-	-
Young (2013) [55]	Out-patients (174)	SCID DSMIV	6.9%	-	-	-	-	-
Aguocha (2015) [56]	Out-patients (367)	PSE 10ICD 10	NA	NA	6.3%	2.7%	NA	-
Nagargoje (2015) [57]	In & out-patients (60)	SCID DSM-IV	24.13%	31.3%	13.79%	NA	NA	NA
Lowengrub (2015) [58]	Outpatients (50)	SCID DSM-IV	NA	38%	-	-	-	-
Kiran (2016) [45]	Inpatients (93)	MINIICD 10	18.28%	9.68%	1.08%	6.45%	-	-
Vrbova (2017) [59]	Out-patients (61)	MINI ICD10	-	-	-	-	-	-
Bener (2018) [60]	Outpatients (396)	SCID5 DSM5	-	-	-	-	-	-
Aikawa (2018) [61]	Out-patients (207)	MINI DSM-IV	-	14.5%	-	-	-	-
Achim (2011) [88]	Meta-analysis	_	9.8%	14.9%	10.9%	5.4%	7.9%	

Abbreviations: PD: panic disorder; SP: social phobia; GAD: generalized anxiety disorder; ADNOS Anxiety disorder not otherwise specified; CIDI: Composite International Diagnostic interview; SCID: Structured Clinical Interview for Diagnosis; MINI: Mini International Neuropsychiatric Interview; DIGS: Diagnostic Interview for Genetic Studies; ADIS-IV: Anxiety Disorders Interview Schedule for DSM-IV

outpatients using SCID-DSM-IV-TR and found twenty-nine (36.3%) patients suffered from social anxiety disorder.[6] Mazeh et al. evaluated 117 patients with schizophrenia using DSM-IV SCID-P-Hebrew version and found that thirteen of them had a comorbid social phobia (11%). Higher severity PANSS total sore was associated with comorbid social phobia. Significant correlation was found between the scores of Leibowitz social anxiety scale fear and PANSS positive subscale.[44]

Studies from India

Using a prospective, purposive sampling technique 93 inpatients of a tertiary care psychiatric hospital diagnosed as schizophrenia by ICD-10 DCR criteria and equal number of age and sex matched normal controls were evaluated for comorbid anxiety disorders. The prevalence of anxiety disorders in schizophrenia patients (35.48%) was significantly higher than in normal control subjects (16.12%).[45]

Treatment of comorbid anxiety disorders in schizophrenia:

There is a lack of controlled studies evaluating

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Table 2. Management of anxiety symptoms and comorbid anxiety disorders in schizophrenia

First author (Year)	Design, (sample size)	Diagnosis	Management	Outcomes
Blin et al. (1996) [63]	Randomized trial (N = 62)	Schizophrenia with anxiety symptoms	Risperidone vs. haloperidol vs. methotrimeprazine	Significantly greater reductions in Psychotic Anxiety Scale in risperidone vs. methotrimeprazine group
Kasper et al. (2004) [64]	Open-label extension of randomized trial (N = 415)	Schizophrenia with anxiety symptoms	Quetiapine	Significant reduction in BPRS anxiety/depression factor maintained over long-term tx
Stern et al. (2009) [65]	Non-randomized, prospective trial (N = 16)	Schizophrenia, schizoaffective disorder with social anxiety symptoms	Aripiprazole (switched from existing antipsychotic to aripiprazole)	Significant reduction in LSAS, SDS
Tollefson et al. (1999) [66]	Randomized trial, secondary analysis (N = 335)	Schizophrenia with anxiety symptoms	Olanzapine vs. PL; haloperidol vs. PL	Significantly greater reduction in BPRS anxiety depression factor in olanzapine (7.5–20 mg/day) vs. PL. No significant difference for haloperidol vs. PL groups
Kanh (1988) [67]	Open trial (N=7)	Schizophrenia with panic disorder	Alprazolam	Clinical improvement on panic symptoms
Argyle (1990) [35]	Case series (N=3)	Schizophrenia with panic attacks	Diazepam/alprazolam	Symptoms reduced
Pallanti et al. (1999) [18]	Non-randomized, prospective trial (N = 12)	Schizophrenia with tx emergent social anxiety	Fluoxetine add-on to clozapine	Significant improvement in fear and anxiety subscore of LSAS
Kiran (2018) [68]	Open label prospective study (N=33)	Schizophrenia with anxiety disorders	Fluoxetine add-on to antipsychotics	–
Arlow (1997) [69]	Open trial (N=11)	Schizophrenia with panic disorder	CBT	Panic symptoms reduced in 7. Three patients decompensated
Halperin (2000) [70]	Single blind, randomized study (N=20)	Schizophrenia with Social phobia	Group CBT for 8 weeks	Improvement of social anxiety and quality of life
Kingsep (2003) [71]	Single blind, randomized study (N=30)	Schizophrenia with Social phobia	Group CBT for 12 weeks	Improvement of social anxiety and quality of life

BPRS Brief Psychiatric Rating Scale, LSAS Liebowitz Social Anxiety Scale, OCD obsessive–compulsive disorder, OCS obsessive compulsive symptoms, PANSS Positive and Negative Syndrome Scale, PL placebo, pts patients, SDS Sheehan Disability Scale, SSRIs selective serotonin reuptake inhibitors, tx treatment, Y-BOCS Yale-Brown Obsessive–Compulsive Scale

twenty-nine (36.3%) patients suffered from social anxiety disorder.[6] Mazeh et al. evaluated 117 patients with schizophrenia using DSM-IV SCID-P-Hebrew version and found that thirteen of them had a comorbid social phobia (11%). Higher severity PANSS total sore was associated with comorbid social phobia. Significant correlation was found between the scores of Leibowitz social anxiety scale fear and PANSS positive subscale.[44]

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Treatment of comorbid anxiety disorders in schizophrenia:

There is a lack of controlled studies evaluating the management of panic symptoms in patients with schizophrenia. Anecdotal reports point to the fact that PD may be treated as usual in the presence of schizophrenia. One open prospective case series with alprazolam and case reports with alprazolam, diazepam, and imipramine consistently report improvement in panic symptoms.[35,72] A case report has reported improvement in panic symptoms with the switch from haloperidol, bromperidol

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and risperidone to quetiapine, which hadn't shown any improvement on fluoxamine,[73] and another had reported improvement with switch from haloperidol to risperidone.[74] Fer reports indicate that panic symptoms may worsen with long term use or increasing the dosages of antipsychotics. [75] Eight patients with schizophrenia and comorbid PD underwent a 16 week clinical trial of cognitive behavioral group therapy. Results suggest that cognitive behavioral group therapy may be helpful in lessening symptoms. [76] This was again confirmed by a study of four patients utilizing a cognitive behavioural intervention (panic control treatment) in 15-17 sessions with considerable improvement in both panic attacks and psychotic symptoms.[77]

There is paucity of information regarding management of social phobia in schizophrenia. Two studies from Australia used cognitive behavioral group therapy for management of comorbid social anxiety in patients with schizophrenia.[70-71] In one of them conducted by Halperin et al. patients were randomized to the treatment group or a waiting list group including 20 patients. The treatment which included exposure situation, cognitive restructuring and homework assignment in both groups was effective in improving measures of general psychopathology, social anxiety and quality of life after group CBT for a duration of 8weeks.[70] In the other group the sessions took place for a duration of 12 weeks including 33 individuals. [71] Good evaluated the effect of CBT on psychotic symptoms in a schizophrenic patient suffering from social anxiety but no attempts were made to treat the psychotic symptoms per se, the scores for social phobia had decreased to a subclinical level over the course of treatment and also the psychotic symptoms rapidly abated. [78]

The schizophrenia patients were evaluated for psychopathology and the presence of anxiety disorder at baseline. After being prescribed with antipsychotic medication in a suitable dose for 8 weeks, they were followed up at monthly intervals for the course of both schizophrenia and anxiety disorders. Thereafter, an selective serotonin reuptake inhibitor (SSRI) was also prescribed to the schizophrenia patients with comorbid anxiety disorder, and the patients were again followed up for a period of 8 weeks to assess the progress of schizophrenia and anxiety disorder Schizophrenia patients with anxiety disorder had a significantly higher positive score of the Positive and Negative Symptom Scale for Schizophrenia (PANSS) and a significantly lower score on the negative scale and the general psychopathology scale of the PANSS, as compared to the scores of the schizophrenia group without anxiety disorders. Schizophrenia patients with anxiety disorders responded well to the combination of SSRIs and antipsychotics but not antipsychotics alone. These anxiety disorders are quite responsive to the SSRIs but not to antipsychotics alone. Further, there is a shorter duration of illness in schizophrenia patients with anxiety disorders as compared to schizophrenia patients without anxiety disorders assigning a prognostic significance to the presence of comorbid anxiety disorders in schizophrenia.[68]

Conclusion

The current review thus leads to the conclusion that patients with schizophrenia commonly have comorbid anxiety disorders. There is no significant association of these anxiety disorders and the basic psychopathology of schizophrenia. Schizophrenia patients with and without anxiety disorders show major differences in their symptomatology. The absolute reason for this is not known but the phenomenon most likely exists because of a common pathologic process or a common etiology. There is some evidence that subjects with schizophrenia and anxiety disorders have a shorter duration of illness compared to those without anxiety disorders. Comorbid anxiety disorders in schizophrenia respond well to treatment with SSRIs. Further the search for the causes of such an association might help in a better and more robust classification system for the proper placement of these disorders as well as the others.

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