



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

Michael F. Shaughnessy^{1*}

¹*Eastern New Mexico University, USA.*

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The sole author designed, analyzed and interpreted and prepared the manuscript.

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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.

Keywords: Bender Gestalt II; neurological screening; visual motor and perceptual motor skills.

1. INTRODUCTION

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 behaviour and approach of the subject, allowing the subject to erase if they so

*Corresponding author: E-mail: Michael.Shaughnessy@enmu.edu;

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 [1] 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.

The Bender Gestalt is often seen as a personality, developmental and projective test. As such, clinicians often needed to have a great deal of clinical acumen and experience with the test. Supervision and feedback from a skilled clinician would certainly assist in the development of learner's skills.

Often, a Bender Gestalt protocol would lend a great deal of information regarding the client, and validated one's perceptions. In other instances, the Bender was administered to assess recovery from an accident or head injury. The Bender-Gestalt is one of the most frequently utilized tests in the realm of psychology and neurology. Other tests such as the VMI (Visual Motor Integration) utilize some of the shapes of the Bender, but their format is somewhat different- the client/subject/student is asked to reproduce the figures directly below in a structured box like fashion. Some clinicians utilize both tests to ascertain how well a client performs under a loose unstructured situation, as well as in a more structured situation in that the VMI provides more structure in terms of asking clients to reproduce the designs in a structured box-like format.

2. A CURSORY OVERVIEW OF PAST AND PRESENT RESEARCH

There seems to be some contemporary usage of the Bender-Gestalt II in the realm of vocational rehabilitation [2] and with infants that have been born pre-term [3] exploring their visual motor skills and abilities and executive functions, (long term planning) and further the Bender has been employed in forensic use [4] and with the elderly in terms of dementia and other related disorders [5] and there has been some minimal research with the Bender Visual motor Gestalt test in the realm of adolescence-which examined the relationships between the Tanner stages and visual motor development [6] very little empirical research has been conducted utilizing the newly revised Bender in the realm of neurological screening. This may be due to several factors. It does take a certain amount of time for practitioners to become familiar or even learn about new tests. There may be some fear or apprehension about the validity and reliability and appropriateness of use of a new test. Thus, there are challenges facing any new test.

McDonald, [7] Utilized both the Bender Gestalt II and the VMI -VI in terms of identifying what they have termed HFASD (High Functioning Autistic Spectrum Disorder) and examined their results to average adolescents and youth and typically developing youth and HFASD children.

Volker, [8] and his co-workers (2010) utilized the Bender Gestalt II and VMI V in their research, examining groups of typical or average children and youth with high functioning autism spectrum disorders. Bozorgpour, Rahimi and Mohamadi [9] employed the Bender Gestalt II as part of a diagnostic process aiding in the differential diagnosis of specifically, depressed patients, brain damaged and lastly, average or "normal" subjects. The results of thirty major depressive patients were evaluated next to 30 brain damaged individuals and 30 normal, average subjects. The results of this specific research seemed to indicate that the BGT-II could fairly accurately differentiate the patient groups, from the normal individuals or subjects. Normal subjects actually performed better in all three aspects of the Bender Gestalt II-- copying, recall and perceptual/motor phases.

Piotrowski [10] has succinctly reviewed 30 specific studies employing the Bender Gestalt II worldwide. Piotrowski specifically indicates that the Bender Gestalt test is "used moderately in

neuropsychological assessment” (p. 73) It has further predominately been employed by school psychologists as a psychoeducational measure. There has been some research on the Bender in various Spanish speaking countries. For example, Merino and colleagues [11,12] examined the reliability of the second version of the Bender-Gestalt using an independent sample of scorers. Merino and Allen [13] looked at the construct validity of the second version of the Bender-Gestalt Test and issues involving inter-scorer reliability. Merino and Allen [14] conducted an item analysis of the revised Bender Gestalt and lastly, Merino, Calderon and Manzanares [15] conducted an inter-scorer agreement and explored the consistency of scoring issues. Decker, Allen & Choca [16] explored the use of the Bender with the Wechsler Intelligence Scale for Children, third Edition and Decker, Englund Carboni, and Brooks utilized the Bender in their examination of the development of visual motor skills in children [17]. Further, Allen and Decker [18] explored the use of the Bender with children with attention-deficit disorder.

3. THE BENDER GESTALT II

The Bender-Gestalt was recently revised under the leadership of Gary Brannigan [19] and Scott Decker.

Currently, there are 13 designs employed for children below 8 years of age and 12 for individuals 8 years of age and older. There are two supplementary tests, which are fairly easy to administer in a brief period of time.

In addition, the newly revised Bender Gestalt-II has an additional Perception Test which contains a 10 prompts in a box on the left-hand side of the paper and the student/client/patient is asked to indicate which design best matches the prompt in the left box.

There is also a Motor Test which asks the subject to draw a line between two points. A sample is provided and there are 4 types of designs with 3 increasingly smaller versions of each design. Fine motor coordination is obviously being assessed as well as perceptual skills. The subject is asked not to lift the pencil, not to erase and not to tilt the paper when trying to accomplish the task.

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

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

There is an optional recall portion of the test also. A total raw score, a standard score and a t-score and a percentile rank are procured.

Obviously, the skilled clinician will be making behavioural observations as to the subject's approach to the task. A competent clinician will note squinting, or a rushed, hurried approach to the task. In other instances, when lethargy is observed, this will be documented. On occasion, a rigid approach to the task will be seen, but on occasion, a subject will draw a box around each design, perhaps attempting to organize his or her world. Some subjects may place a number adjacent to each design or even make specific comments about a particular design.

All of these behavioural observations can be telling and revealing and provide some insight into the patients view of the world-or a client's concerns. Some individuals may rush in an attempt to 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 [20,21] 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 behaviour.

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 [22] 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.

4. SUMMARY AND CONCLUSIONS

This paper has provided a brief overview of one of the most frequently used tests in psychology—the Bender Gestalt, and has attempted to introduce the reader to the most recent revision of this test and highlight and underline its usefulness in neurological screening, as well as in other areas such as visual motor and perceptual development. Currently, there is a very small realm of research studies being investigated and there has been little cross cultural research done with other ethnic and racial and cultural groups.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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