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PRESENTING INFORMATION ABOUT MENTAL RETARDATION IN THE COURTROOM: A CONTENT ANALYSIS OF PRE-*ATKINS* CAPITAL TRIAL TRANSCRIPTS FROM TEXAS

Lisa Kan^{*}

Marcus T. Boccaccini^{**}

Amanda McGorty^{***}

Ramona M. Noland^{****}

Kristy Lawson^{*****}

I. INTRODUCTION

In *Atkins v. Virginia*,¹ the Supreme Court ruled that it was unconstitutional to execute persons with mental retardation.² The *Atkins* Court concluded that statutory definitions of mental retardation (MR) should generally conform to the then current definitions offered by the American Association of Mental Retardation (AAMR) and the American Psychiatric Association (APA).³ These clinical definitions include three basic criteria for

* Lisa Kan is a doctoral candidate in clinical psychology at Sam Houston State University. M.A. 2006, Sam Houston State University; B.S. 2001, The University of Houston.

** Marcus T. Boccaccini is an Associate Professor of Psychology at Sam Houston State University where he is Associate Director of Clinical Training. Ph.D. 2003, The University of Alabama; M.A. 1998, The University of Alabama; B.S. 1995, Santa Clara University.

*** Amanda McGorty is a doctoral candidate in clinical psychology at Sam Houston State University. M.A. 2008, Sam Houston State University; B.S. 2003, University of Pittsburgh.

**** Ramona Noland is an Assistant Professor of Psychology at Sam Houston State University. Ph.D. 1997, The University of Tennessee; B.A. 1991, Wheeling Jesuit University.

***** Kristy Lawson is a Senior Learning Skills Counselor in the Department of Psychiatry at the University of California, San Diego. M.A. 2008, Sam Houston State University; B.A. 2005, University of California, San Diego.

1. 536 U.S. 304 (2002).

2. *Id.* at 321.

3. *Id.* at 317 n.22; *see also* AM. ASS'N OF MENTAL RETARDATION, MENTAL RETARDATION: DEFINITION, CLASSIFICATION, AND SYSTEMS OF SUPPORTS 5 (9th ed. 1992) [hereinafter AAMR, 9th ed.]; AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 41 (4th ed., text rev. 2000) [hereinafter DSM-IV]. We have chosen to retain the term "mental retardation," as opposed to "intellectual and developmental disability," in this article because it is the term used in the *Atkins* decision and it is still the current diagnostic term according to the APA. *Id.*

diagnosing MR: (1) significant subaverage intelligence with (2) substantial impairment in adaptive functioning that (3) has been evident since the developmental period.⁴ Although general agreement about these three components may lead to the impression that diagnosing MR is a straightforward process, there is considerable debate about the appropriate measures, procedures, and information that should be used to diagnose MR, especially in capital cases. This article presents the results of an empirical study which used trial transcripts to identify the types of information about MR that are presented to jurors in capital cases, with an emphasis on information about adaptive functioning.

Part II of this article provides background information for the study. It begins by describing several controversial issues related to the assessment of adaptive functioning in capital cases. Next, the authors explain how standards for defining adaptive functioning have changed since the *Atkins* decision, and the role that expert and lay witnesses may play in presenting information about adaptive functioning to jurors, including the presentation of results from standardized measures of adaptive functioning. This section concludes with a discussion of different viewpoints about whether or not it is appropriate to consider behavior during the crime as diagnostic information about adaptive functioning. Part III explains the methods used in the study, including how the research team identified transcripts for cases that included testimony about MR. Part IV presents the results of the study, including the extent to which jurors were presented with limited or comprehensive information about adaptive functioning, the frequency with which experts provided results from standardized measures of adaptive functioning, and whether or not it was common for information about criminal behavior to be presented as relevant in determining whether or not the offender was a person with MR. Part V uses the study results to identify implications for legal and mental health practice.

II. BACKGROUND INFORMATION

A. Controversies in Adaptive Functioning Assessment

Since the *Atkins* decision in 2002, legal and mental health professionals have written a number of scholarly articles outlining important assessment issues in these cases.⁵ For example, Olley, Greenspan, and Switzky

4. See AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

5. See, e.g., Richard J. Bonnie, *The American Psychiatric Association's Resource Document on Mental Retardation and Capital Sentencing: Implementing Atkins v. Virginia*, 32 J. AM. ACAD. PSYCHIATRY & L. 304 (2004); David DeMatteo et al., *A National Survey of State Legislation Defining Mental Retardation: Implications for Policy and Practice after Atkins*, 25 BEHAV. SCI. & L. 781 (2007); Julie C. Duvall & Richard J. Morris, *Assessing Mental Retardation in Death Penalty Cases:*

identified fifty-two unresolved issues pertinent to the diagnosis of MR in capital cases.⁶ These issues included clarifying necessary qualifications for expert witnesses, disagreement about the need for retrospective diagnosis, and a lack of agreement about appropriate measures for assessing intelligence and adaptive functioning in capital cases.⁷ They identified seventeen controversies about assessment of adaptive functioning, more than any other topic.⁸

The AAMR, now the American Association on Intellectual and Developmental Disabilities (AAIDD), has developed guidelines for assisting evaluators in *Atkins*-type cases.⁹ In addition, Division Thirty-Three of the APA (Intellectual and Developmental Disabilities) has allocated space in its newsletter for regular contributions concerning these cases.¹⁰ Although professional commentaries on the *Atkins* case and related assessment issues are not difficult to find, there is relatively little research about the issues discussed in these commentaries. One of the few studies that does exist asked evaluators who had conducted capital case MR evaluations in Texas to describe their assessment practices.¹¹ Only about half of the psychologists participating in the study reported using standardized tests to assess adaptive functioning.¹² In addition, many evaluators felt it was appropriate to use information about criminal behavior as part of the diagnostic process,¹³ a position that is inconsistent with the AAIDD user guidelines.¹⁴

Young and colleagues' data about evaluator assessment practices in MR evaluations for capital cases represent the only published empirical information about how adaptive functioning has been evaluated in capital

Critical Issues for Psychology and Psychological Practice, 37 PROF. PSYCHOL. 658 (2006); Kay B. Stevens & J. Randall Price, *Adaptive Behavior, Mental Retardation, and the Death Penalty*, J. FORENSIC PSYCHOL. PRAC., Oct. 2006, at 1.

6. See J. Gregory Olley et al., *Division 33 Ad Hoc Committee on Mental Retardation and the Death Penalty*, PSYCHOL. MENTAL RETARDATION & DEVELOPMENTAL DISABILITIES (Division 33, Am. Psychological Ass'n, Granville, Ohio), Winter 2006, at 11, 12-13.

7. See *id.*

8. See *id.*; see also J. Gregory Olley, *The Assessment of Adaptive Behavior in Adult Forensic Cases* (pts. 1-3), PSYCHOL. MENTAL RETARDATION & DEVELOPMENTAL DISABILITIES (Division 33, Am. Psychological Ass'n, Granville, Ohio), Summer 2006, at 2, Fall 2006, at 7, Summer 2007, at 3.

9. See AM. ASS'N OF INTELLECTUAL & DEVELOPMENTAL DISABILITIES, USER'S GUIDE: MENTAL RETARDATION 3-5 (10th ed. 2007) [hereinafter AAIDD].

10. See, e.g., sources cited *supra* notes 6, 8.

11. See Bethany Young et al., *Four Practical and Conceptual Assessment Issues that Evaluators Should Address in Capital Case Mental Retardation Evaluations*, 38 PROF. PSYCHOL. 169 (2007).

12. *Id.* at 172 (finding that four of fourteen psychologists used adaptive functioning measures when the person they were evaluating was on death row, and seven of thirteen psychologists reporting that they used adaptive functioning measures when the person they were evaluating was awaiting trial).

13. See *id.* at 173 (finding that nineteen of twenty evaluators felt it may be appropriate to consider criminal behavior as part of an adaptive functioning evaluation).

14. See AAIDD, *supra* note 9, at 22 ("Do not use past criminal behavior or verbal behavior to infer level of adaptive behavior or about having MR/ID."); see also Stephen Greenspan & Harvey N. Switzky, *Lessons from the Atkins Decision for the Next AAMR Manual*, in WHAT IS MENTAL RETARDATION? 283, 290-92 (Harvey N. Switzky & Stephen Greenspan eds., 2006).

cases.¹⁵ The current study sought to build upon this limited research base by examining how experts and attorneys have presented information about adaptive functioning in the courtroom. We chose to focus on adaptive functioning for several reasons, including Young and colleagues' findings regarding instrument use and criminal behavior,¹⁶ and Olley and colleagues' identification of seventeen unresolved assessment issues relating to adaptive functioning.¹⁷

A review of two Indiana cases by Olvera and colleagues illustrates how decisions about MR in the courtroom might hinge on evidence about adaptive functioning.¹⁸ Defendants in both cases scored below 70 on standardized intelligence tests and both had a history of being employed and able to drive.¹⁹ However, one defendant (Miller) was deemed ineligible for a capital sentence because he was a person with MR,²⁰ while the other (Rogers) was recommended for the death penalty.²¹ Olvera and colleagues, who were involved in the MR evaluation of Miller, attributed the difference in legal outcomes to how adaptive functioning was assessed in each case.²² They noted that while they used a standardized measure of adaptive functioning and investigated *how well* Miller was able to work and drive, such inquiries were absent in Rogers's assessment.²³ Moreover, Rogers was not evaluated using a standardized measure of adaptive functioning, and his evaluation only addressed four of the ten areas of adaptive functioning under the then current AAMR and APA definitions.²⁴

The current study was designed to provide information about four questions pertaining to adaptive functioning assessment in death penalty cases: (1) What areas of adaptive functioning are emphasized during trials, and what potentially important areas are not addressed? (2) Does information about adaptive functioning generally come from expert witnesses, or do lay witnesses (e.g., family, friends, caretakers) provide most of the information about adaptive functioning? (3) Do mental health experts use

15. See Young et al., *supra* note 11.

16. See *id.* at 172-74.

17. See Olley et al., *supra* note 6, at 12-13.

18. See Dennis R. Olvera et al., *Mental Retardation and Sentences for Murder: Comparison of Two Recent Court Cases*, 38 MENTAL RETARDATION 228 (2000).

19. *Id.* at 228-29.

20. *Id.* at 228 (citing *Indiana v. Miller*, No. 49G059508CF110486 (Marion County Super. Ct. 1998)).

21. *Id.* (citing *Indiana v. Rogers*, No. 45GO49502CF00056 (Lake County Super. Ct. 1997) (The jury returned a recommendation of death, but the trial court judge ignored that recommendation by sentencing him to life without parole; however, the trial court judge refused to find that the defendant had MR which would have prevented the jury from even considering the death penalty as an option.)).

22. Olvera et al., *supra* note 18, at 230.

23. See *id.* at 230-32.

24. See *id.* For AAMR and APA definitions see AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

standardized tests to assess adaptive functioning? and (4) Are criminal behaviors used as evidence for or against adequate adaptive functioning?

B. Changing Definitions of Adaptive Functioning

The two Indiana cases described above suggest that potentially important areas of functioning may go unexamined for some defendants.²⁵ One issue that courts and examiners have struggled with is the lack of a consistent standard for operationalizing adaptive functioning.²⁶ For example, the 1992 AAMR and 2000 APA definitions cited by the *Atkins* Court described substantial impairment in adaptive functioning as serious limitations in two of ten skill areas,²⁷ whereas the more recent 2002 AAMR definition states that limitations in at least one of three areas (i.e., conceptual, social, and practical adaptive skills) “should be established through the use of standardized measures normed on the general population.”²⁸

The lack of a clear and consistent standard may be one reason why most state definitions of MR do a poor job of defining adaptive functioning. For example, Duvall and Morris reviewed definitions of MR for *Atkins*-type cases in twenty-six states and found that most did not define adaptive functioning.²⁹ Those that provided a definition often described adaptive functioning with relatively vague definitions, such as “the effectiveness or degree to which [an individual] meets the standards of personal independence and social responsibility expected [for his or her] age.”³⁰ DeMatteo and colleagues reviewed statutory definitions of MR in all thirty-eight states that allow the death penalty and found that only ten of thirty-eight clearly followed the AAMR or APA definitions, and that many states did not define the terms used in their definitions (e.g., sub-average intellectual functioning, deficits in adaptive behavior).³¹

The current study considers the extent to which each case presents information about the ten skill areas identified in the APA and AAMR definitions of MR.³² Although the ten-skill-area model lacks empirical support, and the current AAIDD definition has been revised to reflect a more empirically supported three-domain model,³³ the 1992 AAMR definition

25. See Olvera et al., *supra* note 18.

26. See Bonnie, *supra* note 5, at 306.

27. See *Atkins*, 536 U.S. at 308 n.3; see also AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

28. See AM. ASS'N OF MENTAL RETARDATION, MENTAL RETARDATION: DEFINITION, CLASSIFICATION, AND SYSTEMS OF SUPPORTS 14 (10th ed. 2002) [hereinafter AAMR, 10th ed.].

29. See Duvall & Morris, *supra* note 5, at 660-61.

30. Ariz. Rev. Stat. Ann. §13-703.02(K)(1) (2001 & Supp. 2007).

31. See DeMatteo et al., *supra* note 5, at 787 (finding that Connecticut, Florida, Oregon, Texas, Virginia, and Washington follow the AAMR guidelines, while Delaware, Idaho, North Carolina, and Oklahoma follow the APA guidelines).

32. For definitions see AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

33. See AAMR, 10th ed., *supra* note 28, at 76.

was the current definition at the time most of the study's cases were tried.³⁴ Moreover, each of the skill areas from the 1992 definition can be organized into one of the three domains in the current definition,³⁵ allowing for an examination of comprehensiveness according to each definition in the current study.

C. Adaptive Functioning Testimony from Expert and Non-Expert Witnesses

While the assessment and diagnosis of MR are traditionally clinical tasks performed by mental health professionals, the role of mental health professionals is perhaps less clear in capital case decisions. This is particularly so in Texas, which is the setting for the current study. In *Ex parte Briseno*,³⁶ the Texas Court of Criminal Appeals observed that while mental health professionals might be able to offer their opinions on whether someone meets diagnostic criteria for MR, the testimony of lay witnesses with regard to whether they believed that the defendant was a person with MR during the developmental period and if the defendant acted "in accordance with that determination" was also of importance.³⁷ The current study will examine the extent to which information about MR is provided by both lay witnesses and mental health experts.

D. Use of Standardized Instruments for Assessing Adaptive Functioning

Although the 2002 AAMR definition of MR states that limitations in adaptive functioning should be established through the use of standardized measures of adaptive functioning,³⁸ there are several reasons to believe that these measures are not always used by evaluators in capital cases. For example, Young and colleagues found that only seven of the thirteen psychologists in their study reported using adaptive functioning measures in capital cases when the defendant was awaiting trial, and only four of thirteen reported using standardized measures when evaluating an inmate on death row.³⁹ Existing measures of adaptive functioning may not be appropriate for individuals who have been incarcerated for significant portions of their lives because no existing instrument was designed to account for the unique context of incarceration. Greenspan and Switzky recently identified multiple shortcomings of existing adaptive behavior scales,⁴⁰ and

34. See generally AAMR, 9th ed., *supra* note 3 (1992 AAMR definition of MR employed by *Atkins* court).

35. See AAMR, 10th ed., *supra* note 28, at 82.

36. 135 S.W.3d 1 (Tex. Crim. App. 2004).

37. *Id.* at 8.

38. AAMR, 10th ed., *supra* note 28, at 13.

39. Young et al., *supra* note 11, at 172.

40. See Greenspan & Switzky, *supra* note 14, at 284-95.

some forensic evaluators have argued that there is no “gold standard” adaptive functioning measure for use in these cases.⁴¹ The current study will examine the extent to which evaluators use findings from standardized measures of adaptive behavior to convey information about adaptive functioning to jurors in capital cases.

E. Use of Criminal Behavior as Evidence for Adaptive Functioning

The AAIDD’s *User’s Guide* provides the following instruction for clinicians: “Do not use past criminal behavior . . . to infer level of adaptive behavior or about having MR/ID.”⁴² However, Young and colleagues asked experienced capital case evaluators in Texas whether they felt it was appropriate to use information about criminal behavior to make decisions about adaptive functioning, and all but one felt that it was appropriate, at least in some cases.⁴³ Judges in *Atkins*-type hearings often allow attorneys to use information about a defendant’s criminal behavior, and attorneys are likely to use criminal behaviors as indicators of adaptive functioning (or lack thereof).⁴⁴ Moreover, courts have generally agreed that information about specific criminal behaviors may be relevant in these cases. The Texas Court of Criminal Appeals has stated that “[t]he more complex the crime, the less likely the person is mentally retarded”⁴⁵ and argued that fact finders should consider the offender’s behavior both before and after the alleged crime.⁴⁶ The Alabama Supreme Court noted that fact finders should consider a defendant’s “post-crime craftiness” before making decisions about MR.⁴⁷ The U.S. Supreme Court has ruled (based on a Texas case) that MR is “inherently mitigating” and does not need to be related to a defendant’s behavior to qualify him for a lesser sentence; however, the Court did not say that it was inappropriate to consider the defendant’s behavior during the crime as evidence for or against MR.⁴⁸

41. See Stanley L. Brodsky & Virginia A. Galloway, *Ethical and Professional Demands for Forensic Mental Health Professionals in the Post-Atkins Era*, 13 ETHICS & BEHAV. 3, 7 (2003).

42. AAIDD, *supra* note 9, at 22.

43. See Young et al., *supra* note 11, at 173.

44. See Greenspan & Switzky, *supra* note 14, at 291; see also John M. Fabian, *State Supreme Court Responses to Atkins v. Virginia: Adaptive Functioning Assessment in Light of Purposeful Planning, Premeditation, and the Behavioral Context of the Homicide*, J. FORENSIC PSYCHOL. PRAC., Dec. 2006, at 1, 9.

45. *Briseno*, 135 S.W.3d at 17 n.70 (quoting testimony of the State’s expert witness).

46. See *id.* at 8-9 (containing a bulleted list of evidentiary factors that the court suggested could be considered by fact finders when forming opinions about an offender’s status as a person with or without mental retardation).

47. *Clemons v. Alabama*, No. CR-01-1355, 2005 Ala. Crim. App. LEXIS 128 at *15 (Ala. Crim. App. 2005).

48. *Tennard v. Dretke*, 542 U.S. 274, 287 (2004) (citing *Atkins*, 536 U.S. at 316).

One concern about using criminal behavior as diagnostic information about adaptive functioning is the accuracy of such information.⁴⁹ Some experts have argued that individuals with MR are at an increased risk for false confessions because they want to please investigators and can be vulnerable to exploitation by others, such as being used by others to engage in criminal activities without understanding the possible consequences.⁵⁰ Persons with MR might also have deficits in communication skills and memory, which could impair their ability to provide accurate information about what actually happened.⁵¹ Greenspan and Switzky offered two reasons why past criminal behavior should not be used in assessment of adaptive functioning.⁵² First, information regarding past criminal behavior generally lacks details regarding the level of adaptive skills required to respond to situation demands and the extent to which the offender acted independently.⁵³ Second, there is no normative data on the type of criminal behaviors persons with MR can and cannot perform.⁵⁴ The current study will examine to what extent attorneys and evaluators use criminal behaviors as indicators of adaptive functioning (or lack thereof).

F. Purpose of the Current Study

The current study examined testimony about the four adaptive functioning testimony issues discussed above in nineteen pre-*Atkins* Texas death penalty cases in which the issue of the defendant's MR was discussed. Copies of trial transcripts can be obtained from court reporters, but these are expensive documents since court reporters charge a certain sum of money for each typed page. We focused on Texas cases because the research team was given access to transcripts in this state free of charge. We used pre-*Atkins* transcripts for this research because there is often a significant time-lag between capital trials and public access to transcripts, and pre-*Atkins* (but not post-*Atkins*) transcripts were available when transcripts were collected for this study in 2006. Although evaluator and attorney practices likely have changed since the *Atkins* decision made MR a clear barrier to execution, the current study provides baseline in-

49. See Greenspan & Switzky, *supra* note 14, at 291; Caroline Everington & Denis W. Keyes, *Mental Retardation: Diagnosing Mental Retardation in Criminal Proceedings: The Critical Importance of Documenting Adaptive Behavior*, FORENSIC EXAMINER, July-Aug. 1999, at 31; Position Statement, Am. Ass'n of Intellectual & Developmental Disabilities, Criminal Justice (Nov. 9, 2002), *available at* http://www.aamr.org/content_158.cfm?navID=44 [hereinafter AAIDD, Position Statement]; LEIGH ANN DAVIS, THE ARC, PEOPLE WITH INTELLECTUAL DISABILITIES IN THE CRIMINAL JUSTICE SYSTEM: VICTIMS & SUSPECTS 1-2 (2005), <http://www.thearc.org/NetCommunity/Document.Doc?&id=149>.

50. See AAIDD, Position Statement, *supra* note 49; DAVIS, *supra* note 49.

51. See Everington & Keyes, *supra* note 49, at 31.

52. Greenspan & Switzky, *supra* note 14, at 291.

53. *Id.*

54. *Id.*

formation about such practices before the *Atkins* decision. MR has been a high profile issue in Texas death penalty cases, both before and after *Atkins*, with the United States Supreme Court using several Texas cases to clarify how jurors should be instructed to consider MR evidence in capital cases.⁵⁵ Thus, practices in Texas cases before *Atkins* might reflect a general heightened awareness about MR as a statutorily recognized mitigator in capital cases.

Trial transcript testimony provides a valuable record of how attorneys, experts, and lay witnesses attempted to convince jurors that a defendant did or did not have MR. Transcripts provide information about the use of mental health experts in this process as well as clinical assessment procedures. Because of the limited research related to these issues, we formed only general hypotheses about what the transcripts would show. Our most specific hypothesis was that most information about adaptive functioning would not come from standardized test results. Young and colleagues' findings and anecdotal information from a Texas appellate court case suggested that information about criminal behavior would be used routinely as evidence for or against impaired adaptive functioning.⁵⁶ With respect to which areas of adaptive functioning would be covered, we expected more common-sense areas,⁵⁷ such as functional academics and daily living skills, to receive more attention than less common-sense areas, such as avoiding victimization and maintaining a safe environment. The extent to which information about adaptive functioning would come from experts as opposed to lay witnesses was unclear.

III. METHOD

A. Obtaining Trial Transcripts

We identified potential cases for this study by consulting a published list of capital offenders thought to have MR⁵⁸ and searching newspaper archives from major Texas cities (e.g., Dallas, Houston, San Antonio). A potential case was one in which the issue of the defendant's MR may have been raised at trial. This initial review identified a total of sixty-nine possible trials for sixty capital defendants.

Capital case transcripts usually are very long documents, with most being thousands of pages long. We were able to access trial transcripts at

55. See *Smith v. Texas*, 543 U.S. 37 (2004); *Tennard*, 542 U.S. 274; *Penry v. Johnson*, 532 U.S. 782 (2001).

56. See Young et al., *supra* note 11, at 173-74 (referring to *Briseno*, 135 S.W.3d 1).

57. By "common-sense," we mean areas related to those in which laypersons may have had the opportunity to interact with persons with MR (e.g., school, work).

58. Denis Keyes et al., *People with Mental Retardation are Dying, Legally: At Least 44 Have Been Executed*, 40 MENTAL RETARDATION 243, 244 (2002).

the Texas Court of Criminal Appeals (TCCA) in Austin, Texas. The TCCA maintains copies of trial transcripts for cases that are being or have been appealed. Because all capital cases resulting in convictions are automatically appealed, the TCCA has copies of trial transcripts for most death penalty trials. One limitation of obtaining transcripts from the TCCA is that all of the cases were for defendants who had been found guilty and sentenced to death. For non-death cases, a transcript would have been available if the defendant had been found guilty, sentenced to life in prison, and appealed that decision. Of course, cases resulting in a not guilty verdict are not appealed, so no transcripts would be available for those cases either. We used a portable scanner to make electronic copies of sentencing phase testimony from capital case transcripts.

The research team was able to locate transcripts for thirty-five of the sixty-nine trials at the TCCA. These documents ranged in length from 88 to 5,416 pages, with most being more than 300 pages long ($M = 631$, $SD = 902$). The remaining transcripts were not located due to one of the following reasons: records being stored elsewhere than the TCCA ($n = 3$); records already in use and not available ($n = 3$); or transcript could not be located by the TCCA staff ($n = 28$).⁵⁹ As described below, only twenty-one of the thirty-five transcripts included testimony about MR, and nineteen of these were coded for the study. All nineteen of these trials occurred between 1987 and 2002, with the majority taking place between 1990 and 1995 ($n = 12$). The reasons why the other fourteen transcripts contained no information about MR are not clear, but it may be that none of these defendants or their attorneys raised the issue of MR until after the *Atkins* decision in 2002.

Of the twenty-one transcripts with testimony about MR, two were not coded for the study. One case contained so little information about MR that it was excluded.⁶⁰ We had two transcripts for John Paul Penry and chose to code only the earlier transcript.⁶¹ A list of the nineteen cases that were coded for the study is provided in the Appendix.⁶²

Although it is possible that information about MR was presented in the guilt phase of these trials, we opted to examine only sentencing phase testimony for three reasons: a) the length of guilt phase testimony was usually many times longer than sentencing phase testimony, and the research team did not have the resources to scan and code all of this testimony; b) if MR was an important issue in the case and presented during the guilt phase, it almost certainly would have been addressed to some extent dur-

59. Reasons for not being able to locate cases included: (1) defendant had been executed and records had been archived or (2) no location linked to electronic records.

60. See *Moore v. Texas*, No. 314483 (185th Dist. Ct. of Harris County 2001).

61. See *Texas v. Penry*, No. 15977-C (278th Dist. Ct. of Walker County 1990).

62. See *infra* Table 5.

ing the sentencing phase as well; and c) all of the cases coded for the study were adjudicated prior to *Atkins*, and it was expected that most testimony regarding the defendant's MR was presented as mitigating evidence during the punishment phase.

B. Coder Training

Three doctoral students were trained to code transcripts for the study. The training began with an overview and discussion of adaptive functioning guided by an individual who is both a licensed psychologist and a Nationally Certified School Psychologist, who has conducted research on adaptive functioning,⁶³ and who has worked extensively with individuals with MR. The primary author and two research assistants were trained by this psychologist to identify transcripts with relevant testimony regarding the defendant's MR, and to code the presentation of information using the ten adaptive functioning skill areas referenced in the then 1992 AAMR guidelines⁶⁴ and *Atkins* decision.⁶⁵ The definitions of each skill used by the coders included the APA and AAMR definitions of MR,⁶⁶ as well as operational definitions from the Vocational and Rehabilitation Research Institute.⁶⁷ In all, we held five separate training meetings, for a total of ten hours of coder training.

C. Coding Units

1. Unit of Measurement

The coding procedures required the coders to identify segments of testimony and attorney arguments relevant to the defendant's MR/adaptive functioning. Each selected segment was a unique piece of information that was presented to the jurors regarding the defendant's behavior or characteristics that demonstrated his intellectual or adaptive abilities (or the lack thereof). Such information might address the defendant's academic history, social skills, planning abilities, and actions during criminal activities.⁶⁸ For each unique segment, the coder identified it as representing one of the ten adaptive functioning skill areas identified in the 1992 AAMR guide-

63. See Ramona M. Noland & R. Steve McCallum, *A Comparison of Parent and Teacher Ratings of Adaptive Behavior Using a Universal Measure*, 18 J. PSYCHOEDUCATIONAL ASSESSMENT 39 (2000).

64. See AAMR, 9th ed., *supra* note 3, at 5.

65. See *Atkins*, 536 U.S. at 309 n.3.

66. See AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

67. See Kathleen K. Biersdorff, *Dueling Definitions: Developmental Disabilities, Mental Retardation and Their Measurement*, REHABILITATION REV., July 1999, at 1, available at <http://www.vrri.org/Research/Rehabilitation-Review/Volume-10-No.-7-July-1999.html>.

68. See *infra* Table 1 (examples of information selected and coded under each skill area).

lines,⁶⁹ intellectual functioning, or a general comment about MR status. The coder also identified the source for each piece of information (attorney, expert witness, or non-expert witness) and whether or not the information was based on the results of a standardized assessment measure. Information discussed outside the jury's presence was not coded, as jurors would not have used such information in their deliberations.

2. Adaptive Functioning Skill Areas

As noted previously, the AAMR and the APA MR definitions cited in the *Atkins* decision identified ten adaptive functioning skill areas for the determination of MR.⁷⁰ These ten skill areas are: communication, self-care, home living, social/interpersonal skills, community use (use of community resources), self-direction, health and safety, functional academics, leisure, and work.⁷¹ These ten skill areas can be arranged into the 2002 AAMR three domain adaptive functioning model using the following scheme: Conceptual (communication, functional academics, self-direction, and health and safety), Social (social skills and leisure), and Practical skills (self-care, home living, community use, health and safety, and work).⁷²

We did not require witnesses to use the terms "adaptive behavior" or "adaptive functioning" for a segment of testimony to qualify as addressing one of the ten skill areas. Although expert witnesses might be expected to use these diagnostic terms, there was little reason to suspect that lay witnesses would use them.

3. Intelligence

To determine if information regarding the defendant's intellectual functioning was presented more extensively than that of adaptive functioning, coders recorded the number of statements about IQ or intelligence for each witness in each case. Information about intellectual functioning might include defendant's IQ scores, references to the defendant being "not smart enough," or other euphemisms for low intelligence.

4. General Comments about Mental Retardation Status

At times, an attorney or a witness would make a statement about the defendant using the term "mental retardation" or a close variant (e.g.,

69. See AAMR, 9th ed., *supra* note 3, at 5.

70. See *Atkins*, 536 U.S. at 309 n.3; see also AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

71. AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

72. AAMR, 10th ed., *supra* note 28, at 82.

“mentally retarded”). Coders recorded the number of general references to MR for each witness in each case.

5. Use of Standardized Instruments

We recorded which, if any, standardized measures of adaptive functioning were used by experts. We also coded which skills were assessed using the measures and how many skill areas were assessed using these types of measures in each case.

D. Derivation of Study Measures from Coding Units

1. Comprehensiveness of Adaptive Functioning Assessment

For each case, we assessed comprehensiveness of adaptive functioning assessment in two ways. First, we calculated the number of adaptive functioning skill areas addressed in the case (by any witness or attorney). Second, we calculated the total number of testimony segments about each skill area.

2. Role of Expert and Non-Expert Witnesses

We examined the role of expert and non-expert witnesses by calculating the proportion of information about MR that came from experts and the proportion that came from non-experts. The number of expert and non-expert witnesses who did not provide adaptive functioning-related testimony was also recorded for each case.

3. Criminal Behavior as Evidence Concerning Adaptive Functioning

Although all transcripts contained some information about criminal behavior, the coders only recorded information about criminal behaviors that appeared to be linked to MR by the witness or attorney. Each criminal behavior reference that met this criterion was coded as fitting one of the ten adaptive functioning skill areas. Examples of criminal behaviors coded for the study included information about planning crimes, using deception while committing crimes, and behaviors related to avoiding arrest (e.g., not leaving evidence behind at crime scene or hiding stolen goods). We calculated the number of criminal behavior references related to adaptive functioning for each defendant. For each skill area, we also calculated the extent to which criminal behaviors (as opposed to other behaviors) were used to provide information about that area. This information was used to gauge whether criminal behavior was being used as the only information about that area of adaptive functioning or whether crimi-

nal behavior was just one type of behavior used to describe functioning in that area.

E. Coder Agreement

Originally, we planned to have two coders independently code each transcript to assess coder agreement; however, we ultimately decided that plan was unfeasible because of the sheer amount of time it would take to complete the study. The coding process required approximately one hour of coder time to code 100 pages of transcript, with the total amount of time for individual cases ranging from one to twenty hours. The final sample of nineteen transcripts totaled over 11,300 pages ($M = 595$, $SD = 342$), an equivalent of approximately 113 hours of coding per evaluator, in addition to initial reading of the closing argument. Thus, coder agreement was assessed by having all three raters code two pilot transcripts.

Agreement analyses focused on the presence or absence of testimony about each of the ten adaptive functioning skill areas anywhere in the case. All three coders agreed regarding the presence or absence of seven of the ten skill areas for both cases. Although this seventy percent level of rater agreement suggests that the coding results should be interpreted with some caution, we felt that it was an appropriate level of agreement for this time-intensive coding process that required extensive judgment by the coder. Few witnesses or attorneys ever referenced the AAMR or APA definitions⁷³ of MR while testifying, and witnesses rarely used skill area phrases or terms in the definitions (e.g., functional academics). Thus, coders had to make an informed judgment about which of the ten skill areas best described a behavior being described by a witness. This was a difficult process that required much interpretation by the coder.

IV. STUDY RESULTS

A. Comprehensiveness of Adaptive Functioning Assessment

Defendants had 7 to 163 segments of information presented about any facet of MR (intelligence, adaptive functioning, or general reference to MR), and 4 to 131 segments of information presented about adaptive functioning in particular. Most of the information presented about MR was related to adaptive functioning, with an average of 71.57% ($SD = 11.98\%$) of the segments in each case being coded as related to adaptive functioning, as opposed to intelligence or general statements about MR ($F(2,17) = 95.69$, $p < .001$). Only 14.58% ($SD = 10.99\%$) of all seg-

73. See AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

ments coded were related to intelligence and 13.85% ($SD = 9.06\%$) to general statements about MR.

The number of adaptive functioning skill areas addressed in individual cases ranged from two to nine ($M = 5.89$, $SD = 1.94$). Fifteen of nineteen trials (78.95%) addressed at least five of the ten skill areas, and only eight trials (42.11%) addressed at least seven skill areas. None of the trials presented information regarding all ten skill areas. When the ten skill areas were organized into the 2002 AAMR domains, the number of domains addressed ranged from one to three ($M = 2.68$, $SD = 0.58$). All cases addressed functioning in at least one domain, with fourteen (73.7%) addressing all three domains.

Although information about adaptive functioning was more common than information about intelligence, intelligence was addressed at least once in eighteen of the nineteen cases (94.7%). Few of the adaptive functioning skill areas were addressed with such frequency. As expected, the most frequently addressed adaptive skill areas were those that seem to fit with lay conceptions about MR.⁷⁴ For example, the defendant's functional academic skills were addressed in every case, and his self-direction (18 cases, 94.7%), communication (17 cases, 89.5%), social (16 cases, 84.2%), and work (13 cases, 68.4%) skills were addressed in many cases. Areas that were least likely to be addressed included health and safety (2 cases, 10.5%), leisure (3 cases, 15.8%), and community use (6 cases, 31.6%).

B. Use of Standardized Instruments

Only five of nineteen trials presented results from standardized testing with the defendant in at least one adaptive functioning skill area. Three defendants had only one area (functional academics) assessed with a standardized measure, while one defendant was assessed with a standardized instrument in the skill areas of self-care, community use, and health and safety. One defendant was evaluated in eight skill areas (all except leisure and work) with a standardized instrument. The most common skill area assessed with a standardized measure and addressed in the testimony was functional academics ($n = 4$ defendants). Measures used to assess some aspect of adaptive functioning included the Wechsler Memory Scale,⁷⁵ the California Verbal Learning Test,⁷⁶ the Paced Auditory Serial Addition Test,⁷⁷ the Wide Range Achievement Test-3,⁷⁸ and the Street Survival

74. See *infra* Table 2.

75. See DAVID WECHSLER, WECHSLER MEMORY SCALE (3d ed. 1997).

76. See DEAN C. DELIS ET AL., CALIFORNIA VERBAL LEARNING TEST (2d ed. 2000).

77. See D. GRONWALL, PACED AUDITORY SERIAL ADDITION TEST (1977).

78. See JOSEPH JASTAK & GARY WILKINSON, WIDE RANGE ACHIEVEMENT TEST (3d ed. 1993).

Skills Questionnaire (SSSQ).⁷⁹ Interestingly, most of these instruments are generally not considered measures of adaptive functioning, and researchers have questioned the validity of the SSSQ for diagnosing MR.⁸⁰ Furthermore, none of the trials presented information from the Vineland Adaptive Behavior Scales,⁸¹ which is by far the most commonly used measure of adaptive functioning by practitioners.⁸²

C. Role of Expert and Non-Expert Witnesses

In most trials ($n = 15$, 78.9%), at least one expert witness provided testimony about the defendant's MR status.⁸³ MR experts were called more often by the defense than by the prosecution (thirteen cases compared to five cases, respectively) and were called by both sides in only three trials. In general, a greater proportion of all witnesses called by the defense testified regarding the defendant's MR than witnesses called by the prosecution (62.6% versus 25.1%, respectively, $z = 3.15$, $p < .01$). Across all cases, information on adaptive functioning was provided more often by non-expert witnesses (53.18% of total adaptive functioning information), rather than expert witnesses (26.46% of total adaptive functioning information), although this difference only approached statistical significance ($z = 1.75$, $p = .08$).⁸⁴

Although expert witnesses were used to testify about MR in many cases, more lay witnesses than expert witnesses were used to testify about impairments related to MR by both the prosecution and defense. For the prosecution, an average of 0.32 ($SD = 0.58$) experts testified about MR and 3.11 ($SD = 4.08$) lay witnesses testified about MR, ($t(18) = 2.97$, $p = .008$, Cohen's $d = 0.95$). For the defense, an average of 0.79 ($SD = 0.63$) experts testified about MR and 3.26 ($SD = 2.90$) lay witnesses testified about MR, ($t(18) = 3.80$, $p = .001$, Cohen's $d = 1.18$). The defense called more expert witnesses to testify about MR than the prosecu-

79. See DAN LINKENHOKER & LAWRENCE MCCARRON, STREET SURVIVAL SKILLS QUESTIONNAIRE (1993).

80. See George C. Denkowski & Kathryn M. Denkowski, *Misuse of the Street Survival Skills Questionnaire (SSSQ) for Evaluating the Adult Adaptive Behavior of Criminal Defendants with Intellectual Disability Claims*, 46 INTELL. & DEVELOPMENTAL DISABILITIES 144 (2008).

81. See SARA S. SPARROW ET AL., VINELAND ADAPTIVE BEHAVIOR SCALES (1984).

82. See James K. Luiselli et al., *Assessment Instruments Used in the Education and Treatment of Persons with Autism: Brief Report of a Survey of National Service Centers*, 22 RES. DEVELOPMENTAL DISABILITIES 389, 395 (2001) (finding that the Vineland Adaptive Behavior Scales were used by nearly 61% of evaluators); Terry A. Stinnett et al., *Current Test Usage by Practicing School Psychologists: A National Survey*, 12 J. PSYCHOEDUCATIONAL ASSESSMENT 331, 338 (1994) (finding that 69% of evaluators used the Vineland Adaptive Behavior Scales).

83. See *infra* Table 3.

84. Attorneys also presented information about adaptive functioning during opening and closing arguments and this information was coded for the study; however, statements from attorneys were not included in the calculation of these specific percentages.

tion (Cohen's $d = .78$), but there was no difference in the average number of lay witnesses called by each side (Cohen's $d = 0.05$).

D. Criminal Behavior as Evidence about Adaptive Functioning

Thirteen of nineteen transcripts (68.4%) contained some information relating the defendant's criminal behavior to his level of adaptive functioning.⁸⁵ The number of criminal behaviors presented as evidence concerning adaptive functioning for a single defendant ranged from zero to sixty-eight.⁸⁶ Among the thirteen trials with this type of testimony, each presented an average of about nine pieces of such information ($M = 8.57$, $SD = 17.67$).

Although many cases used criminal behavior as evidence for or against adaptive functioning, few cases relied explicitly on this type of testimony. Testimony about criminal behavior made up ten percent or more of the adaptive functioning testimony in only seven of nineteen cases.⁸⁷ Nevertheless, testimony about criminal behavior made up more than forty percent of the adaptive functioning testimony in two cases.⁸⁸ The defendant in one of these transcripts pled guilty and only the punishment phase of the trial was held.⁸⁹ Consequently, some of the information regarding criminal behaviors might normally have been presented in the trial phase if he had not pled guilty. Information such as the phone lines being cut at crime scenes, the defendant disguising himself, and evidence of planning was repeatedly introduced during the sentencing phase of his trial.⁹⁰

Most of the criminal behaviors coded as pertaining to adaptive functioning were related to the skill area of self-direction. Across the thirteen cases in which criminal behaviors were coded as reflecting adaptive behavior, sixty percent of the criminal behavior segments were coded as relating to self-direction. In four cases, self-direction was the only adaptive behavior skill addressed via criminal behavior.⁹¹ In the case with the greatest use of criminal behavior as adaptive behavior, all but three of the sixty-eight references to criminal behavior were used to describe his self-direction skills.⁹² Examples of criminal behavior as self-direction typically related to the defendant's ability to make his own decisions or to plan criminal activities.

85. See *infra* Table 4.

86. See *infra* Table 4.

87. See *infra* Table 4.

88. See *infra* Table 4.

89. See *Chester v. Texas*, No. 76044 (252d Dist. Ct. of Jefferson County 1998).

90. See *id.*

91. See *infra* Table 4.

92. See *Chester*, No. 76044; see also *infra* Table 4.

V. IMPLICATIONS

The current study provides descriptive information about trial strategy and adaptive functioning evaluation practices in nineteen pre-*Atkins* capital trials in which the defendant may have been a person with MR. Our rationale for the study was that there are many unresolved assessment issues concerning adaptive functioning assessment in capital cases,⁹³ and little data to help the field move toward an empirically informed discussion about them. Although findings from the current study must be interpreted with caution due to the focus on pre-*Atkins* cases from one state, the findings provide the first empirical data about how information concerning adaptive functioning has been communicated to jurors in actual death penalty cases.

A. Emphasis on Adaptive Functioning

One finding that may be surprising to many observers in this area is that jurors were given much more information about the defendants' adaptive functioning than their intelligence. Nearly three-fourths of all information about MR presented to jurors was related to the defendants' adaptive functioning. This finding may allay some concerns that MR is too often associated with a score on an IQ test, with little consideration of other factors.⁹⁴ However, witnesses rarely stated explicitly that adaptive functioning-related testimony was about "adaptive functioning" or "adaptive behavior." Although we did not code how often these terms were used, all three coders agreed that these terms were rarely used by witnesses or attorneys. As a result, it was up to the study coder to judge whether or not the information provided by the witness was being used to argue for or against potential impairment related to MR. Thus, there was often a great deal of information about adaptive functioning presented to jurors, but it was rarely discussed using diagnostic terms.

There are several possible explanations for why testimony about day-to-day functioning was not described using diagnostic terms. First, most of the testimony coded as describing adaptive functioning came from lay witnesses, such as family members, friends, school teachers, and correctional officers. These witnesses would not be expected to discuss the defendant's functioning using precise diagnostic terms. Second, expert witnesses who did testify about adaptive functioning rarely testified about the results of measures designed to assess adaptive functioning, focusing instead on information obtained through less structured assessment methods

93. See Olley et al., *supra* note 6, at 12-13.

94. See Stephen Greenspan & Harvey N. Switzky, *Execution Exemption Should be Based on Actual Vulnerability, Not Disability Label*, 13 ETHICS & BEHAV. 19, 21-22 (2003).

(e.g., record review, defendant interview). Indeed, only one expert testified about the results of a measure designed specifically to assess adaptive functioning. Finally, it may have been a purposeful, trial strategy decision on the part of attorneys to have both expert and lay witnesses avoid diagnostic and technical language. Instead, they may have urged witnesses to testify about impairment in general, as opposed to impairment in any one diagnostic area.

We suspect that testimony about specific diagnostic criteria has taken on increased importance in the post-*Atkins* era, with an MR diagnosis now being a defined barrier to execution. In the pre-*Atkins* cases examined for this study, attorneys may have used their witnesses in an attempt to create an overall impression of impairment or lack of impairment, with the link between impairment and diagnostic criteria being less important than the actual level of impairment suggested by the testimony.

B. Coverage of Adaptive Functioning Skill Areas

At the time of the trials included in this study, the 1992 AAMR guidelines,⁹⁵ DSM-IV,⁹⁶ and DSM-IV-TR⁹⁷ diagnostic criteria were the contemporary standards for determining MR status. Each of these schemes identifies ten adaptive functioning skill areas, with deficits in two skill areas required for an MR diagnosis.⁹⁸

Not one of the nineteen Texas cases presented information about functioning in all ten areas. Likewise, no expert presented information relating to all ten skill areas, a standard of practice recommended by Everington & Keyes⁹⁹ and Olvera & colleagues.¹⁰⁰ The number of skill areas covered in the trials ranged from two to nine, with an average of about six skill areas per case.

There are several possible reasons why these cases may have covered only a subset of the ten skill areas. First, presenting information about only a subset of skill areas might have been part of a well-defined legal strategy. There is no evidence that presenting information about all ten adaptive functioning skill areas is or is not necessary to convince legal decision makers that a defendant is a person with MR. Attorneys may have decided that jurors simply would not have understood the relationship between certain types of behaviors and MR status (e.g., leisure, health and safety), and instead focused on those likely to be consistent with stereo-

95. See AAMR, 9th ed., *supra* note 3, at 5.

96. See AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 39 (4th ed. 1994).

97. See DSM-IV, *supra* note 3, at 41.

98. See AAMR, 9th ed., *supra* note 3, at 5; DSM-IV, *supra* note 3, at 41.

99. See Everington & Keyes, *supra* note 49, at 33.

100. See Olvera et al., *supra* note 18, at 232-33.

types about MR. The finding that functional academics was the most commonly covered skill area is consistent with this potential explanation of selective coverage. Functional academics, an area of functioning likely to be understood by laypersons, was the only area covered in all nineteen cases. Laypersons might reason that individuals perform poorly in school and require placement in special education classes because of their limited intellectual abilities. This might also explain why information specific to intelligence received less attention than information about adaptive functioning. Attorneys might have wanted to show day-to-day impairment rather than arguing for a specific diagnostic criterion using a more or less defined test score (i.e., IQ). A second explanation is that attorneys may have knowingly omitted information about a specific skill area because the defendant's behavior in that area contradicted overall conclusions from the evaluation and their legal argument. Attorneys might have been concerned that jurors would not grasp how persons with MR can have both strengths and weaknesses in the same skill area.¹⁰¹ Finally, mental health experts may not have assessed functioning in those areas, or attorneys may not have understood how functioning in those areas was related to diagnostic criteria for MR.

Although most cases covered only a subset of the ten skill areas listed in the 1992 AAMR definition,¹⁰² more than seventy percent of the cases addressed all three domains of adaptive functioning listed in the 2002 AAMR/AAIDD guidelines (social, conceptual, practical).¹⁰³ Although the 2002 guidelines did not exist at the time of the nineteen trials, this finding does suggest some degree of convergence between the current AAMR/AAIDD definition and both lay and legal conceptions of MR.

C. Criminal Behavior and Self-Direction

As expected, criminal behavior was used to suggest impaired or unimpaired adaptive functioning in many cases (13 of 19). When information about criminal behavior was used in this manner, it typically was used to speak to the defendants' abilities in the area of self-direction. Self-direction skills include the ability to anticipate consequences, make choices, and solve problems.¹⁰⁴ In the trial transcripts, criminal behavior used by witnesses to speak to the defendants' self-direction skills included information about how the defendants had planned (or not planned) the crime or attempted to evade apprehension.

101. See, e.g., *Clark v. Quarterman*, 457 F.3d 441, 447 (5th Cir. 2006); AAMR, 10th ed., *supra* note 28, at 8; *Everington & Keyes*, *supra* note 49, at 32-33.

102. See AAMR, 9th ed., *supra* note 3, at 5.

103. See AAMR, 10th ed., *supra* note 28, at 8.

104. See *Biersdorff*, *supra* note 67, at 2; see also *infra* Table 1.

These findings are consistent with those from Young and colleagues' practitioner survey, which found that nearly all of the evaluators questioned felt it was appropriate, at least in some cases, to consider criminal behavior when making decisions about MR.¹⁰⁵ The findings are also consistent with court decisions supporting this practice.¹⁰⁶ Nevertheless, AAIDD and several prominent professionals in this area strongly argue against using information about criminal behavior in this manner.¹⁰⁷ The disconnect between the apparently consistent use of criminal behavior as information about adaptive functioning in capital cases and the most prominent professional organization in this area is disconcerting. Ironically, components of the 2002 AAIDD/AAMR criteria for diagnosing MR are referenced or codified in some state definitions of MR.¹⁰⁸ But courts in these same states are going against the AAIDD/AAMR criteria by allowing or even encouraging information about criminal behavior to be used in the MR decision making process.¹⁰⁹ Ultimately, findings from the current study can only reiterate the findings of Young and colleagues that criminal behavior has been used to suggest impairment or a lack of impairment in capital cases.¹¹⁰ This issue of whether criminal behavior should be used in this manner appears to be open to much debate.

D. Expert Witnesses and Test Use

Although we did not have any strong hypotheses about the extent to which expert and lay witnesses would provide testimony about MR, we were surprised by how infrequently experts were called to testify by both sides in the same case and how none of the experts reported results from commonly used measures of adaptive functioning. There were only three cases in which both the prosecution and the defense had experts testify.¹¹¹ In most cases with expert witness testimony, only one expert witness was called to testify.¹¹² In contrast, multiple lay witnesses testified about impairments related to MR in most cases.¹¹³ Together, these findings suggest a relative de-emphasis on expert witness testimony. The extent to which this emphasis is an effective trial strategy is unknown. It may be that jurors tend to find information about impairment to be highly credible when it is presented by someone who knows the defendant and has seen

105. See Young et al., *supra* note 11, at 173-74.

106. See *Clemons*, 2005 Ala. Crim. App. LEXIS 128 at *20; *Briseno*, 135 S.W.3d at 8.

107. See AAIDD, *supra* note 9, at 22; Greenspan & Switzky, *supra* note 14, at 290-92.

108. See DeMatteo et al., *supra* note 5, at 787-88.

109. See, e.g., *infra* Table 4.

110. See Young et al., *supra* note 11, at 172-74.

111. See *infra* Table 3.

112. See *infra* Table 3.

113. See *infra* Table 3.

his day-to-day behavior. However, jurors may also perceive that these lay witnesses lack objectivity and would be motivated to make the defendant seem impaired (e.g., friends, family members) or unimpaired (e.g., correctional officers) depending on their relation to the defendant. Jurors might perceive information about adaptive functioning to be more objective when it comes from experts, although experts can also be seen as lacking objectivity because they are being paid to testify by either the prosecution or defense.

Although Young and colleagues' findings suggested that the use of standardized adaptive functioning measures by experts would not be ubiquitous,¹¹⁴ we did not expect the almost non-existent use of instrument results in the nineteen cases. Only one expert reported the results of a measure specifically designed to assess adaptive functioning, the SSSQ,¹¹⁵ and there are many questions concerning the validity of this measure.¹¹⁶ None of the experts reported results from more widely known and used measures of adaptive functioning available at the time of these cases.¹¹⁷ It is possible that mental health experts administered one or more of these measures in some of the nineteen cases but either did not testify about their results in court or did not testify at all. It is also possible that none of the experts administered one of these measures.

The lack of an adaptive functioning instrument may have been a product of the absence of a recognized or "gold standard" instrument for use in these cases¹¹⁸ or concerns about whether these instruments were appropriate for use with adults or persons with a significant history of antisocial behavior.¹¹⁹ Instrument use, like criminal behavior, may be an issue about which practitioners and the AAMR/AAIDD do not completely agree.¹²⁰ However, it is the 2002 AAMR/AAIDD guidelines that mandate the use of a standardized measure to assess adaptive functioning, and it may be that instrument use has increased dramatically in death penalty cases since the 2002 definition.¹²¹ This may be one reason why Young and colleagues

114. See Young et al., *supra* note 11, at 172 (finding that four of thirteen psychologists used adaptive functioning measures when evaluating offenders on death row, and seven of thirteen used adaptive functioning measures when evaluating defendants awaiting trial).

115. See LINKENHOKER & MCCARRON, *supra* note 79.

116. See generally Denkowski & Denkowski, *supra* note 80.

117. See, e.g., ROBERT H. BRUININKS ET AL., SCALES OF INDEPENDENT BEHAVIOR - REVISED: COMPREHENSIVE MANUAL (1996); PATTI L. HARRISON & THOMAS OAKLAND, ADAPTIVE BEHAVIOR ASSESSMENT SYSTEM (2000); SPARROW ET AL., *supra* note 81.

118. See Brodsky & Galloway, *supra* note 41, at 7.

119. See Fabian, *supra* note 44, at 17-18; Stevens & Price, *supra* note 5, at 19-20; Young et al., *supra* note 11, at 172.

120. See AAMR, 10th ed., *supra* note 28, at 13 ("For diagnosis, significant limitations in adaptive behavior should be established through the use of standardized measures normed on the general population, including people with disabilities and people without disabilities . . .").

121. See *id.*

found that only about half of their evaluators reported using standardized measures of adaptive functioning in death penalty cases.¹²²

E. Study Limitations

Findings from the current study were based on an extensive review of more than 11,000 pages of sentencing phase testimony. Although the research team spent many hours developing and refining the coding process, coder agreement was acceptable, but modest, according to conventional standards. We attribute this level of agreement to the complexity of the coding task, the large amount of information to be coded, and the necessary use of subjective judgment by the coders. Because each case was evaluated by only one coder, it is likely that there were some idiosyncratic differences between the cases in what was coded as relating to MR and adaptive functioning, and in how some of the information was coded.

Other study limitations include the use of pre-*Atkins* cases, from only one state, that all resulted in a sentence of death. These factors were either not under our control or a product of financial restrictions for the study. The TCCA only has transcripts for cases that are appealed, and non-death sentence cases are rarely appealed. At the time of the study, the TCCA did not have any transcripts for post-*Atkins* trials. Finally, the research team only had the financial resources available to travel within the state of Texas to obtain transcripts.

VI. CONCLUSION

Despite its limitations, this study provides compelling baseline information regarding the presentation of information about MR in death penalty trials. Although trial strategy and expert witness practices may have changed considerably since the *Atkins* decision and the availability of the 2002 AAMR/AAIDD guidelines and other resources for experts,¹²³ these are empirical questions that can only be addressed through studies of post-*Atkins* cases.

122. See Young et al., *supra* note 11, at 172.

123. See, e.g., AAIDD, *supra* note 9; Stevens & Price, *supra* note 5.

APPENDIX

TABLE 1

Adaptive Functioning Skill Areas, Descriptors Used to Guide Coding, and Representative Behaviors Coded for Each Area

Adaptive Functioning Area	Descriptors for Coding	Representative Behaviors (from Transcript)
Communication	Understanding & expressing information through words, symbols or gestures; understanding & expressing emotions; understanding events & surroundings	Did not understand a lot of things; never showed emotion; difficulty in expressing himself, even in native tongue
Self-Care	Toileting; eating; dressing; hygiene	Can dress himself; needed a lot of help caring for himself
Home-Living	Household chores; budgeting; shopping; home safety; using telephone	Responsible for buying groceries; cannot make his bed; cannot keep his checkbook
Social	Managing social interactions & relationships; being manipulated	Lacks capability of social interaction; he is manipulative
Community Use	Getting around in the community; accessing public facilities & services	Drove car on one occasion; got lost a few blocks from home
Self-Direction	Making choices; self-advocacy; problem solving; accessing help when needed; being a follower; anticipating consequences; needing supervision; having street smarts	Made his own decisions; cannot plan
Health & Safety	Preventing, recognizing & addressing health & safety issues through good habits	Asked someone at the bus stop to come home to live with him; poor basic first aid
Functional Academics	Reading, writing & handling math well enough to function in community; knowing personal information; placed in special education classes	Capable of reading; does not know address or birth date; placed in special education classes
Leisure	Being aware of & participating in leisure & recreational activities that reflect personal preference	Enjoyed riding bike & playing marbles; cannot play cards
Work	Specific work skills; good work habits; taking direction well	Held a job in school cafeteria; did not need training to be a mechanic

TABLE 2
*Extent of Information Presented on Adaptive and Intellectual Functioning
 Across the 19 Cases*

Domain ^c / Skill Area ^d	Cases Addressing Domain or Skill Area	% of Total Information ^a Addressing Domain or Skill Area	% of AF ^b Information Addressing Domain or Skill Area
Intellectual Functioning	18	11.29	--
AF Domain: Conceptual	19	59.72	78.86
Skill: Communication	17	11.89	15.69
Skill: Functional Academics	19	17.47	23.09
Skill: Self-Direction	18	30.22	40.08
AF Domain: Social	16	5.40	7.13
Skill: Social Skills	16	4.71	6.23
Skill: Leisure	3	0.69	0.91
AF Domain: Practical	13	10.41	13.75
Skill: Self-Care	8	2.55	3.37
Skill: Home Living	8	2.45	3.24
Skill: Community Use	6	1.57	2.08
Skill: Work	13	3.83	5.06
AF: Other			
Skill: Health and Safety ^e	2	0.20	0.26

Note. ^aTotal information refers to segments referring to adaptive functioning, intellectual functioning, and general references to mental retardation. ^bAF = adaptive functioning. ^cDomain areas are those identified in the 2002 AAMR definition of MR. *See* AAMR, 10th ed., *supra* note 28, at 8. ^dSkill areas are those listed in the 1992 AAMR definition of MR. *See* AAMR, 9th ed., *supra* note 3, at 5. Skill areas are listed under their respective domains based on the table presented in the 2002 AAMR manual. *See* AAMR, 10th ed., *supra* note 28, at 82. ^eThe skill area of Health and Safety is listed here as the other category because it is listed under both Conceptual and Practical domains by the AAMR. *See* AAMR, 10th ed., *supra* note 28, at 82.

TABLE 3
Use of Expert and Non-Expert Witnesses to Testify about Mental Retardation

Defendant	Provided Information on MR (n)				All Other		% of Witnesses who Provided	
	Expert Witnesses		Non-Expert Witnesses		Witnesses (n)		Information on MR	
	Prosecution	Defense	Prosecution	Defense	Prosecution	Defense	Prosecution	Defense
Bradford	0	1	10	1	18	4	35.71	33.33
Carr	0	0	5	1	12	2	29.41	33.33
Chester	0	1	15	0	19	0	44.12	100.00
Davis	1	0	1	2	13	2	13.33	50.00
Dixon	0	1	1	9	10	0	9.09	100.00
Goynes	0	1	2	2	8	0	20.00	100.00
Hall	1	1	2	6	6	0	33.33	100.00
Lane	1	1	1	0	2	0	50.00	100.00
Modden	0	2	6	2	8	2	42.86	66.67
Penry	2	1	8	9	2	4	83.33	71.43
Richard	0	1	0	2	7	0	0	100.00
Rios	0	1	1	8	15	3	6.25	75.00
Simms	0	2	4	4	7	3	36.36	66.67
Smith, L	0	0	0	4	15	16	0	20.00
Smith, R	0	1	0	2	14	2	0	60.00
Stevenson	0	1	2	5	8	2	20.00	75.00
Taylor	0	0	0	2	13	2	0	50.00
Wills	1	0	1	0	10	2	16.67	0
Van Alstyne	0	0	0	3	7	2	0	60.00

TABLE 4
Criminal Behaviors and Adaptive Functioning

Defendant	Criminal behavior used to suggest level of adaptive functioning: Any skill area		Criminal behavior used to suggest level of adaptive functioning: Self-direction skill area	
	Number of Testimony Segments	% of all segments about adaptive functioning	Number of Testimony Segments	% of all segments about adaptive functioning
Bradford	1	3.45	0	0
Carr	13	41.94	13	100.00
Chester	68	51.91	65	95.59
Davis	1	6.67	1	100.00
Dixon	2	2.67	1	50.00
Goynes	8	18.18	4	50.00
Hall	1	0.96	0	0
Lane	3	8.82	2	66.67
Modden	0	0	0	^a
Penry	14	12.39	11	78.57
Richard	0	0	0	^a
Rios	0	0	0	^a
Simms	0	0	0	^a
Smith, L	2	11.76	2	100.00
Smith, R	2	20.00	0	0
Stevenson	3	9.68	3	100.00
Taylor	1	25.00	0	0
Wills	0	0	0	^a
Van Alstyne	0	0	0	^a

Note. ^a Percentages could not be calculated for defendants who did not have any adaptive functioning presented through criminal behavior.

TABLE 5
Transcripts Included in the Study

Defendant (Case Citation)	Number of transcript pages in punishment phase
Gayland Bradford (<i>Texas v. Bradford</i> , 1990)	1,536
Darrell Glenn Carr (<i>Carr v. Texas</i> , 1992)	337
Elroy Chester (<i>Chester v. Texas</i> , 1998)	844
Brian Edward Davis (<i>Davis v. Texas</i> , 1992)	757
Tony Tyrone Dixon (<i>Dixon v. Texas</i> , 1995)	552
Theodore Goynes (<i>Goynes v. Texas</i> , 1991)	392
Michael Wayne Hall (<i>Texas v. Hall</i> , 2000)	985
Doil Edward Lane (<i>Texas v. Lane</i> , 1994)	256
Willie Mack Modden (<i>Texas v. Modden</i> , 1992)	518
Johnny Paul Penry (<i>Texas v. Penry</i> , 1990)	1,144
Michael Wayne Richard (<i>Richard v. Texas</i> , 1987)	417
Joe Rios, Jr. (<i>Texas v. Rios</i> , 1989)	471
Demetrius Lott Simms (<i>Simms v. Texas</i> , 1996)	450
LaRoyce Lathair Smith (<i>Texas v. Smith</i> , 1991)	519
Robert Smith (<i>Smith v. Texas</i> , 1992)	759
Exzavier Lamont Stevenson (<i>Texas v. Stevenson</i> , 2000)	584
Elkie Lee Taylor (<i>Texas v. Taylor</i> , 1994)	349
Bobby Joe Wills (<i>Texas v. Wills</i> , 1985)	215
Gregory Van Alstyne (<i>Texas v. Van Alstyne</i> , 1992)	218