



The Visual Analog Mood Scales – a review and evaluation

James A Athanasou



Mood, as a quality of feeling at a particular time or even a persistent emotion influencing our thoughts and actions



Case study

Male 40 yrs

Professional

Motor vehicle accident two years ago

Whiplash injury

Not admitted to hospital

Whole person impairment 0-11%

Chronic adjustment disorder preceding the accident

Now unemployed

Difficulty in working – “my ability to focus, memory and ability to interact with other people...”

World Health Organisation *Disability Assessment Schedule 2.0*

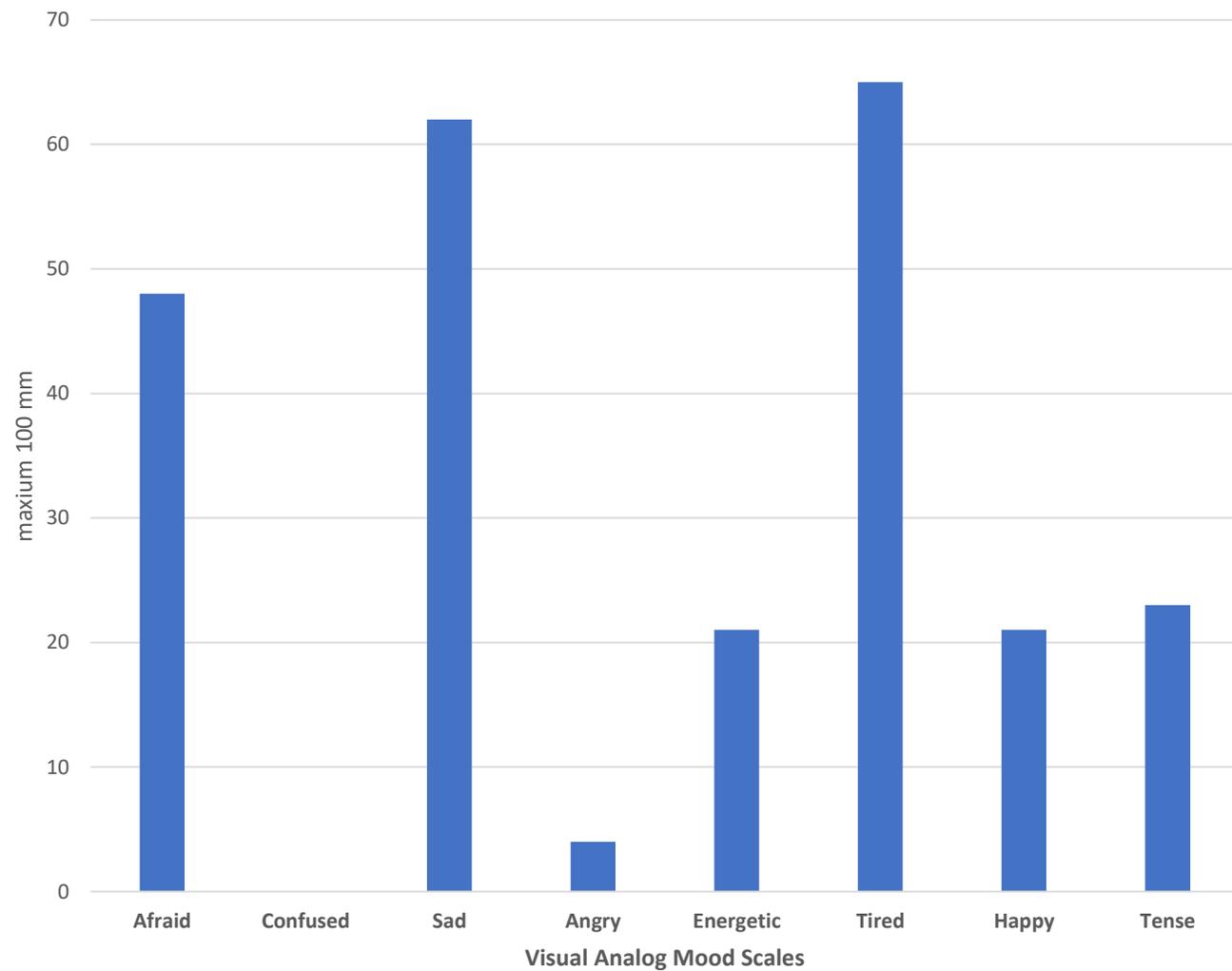
His Ratings	Items
Mild-Moderate	Standing for long periods such as 30 minutes
Mild-Moderate	Taking care of your household responsibilities
Moderate	Learning a new task, for example, learning how to get to a new place
Moderate	Joining community activities (for example, festivities, religious or other activities) in the same way as anyone else can
Severe	Emotionally affected by your health problems
Mild	Concentrating on doing something for ten minutes
Moderate	Walking a long distance such as a kilometre [or equivalent]
Moderate	Washing your whole body
Mild-Moderate	Getting dressed
Moderate	Dealing with people you do not know
Mild	Maintaining a friendship
Mild-Moderate	Your day-to-day work

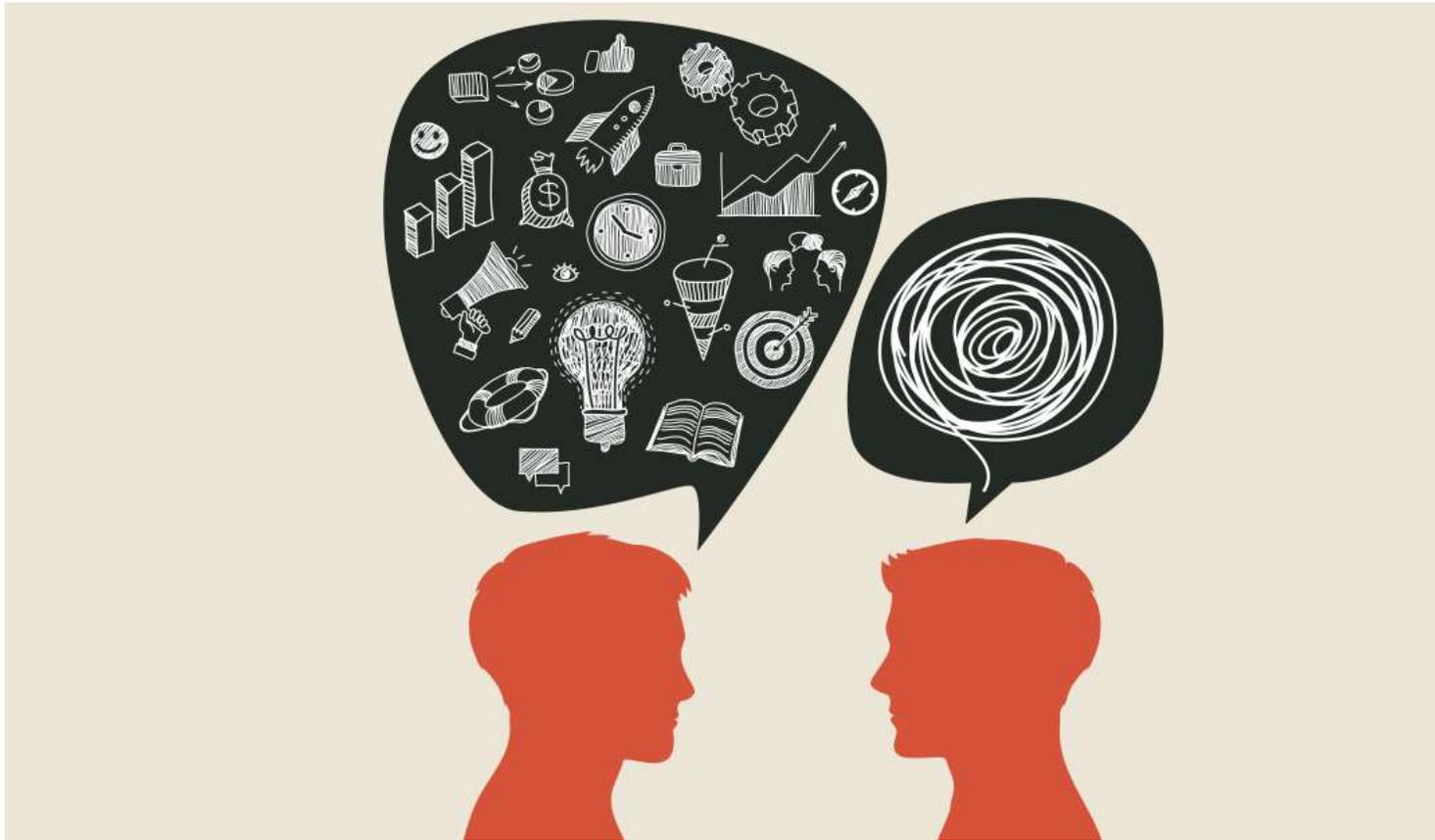
Some assessment results

TEST	RESULT	
Chair fitness test	21.5 seconds	Below average (13 seconds)
Dynamometer	27kg	Below average
Back-leg pull strength	25kg	Well below average
Shoulder strength dynamometer	14kg push/11kg pull	Below average
Lezak 15-item test	Recalled 15 out of 15	Not malingering
Information processing speed	14-17 bits of information per second	40-75 th percentile
Academic Achievement Battery	Reading Grade 13.2	Well above average

Mental status assessment - On brief office testing of mental status, he was oriented in place, date, day, time and season. He showed limited awareness of politics and events. Mental control and mental arithmetic computation were poor. Reasoning with similarities or analogies was adequate. His practical judgment was adequate but not perfect.

Visual Analog Mood Scale results

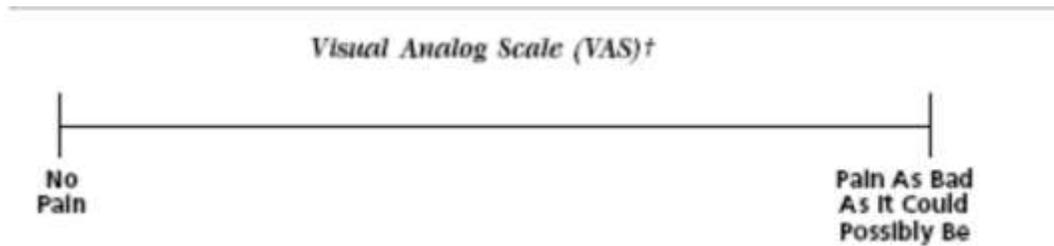




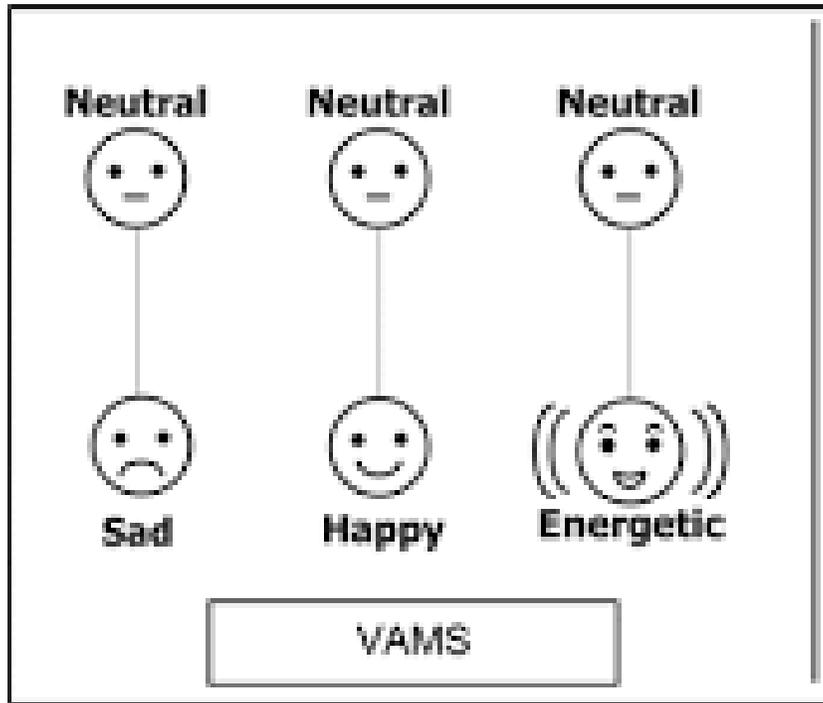
Difficulties in answering questionnaires

- Literacy problems
- Aphasia
- Brief assessment

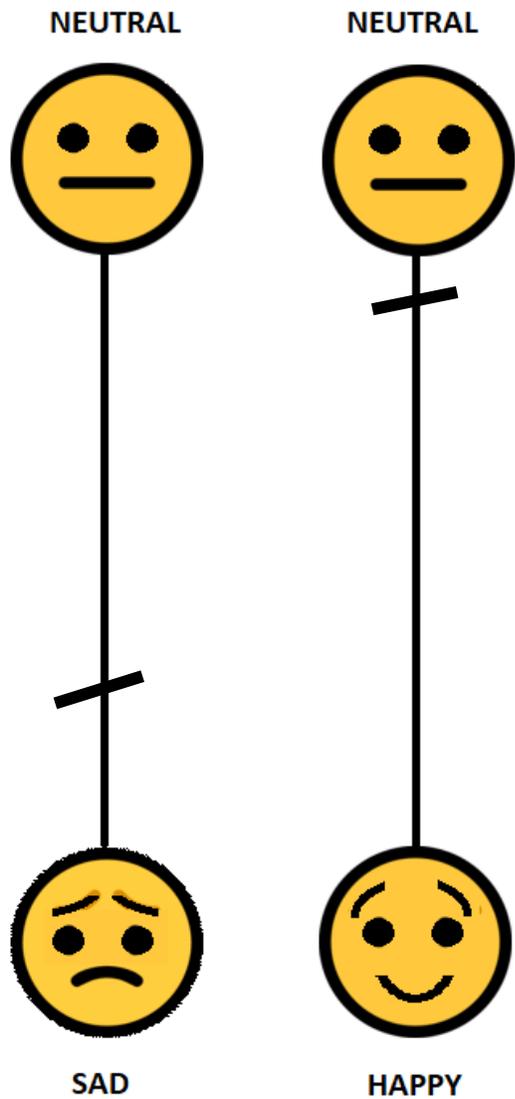
Visual analogue scales



- These scales are simple to complete, ensuring a high rate of compliance, and they have been shown to possess high reliability and validity. Provided that clear instruction is made to the patient, such scales can be used confidently to obtain helpful self-report information, particularly about the course and variability of illness from the patient's perspective (Ahearn 1997. p.577)



Format and
nature of the
Visual Analog
Mood Scales



VAMS

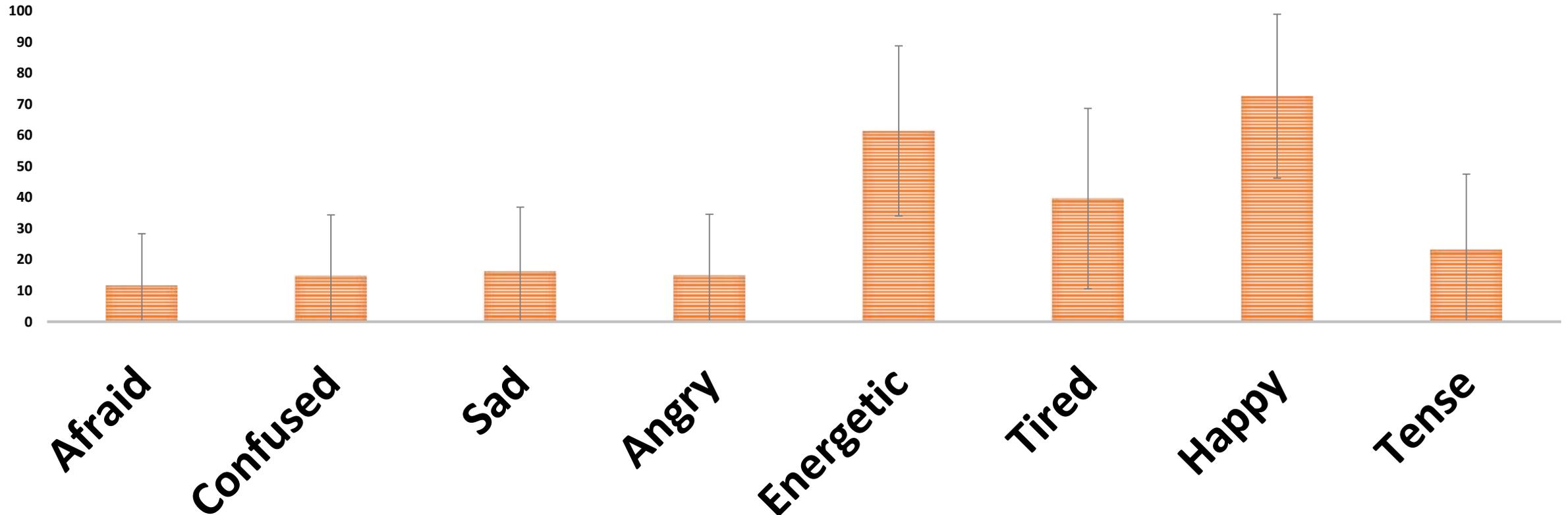
- Unipolar dimensions
- Ideogram
- Unbroken 100mm vertical line



Standardisation

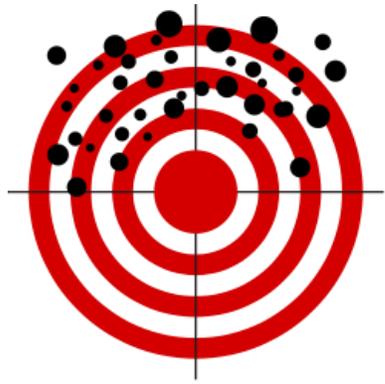
- Non-representative sample
- 579 adults 18-94 years
- Non-representative
- 21% undergraduate; remainder church, community groups
- Scores transformed to T-scores
- Norms for younger (N=250) and older (N=175)

Mean score on VAMS scales from the combined standardisation groups (N=440) with error bar of \pm one standard deviation (T-scores)

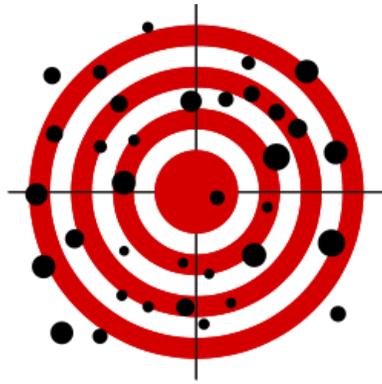


In four studies
a total score
across all eight
scales has
been used

- no a priori justification for combining the results to produce an overall “mood” score
- conceptual nature of this overall mood is questionable
- may be reasonable, however, to discern an elevated mood level across the eight scales (with scoring reversed for the positive moods)
- doubts about the value of the norms from the standardisation group based on the comments of the review in the *Mental Measurement Yearbook*
- clinicians might be better advised to use the ordering of the raw scores (Cliff & Keats, 2003)
- possibly 50 as an initial screening point for further clinical investigation of the negative moods



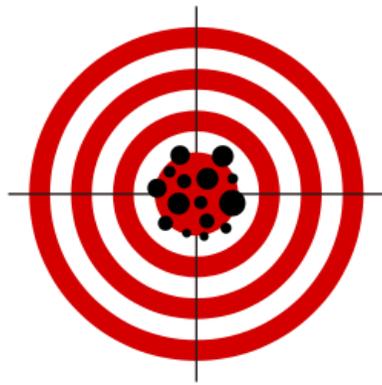
Unreliable & Invalid



Unreliable, But Valid



Reliable, Not Valid



Both Reliable & Valid

Reliability coefficients are considered low for any high-stakes decisions

Range of the test-retest correlations for seven of the eight scales across three studies

- Afraid .69 to .84
- Confused .43 to .87
- Sad .45 to .83
- Angry .71 to .75
- Energetic .44 to .81
- Tired .60 to .63 or
- Happy .67 to .73
- (Tense - insufficient data)

Nine studies of the concurrent validity – the range of validity coefficient is wide

Correlations	Afraid	Confused	Sad	Angry	Energetic	Tired	Happy	Tense
Minimum	.12	.43	.49	.28	.33	.33	.50	.52
Maximum	.78	.64	.72	.80	.71	.74	.82	.62

CES-D Modified Center for Epidemiological Studies – Depression Scale;
HDRS Hamilton Depression Rating Scale;
LIV Life Interests and Values Cards;
POMS Profile of Mood States

Interventions and the Visual Analog Mood Scales

First author	Year	Country	N	Condition	Intervention and findings
Arruda	1997	USA	25	Depressive disorder	1.VAMS (sad, happy, tired, energetic) most sensitive to therapeutic effects of ECT 2.VAMS correlated with psychiatrist's Clinical Global Improvement(sad, happy, tired, energetic)
Barton	1993	USA	29	Normal volunteers	No effect of lithium on mean VAMS scores for "normal" subject in week 5 of double blind placebo controlled crossover study
Corsten	2015	Germany	27	Aphasia	Used a biographic-narrative intervention over 10 weeks; T-scores for Confused and Tense scales decreased significantly from baseline for narrative interviews
Porcherot	2015	France	277	Restaurant clients	Investigated effect of aperitif consumption on mood; raspberry <i>Kir</i> reduced significantly tense and anxious moods
Thomas	2012	UK	105	Stroke	VAMS sad scale reflected allocation to usual care versus behavioural therapy for stroke
Vickery	2009	USA	120	Stroke	Mean VAMS composite score based on six negative moods was 346.8 (SD=83,5) on admission and 312.9 (SD+76.9) on discharge

Conclusions

***Visual Analog Moods Scales* enable**

- (a) a description of a person's functioning;**
- (b) the diagnosis of problem areas;**
- (c) to ascertain the need for therapy;**
and
- (d) even monitor the progress of an intervention on positive or negative moods**



Conclusions

- **found limited application in psychological or health settings despite their potential**
- **reports are limited mainly to small sample sizes with clinical groups such as Parkinsons, Alzheimers, stroke, aphasia or dementia**



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Comparison of the lowest concurrent validity coefficients for each *Visual Analog Mood Scale* with real world validities

Minimum concurrent validity	VAMS scale	Equivalent real-world validities
.12	Afraid	Family social support and lower blood pressure (Myer et al., p. 130)
.28	Anger	Effect of psychological therapy under clinically relevant conditions (Myer et al., p. 131)
.36	Energetic Tired	Gender and self-reported assertiveness (Myer et al., p. 131)
.43	Confused	Loss in habitat size and population decline ($r=.40$) (Myer et al., p. 131)
.49	Sad	Weight and height for US adults ($r=.44$) (Myer et al., p. 132)
.50	Happy	Parental report of attachment to their parents and the quality of their child's attachment ($r=.47$) (Myer et al., p. 132)
.52	Tense	Increasing age and declining speed of information processing (Myer et al., p. 132)

N=50

Information processing speed

Afraid	0.35
confused	0.21
Sad	0.21
Angry	0.31
Energetic	-0.08
Tired	0.31
Happy	-0.22
Tense	0.31

Psychometric foundation of the scales



- foundation of each of the *Visual Analog Mood Scales* is that of a self-estimate based on a single measure as opposed to an inventory with multiple sets of questions relating to a mood state

Self-estimates



- individuals can be valid observers of themselves
- “what the person tells us directly turns out to be as valuable an index as any other more direct sign” Mischel (1977, p. 248)
- “if self-ratings are (a) directly communicable, (b) the ultimate in economy, and (c) also more valid than their questionnaire counterparts, then we will have to face the embarrassing question of just why we continue to construct personality inventories at all” (Burisch, 1984, p. 225).

The End.

