

The Bender Gestalt II- An Underutilized Tool in Brief Neurological Screening

Abstract

Although the Bender Gestalt has a long history of use in psychological and neurological assessment, evaluation and screening, it's recent revision has received less attention. This paper provides a cursory overview of the revised Bender Gestalt, discusses the revisions, and proves some information as to its current use and discusses the need for more empirical research with different populations. It is hoped that this paper will sensitize readers to the use of this revised instrument.

The Bender Gestalt is a neurological, perceptual, developmental, personality and visual motor test which was developed by Lauretta Bender many years ago. There has been much research regarding its use, with a wide variety of populations and a wide variety of uses. The original Bender Gestalt was comprised of 9 cards shown one at a time, and under no time constraints. The examiner would present the cards one at a time, observing behavior and approach of the subject, allowing the subject to erase if they so desired, and allowing the subject to approach the task in whatever manner or fashion they wished. In general an 8 and one half sheet of paper was used, and a number two lead pencil was provided. Max Wertheimer, back in 1923 established some of the perceptual principles regarding this test and Lauretta Bender, a psychiatrist wrote about the clinical use of this test back in 1938.

There were a number of different scoring systems utilized- and practitioners tended toward a system which they found preferable, or one in which they were trained. Elizabeth Koppitz developed one known scoring system, and other scoring systems followed. Hutt (1985) developed another system which some find preferable.

Some clinicians simply observed clients, took copious notes, and observed their process and procedures in terms of reproducing the design and tendencies, and how they approached the task, and formulated some hypotheses about the personality of the subject, the developmental or perceptual motor skills of the client or the overall thinking , organization and functioning of the individual.

35 The Bender Gestalt is often seen as a personality, developmental and projective test. As such,
36 clinicians
37 often needed to have a great deal of clinical acumen and experience with the test. Supervision and
38 feedback from a skilled clinician would certainly assist in the development of learners skills.
39 Often a Bender Gestalt protocol would lend a great deal of information regarding the client, and
40 validated one's perceptions. In other instances, the Bender was administered to assess recovery
41 from an
42 accident or head injury. The Bender-Gestalt is one of the most frequently utilized tests in the realm
43 of
44 psychology and neurology. Other tests such as the VMI (Visual Motor Integration) utilize some of
45 the
46 shapes of the Bender, but their format is somewhat different- the client/subject/student is asked to
47 reproduce the figures directly below in a structured box like fashion. Some clinicians utilize both
48 tests to
49 ascertain how well a client performs under a loose unstructured situation, as well as in a more
50 structured situation in that the VMI provides more structure in terms of asking clients to reproduce
51 the
52 designs in a structured " box like " format.

53

54 A Cursory Overview of Past and Present Research

55

56 There seems to be some contemporary usage of the Bender Gestalt II in the realm of vocational
57 rehabilitation (Donoso, Hernandez, & Horin, 2010) and with infants that have been born pre-term
58 (Bohm, Lundequist, Smedler, 2010) exploring their visual motor skills and abilities and executive
59 functions, (long term planning) and further the Bender has been employed in forensic use (Lees-
60 Haley,
61 Smith, Williams and Dunn, 1996) and with the elderly in terms of dementia and other related
62 disorders
63 (Murayama, Iseki, Yamamoto, Kimura, Eto, & Arai (2007) and there has been some minimal research
64 with the Bender Visual motor Gestalt test in the realm of adolescence-which examined the
65 relationships
66 between the Tanner stages and visual motor development (Keppeke, Cintra, & Schoen, 2013) very
67 little
68 empirical research has been conducted utilizing the newly revised Bender in the realm of
69 neurological

70 screening. This may be due to several factors. It does take a certain amount of time for practitioners
71 to

72 become familiar or even learn about new tests. There may be some fear or apprehension about the
73 validity and reliability and appropriateness of use of a new test. Thus there are challenges facing any
74 new test.

75 McDonald, Volker, Lopata, Toomey, Thomeer, Lee, Lipinski, Dua, Schiavo, Bain and Nelson (2016)
76 Utilized both the Bender Gestalt II and the VMI –VI in terms of identifying what they have termed
77 HFASD (High Functioning Autistic Spectrum Disorder) and examined their results to average
78 adolescents
79 and youth and typically developing youth and HFASD children.

80 Volker, and his co-workers (2010) utilized the Bender Gestalt II and VMI V in their research,
81 examining groups of typical or average children and youth with high functioning autism spectrum
82 disorders.

83 Bozorgpour, Rahimi and Mohamadi (2016) employed the Bender Gestalt II as part of a diagnostic
84 process aiding in the differential diagnosis of specifically , depressed patients, brain damaged and
85 lastly, average or “normal” subjects. The results of thirty major depressive patients were evaluated
86 next

87 to 30 brain damaged individuals and 30 normal, average subjects. The results of this specific
88 research

89 seemed to indicate that the BGT-II could fairly accurately differentiate the patient groups, from the
90 normal individuals or subjects. Normal subjects actually performed better in all three aspects of the
91 Bender Gestalt II-- copying, recall and perceptual/motor phases.

92
93 Piotrowski (2016) has succinctly reviewed 30 specific studies employing the Bender Gestalt II
94 worldwide.

95 Piotrowski specifically indicates that the Bender Gestalt test is “used moderately in
96 neuropsychological

97 assessment” (p. 73) It has further been predominately been employed by school psychologists as a
98 psychoeducational measure.

99
100 THE BENDER GESTALT II

101
102 The Bender Gestalt was recently revised under the leadership of Gary Brannigan (Brannigan and

103 Shaughnessy, 2016) and Scott Decker.

104 Currently, there are 13 designs employed for children below 8 years of age and 12 for individuals 8
105 years

106 of age and older. There are two supplementary tests, which are fairly easy to administer in a brief
107 period

108 of time.

109 In addition, the newly revised Bender Gestalt-II has an additional Perception Test which contains a
110 10

111 prompts in a box on the left hand side of the paper and the student/client/patient is asked to
112 indicate

113 which design best matches the prompt in the left box.

114 There is also a Motor Test which asks the subject to draw a line between two points. A sample is

115 provided and there are 4 types of designs with 3 increasingly smaller versions of each design. Fine
116 motor

117 coordination is obviously being assessed as well as perceptual skills. The subject is asked not to lift
118 the

119 pencil, not to erase and not to tilt the paper when trying to accomplish the task.

120 There is an observation form which allows the clinician to make notes about the physical traits or

121 characteristics of the subject, make notes and record test taking observations and make timing
122 notes.

123 There is an optional recall portion of the test also. A total raw score, a standard score and a t-score
124 and

125 a percentile rank are procured.

126 Obviously, the skilled clinician will be making behavioral observations as to the subject's approach
127 to

128 the task. A competent clinician will note squinting, or a rushed, hurried approach to the task. In
129 other

130 instances, when lethargy is observed, this will be documented. On occasion, a rigid approach to the
131 task

132 will be seen, but on occasion, a subject will draw a box around each design, perhaps attempting to

133 organize his or her world. Some subjects may place a number adjacent to each design or even make

134 specific comments about a particular design.

135 All of these behavioral observations can be telling and revealing and provide some insight into the

136 patient's view of the world-or a client's concerns. Some individuals may rush in an attempt to
137 complete

the task as rapidly as possible, and others may manifest perfectionistic tendencies, checking and re-checking the number of dots or circles, for example.

The Bender Gestalt II is a fast, efficient screening tool for neurological assessment, particularly if the clinician has prior experience working with individuals who have sustained a head injury, specifically to

the back of the head, but also in other areas. The Bender Gestalt II can also provide support and substantiation for a diagnosis of intellectual disability and learning disabilities.

The manual (Brannigan, & Decker, 2003a) contains a plethora of useful information including information regarding test design and development, administration and scoring procedures, standardization and norming, technical properties including validity studies, and a section on the interpretation of test scores as well as test behavior.

The manual allows the administrator to procure standard scores, percentile ranks and 95 % confidence

intervals and provides classification labels. Most importantly for the beginning clinician, there is an appendix which is quite helpful in scoring the Bender-Gestalt II- There are global scoring criteria and ample examples of reproductions that can receive no points, 1 point, 2,3, or 4 points for “nearly perfect”

A cursory overview of the need for the test as well as the process of revision can be found in Brannigan

& Decker (2006) for those interested in an in depth review. A section of the manual is devoted to discussions of “ clinical and special populations”, such as specific learning disabilities, attention deficit

hyperactivity disorder, autism, serious emotional disturbances, giftedness, Alzheimer’s and mental retardation (the manual was published in 2003, when the term “mental retardation” was still in use. It

will obviously be replaced with intellectually deficient in future revisions).

There is certainly a need for additional research with the Bender Gestalt II-perhaps replicating many

of the studies conducted with the original Bender Gestalt, and some studied with other populations of

interest. Since there have been additional cards added to the Bender Gestalt II, we are able to work with younger populations and provide an earlier “ basal “ and the additional more difficult cards, (helping with an additional “ceiling”) enable us to examine the skills of gifted or highly developed children.

172

173 Summary and Conclusions

174 This paper has provided a brief overview of one of the most frequently used tests in psychology- the

175 Bender Gestalt, and has attempted to introduce the reader to the most recent revision of this test
176 and

177 highlight and underline its usefulness in neurological screening, as well as in other areas such as
178 visual

179 motor and perceptual development.

180

181 REFERENCES

182

183 Bohm, B. Lundequist, A., & Smedler, A. (2010). Visual motor and executive functions in children born
184 preterm: The Bender Visual Motor Test revisited. *Scandinavian Journal of Psychology*, 51 (5), 376-
185 384.

186 Bozorgpour, F.A., Rahimi, C. & Mohamadi, N. (2016) Utility of Bender Gestalt Test II for differential
187 diagnosis of major depressive patients, brain damaged and normal subjects. *International Journal of*
188 *Behavioral Science*. 10, 4, 151-155.

189 Brannigan, G.G., & Decker, S.L. (2003a) *Bender Gestalt II Examiner's Manual* Itasca, IL: Riverside
190 Publishing

191 Brannigan, G.G. & Decker, S.L. (2003b) *Bender Visual Motor Gestalt Test- Second Edition*, Itasca, IL.
192 Riverside Publishing

193 Brannigan, G.G. & Decker, S.L. (2006) *The Bender Gestalt II*. *American Journal of Orthopsychiatry*.
194 76,1,10-12.

195 Brannigan, G.G. & Shaughnessy, M.F. (2013) An Interview with Gary Brannigan: Revising the Bender
196 Gestalt Test *North American Journal of Psychology* 15,2, pp.257-265

197 Donoso, O.A., Hernandez, B., & Horin, E.V. (2010) use of psychological tests within vocational
198 rehabilitation. *Journal of Vocational Rehabilitation*, 32, 191-200.

199 Hutt, M.L.(1985) *The Hutt adaptation of the Bender Gestalt Test (4th Ed)* New York : Grune &
200 Stratton

201 Keppeke, L., Cintra, I., & Schoen, T.H. (2013) Bender Visual Motor Gestalt Test in adolescents:
202 Relationship between visual motor development and the Tanner stages. *Perceptual and Motor Skills*,
203 117, 257-276.

204 McDonald, C.A., Volker, M.A., Lopata, C., Toomey, C.A., Thomeer, M.L., Lee G.K. , Lipinski, A.M., Dua,
205 E.H.,

206 Schiavo, A.M., Bain, F., and Nelson, A.T. (2014) VMI-VI and BG-II KOPPITZ-2 for Youth with HFASDs
207 and

208 Typical Youth. *Journal of Psychoeducational Assessment*. 32(5) 379–389

- 209 Nasab, T.R. , Salehi, I., Kafi, M.,Rezaei, S. (2014) The validity, diagnostic value and replicability of
210 Bender
- 211 Visual-Motor Gestalt Test in traumatic brain injury patients. Hormozgan Medical Journal 18,3,
212 Available
- 213 from:
214 [https://www.researchgate.net/publication/269875058_The_validity_diagnostic_value_and_replicab](https://www.researchgate.net/publication/269875058_The_validity_diagnostic_value_and_replicability_of_Bender_Visual-Motor_Gestalt_Test_in_traumatic_brain_injury_patients)
215 [ility_of_Bender_Visual-Motor_Gestalt_Test_in_traumatic_brain_injury_patients](https://www.researchgate.net/publication/269875058_The_validity_diagnostic_value_and_replicability_of_Bender_Visual-Motor_Gestalt_Test_in_traumatic_brain_injury_patients) [accessed Jan 10
216 2018].
- 217
- 218 Piotrowski, C. (2016) Bender Gestalt Test usage worldwide: A Review of 30 practice based studies.
219 Journal of Projective Psychology and Mental Health 23, 73-81.
- 220
- 221 Volker, M.A.,Lopata, C., Vujnovik, R.K. Smerback, A.M. Toomey, J.A. Rodgers, J.D. ,.....Thomeer, M.L
222 (2010) Comparison of the Bender Gestalt –II and VMI-V in samples of typical children and children
223 with
- 224 high-functioning autism spectrum disorders. Journal of Psychoeducational Assessment. 28, 187-200