

## CLINICAL UTILISATION OF THE “G.T. MSRS”, THE RATING SCALE FOR MIXED STATES: 35 CASES REPORT

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### SUMMARY

*The knowledge of the clinical features of the mixed states and of the symptoms of the “mixture” of mood disorders is crucial: to mis-diagnose or mis-treat patients with these symptoms may increase the suicide risk and make worse the evolution of mood disorders. The rating scale “G.T. MSRS” has been designed to improve the clinical effectiveness of both psychiatrists and GPs by enabling them to make an early “general” diagnosis of mixed states. This study presents some cases in which the “G.T. MSRS” scale has been used, in order to demonstrate its usefulness.*

**Key words:** bipolar spectrum disorders – mixed states – mixture - mixed state rating scale

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### BACKGROUND

The dysphoric component of mood (mixed states) is quite frequent among all the subtypes of the bipolar spectrum: so that in my previously published data, mixed states include approximatively 30% of all mood spectrum disorders (Tavormina 2010, Tavormina 2013), however they are pathologies which are often underestimated or, worse, not diagnosed or mis-treated (Agius 2007, Tavormina 2007).

The consequence of this inadequate diagnosis and treatment can lead to various issues of public health, with serious consequences including abuse of substances, business difficulties, suicidal risk, family massacres, rapes, etc.: tragedies that we very often hear of from the news in television or read of in newspapers (Akiskal-Rihmer 2009, Tavormina 2010, Tavormina 2012, Tavormina 2013).

Within the full-spectrum already described in my past papers (Tavormina 2007, Tavormina 2012), the dysphoric-mixed component of unstable mood is usually present in Irritable Cyclothymia (following from, and/or developing to, rapid cycling bipolarity), in Mixed Dysphoria (typical depressive mixed state), in Agitated Depression and in the Cyclothymic Temperament. The full-spectrum of the mood has been structured putting acute mania and unipolar depression in opposite sides of a chart, and between them all the different typologies of instability of mood, with all the fluctuations of the mood-waves, described as the following sub-types: Bipolar I, Bipolar II, Cyclothymia, Irritable Cyclothymia (or rapid cycling bipolarity), Mixed Dysphoria (or depressive mixed state), Agitated depression, three temperaments (Cyclothymic, Hyperthymic and Depressive temperament), Brief recurrent depression, and Unipolar depression.

Following the schema of Akiskal for bipolar spectrum (Akiskal 1999), we find these sub-types of the mood: 1) schizobipolar disorder, 2) core manic-depres-

sive illness, 3) depression with protracted hypomania, 4) depression with discrete spontaneous hypomanic episodes (Bipolar II), 5) depression superimposed on cyclothymic temperament (Unstable Bipolar II), 6) depression with induced hypomania (i.e., hypomania occurring solely in association with antidepressant), 7) prominent mood swings occurring in the context of substance or alcohol use or abuse, 8) depression superimposed on a hyperthymic temperament (Bipolar IV). The dysphoric-mixed component of the instable mood is in this scheme depicted in the sub-groups n 3,5,7 and 8 (here underlined; instead the “mixed states group” of the sub-group number 6 is “a not-pure mixed state disorder” for the reason the dysphoria is here induced by antidepressants).

### CLINICAL EVALUATIONS

The symptoms to note carefully on diagnosing mixed states are (at least two of these to be present at the same time; Tavormina 2013, Tavormina 2014):

- overlapping depressed mood and irritability;
- presence of agitation and restlessness, irritability and aggression and impulsivity;
- reduced ability to concentrate and mental over activity;
- high internal and muscular tension, gastritis, colitis, headaches, or other somatic symptoms (for ex.: increasing of eczema or psoriasis);
- comorbidity with anxiety disorders (PAD, GAD, Social phobia, OCD);
- insomnia (mainly fragmentary sleep and/or low quality of sleep);
- disorders of appetite;
- a sense of despair and suicidal ideation;
- hyper/hypo-sexual activity;
- substance abuse (alcohol and/or drugs);
- antisocial behaviour.

The “mixture” of depressive phases (that are the most insidious symptoms of overlapped depression-restlessness-irritability) can cause increased risk of suicidality (Akiskal 2007); besides, the co-presence of various types of somatisation symptoms, as well as the abuse of substances, should suggest the possibility of a "mixed state" of the bipolar spectrum (Tavormina 2013, Tavormina 2014).

Very often clinicians meet great difficulties in making a correct diagnosis of mood disorders which they are assessing, above all when mixed states are present: this because the patients mainly focus their own symptoms on depressive uneasiness (inducing the clinicians to frequently prescribe antidepressants drugs alone or together with benzodiazepines), inducing them to prescribe these inadequate treatments and not take note of the real problem of increasing dysphoria consequent on these treatments.

The above reasons are why mixed symptoms can insidiously infiltrate into the mood and life of the patients causing a chronic and worsening clinical state.

## METHODS AND RESULTS

In my past paper I presented a new rating scale focused on mixed state symptoms, the “G.T. Mixed States Rating Scale”, or “G.T. MSRS” (Tavormina 2014), a self-administered rating scale structured with 11 items (7 among them present sub-items); if a patient is positive on the “G.T. MSRS”, this will suggest a “generic” diagnosis for a mixed state in the bipolar spectrum, based on the full-spectrum scheme described before. Subsequently the clinician will need to carefully make a correct sub-diagnosis of the sub-groups of mixed state.

Giving one point per-item (double points if the sub-items confirmed the presence of the symptoms in at

least 50% of the month), we come to a “generic diagnosis of mixed states” with at least two scores and particularly:

- a Medium-light level of mixed state: if the score is 2 to 6;
- a Medium level of mixed state: if the score is 7 to 12;
- a High level of mixed state: if the score is 13 to 19.

In an observational study of 35 consecutive new patients, seen over a period of six months in my office (November 2014 - May 2015), the “G.T. Mixed States Rating Scales” has been administered to show utility and practicality of using this method of making a diagnosis of mixed states; but, above all, of focusing on the symptoms of “mixture”, which are very often insidious symptoms in every sub-type of mood disorders.

The 35 patients (18 males and 17 females) in this study represented all ranges of age (described in the figure 1), with diagnosis depicted in figure 2 (the Agitated Depression and the Dysphoric Depression are the diagnoses most represented); the level of “mixture” (the final scores of all patients with the respective diagnosis) are shown in chart figure 3.

This figure 3 show how the medium level of “intensity of mixture” is the most represented; again, it shows that the most represented diagnosis (the Agitated Depression) is inside the “medium level” of score (confirming that the Agitated Depression is the most common sub-type of mood disorder but not the worst). Finally, figure 3 also show that Dysphoric Depression is represented approximately equally in both the high and medium level of score.

Table 1 show all completed data (with all items full-filled) of all the 35 patients of the study after the “GT-MSRS” administration.

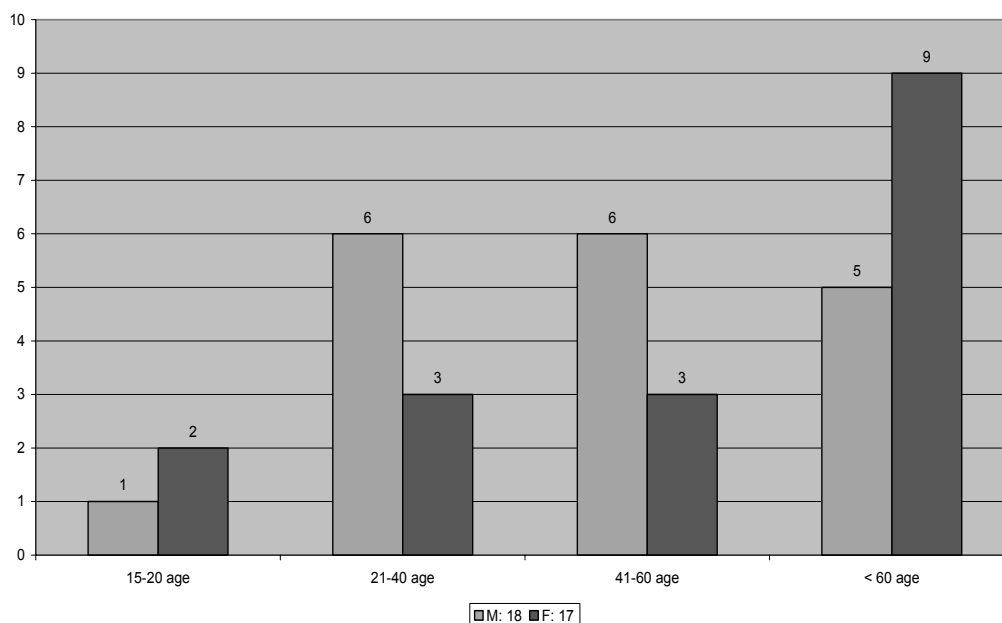
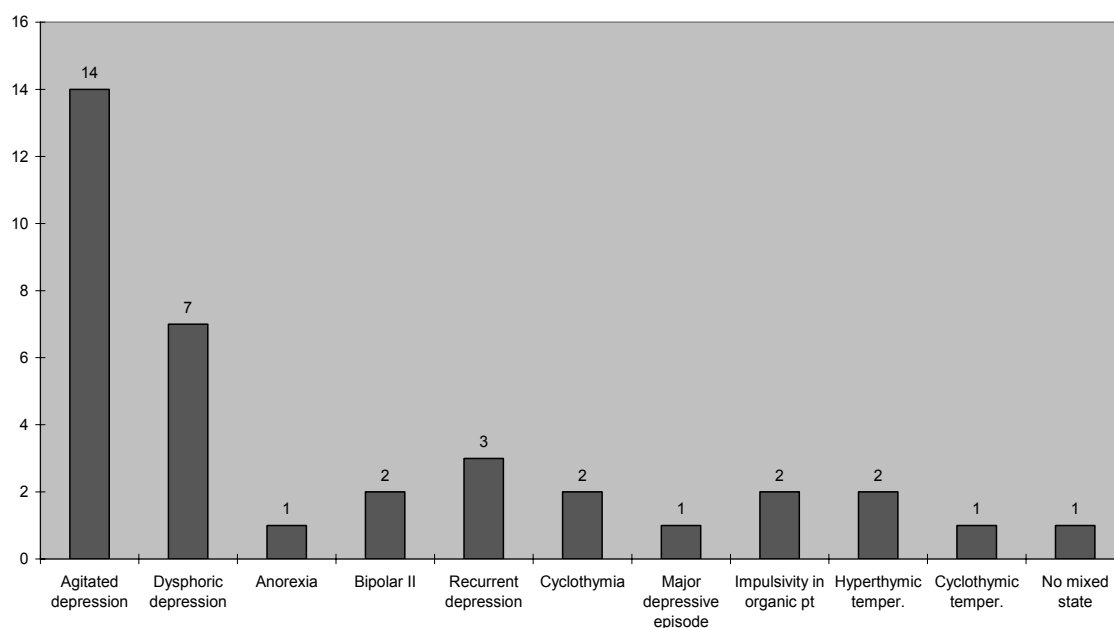


Figure 1. Gender/age



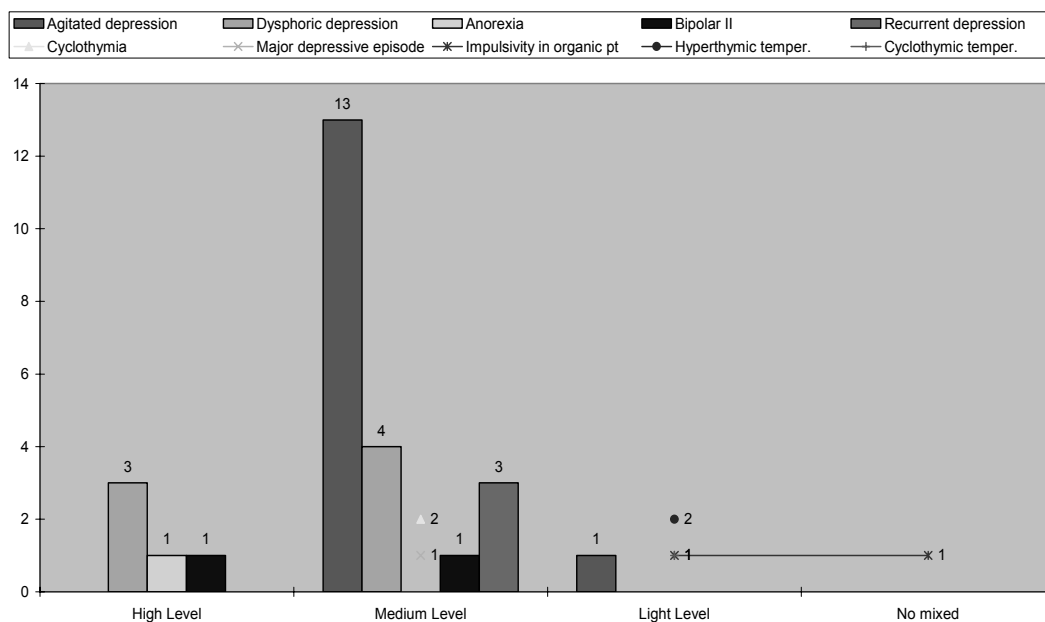
**Figure 2.** Diagnosis

**Table 1.** Complete rating scale scores

Pt.	1 - euphoria with apathy	2 - depress. with irritability	3 - substance abuse	4 - dis. of appetite	5 - suicidal ideation	6 - chronic anhedonia	7 - delus. and/or hallucinat.
1	no	yes	no	no	no	yes	no
2	no	no	no	no	no	no	no
3	no	yes (>50%)	no	no	yes	yes	no
4	no	yes (>50%)	no	no	no	yes	no
5	no	yes (>50%)	no	yes (>50%)	yes	yes (>50%)	no
6	no	yes (>50%)	no	no	no	yes (>50%)	no
7	yes	yes (>50%)	no	yes	yes	yes	no
8	no	yes (>50%)	no	yes	yes (>50%)	yes (>50%)	no
9	yes	yes (>50%)	yes	no	no	yes	no
10	no	yes (>50%)	no	yes (>50%)	yes	yes	no
11	no	no	yes	no	no	yes	yes (>50%)
12	yes	yes	no	no	no	yes (>50%)	no
13	yes	yes (>50%)	no	no	no	yes	no
14	no	yes	no	no	no	yes (>50%)	yes (>50%)
15	no	yes	no	no	yes	yes (>50%)	no
16	no	yes (>50%)	no	no	no	yes (>50%)	no
17	no	yes (>50%)	no	no	yes	yes (>50%)	no
18	no	yes (>50%)	no	no	no	yes (>50%)	no
19	no	no	no	no	no	no	no
20	yes	yes (>50%)	no	no	no	yes	no
21	yes	yes	no	no	no	yes	no
22	no	no	no	no	no	no	no
23	no	yes (>50%)	no	no	no	no	no
24	yes	yes (>50%)	no	no	yes	yes (>50%)	no
25	yes	yes (>50%)	no	no	no	yes (>50%)	no
26	no	yes (>50%)	no	no	no	no	no
27	yes	yes (>50%)	no	yes	no	yes (>50%)	no
28	no	yes (>50%)	no	no	yes	yes (>50%)	no
29	no	yes	no	no	no	no	no
30	no	yes (>50%)	no	no	yes	yes	no
31	yes	yes	no	no	no	yes	no
32	yes	yes	yes	no	no	yes	no
33	no	no	no	no	no	yes (>50%)	no
34	no	no	no	no	no	yes (>50%)	no
35	yes	yes (>50%)	no	no	yes	yes	no

**Table 1.** Complete rating scale scores (continuos)

Pt.	8 - hyper/hypo sexual act.	9 - insomnia or hypersomnia	10 - mental overactivity	11 - various somatic symptoms	TOTAL points	Level	DIAGNOSIS
1	no	yes (>50%)	yes (>50%)	yes (>50%)	8	Medium	Agitated depression
2	no	yes (>50%)	yes	yes	4	Light	Hyperthymic temper.
3	yes (>50%)	yes (>50%)	yes	no	9	Medium	Dysphoric depression
4	yes (>50%)	yes (>50%)	yes (>50%)	no	9	Medium	Agitated depression
5	yes	yes (>50%)	yes (>50%)	yes	13	High	Anorexia
6	yes	yes (>50%)	yes (>50%)	yes (>50%)	11	Medium	Agitated depression
7	yes	yes (>50%)	yes (>50%)	yes (>50%)	13	High	Bipolar II
8	no	yes (>50%)	yes (>50%)	yes	12	Medium	Recurrent depression
9	yes (>50%)	yes (>50%)	yes (>50%)	no	11	Medium	Bipolar II
10	yes	yes (>50%)	yes (>50%)	yes (>50%)	13	High	Dysphoric depression
11	yes	yes (>50%)	yes (>50%)	no	9	Medium	Cyclothymia
12	yes	yes (>50%)	yes (>50%)	yes (>50%)	11	Medium	Agitated depression
13	no	yes (>50%)	yes (>50%)	yes (>50%)	10	Medium	Agitated depression
14	yes (>50%)	yes (>50%)	yes (>50%)	yes	12	Medium	Recurrent depression
15	yes (>50%)	yes (>50%)	yes (>50%)	yes (>50%)	12	Medium	Agitated depression
16	no	yes (>50%)	yes (>50%)	yes (>50%)	10	Medium	Agitated depression
17	yes (>50%)	yes (>50%)	yes (>50%)	no	11	Medium	Major depressive episode
18	no	yes (>50%)	yes (>50%)	yes (>50%)	10	Medium	Agitated depression
19	no	no	yes	no	1	NO	Impulsivity in organic pt
20	no	yes (>50%)	yes (>50%)	yes (>50%)	10	Medium	Dysphoric depression
21	yes	yes (>50%)	yes (>50%)	yes (>50%)	10	Medium	Agitated depression
22	no	yes (>50%)	yes (>50%)	yes (>50%)	6	Light	Hyperthymic temper.
23	yes	yes (>50%)	yes (>50%)	yes (>50%)	9	Medium	Agitated depression
24	yes (>50%)	yes (>50%)	yes (>50%)	yes (>50%)	14	High	Dysphoric depression
25	yes	yes (>50%)	yes (>50%)	yes (>50%)	12	Medium	Agitated depression
26	no	yes (>50%)	yes (>50%)	no	6	Light	Impulsivity in organic pt
27	yes	yes (>50%)	yes (>50%)	yes (>50%)	13	High	Dysphoric depression
28	yes	yes (>50%)	yes (>50%)	yes (>50%)	12	Medium	Agitated depression
29	yes (>50%)	yes	yes	yes	6	Light	Cyclothymic temper.
30	yes (>50%)	yes (>50%)	yes (>50%)	yes (>50%)	12	Medium	Dysphoric depression
31	yes	yes (>50%)	yes (>50%)	yes (>50%)	10	Medium	Agitated depression
32	no	yes (>50%)	yes (>50%)	yes	9	Medium	Cyclothymia
33	no	yes (>50%)	yes	no	5	Light	Agitated depression
34	yes (>50%)	yes (>50%)	yes	no	7	Medium	Recurrent depression
35	yes	yes	yes (>50%)	yes	10	Medium	Dysphoric depression



**Figure 3.** Level of mixity

This table 1 show that:

- the symptom of mental overactivity (item number 10) is always present in all the patients (including those with a low level of score, and in the only patient with no mixed state at final score);
- the symptom of insomnia/hypersomnia (item number 9) is always present in almost all patients (only the patient with no mixed state had good sleep);
- the items number 2 (presence of depression together with irritability), 6 (presence of chronic anhedonia) and 11 (presence of various somatisations) were present in a very high percentage of patients;
- the symptoms of hyper/hypo-sexual activity (item number 8) are present in quite a high percentage of patients (more than 50%);
- the three diagnoses of "Recurrent Depression" and the only one with "Major Depression" scored within the "medium level" of this rating scale, showing how important it is to identify the symptoms of mixity early (and in consequence of this, to prescribe mood stabilisers together with antidepressants) even in patients with a diagnosis of major depression or recurrent depression.

## CONCLUDING REMARKS

The "G.T. MSRS" has been devised to improve the clinical effectiveness of psychiatrists: the clinician needs to have all the modalities to develop a correct diagnosis of mixed states wherever possible and to prescribe the correct pharmacological treatment, avoiding the utilisation of antidepressants alone, and also avoiding the use of the benzodiazepines for long periods.

The following significant sentence of Hagop Akiskal (from the Conference: "Melancholia: beyond DSM, beyond neurotransmitters" - May 2-4, 2006, Copenhagen) needs to be reflected on: "Melancholia as defined today is more closely aligned with the depressive and/or mixed phase of bipolar disorder... Given the high suicidality from many of these patients, the practice of treating them with antidepressant monotherapy needs re-evaluation".

It is essential to remark once again what has been described in previous papers: that the "instability of mood", more than the "depression", is the main issue which the clinician needs to deal with in a patient with mood disorder; this relates to the important notion, that the depressive episode is only one phase of a broader "bipolar spectrum of mood" (Tavormina 2007, Tavormina 2012).

When the mood quickly, or "swings" between depression and euphoria/irritability/hypomania (or there is overlap between these conditions), we are dealing with a mixed state, even if the depressive symptoms seem to be prevalent: this then requires the clinician to carefully consider appropriate pharmacotherapy.

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**Acknowledgements:** None.

**Conflict of interest:** None to declare.

## References

1. Agius M, Tavormina G, et al: The management of bipolar spectrum disorders. *CEPIP*, summer 2013 – SEPT.
2. Agius M, Tavormina G, Murphy CL, Win A, Zaman R: Need to improve diagnosis and treatment for bipolar disorder. *Br J Psych* 2007; 190:189-191.
3. Agius M, Zaman R, et al: Mixed affective states: a study within a community mental health team with treatment recommendations. *European Psychiatry* 2011; 26:(suppl 1):P01-145.
4. Akiskal HS, Pinto O: The evolving bipolar spectrum: Prototypes I, II, III, IV. *Psychiatr Clin North Am* 1999; 22:517-534.
5. Akiskal HS: Targeting suicide prevention to modifiable risk factors: has bipolar II been overlooked? *Acta Psychiatr Scand* 2007; 116:395-402.
6. Akiskal HS: The prevalent clinical spectrum of bipolar disorders: beyond DSM-IV. *J Clin Psychopharmacol* 1996; 16(suppl 1):4-14.
7. Rihmer Z, Akiskal HS, et al: Current research on affective temperaments. *Current Opinion in Psychiatry* 2009; 22:000-000.
8. Tavormina G, Agius M: A study of the incidence of bipolar spectrum disorders in a private psychiatric practice. *Psychiatr Danub* 2007; 19:370-74.
9. Tavormina G, Agius M: An approach to the diagnosis and treatment of patients with bipolar spectrum mood disorders, identifying temperaments. *Psychiatr Danub* 2012; 24(suppl 1):25-27.
10. Tavormina G, Agius M: The high prevalence of the bipolar spectrum in private practice. *J Bipolar Dis: Rev & Comm* 2007; 6:3-19.
11. Tavormina G: A long term clinical diagnostic-therapeutic evaluation of 30 case reports of bipolar spectrum mixed states - *Psychiatr Danub* 2013; 25(suppl 2):190-3.
12. Tavormina G: An early diagnosis of bipolar spectrum disorders needs of valuing the somatisation symptoms of patients. *J Int Clin Psychopharmacol* 2012; 28:e59-e60.
13. Tavormina G: Are somatisations symptoms important evidence for an early diagnosis of bipolar spectrum mood disorders? *Psychiatr Danub* 2011; 23(suppl 1):13-14.
14. Tavormina G: The bipolar spectrum diagnosis: the role of the temperaments. *Psychiatr Danub* 2009; 21:160-161.
15. Tavormina G: The temperaments and their role in early diagnosis of bipolar spectrum disorders. *Psychiatr Danub* 2010; 22(suppl 1):15-17.
16. Tavormina G: The temperaments: its knowledge is a crucial way in early diagnosis of bipolar disorders. *European Psychiatry* 2011; 26(suppl 1):P01-199.
17. Tavormina G: Treating the bipolar spectrum mixed states: a new rating scale to diagnose them. *Psychiatr Danub* 2014; 26(suppl 1):6-9.