PDCogniCare

Brief Visual Memory Test

BVMT

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Copyright Status	**Domain Assessed**	**Administration Time**
PAR Inc. PAA	Visual Memory	5-10mins +25 min recall

Description

The Brief Visual Memory Test (BVMT) is a measure of visual memory,[25] and is recommended to assess memory function in PD-MCI.[4] The BVMT presents a grid of six figures that are memorised over three learning trials, then reproduced from memory after a 25-minute delay period.

Training and Administration

Instructions for test administration is provided in the test manual. The BVMT presents six geometric figures displayed in a 2 x 3 array (Figure 1).[1] There are six equivalent and alternative stimulus forms to mitigate practice effects for repeat administration. There are three learning trials where the client views the stimulus page for ten seconds before being asked to reproduce the stimulus page from memory. An optional copy trial may be administered where examinees are asked to copy the figures directly from the test booklet, evaluating motor and visuoconstructive function independent of memory. After 25 minutes, a delayed recall trial is administered.

Not validated in PD ✕   **Not validated for telehealth** ✕   **Alternative versions available** ✓

Scoring

Scoring is determined by accuracy (one point) and location (one point) of each of the six reproduced drawings, for a possible 12 points per trial. Two (2) points are given to each drawing for an accurate recreation in the correct location. A drawing will receive one (1) point if it is an accurate recreation but in the incorrect location. If the drawing is incorrect but recognised as the target in the correct location, it will receive one (1) point. Scoring examples are provided in the test manual.

Alternative Versions

There are six equivalent alternative forms to reduce practice effects.

Figure 1 Example of stimuli in the Brief Visual Memory Test[1]
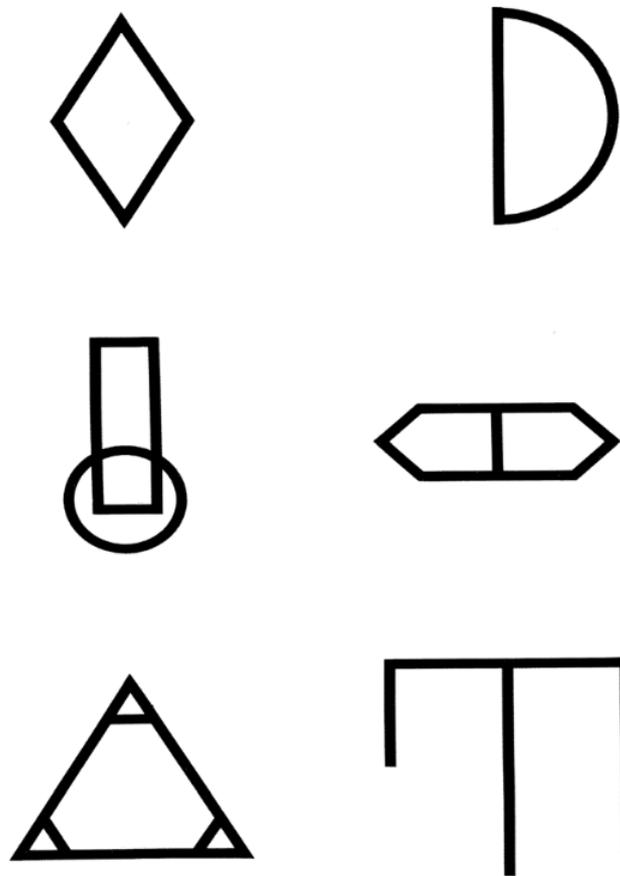
PD Considerations

Performance on the BVMT is contingent on drawing ability and thus motor function. The copy trial may be used to evaluate the impact of motor and visuoconstructive function on test performance, independent of memory. The BVMT copy trial or other assessment of motor function should therefore be conducted to complement BVMT administration in PD populations to control for motor impairments.

Telehealth

There is currently no evidence validating BVMT administration in a telehealth context for people living with PD or in an adjacent population group.

Psychometric and Normative Data

There are no psychometric studies available for the BVMT in PD populations. Normative data from the Czech Republic is shown in Table 3.[26] As language is not related to BVMT performance, this normative data can be utilised to determine impairments

Table 3 Normative data for the BVMT

Age group	Age	T1	T2	T3	Total	DR	PR
50-54 (*n* = 36)							
M	52.22	7.28	9.14	10.17	26.58	10.08	95.84
SD	1.46	2.33	1.71	1.30	4.67	1.52	6.70
52-56 (*n* = 43)							
M	54.09	7.58	9.42	10.47	27.47	10.42	95.95
SD	1.36	2.27	1.71	1.14	4.52	1.37	5.99
54-58 (*n* = 34)							
M	55.32	7.47	9.38	10.44	27.29	10.53	96.89
SD	1.27	2.46	1.97	1.40	5.24	1.54	5.06
56-60 (*n* = 38)							
M	58.89	6.79	9.08	10.11	25.97	10.26	97.95
SD	1.59	2.34	2.11	1.86	5.73	1.67	4.52
58-62 (*n* = 61)							
M	60.57	6.69	9.31	10.43	26.43	10.28	95.68
SD	1.12	2.37	2.00	1.52	5.18	1.69	9.04
60-64 (*n* = 87)							
M	61.84	6.33	9.00	10.24	25.57	10.02	95.29
SD	1.46	2.26	1.93	1.64	5.12	1.75	8.75
62-66 (*n* = 73)							
M	63.82	5.88	8.59	9.95	24.41	9.59	94.03
SD	1.35	2.06	1.85	1.93	5.00	1.96	9.67
64-68 (*n* = 70)							
M	66.03	6.13	8.63	9.90	24.66	9.59	94.30
SD	1.50	1.91	1.90	1.90	4.91	1.83	7.90
66-70 (*n* = 71)							
M	68.21	6.04	8.68	9.73	24.45	9.17	91.90

SD	1.37	2.05	1.91	1.84	5.13	1.92	10.93
68-72 (*n* = 77)							
M	69.99	6.09	8.55	9.66	24.30	9.14	91.77
SD	1.47	2.06	1.98	1.84	5.24	1.97	11.29
70-74 (*n* = 62)							
M	71.73	5.84	8.32	9.29	23.45	8.92	91.42
SD	1.44	1.92	1.80	1.84	4.97	2.09	11.95
72-76 (*n* = 54)							
M	73.78	5.39	7.89	8.91	22.19	8.43	91.00
SD	1.49	1.86	2.02	1.98	5.29	2.07	11.13
74-78 (*n* = 49)							
M	75.71	4.76	7.14	8.29	20.18	8.02	92.43
SD	1.35	1.83	2.10	2.22	5.43	2.02	10.73
76-80 (*n* = 50)							
M	78.24	4.76	7.00	8.36	20.12	7.98	91.31
SD	1.51	1.88	2.27	2.24	5.64	1.86	11.40
78-82 (*n* = 45)							
M	80.04	4.91	7.11	8.53	20.56	7.82	87.38
SD	1.22	1.87	2.36	2.17	5.73	1.84	13.69
80-84 (*n* = 46)							
M	81.74	5.07	7.43	8.78	21.28	7.93	86.39
SD	1.57	2.04	2.27	2.12	5.70	1.93	13.84
82-86 (*n* = 38)							
M	84.05	5.03	7.66	8.66	21.34	7.97	88.44
SD	1.37	2.09	2.18	2.33	5.83	2.37	14.45
84-88 (*n* = 34)							
M	85.50	4.91	7.50	8.44	20.85	7.85	89.45
SD	1.29	1.99	2.09	1.86	5.25	2.22	14.90
86-95 (*n* = 26)							
M	88.27	4.92	7.58	8.42	20.92	8.23	91.81
SD	2.38	1.60	1.79	1.96	4.59	2.29	14.79

Note. T1 = Trial 1; T2 = Trial 2; T3 = Trial 3; Total = total score across trials T1-T3; DR = Delayed Recall; PR = percent retained.