

# CHC Factors of the WJ III COG in a Clinical Sample

Jordana Mortimer, B.S., Erin Avirett, B.A., Denise Maricle, Ph.D. & Daniel C. Miller, Ph.D.  
Texas Woman's University, Denton, Texas

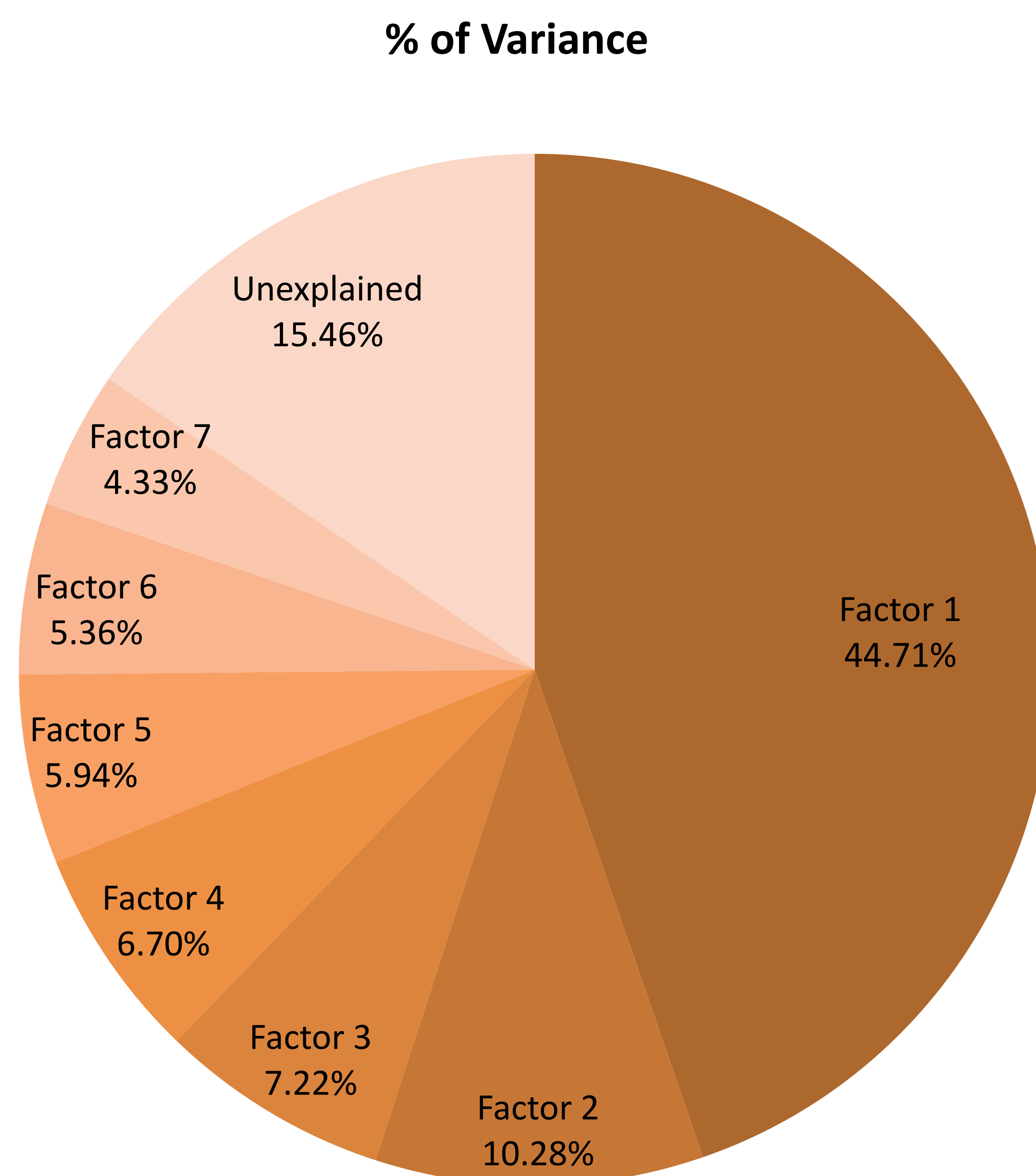
**Participants:** These data were drawn from a archival sample of 472 case studies that were conducted by students in the School Neuropsychology Post-Graduate Certification Program (2001 - 2008). There were 329 males (69.7%) and 140 females (29.7%) and 3 not identified (.6%) in the sample. There were 104 Caucasians (22.0%), 12 African-Americans (2.5%), 36 Hispanic/Latino Americans (7.6%), 3 Asian-Americans (.6%), 7 Bi-racial (1.4%), 3 Foreign National (.6%), and 310 with ethnicity not identified (65.7%). The range of the ages of the sample was 3.4 to 19.8.

## Exploratory Factor Analysis: Factor Analysis Variables

Factor	Eigenvalue	% of variance	Cumulative Variance
1	9.39	44.72%	44.72%
2	2.16	10.28%	54.99%
3	1.52	7.22%	62.21 %
4	1.41	6.70%	68.91 %
5	1.25	5.94%	74.85 %
6	1.13	5.36%	80.21 %
7	.91	4.33 %	84.54%

## Descriptive Statistics & Factor Loadings

Subtest	N	Mean	Standard Deviation	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Auditory Attention	268	96.40	12.96	.41	.20	-.08	.07	.12	.70	.22
Pair Cancellation	268	93.06	12.56	.82	.05	.35	.25	.14	-.08	.12
Auditory Working Memory	280	95.38	14.78	.17	.08	.16	.78	.23	.06	.00
Spatial Relations	278	97.62	11.45	.20	.66	.15	.37	-.07	.23	.39
Sound Blending	291	105.20	15.16	.10	.24	.34	.28	.69	.26	.24
Incomplete Words	262	99.63	14.41	-.01	.10	.39	.09	.15	.83	-.10
Numbers Reversed	287	90.05	14.99	.41	.34	.09	.71	.14	-.07	.05
Memory for Words	219	89.93	14.98	.06	-.06	.34	.80	.17	.17	.11
Picture Recognition	239	100.34	11.88	.10	.81	.12	.22	.19	.12	-.19
Visual Auditory Learning	266	88.23	18.05	.14	.16	.10	.07	.12	.02	.89
Retrieval Fluency	255	88.85	15.71	.33	.16	.03	.34	.72	.27	-.13
Verbal Comprehension	271	95.98	14.36	.29	.18	.80	.17	.21	.22	.17
General Information	226	91.42	17.28	.20	.30	.84	.14	.19	-.01	-.12
Concept Formation	278	95.41	16.04	.35	.53	.33	.33	.28	.30	-.00
Analysis Synthesis	223	97.39	15.87	.67	.28	.30	.19	.22	.29	-.03
Planning	115	101.05	16.25	.26	.79	-.03	-.02	.04	.24	.36
Visual Matching	276	83.84	18.42	.75	.12	.28	.04	.20	.26	.17
Decision Speed	265	94.38	16.74	.79	.42	.01	.21	.13	.09	.08
Rapid Picture Naming	238	84.65	14.93	.45	.13	.14	.22	.67	-.09	.36
Factor Labels				Processing Speed	Visual-Spatial	Comp-Know	Short-term Memory	Fluency	Auditory	Visual



## Discussion & Implications

- Within this specific clinical sample, the CHC factors do not separate into clearly defined abilities as outlined by the WJ III COG authors.
- The 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> factors appear to be measuring broader fluency, auditory, and visual abilities.
- Broader cognitive categories, such as Thinking Ability and Cognitive Efficiency, might better explain some correlations rather than more narrow abilities.
- When performing a confirmatory factor analysis, a portion of variance is left unexplained.