

## CLINICAL UTILISATION AND USEFULNESS OF THE RATING SCALE OF MIXED STATES, ("GT-MSRS"): A MULTICENTER STUDY

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### SUMMARY

The rating scale "G.T. MSRS" has been designed to improve the clinical effectiveness of the clinician psychiatrists, by enabling them to make an early "general" diagnosis of mixed states.

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 going to the dysphoric state.

This study is the second validation study of the "G.T. MSRS" rating scale, in order to demonstrate its usefulness.

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

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### BACKGROUND

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 include also sub-items) can help the clinician to make a diagnosis of mixed state; 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-bipolar spectrum scheme described by Akiskal (1999) or Tavormina (2007, 2013). Subsequently the clinician will need to carefully make a correct sub-diagnosis of the sub-groups of mixed state to prescribe a correct treatment.

The "mixture" of depressive phases (that are the most insidious symptoms of overlapped depression-restlessness-irritability) can cause increased risk of suicidality (Akiskal 2007); the utilization of the rating scale "GT-MSRS" should enable the clinicians to make an early diagnosis of bipolar mixed states by identifying the "mixture" symptoms and consequently this should enable early prescription of mood regulator drugs so as to optimize the therapy.

The pharmacological therapy of mixed affective states consists of a polytherapy with mood-stabilisers (mainly: carbamazepine, valproate, gabapentin, oxcarbazepine, lamotrigine, topiramate, olanzapine, asenapine, loxapine, pipamperone) and small dosages of antidepressants (mainly: SSRIs, SNRIs and Bupropione), (Tavormina 2013, 2016).

### OBJECTIVE AND METHOD

The aim of this study has been to speed up the correct and quick diagnosis of bipolar mixed states and

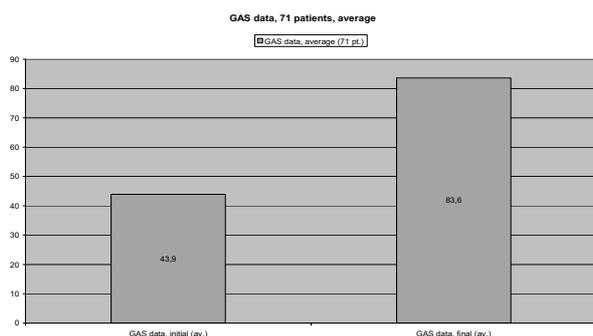
at the same time, following to this, to prescribe to these patients mood-stabilisers from the "first visit" to the patient.

In this observational multi-center study from four different psychiatrists offices (one in Brescia, one Avellino, two in Catanzaro), seventy-one consecutive new out-patients have been seen over a period of only three months (March 2017 - May 2017); the "G.T. Mixed States Rating Scales" has been administered on the day of the "first visit" of the patient with the psychiatrist, on showing utility and practicality of using this rating scale to make a diagnosis of mixed states (and focusing on the symptoms of "mixture"); the level of uneasiness of the patients has been shown by administering the GAS scale always in the day of their "first visit", and also after three months to evaluate the level of the improvement of the quality of mood.

The Tavormina scheme (Tavormina 2007, 2012) has been followed for the diagnostic modalities, even if the "GT-MSRS" is designed to be used with either Tavormina's scheme or the Akiskal one (Akiskal 1999). The full-spectrum of the mood (Tavormina's scheme) has been structured putting acute mania and unipolar depression on opposite sides of a chart, and between them all the different typologies of the 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, the three temperaments (Cyclothymic, Hyperthymic and Depressive temperament), Brief recurrent depression (often evolving to dysthymia), and Unipolar/Major depression.

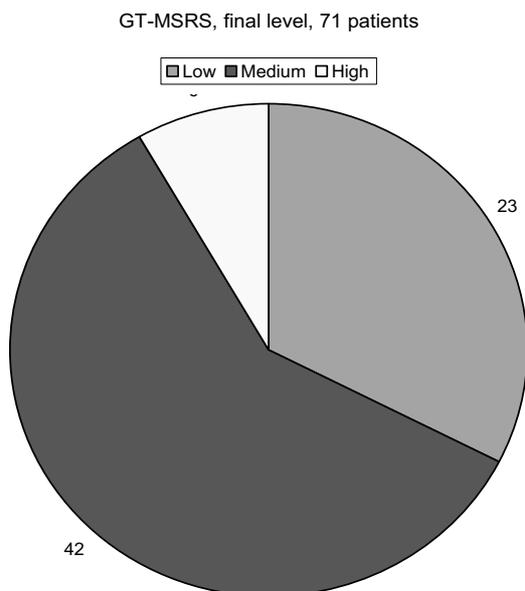
## RESULTS

Excellent results have been obtained with this observational multicenter study: the rating scale "GT-MSRS", administered to the patients in the day of the "first visit", allowed the clinicians to make an early diagnosis of the "mixture" symptoms of the mood disorders and to prescribe mood regulators drugs from the "first visit"; all this allowed to the patients to reach a good level of mood after only three months (level followed by the score obtained with the GAS administration, at the initial and after three months).



**Figure 1.** GAS data, 71 patients, average

Figure 1 shows the average data of the GAS at the initial (average data score: 43.9) and after three months of treatment (average data score: 83.6): in this short time of evaluation the clinician psychiatrists (using the "GT-MSRS" rating scale) managed the pharmacological treatment of the 71 patients in this study and conducted them to a pretty good level of quality of mood.

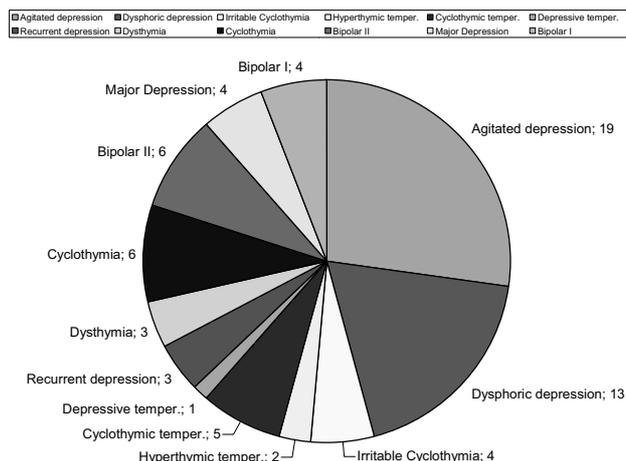


**Figure 2.** GT-MSRS, final level, 71 patients

Figure 2 depicts the final level of the score followed to the administrating of the "GT-MSRS" rating scale: as described in past papers (Tavormina 2015), the "Medium

Level" (as like the medium intensity of the mood disorders diseases between population) is prevalent, and instead the "High Level" has the smaller percentage of the intensity of the mood disorders diseases.

Figure 3 shows all the diagnosis emerged in this observational study: as described in past papers (Tavormina 2012), the "Agitated Depression" represents the most diffused mood disorders disease (usually inserted inside the "Medium Level" of the GT-MSRS score).



**Figure 3.** Diagnosis:71 patients

In this observation study, all the clinicians inserted in the study all the consecutive new visits seen in the office, and they could have had also other diseases (not-mood disorders diagnosis) in the observational study: casually we found all "mood disorders" among the diagnosis (probably for the reason that all the clinician psychiatrists that collaborated to this study were usually presenting an expertise in the field of mood disorders, so that people automatically selected themselves on choosing the psychiatrist).

## CLINICAL EVALUATIONS

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

The dysphoric component of mood (mixed states) is quite frequent among all the subtypes of the bipolar spectrum (mixed states include approximately 30% of all mood spectrum disorders: Tavormina G, 2010; Tavormina G, 2013), however they are pathologies

which are often underestimated or, worse, not diagnosed or mis-treated (Agius 2007, Tavormina 2007).

In this study all main mood stabilisers has been used by the clinicians psychiatrists to manage the treatment of the patients: carbamazepine, valproate, gabapentin, oxcarbazepine, lamotrigine, topiramate, olanzapine, asenapine, lithium; sometimes associated with small dosage of antidepressant (mainly: Escitalopram, Sertraline, Venlafaxine).

## CONCLUSIONS

The "mixity" of depressive phases (that are the most insidious symptoms of overlapped depression-restlessness-irritability) can cause increased risk of suicidality (Akiskal H, 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, 2014).

The "G.T. MSRS" has been devised to improve the clinical effectiveness of psychiatrists: the clinicians need 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 the benzodiazepines for long periods.

**Acknowledgements:** None.

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

**Contribution of individual authors:**

All authors contributed equally to the development of the study and its methodology, recruitment, analysis and to the development of the text.

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