

The Young Mania Rating Scale: Response on item 8 "Content"

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ABSTRACT

Introduction Accurate ratings are critical for the success of CNS clinical trials. The Young Mania Rating Scale (YMRS) assesses the severity of mania in clinical trials of bipolar disorder. Previous research has shown that 4 items on the YMRS (irritability, speech, content, disruptive-aggressive behavior) are difficult to rate and lead to the possibility of inaccurate ratings. Ratings on all 11 items of the scale were analyzed and variation in the ratings was studied.

Methods A video of a patient with bipolar disorder interviewed on the YMRS was rated by raters participating in a rater training program.

Results The ratings assigned were compared to the Gold Consensus Ratings (GCR), determined by three expert raters. The analysis of ratings on all items revealed that the ratings on item "content" showed maximum variation when compared to the GCR, ratings ranged from 0 to 7 [(normal to grandiose ideas), 0= 4.02%, 1=6.32%, 2=4.61%, 3=4.02%, 4=1.14%, 5=22.41%, 6=55.74%, 7=1.72% and 8=0%]. Other items of the scale showed less variance, ratings ranged from 0 to 3. Item 'content' probes for symptoms related to mania, one of them being paranoid ideas. Despite the patient in the tape reporting paranoid ideas, only 55.74% of raters (N=174), mean 4.86, mode 6 & SD ±1.85 rated it correctly.

Conclusions The wide range of ratings obtained on item "content" indicates that raters found it difficult to interpret paranoid ideas. The results call for the development of comprehensive rater training programs to address the issues of accuracy of ratings.

INTRODUCTION

- Accurate ratings are critical for signal detection in CNS clinical trials as most studies in psychiatry depend on the scores given at the clinical interview as the primary outcome measure. Thus, the success or failure of a clinical trial depends on the quality and accuracy of ratings (e.g., Muller et al., 1998)
- Ensuring adequate inter-rater reliability becomes more challenging when trials involve investigators from diverse cultural backgrounds and different training experiences.
- The Young Mania Rating Scale (YMRS) is an 11-item instrument used to assess the severity of mania in patients in clinical trials of bipolar disorder. The items are 1. Elevated mood 2. Increased motor activity energy 3. Sexual interest 4. Sleep 5. Irritability 6. Speech (rate and amount), 7. Language-thought Disorder 8. Content 9. Disruptive-aggressive behavior 10. Appearance and 11. Insight
- Previous research has shown that four items on the YMRS (irritability, speech, content, disruptive-aggressive behavior) are difficult to rate and lead to the possibility of inaccurate ratings and hence lowered reliability. Ratings on these items are based on the patient's self-reporting, combined with clinician observation.
- Ratings on all 11 items of the YMRS scale were analyzed and variation in the ratings was studied. We present the ratings of raters, who participated in an online rater training program on YMRS and the variability of ratings observed on item 8 "Content".

METHODS

Participants

- 174 potential raters participated in online rater training program for a clinical trial. These raters represented a heterogeneous group from countries in 6 continents, 94 centers, speaking 20 different languages, and with clinical experience in bipolar disorder ranging from 0 to 40 years.
- Of the 174 participants, 155 completed the "Rater Experience Survey" form which assessed their past experience as raters in clinical trials.

Experience rating patients using YMRS

- 150 of 155 had previous experience on YMRS (i.e. 96.77% had previously rated patients using the YMRS, range of experience in years 0 to 23 and mean 5.46).

Rater training experience on YMRS

- More than one-half the potential raters (n = 72; 53.55%) had not participated in any previous YMRS rater education programs.

Administering YMRS in last 12 months

- Rater's prior experience in administering YMRS in the last 12 months is presented in Table 1.

Table 1. Rater's prior experience in administering YMRS in last 12 months

Administering YMRS in the last 12 months	Number of raters	Percent
1 to 6 times	51	32.90
7 and more times	66	42.58
Did not administer at all	38	24.51

Rater training procedure

- A Caucasian, English-speaking American patient with a history of bipolar depression was interviewed and videotaped by an American clinician using the YMRS. The session was viewed (with subtitles in their language) and rated by each rater (N=174) as a part of a rater training and qualification program.
- The ratings assigned by the raters were compared to the Gold Consensus Ratings which were assigned after consensus ratings from three US-based independent, expert raters.
- The total training and certification sessions were approximately one hour long. The online rater training was organized as in Table 2.

Table 2. Organization of YMRS online training and certification sessions

Activities and objectives	Approximate time
Introduction to YMRS via a flash (power point) presentation accompanied by a voice-over in English	15 minutes
YMRS video ("training session" Patient A) which entailed listening without discussion. The participant noted the scores on a paper version on the YMRS scale	14 minutes
The YMRS ratings from the participant's score sheets were entered onto an internet version and feedback was given in terms of the rater's ratings compared with gold consensus ratings	10 minutes
YMRS video ("certification session" Patient B): viewing without discussion and feedback	15 minutes
Internet posting of their YMRS ratings using an original YMRS scales containing explanatory anchor points: viewing conducted separately without discussion with other raters	10 minutes
Total	64 minutes

RESULTS

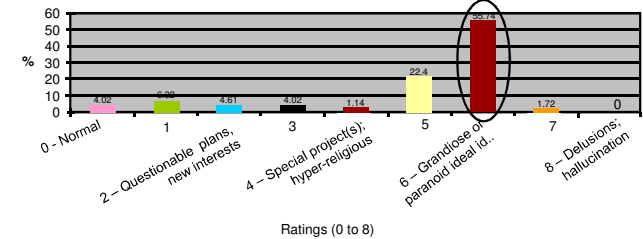
- Each rater's ratings were compared with the gold consensus ratings. For patient B, the result revealed rather homogeneous ratings on individual items except on item 8 "content".
- The item 8 "content" showed maximum variation when compared to Gold Consensus Ratings (highlighted in red). The range for all items is presented in Table 3.

Table 3. Range of variability on YMRS items

Item	Item Label	Range of variability
1	Elevated Mood	0 to 2
2	Increased motor activity-energy	0 to 3
3	Sexual interest	no variability
4	Sleep	no variability
5	Irritability	0 to 2
6	Speech (rate and amount)	0 to 1
7	Language -thought disorder	0 to 2
8	Content	0 to 7
9	Disruptive-aggressive behavior	0 to 1
10	Appearance	0 to 1
11	Insight	0 to 2

- Figure 1 shows the percentage of ratings on item "Content". The rating highlighted (6) in the circle is the gold consensus rating.

Figure 1. Range of ratings on item 8



- The item 'content' probes for a wide range of symptoms related to mania, one of them being grandiose or paranoid ideas. In spite of the patient in the video reporting clear paranoid ideas, only 55.74% of raters (N=174), mean 4.86, mode 6 & SD ±1.85 rated it correctly.
- No significant difference was revealed between countries, raters' past experience, or previous training on YMRS when compared with the ratings on item 8.

CONCLUSIONS

- The wide range of ratings obtained on item "Content" indicates that raters found it difficult to interpret the paranoid ideas.
- In the interview session the interviewer probed into the item to get optimal response and the patient clearly exhibited paranoid thinking, a rating of 6 was assigned as a gold consensus rating. The variation of ratings on item 8 "content" is possibly due to the variation in the interpretation of paranoid ideas. It is also possible that certain items in the YMRS, like this one, require raters to have more clinical experience to accurately interpret grandiose and paranoid symptomatology.
- As suggested by Sachs and Harrington (2006), the results also confirm that interpretation of raters is one of the sources of error on YMRS other than available information and the interview itself.
- Rater clinical trial experience and rater drift partially explain variance (4% did not previously administer the YMRS before the study and 25% had not administered the YMRS in the past year).
- Remediation session in the form of personal training sessions with the individual rater would help raters improve their ratings on item 8 "content."

RECOMMENDATIONS

- The results call for the development of appropriate and effective rater training programs to address the issues of accuracy in rating patients' self report and proper clinical observation, which affects the identification and rating of symptoms thus leading to inaccurate ratings.
- Enriched training and audio and video recording of the interview session at the sites may provide a possible solution to train the raters on site. Using such a technique would allow for independent assessment of rating skills and can also be used to pre-qualify raters for clinical trials.

REFERENCES

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