

FAKE IT TILL YOU MAKE IT: A REPLICATION OF SIMULATED MALINGERING OF
ADAPTIVE BEHAVIOR DEFICITS

by

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ABSTRACT

In 2002, the Supreme Court of the United States (SCOTUS) ruled that offenders diagnosed with intellectual disability (ID) could not be sentenced to death (*Atkins v. Virginia*). Though the judicial determination is made in accordance with the clinical definition, the decision is a legal one. The clinical definition is comprised of three parts: (1) deficits in intellectual functioning; (2) deficits in adaptive functioning; and (3) onset of these deficits during the developmental period, or prior to age 18. Both the assessment of intellectual and adaptive functioning are measured via standardized assessment instruments, and in the case of adaptive behavior, collateral information. As is true for all assessments, the use of standardized measures is important, but only if the product is valid. The aim of this study was to assess the susceptibility of three commonly used measures of adaptive behavior (i.e., SIB-R, ABAS-3, and Vineland-3) to malingering. The study is a replication and extension of a previous study conducted a decade ago by Doane and Salekin (2009). As was found in the original study, the SIB-R was particularly sensitive to detecting biased responding, while the ABAS-3 was the most susceptible to feigned deficits. The Vineland-3, which was not examined in the previous study, demonstrated moderate sensitivity to differentiating between high and low deficit endorsement. Lastly, the influence of knowledge regarding characteristics associated with ID did not aid participants in malingering in a more effective manner; this was true across conditions (i.e., mild, moderate and unspecified ID).

LIST OF ABBREVIATIONS AND SYMBOLS

AAIDD	American Association on Intellectual and Developmental Disabilities
ABAS-II	Adaptive Behavior Assessment System – 2 nd Edition
ABAS-3	Adaptive Behavior Assessment System – 3 rd Edition
ABC	Adaptive Behavior Composite score (Vineland-3)
ANOVA	Analysis of Variance
APA	American Psychiatric Association
BDQ	Baseline Definition Questionnaire
DCQ	Definition Comprehension Questionnaire
DSM-IV-TR	Diagnostic and Statistical Manual of Mental Disorders, 4 th Edition, Text Revision
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5 th Edition
<i>F</i>	F statistic: Value calculated by ratio of two sample variances
<i>f</i>	Cohen's <i>f</i> : Value of effect size
GAC	General Adaptive Composite score (ABAS-3)
ID	Intellectual Disability
IQ	Intelligence Quotient
<i>M</i>	Mean: The sum of a set of values divided by the number of values in the set
MANOVA	Multiple Analyses of Variance
<i>N</i>	Number of participants in a given sample

N	Number of participants in a given group
η^2	Eta-squared: Value of effect size
p	Probability associated with the occurrence under the null hypothesis of a value extreme as or more extreme than the other observed value
SCOTUS	Supreme Court of the United States
<i>SD</i>	Standard deviation: Value of variation from the mean
SIB-R	Scales of Independent Behavior – Revised
Vineland-2	Vineland Adaptive Behavior Scales – 3 rd Edition
Vineland-3	Vineland Adaptive Behavior Scales – 2 nd Edition
\pm	A symmetric interval or range of values
=	Equal to

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1. INTRODUCTION

In 2002, the Supreme Court of the United States (SCOTUS) ruled in the landmark case, *Atkins v. Virginia*, that it is unconstitutional to sentence offenders with intellectual disability to death. In this case, Daryl Renard Atkins was found guilty of kidnapping, armed robbery, and capital murder, for which he was subject to the imposition of the death penalty. During the sentencing phase of the trial, the defense called into question Atkins' level of intellectual functioning and whether he met criteria for intellectual disability (ID). A psychologist hired by the defense, Dr. Evan Nelson, testified that Atkins had an intelligence quotient (IQ) of 59, which placed him in range of what was then termed mild mental retardation. A state-hired psychologist, Dr. Stanton Samenow, differed in opinion and found Atkins to be of "average intelligence, at least" (*Atkins v. Virginia*, 2002, p. 309) and diagnosable with Antisocial Personality Disorder. Of note, Dr. Nelson conducted his assessment via interviews with individuals who were familiar with Atkins, review of school and legal records, and use of a standardized intelligence test. Dr. Samenow drew his conclusion regarding Atkins' intellectual functioning based on interviews with Atkins and correctional officers, as well as a review of his school records. Of interest, Dr. Samenow did not administer a standardized assessment of intelligence. In the end, the jury sided with the position of the prosecution and sentenced Atkins to death (*Atkins v. Virginia*, 2002).

Following his conviction, Atkins appealed the sentence and his case was eventually sent to SCOTUS. The basis of the appeal was not that the death penalty was incommensurate to the crimes for which he was convicted, but that executing people with ID was in violation of the Eighth Amendment ban on cruel and unusual punishment. The argument was made that ID

limited Atkins' reasoning, judgment, and impulse control, which thereby diminished his culpability. At the time of oral argument, 18 states prohibited the execution of individuals diagnosed with ID. In a 6-3 decision, SCOTUS ruled that deficits associated with ID impede the goals of retribution and deterrence, and therefore all individuals with ID who were convicted of capital murder had constitutional protection against execution. The Court did not dictate how the states were to diagnose ID in this ruling, but instead took the same approach as in *Ford v. Wainwright* (1986) with regard to insanity, stating "we leave to the State[s] the task of developing appropriate ways to enforce the constitutional restriction upon its execution of sentences" (pp. 417-418).

Former Justice Antonin Scalia was one of three judges in dissent of this decision (*Atkins v. Virginia*, 2002). In his dissent, he expressed concern that the ban on capital punishment for defendants diagnosed with ID would lead to an onslaught of petitions that were not based on true concerns, but instead on the desire to escape the death penalty. He asserted:

This newest invention promises to be more effective than any of the others in turning the process of capital trial into a game. One need only read the definitions of mental retardation adopted by the American Association of Mental Retardation and the American Psychiatric Association (set forth in the Court's opinion, *ante*, at 2-3, n. 3) to realize that the symptoms of this condition can readily be feigned. And whereas the capital defendant who feigns insanity risks commitment to a mental institution until he can be cured (and then tried and executed), *Jones v. United States*, 463 U. S. 354, 370, and n. 20 (1983), the capital defendant who feigns mental retardation risks nothing at all. The mere pendency of the present case has brought us petitions by death row inmates claiming for the first time, after multiple habeas petitions, that they are retarded... (p. 17)

According to Blume and colleagues, this onslaught predicted by Justice Scalia never occurred. In 2014, Blume, Johnson, Marcus, and Paavola conducted a review of death penalty cases in which *Atkins* claims were brought forth from the time of the ruling in 2002 to the end of 2013. They found that, of the 3,557 inmates on death row at the time of the ruling and 1,262 individuals who were sentenced to death between then and 2013, only 371 individuals put forth petitions on the basis of *Atkin v. Virginia*. This means that only approximately 7.7% of individuals facing the death penalty in this time could have potentially had their lives spared because of the *Atkins* decision. Now knowing that the prevalence of such claims is considerably low, contradictory to Justice Scalia's concerns, it is worth examining the issue he raised of the ease with which an individual could successfully feign ID to escape capital punishment.

Malingering in *Atkins* Cases

As alluded to by Justice Scalia, evaluators must be aware of the possibility of malingering when conducting forensic assessments. Malingering is defined by the APA (2013) as "the intentional production of false or grossly exaggerated physical or psychological symptoms, motivated by external incentives such as avoiding military duty, avoiding work, obtaining financial compensation, evading criminal prosecution, or obtaining drugs" (p. 726).

Research has shown that individuals, in their attempt to malingering, often exaggerate symptoms to such a degree that they are identified by validity scales or indicators (Butcher et al., 2001; Rogers, 1997; Rogers, Bagby, & Dickens, 1992). A key component in assessment of ID is evaluating an individual's level of adaptive functioning and, at the time of writing, such measures do not have embedded scales or indicators of malingering or exaggeration; as such, the determination is based on clinical judgment. Additionally, the assessment of malingering has typically been linked to fabricated or exaggerated symptomology by the defendant, not their

family members or other collateral sources who typically complete assessments of adaptive behavior. Within the context of an assessment of ID, feigning can be relevant to assessments conducted with the defendant, but also collateral sources who have incentive to malingering.

Research related to malingering of ID has been largely focused on feigning intellectual deficits (Graue et al., 2007; Shandera et al., 2010). Research related to malingering of adaptive functioning is limited to a single study conducted by Doane and Salekin in 2009. These researchers assessed the susceptibility of two commonly used measures of adaptive behavior (i.e., Adaptive Behavior Assessment System – 2nd Edition [ABAS-II] and Scales of Independent Behavior – Revised [SIB-R]) to feigned deficits. They did so by providing participants with a vignette that depicted a scenario in which they are trying to successfully feign deficits commensurate with a diagnosis of ID; the incentive was to save their hypothetical loved one from the death penalty. Additionally, they assessed whether the provision of the diagnostic criteria for ID aided in successful malingering by manipulating education that participants received on ID across four groups.

Doane and Salekin (2009) found that the ABAS-II was susceptible to malingering through its lack of sensitivity, meaning participants who endorsed a high number of deficits had final standard scores that were not much lower than participants who endorsed only a moderate number of deficits. Additionally, they found the SIB-R was more sensitive to detecting feigned responses, in that the endorsement of a moderate to high number of deficits resulted in standard scores indicative of exaggeration (i.e., scores consistent with severe or profound ID). Lastly, the researchers noted that education did not help participants feign in a manner that was more believable than naïve malingerers.

Due to changing contextual factors (i.e., the release of new adaptive behavior measures and updated clinical definitions of ID) and the dearth of research since this time, the current study aimed to replicate and expand upon the results from this novel study. To better understand this issue of malingering adaptive behavior deficits, though, it is essential to first review both clinical definitions of ID and common assessment procedures.

Definitions of Intellectual Disability

Though somewhat different, the definitions of ID put forth by the American Psychiatric Association (APA) and the American Association for Intellectual and Developmental Disabilities (AAIDD) are generally the same, and are the two most widely used in the United States.

American Psychiatric Association (APA). In the APA's *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; APA, 2013), diagnostic criteria for ID are as follows:

Intellectual disability (intellectual developmental disorder) is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains. The following three criteria must be met:

- A. Deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
- B. Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limited functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.

C. Onset of intellectual and adaptive deficits during the developmental period (p. 33).

The APA (2013) also requires that the severity of impairment be specified, and severity is categorized into four classifications: Mild, Moderate, Severe, and Profound. It is noted that this severity classification is determined based on an individual's level of adaptive functioning rather than intelligence (specifically, IQ scores obtained from standardized measures of intelligence), as had previously been the case. The APA (2013) supported this change by arguing that it is adaptive functioning, and not IQ scores, which determines the level of support an individual needs to function independently at the highest level. Additionally, they stated that "IQ measures are less valid in the lower end of the IQ range," which further warranted this change (p. 33).

Based on the work of Tassé et al. (2012), the APA (2013) more descriptively defines adaptive behavior as "how well a person meets community standards of personal independence and social responsibility, in comparison to others of similar age and sociocultural background" (p. 37). The APA further breaks down adaptive functioning into three domains: conceptual, social, and practical. The conceptual domain refers to an individual's capabilities in areas such as memory, language, reading, writing, problem solving, and judgment in novel situations. The social domain refers to an individual's functioning in areas such as interpersonal communication skills, empathy, friendship abilities, and social judgment. Lastly, the practical domain refers to an individual's learning and self-management across various life settings, including such areas as personal care, money management, and recreation (APA, 2013).

American Association for Intellectual and Developmental Disabilities (AAIDD). The AAIDD (2010) defines ID similarly to the APA (2013). As per the AAIDD, intellectual disability is "characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability

originates before the age of 18” (p. 5). However, unlike the APA, the AAIDD does not delineate the severity of disability, neither by measured intelligence nor by deficits in adaptive behavior. The AAIDD does assert that there are five assumptions that should be applied to the definition of ID, as they clarify the context from which the definition arises. The five assumptions are as follows:

(1) Limitations in present functioning must be considered within the context of community environments typical of the individual’s age peers and culture. (2) Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors. (3) Within an individual, limitations often coexist with strengths. (4) An important purpose of describing limitations is to develop a profile of needed supports. (5) With appropriate personalized supports over a sustained period, the life functioning of the person with ID generally will improve (p. 7).

The AAIDD (2010) defines adaptive behavior as “the collection of conceptual, social, and practical skills that have been learned and are performed by people in their everyday lives” (p. 43). Similar to the APA (2013), the AAIDD (2010) acknowledges the multidimensionality of adaptive functioning and asserts that it should be addressed in three domains: conceptual skills, social skills, and practical skills. These three dimensions follow the same general concepts as the domains put forth by the APA (2013). The AAIDD (2010) defines conceptual skills as skills relating to language, reading and writing, and money, time, and number concepts. Their definition of social skills incorporates concepts such as interpersonal skills, social responsibility, self-esteem, gullibility, naïveté, follows rules/obeys laws, avoids being victimized, and social problem solving. Finally, they define practical skills as skills in activities of daily living

(personal care), occupational skills, use of money, safety, health care, travel/transportation, schedules/routines, and use of the telephone (AAIDD, 2010).

State Statutes

As previously mentioned, the Supreme Court did not define intellectual disability and did not force adherence to a clinical definition at the time of the *Atkins* ruling (*Atkins v. Virginia*, 2002). Subsequently, definitions of ID were created by either case law or state legislation and varied by state or trier-of-fact. Not surprisingly, there was variability in standards of practice regarding the assessment of ID in capital cases. In 2017, the SCOTUS ruled that the use of outdated medical standards in the assessment of intellectual disability violates the Eighth Amendment (*Moore v. Texas*, 2017). As noted by the majority, disregarding standard error of measurement in interpretation of IQ scores and considering level of adaptive functioning in a manner that deviated from prevailing clinical standards violated the Eighth Amendment's prohibition against cruel and unusual punishment. In the wake of this ruling, states are now required to adhere to current medical standards when assessing intellectual disability to determine whether a person is exempt from execution.

Adaptive Behavior Assessment

Both the APA (2013) and AAIDD (2010) assert that, unless there is a compelling reason not to, adaptive behavior is to be assessed via standardized assessment instruments. According to the APA (2013), these standardized instruments should be both culturally appropriate and psychometrically sound, and used with knowledgeable informants (e.g., family members, teachers, and friends) and when possible, the individual. The AAIDD (2010) also supports use of such standardized measures, but purports that they only be used with second party informants, and not the individual themselves. The AAIDD (2010) further adds that the norms for

standardized measures used in the assessment of ID should include both people with and without disabilities. Of note, neither organization, nor the courts, have mandated the use of a particular measure of adaptive behavior in the context of capital cases; that decision has been left up to the evaluator.

As described by the AAIDD (2010), significant limitations in adaptive behavior are defined as performance on these standardized measures that is at least “approximately two standard deviations below the mean of either (a) one of the following three types of adaptive behavior: conceptual, social, or practical, or (b) an overall score on a standardized measure of conceptual, social, and practical skills (p. 43).” According to the APA (2013), an individual can be considered to have deficits in adaptive behavior when:

at least one domain of adaptive functioning—conceptual, social, or practical—is sufficiently impaired that ongoing support is needed in order for the person to perform adequately in one or more life settings at school, at work, at home, or in the community (p. 38).

Measures of Adaptive Behavior. Some commonly used measures of adaptive behavior are the Scales of Independent Behavior – Revised (SIB-R; Bruininks et al., 1996), the Adaptive Behavior Assessment System – 3rd Edition (ABAS-3; Harrison & Oakland, 2015), and the Vineland Adaptive Behavior Scales – 3rd Edition (Vineland-3; Sparrow, Cicchetti, & Saulnier, 2016). These three standardized measures are similar in that they provide information that can be used to diagnose intellectual disability (i.e., standard scores are compared to population norms), but they differ in structure and content. Both the SIB-R and ABAS-3 are rating scales, while the Vineland-3 is available in both rating scale and semi-structured interview formats.

Each of these measures provide valuable information through assessing the specific adaptive behavior domains (i.e., conceptual, social, and practical) laid out by the APA (2013) and AAIDD (2010). As noted in the manual of the Vineland-3 (Sparrow et al., 2016), three of the four domains (i.e., Communication, Daily Living Skills, and Socialization) included on this instrument “align with the major adaptive behavior areas specified for the diagnosis of intellectual disability” (p. 4). Harrison & Oakland (2015) similarly indicated that the three domains incorporated in the ABAS-3 (i.e., Conceptual, Social, and Practical) are assessed in a manner that is consistent with clinical standards. In contrast, the SIB-R (Bruininks et al., 1996) was published more than a decade before the publication of the DSM-5 (APA, 2013) and the AAIDD’s (2010) current termination and classification manual, and therefore, it is not structured in accordance with the current definitions of intellectual disability. Tassé and colleagues (2012) have indicated, though, the SIB-R is “based on the measurement of specific adaptive skills that reflect a multidimensional conceptual and measurement model of adaptive behavior,” and that this model “generally includes conceptual, social, and practical adaptive behavior domains” (p. 295). Furthermore, the researchers noted the SIB-R would be an “adequate choice to use in assessing an individual’s adaptive behavior for the purpose of ruling in or out a diagnosis of ID” (p. 295).

As previously noted, when assessing adaptive behavior, an important factor to consider is the knowledge and familiarity that the rater who completes the assessments has with the individual being rated. Careful selection of reliable raters is critical to obtaining valid scores on these measures. However, within the context of capital sentencing, there are concerns regarding the validity of the results because raters may have that external incentive to feign or exaggerate the adaptive functioning deficits of the individual in question. The incentive in a capital case

would be to prevent their friend or loved one from receiving a death sentence (Chafetz, 2015; Tassé, 2009).

2. CURRENT STUDY

The aforementioned Doane and Salekin study was published in 2009 and remains the sole source of information regarding the malingered responding by collateral sources. For this and other reasons, replication and extension of the results of this study is important. Participants in the 2009 study were provided the definition of ID from the DSM-IV-TR (APA, 2000), which has since been replaced by that of the DSM-5 (APA, 2013). As previously described, this revision came with many changes, one of which being how the levels of ID severity are determined. In contrast to the definition in the DSM-IV-TR (APA, 2000), the current definition bases level of impairment (i.e., mild, moderate, severe, or profound) on adaptive functioning deficits rather than IQ score. Additionally, adaptive functioning deficits are now classified into three domains (i.e., conceptual, social, and practical); this is in contrast to the DSM-IV-TR (APA, 2000), which listed 10 different areas of possible deficits and impairments were needed in two of those 10 areas to meet diagnostic criteria. Another difference between the DSM-IV-TR (APA, 2000) and the DSM-5 (APA, 2013) is the provision of detailed examples of deficits associated with each severity level within each functioning domain. This differs from the education provided in the Doane and Salekin (2009) study, which used the DSM-IV-TR's (APA, 2000) severity criteria based on IQ level and excerpts from the *Handbook of Medical Psychiatry* (1996) to provide the additional information on ID severity specifiers to participants. These changes are substantial and warranted investigation.

In addition to a shift in definition and diagnostic criteria for ID, replication was warranted because one of the measures of adaptive functioning used in the Doane and Salekin (2009) study

was revised and published in 2015. According to the manual, the ABAS-3 differs from the ABAS-II with the collection of new standardization samples and development of updated forms, as well as the addition of new items to aid in distinguishing low versus high ability (Harrison & Oakland, 2015). Evaluation of the susceptibility of the ABAS-3 to feigned responding is especially important given that Doane and Salekin (2009) found the ABAS-II was particularly vulnerable to malingered responding due to a lack of sensitivity in differentiating between moderate and severe deficits.

Lastly, in 2016, another updated adaptive behavior measure was released, the Vineland-3 (Sparrow et al.). Although the Vineland-II (Sparrow, Cicchetti, & Balla, 2005) was not included in the original study (Doane & Salekin, 2009), this new version is highly relevant because it can be administered in the form of a rating scale (Sparrow et al., 2016) and, therefore, it can be compared directly to the SIB-R and ABAS-3. Additionally, research had not been conducted with the Vineland-3 regarding malingered adaptive behavior deficits prior to the current study.

These changes (i.e., new ID diagnostic criteria, updated ABAS-3, and new format in the Vineland-3), along with a dearth of research regarding malingered adaptive behavior deficits since 2009, supported the need for replication of the Doane and Salekin (2009) study. The current study utilized the same research design as the 2009 study, where participants attempted to feign adaptive behavior deficits consistent with a diagnosis of ID on adaptive behavior measures. The current study employed a one-factor (four levels) between-subjects design identical to the 2009 study. The four conditions differed with respect to the provision of education: (1) education was not provided (Control); (2) non-specific information regarding ID was provided (ID); (3) education specific to mild ID was provided (Mild ID); and (4) education specific to moderate ID was provided (Moderate ID). The purpose of this study was two-fold: (1)

to determine if three commonly used measures of adaptive behavior (i.e., the Vineland-3, ABAS-3, and SIB-R) were susceptible to malingering; and (2) to determine if education regarding ID impacted individuals' abilities to feign deficits commensurate with the adaptive functioning level of an individual with ID.

Primary Hypotheses

Predictions regarding participants' performance on the adaptive behavior measures were delineated in the following hypotheses:

1. It was hypothesized that the majority of participants across all four conditions would score at least two standard deviations below the normative mean (i.e., below 100) on the overall composite scores on the SIB-R, ABAS-3, and Vineland-3. This hypothesis was based on the finding from the Doane and Salekin study (2009) that all participants endorsed deficits that, while too severe, were still commensurate with the definition of ID at that time.
2. It was hypothesized the provision of educational materials would produce significant differences in participants' performance on the SIB-R, ABAS-3, and Vineland-3. Specifically, it was predicted that participants in the Moderate ID group would produce scores that were significantly lower than participants in the Mild ID group. Although significant differences were not observed in the original study (Doane & Salekin, 2009), the descriptions of adaptive functioning broken down by severity level, which is now provided in the DSM-5 (APA, 2013), would likely provide valuable information in producing more believable presentations for the conditions that received such education.
3. It was hypothesized that deficit endorsement on the ABAS-3, Vineland-3, and SIB-R across the more highly educated conditions (i.e., Mild ID and Moderate ID) would not be

severe enough to indicate exaggeration (i.e., three or more standard deviations below the normative mean) and call into question the validity of the ratings. This threshold for determining exaggeration was the cut score that was employed by the original authors (Doane & Salekin, 2009). This is counter to one finding of the Doane and Salekin (2009) study – that the SIB-R has sufficient sensitivity to detect malingered responding. It was hypothesized that the level of detail that was now provided in the educational material would be effective at teaching participants how to moderate their responses in a way that would go undetected on all measures.

4. It was hypothesized that participants in the Control group (i.e., those who did not receive education on ID) would endorse deficits that were severe enough to indicate exaggeration (i.e., three or more standard deviations below the normative mean). This hypothesis was based on the tendency for malingerers to over-report deficits (Rogers, 1997; Rogers, Bagby, & Dickens, 1992), as well as past research that has shown people underestimate the ability of individuals with ID to function independently (McConkey, McCormack, & Naughton, 1983).

Exploratory Analyses

In addition to the aforementioned hypotheses, effect of condition on domain or cluster scores for each adaptive functioning measure was also considered, as was done in the original study (Doane & Salekin, 2009). This effect was assessed by analyzing the data to determine whether significant differences in participants' performance on domain and cluster scores for the Vineland-3, SIB-R, and ABAS-3 could be predicted by condition. Furthermore, because Doane and Salekin (2009) found the ABAS-II to be more susceptible to biased responding than the

SIB-R, each measure in the current study was assessed for susceptibility to malingering through examination of the floor effect.

3. METHODOLOGY

Participants

Utilizing a sample similar to that from the Doane and Salekin (2009) study, participants were recruited through a Psychology 101 subject pool at a large southeastern university, which consisted of undergraduate students enrolled in an Introduction to Psychology course. In addition to receiving course credit for participation, all participants were entered into a drawing where five names were selected to win five \$100 cash prizes. This monetary incentive was offered to increase the participants' motivation to feign deficits to the best of their ability, and was the same incentive provided in the original study (Doane and Salekin, 2009). Using the same parameters as Doane and Salekin (2009), a power analysis was conducted using a medium effect size of $f = .25$, an alpha significance value of $p = .05$, and a power of $.80$ ($1 - \beta$) (Faul & Erdfelder, 1992), and resulted in a recommended sample size of 180 participants.

A total of 205 individuals participated in the study. One individual withdrew their participation after signing consent and another requested their data not be used following debriefing; these individuals' data were not included in any analyses for the current study. The remaining sample consisted of 203 participants (Frequencies: Control = 51; ID = 53; Mild ID = 49; Moderate ID = 50). These individuals ranged in age from 18 to 23 ($M = 18.71$, $SD = 0.90$), though 22 participants did not provide their age. The majority of participants self-identified as female (69.5%) and White/Caucasian (74.9%). The remaining participants identified as Black/African American (15.8%), Hispanic/Latino/Latina (3.9%), Biracial (3.9%), and Asian/Asian American (1.0%). One participant identified as Native American (0.5%). Of note,

the demographic make-up of this sample closely resembled that of the original study's sample, which was also predominately comprised of individuals who self-identified as White/Caucasian females with a mean age of 19.25 (Doane & Salekin, 2009).

The years of education endorsed by participants ranged from high school graduates with less than one semester of college to individuals with four years of college who had yet to graduate, with 69.0% of participants self-identifying as high school graduates who had not completed a full semester of college (n=140). The mean grade point average (GPA; either high school or university) for participants was 3.55 ($SD = 0.63$). Four participants endorsed having been evaluated for intellectual disability in the past (2.0%), and 26 participants endorsed having been evaluated for learning disability in the past (12.8%). Additionally, 11.3% of participants in the sample endorsed special knowledge of ID or previous employment with individuals with ID (n=23).

Measures

Demographic Questionnaire. The demographic questionnaire (Doane, 2006; see Appendix A) consisted of items that captured participants' age, race, years of education, previous experience with individuals with an intellectual disability, and whether they have been evaluated for an intellectual or learning disability in the past.

Baseline Definition Questionnaire (BDQ). The BDQ (Doane, 2006; see Appendix B) consisted of one open-ended item that required participants in the Control group to define ID. This question served as a measure of the accuracy of naïve (Control) participants' pre-existing knowledge of ID. Responses on this questionnaire were coded as follows: (0) No mention of any of the three main parts of the APA or AAIDD definitions of ID (i.e., cognitive deficits, adaptive functioning deficits, or onset of symptoms before age 18), (1) One part of the APA or AAIDD

definitions mentioned, (2) Two parts of the APA or AAIDD definitions mentioned, (3) All three parts of the APA or AAIDD definitions of ID mentioned.

Definition Comprehension Questionnaire (DCQ). The DCQ (Doane, 2006; see Appendix C) came in three forms: ID (without severity specifier), Mild ID, and Moderate ID. Participants received the form that corresponded with their condition assignment. All forms were comprised of two open-ended questions which required the participant to define ID and adaptive behavior. Participants in the Mild and Moderate ID groups were also asked to list two behaviors that are consistent with their condition assignment. These forms served as a manipulation and comprehension check to ensure that participants read and, for the most part, understood the educational materials given to them.

The responses for the ID item were coded as follows: (0) No mention of any of the three main parts of the APA or AAIDD definitions of ID (i.e., cognitive deficits, adaptive functioning deficits, or onset of symptoms before age 18), (1) One part of the APA or AAIDD definitions mentioned, (2) Two parts of the APA or AAIDD definitions mentioned, (3) All three parts of the APA or AAIDD definitions of ID mentioned. Responses to the adaptive functioning/adaptive behavior item were coded as follows: (0) Definition did not include any mention of skills needed for everyday independent living, skills needed for personal independence or social responsibility, or any examples of at least one of the three APA or AAIDD domains of adaptive behavior (Social, Practical, and Conceptual), (1) Definition mentioned skills needed for everyday independent living, skills needed for personal independence or social responsibility, or any example of at least one of the three APA or AAIDD domains of adaptive behavior (Social, Practical, and Conceptual). Responses to the third item that required the participants to list two behaviors commensurate with behaviors found in individuals with either mild or moderate ID

were coded as follows: (0) No appropriate behaviors listed, (1) One appropriate behavior listed, (2) Two or more appropriate behaviors listed.

Adaptive Behavior Assessment System – Third Edition (ABAS-3). The ABAS-3 (Harrison & Oakland, 2015) is a norm-based, broad measure of adaptive behavior that can be used with individuals aged 0 – 89. It comes in five forms: Parent/Primary Caregiver (Ages 0 – 5 years), Parent (Ages 5 – 21 years), Teacher/Daycare Provider (Ages 2 – 5 years), Teacher (Ages 5 – 21 years), and Adult (Self & Rated by Others; Ages 16 – 89 years). The Adult Form (Rated by Others) was used in this study. This form consists of 239 items that require raters to report their knowledge of the adaptive functioning of an individual with a specific focus on their ability level and the frequency with which they independently perform a task when needed. Raters evaluate the individual’s performance using a four-point Likert scale, with responses ranging from (0) *Is Not Able* to (3) *Always When Needed*.

The ABAS-3 classifies adaptive skills using 11 subscales: Communication, Community Use, Functional Academics, School/Home Living, Health & Safety, Leisure, Self-Care, Self-Direction, Social, Work, and Motor (see Table D1 for further details regarding subscale and domain components). These 11 subscales are grouped under three broad domains: Conceptual (communication and academic skills), Social (interpersonal and social competence skills), and Practical (independent living and daily living skills). In addition to domain scores, the ABAS-3 provides a General Adaptive Composite (GAC) score, which is an overall index of adaptive behavior. Deficits on this assessment are expressed in standard scores, with a mean of 100 and standard deviation of 15, for each domain and the GAC (Harrison & Oakland, 2015).

Regarding this measure’s reliability, the authors reported a high degree of internal consistency, with reliability coefficients ranging from .96 to .99 for the GAC across the different

forms. Additionally, the reliability coefficients ranged from .96 to .99 for the adaptive domains and from .82 to .99 for the subscales on the Adult (Rated by Others) form, which was the form used in the current study. The authors also provided a standard error of measurement (SEM) for the adaptive domains, which ranged from 2.33 to 2.60, and the GAC, which was 1.60, on this form of the measure. The average test-retest correlation was .75 for the subscale scaled scores, .85 for the adaptive domain standard scores, and .89 for the GAC score. Lastly, the authors assessed this measure's interrater reliability by calculating the effect size of the difference between two respondents' scores and computing corrected Pearson correlation coefficients. They reported an average effect size of .05 for subscale scaled scores, -.07 for the adaptive domain standard scores, and .07 for the GAC score. The average corrected correlations for the subscale scores, adaptive domain scores, and GAC were .74, .83, and .87, respectively (Harrison & Oakland, 2015).

With respect to validity, the authors provided information that adequately supports the theoretical structure of the ABAS-3. For the Adult (Rated by Others) form, the average intercorrelation between subscale scores was .57, and the average intercorrelation between adaptive domain standard scores was .82. The average intercorrelation between subscale scores and adaptive domain standard scores was .78, and the average intercorrelation between the adaptive domain scores and GAC scores was .86. Additionally, the authors performed confirmatory factor analyses to assess how well the measure's factor structure fits with the three domains of adaptive behavior described by the AAIDD (i.e., Conceptual, Social, and Practical; 2010). For their factor analysis, the authors provided the Tucker-Lewis Index (TLI) for each form, which is a goodness-of-fit measure that ranges from 0 to 1 (1 indicating a perfect model match). Regarding the Adult (Rated by Others) form, they reported a TLI of 0.956 for the

AAIDD's (2010) three factor model of adaptive behavior, suggesting the ABAS-3's data produces a close fit to the domains in this model (Harrison & Oakland, 2015).

Scales of Independent Behavior – Revised (SIB-R) Full Scale. The SIB-R (Bruininks et al., 1996) is a comprehensive, norm-based assessment of adaptive and maladaptive behavior used to determine an individual's level of functioning. It consists of 259 items that comprise 14 adaptive skill subscales. The SIB-R was designed to measure adaptive functioning across a variety of settings, including school, home, employment, and the community. It has been validated for use with individuals from infancy to 80+ years of age and is most often administered as a rating form, which takes approximately one hour to complete. For each item, raters are presented with different statements that require them to evaluate the ability and frequency with which an individual can, or does, perform each task independently. Raters evaluate the individual's performance using a four-point Likert scale, with responses ranging from (0) *Never or Rarely – even if asked* to (3) *Does very well – always or almost always – without being asked*.

The 14 adaptive skill subscales include Gross Motor, Fine Motor, Social Interaction, Language Comprehension, Language Expression, Eating, Toileting, Dressing, Self-Care, Domestic Skills, Time & Punctuality, Money & Value, Work Skills, and Home/Community. These subscales are organized into four adaptive behavior clusters, which serve as the main interpretation level for the SIB-R (Bruininks et al., 1996). These clusters represent four adaptive behavior domains: Motor, Social Interaction and Communication, Personal Living, and Community Living (see Table D2 for further details regarding subscale and cluster components). A Broad Independence Score can also be obtained on the SIB-R, which represents an individual's overall level of adaptive functioning. Deficits on this assessment are expressed in

terms of standard scores, with a mean of 100 and standard deviation of 15, for each cluster and the Broad Independence Score composite (Bruininks et al., 1996).

Regarding the validity and reliability of this measure, the authors reported median corrected split-half reliabilities of the cluster scores. They included reliability coefficients for different age groups and for the overall sample of 2,182 individuals; however, of importance to this study is the findings for the adult/adolescent age group, drawn from a sample of 754 individuals aged 13 to 90 years. Reliability coefficients for each subscale are reported, and all but one subscale falls in the range of $r_{11} = .72-.93$. The Toileting subscale received a reliability coefficient of $r_{11} = .51$ (Bruininks, et al., 1996). The authors also provided a standard error of measurement for each subscale, which ranged from 3.1 to 5.4. They also assessed the measure's construct validity through intercorrelations among the adaptive behavior cluster scores finding correlations ranging from .91 to .93 (Bruininks, et al., 1996).

Vineland Adaptive Behavior Scales – Third Edition (Vineland-3). The Vineland-3 (Sparrow et al., 2016) is a norm-based, individually-administered measure of adaptive functioning. It comes in three formats: Interview Form (for ages 0 – 90+), Parent/Caregiver Form (for ages 0 – 90+), and Teacher Form (for ages 3 – 21 years). Each form comes in both a longer version (Comprehensive) and shorter version (Domain-Level), either of which can be used depending on the purpose of the evaluation.

The Comprehensive Parent/Caregiver Form was used in this study due to its rating scale format. This form consists of 502 items that require raters to report their knowledge of the adaptive functioning of an individual with a specific focus on their ability and the frequency with which they perform a given task without needed help or reminders. Raters evaluate the

individual's performance on a three-point Likert scale, with possible responses of (0) *Never*, (1) *Sometimes*, or (2) *Usually or often* (Sparrow et al., 2016).

The Vineland-3 classifies adaptive skills using nine subdomains: Receptive, Expressive and Written Communication; Personal, Domestic, and Community Daily Living Skills; Interpersonal Relationships; Play and Leisure; and Coping Skills. These 9 subdomains are then grouped under 3 broad domains: Communication, Daily Living Skills, and Socialization (see Table D3 for further details regarding subdomain and domain components). In addition to the domain scores, the Vineland-3 provides an Adaptive Behavior Composite (ABC), which is an index of overall adaptive functioning. Deficits on this assessment are expressed in standard scores, with a mean of 100 and a standard deviation of 15, for both the composite and domain scores (Sparrow et al., 2016).

With respect to this measure's reliability, the authors reported internal consistency reliability coefficients that were generally in the "good to excellent" range for the Comprehensive Parent/Caregiver Form (which was used in the current study). Specifically, reliability coefficients for this form ranged from .92 to .97 for the subdomains and .96 to .98 for the domains and ABC composite. The authors reported standard errors of measurement ranging from .54 to .87 for the subdomains and 1.68 to 3.11 for the domains and ABC on this form. Additionally, the authors reported test-retest reliability coefficients in the "excellent" range for the Parent/Caregiver Form, with corrected correlation coefficients ranging from .61 to .93 for the subdomains and .64 to .88 for the domains and ABC (Sparrow et al., 2016).

Regarding this measure's validity, the authors explained that the Vineland-3's conceptual foundation includes three core domains (i.e., Communication, Daily Living Skills, and Socialization) that are codified in the official definitions of ID put forth by the AAIDD (2010)

and in the DSM-5 (APA, 2013). They purported the content-based evidence for the validity of the Vineland-3 interpretations “rests primarily on having followed test development procedures that ensured fidelity to the test structure” (Sparrow et al., 2016, p. 149). Additionally, they explained that the incorporation of a large number of Vineland experts and users in updating the Vineland-II item content “helped ensure the relevance of the content to current thinking and practice in adaptive behavior assessment” (p. 149).

The authors of this measure carried out two analyses to provide additional support for the measure’s content and structure. First, they compared mean subdomain raw scores with age ranges to demonstrate that the expected developmental trend as one ages is confirmed by these raw scores (i.e., subdomain raw scores were shown to increase over the age ranges, indicating these scores captured individuals’ developing adaptive skills as they aged). The authors also computed intercorrelations between subdomains, domains, and the ABC. They reported intercorrelations that ranged from .42 to .63 for the Parent/Caregiver Form’s subdomains, and intercorrelations that ranged from .58 to .80 for the domains and ABC. Sparrow and colleagues (2016) argued not to put too much weight on these intercorrelations when considering the measure’s validity, though, because the “support for the Vineland-3 domain/subdomain structure rests more on the value it has demonstrated in research and practice over the years than on these intercorrelation results” (p. 154).

Procedure

This study was conducted on a group basis, with approximately 10 participants per session. Although participants were run on an individual basis in the original study (Doane & Salekin, 2009), this particular modification had to be made due to changes in availability of testing rooms since 2009. Participants were tested in large classrooms located on the main

campus of a large southeastern university. These rooms were free of distraction and permitted individual privacy through both size of the room and layout of seating. All participants in a session were assigned to the same condition, and as such, received the same instructions and timing for completion of tasks. Once the researcher running the session was satisfied that the participants understood all instructions, they were instructed to proceed with the task. It took participants approximately two to three hours to complete the study.

All following procedures were conducted in a manner identical to the Doane and Salekin (2009) study. At the outset of each session, participants were provided an informed consent document which they were instructed to read and follow along while it was read aloud by a researcher. Participants were then informed that, in addition to the research credit they would receive for their participation, they would also be entered in a raffle to win one of five \$100 cash prizes if they successfully malingered and correctly answered a simple entry question. All participants were given the opportunity to ask questions, and once questions were answered, the study was initiated.

The first task completed by participants was the Demographic Questionnaire, which included items related to demographic information (e.g., gender, ethnicity, age, years of education) and knowledge of, or experience with, intellectual disability (see Appendix A). This questionnaire was completed by all participants and was followed by the distribution of their group specific instructions. Those in the Control condition were asked to complete the Baseline Definition Questionnaire (BDQ; see Appendix B), on which they provided a definition of ID, as best they knew it; these individuals were not provided information regarding the diagnostic criteria for ID. Those in the experimental conditions (i.e., ID, Mild ID, or Moderate ID) were given definitions of ID specific to their condition (see Appendix E). The educational material

differed in the following manner: participants in the ID condition were provided general definitions of ID and adaptive functioning taken from the APA (2013) and AAIDD (2010), while those in the Mild and Moderate ID conditions were provided those same definitions, along with additional information from the APA (2013) regarding the level of adaptive functioning impairment consistent with their condition. Participants in the experimental conditions were instructed to study the information for 10 minutes. After 10 minutes, these participants were asked to complete the Definition Comprehension Questionnaire (DCQ; see Appendix C), which required them to reproduce the definitions they just studied. The DCQ served as a manipulation and comprehension check to ensure participants understood the material necessary for their condition.

Upon completion of their respective definition-related questionnaires, participants were given further condition-specific instructions for their task (see Appendices F and G). As was done in the original study (Doane & Salekin, 2009), the instructions included a vignette that was the same across all conditions and included the following information: (1) an outline of the Supreme Court ruling that barred the imposition of the death penalty with individuals with ID and (2) a scenario in which a family member is trying to save their loved one from the death penalty by faking that this person has adaptive behavior deficits consistent with ID. To do this, the participant had to put themselves in the role of the family member and simulate adaptive functioning deficits on three different measures. Participants were instructed to fake in a manner consistent with the level of ID assigned (i.e., Mild or Moderate ID) or do so with the only knowledge being that the defendant has ID (i.e., no level specified as in the Control and ID conditions). The experimental groups were instructed to do this utilizing the definitions they had previously studied.

Once the participants stated that they understood these instructions, they were given the first of the adaptive behavior measures (either the Vineland-3, ABAS-3, or SIB-R), which was administered in self-report format. After all participants in a session completed the first measure, they were then given the second, and then the third measures of adaptive functioning. To help protect against fatigue, participants were given a mandatory 10-minute break following their completion of the first adaptive behavior measure. The order in which these measures were administered was counter-balanced within each condition, with participants in each condition grouped into one of six different administration orders (e.g., A→B→C vs. A→C→B vs. B→A→C vs. B→C→A etc.).

After completing the third adaptive measure, participants were debriefed and told the purpose of the study. They were also informed that all participants would be entered in the raffle for cash prizes regardless of their performance on the measures, given they answered the entry question correctly. They were then given the opportunity to ask questions regarding the design and the features of the study, and to have their data removed from any study analyses if so desired. Members of the research team were prepared to offer contact information for The University of Alabama's Counseling Center if they spoke with a participant who reported any sadness or distressed feelings that may have been attributable to the manipulation. Referrals of this kind were not needed for any of the participants. Participants were provided the name and contact information of the researcher so they could obtain the results of the study upon completion.

4. RESULTS

Sample

As previously mentioned, 205 Psychology 101 students participated in the current study. Two participants' data were removed from all analyses; one participant chose not to participate after signing consent and the other completed the study, but requested their data not be used. In addition to the two participants voluntarily withdrawing from the study, the data from three other participants was excluded due to failing the manipulation check. These participants were not able to score at least one point on any of the items from the DCQ, indicating the manipulation was not successful on these individuals. Of the remaining 200 participants, 17 did not fully complete one or more of the assigned adaptive functioning measures (12 Vineland-3's, 5 SIB-R's, 1 ABAS-3). These participants' data were treated as missing data and not included in all following analyses.

After incomplete data was removed, the remaining data was evaluated to identify standard composite and domain or cluster scores that were greater than two standard deviations above the normative mean for each measure. It had been predetermined that any participants producing such extremely elevated scores would be excluded from analyses, as individuals who rated people with ID as having few, or perhaps no, deficits were not affected by the manipulation. Additionally, this was the exclusion criteria utilized by Doane and Salekin (2009), thus, it was employed in the current study for replication purposes. One participant was identified through this evaluation (i.e., this participant produced a standard cluster score of 138 on the SIB-R); thus, their data was also removed from all of the following analyses.

The final sample consisted of 182 participants. The frequencies of participants in each condition in this remaining sample were as follows: 44 Control participants, 47 ID participants, 45 Mild ID participants, and 46 Moderate ID participants.

Overall Sample Performance on the Adaptive Functioning Measures

Table 1 provides overall sample means, standard deviations, and variance for the composite and domain or cluster scores on each measure of adaptive functioning. Additionally, to aid in interpretation and mimic analytical procedures from the original study (Doane & Salekin, 2009), standard scores were transformed to reflect participants' performance on each measure in terms of standard deviations below the normative mean (see Table 2). In general, standard scores earned on the Vineland-3 ranged from one standard deviation above the normative mean to five standard deviations below the normative mean; scores on the SIB-R ranged from one standard deviation above the normative mean to six standard deviations below; and scores earned on the ABAS-3 ranged from zero to three standard deviations below the normative mean.

Table 1
Mean Standard Scores for the Overall Sample

Domain, Cluster, or Composite	\bar{X}	<i>SD</i>	s^2
Vineland-3			
Adaptive Behavior Composite	46.01	16.820	282.928
Communication	39.89	19.268	371.270
Daily Living Skills	45.36	17.280	298.607
Social	42.73	21.319	454.510
SIB-R			
Broad Independence	15.79	21.073	444.081
Motor Skills	33.10	26.802	718.359
Social/Communication	25.38	23.573	555.686
Personal Living	19.40	21.549	464.363
Community Living	27.09	23.387	546.954
ABAS-3			
General Adaptive Composite	54.29	7.393	54.658
Conceptual	56.49	6.480	41.986
Social	63.30	9.090	82.621
Practical	54.45	6.989	48.845

Table 2
Mean Sample Performance in Standard Deviations Below the Normative Mean

Domain, Cluster, or Composite	\bar{X}	<i>SD</i>	s^2
Vineland-3			
Adaptive Behavior Composite	3.599	1.121	1.257
Communication	4.007	1.285	1.650
Daily Living Skills	3.643	1.152	1.327
Social	3.818	1.421	2.020
SIB-R			
Broad Independence	5.614	1.405	1.974
Motor Skills	4.460	1.787	3.193
Social/Communication	4.974	1.571	2.470
Personal Living	5.373	1.437	2.064
Community Living	4.861	1.559	2.431
ABAS-3			
General Adaptive Composite	3.048	.493	.243
Conceptual	2.900	.432	.187
Social	2.447	.606	.367
Practical	3.037	.466	.217

Condition Effects on Adaptive Functioning Measures

Based on methods utilized in the original study (Doane & Salekin, 2009), statistical analyses conducted in the current study were run on only one adaptive functioning measure at a time. In other words, all standard scores from the three measures were analyzed separately, and analyses comparing participants' performance across the three measures were not completed. Analyses were conducted in this manner in the original study due to a 30-point difference between mean composite standard scores on the ABAS-II and SIB-R that resulted from a higher scoring floor on the ABAS-II (i.e., the lowest possible composite standard score on this measure is 40, whereas the lowest possible composite standard score on the SIB-R is zero; Doane & Salekin, 2009). As the discrepancies between the lowest possible scores on the various measures remained present in the current study (i.e., the lowest possible composite standard score on the ABAS-3 is 50, resulting in a 38-point difference between mean composite standard scores on the ABAS-3 and SIB-R), analyses including all measures were unable to be employed.

As aforementioned, participants produced standard scores that generally fell more than two standard deviations below the normative mean. As a result, participants' scores on all three measures were moderately to severely positively skewed and kurtotic. In order to replicate the method of correction utilized in the original study (Doane & Salekin, 2009), as similarly skewed distributions were observed among their data, a Base 10 logarithmic transformation was performed on the standard scores for these measures. The transformation on the SIB-R standard scores also included the addition of a constant (1) to correct for the zero standard score values. This correction transformed the data to acceptable levels of skewness and kurtosis for the Vineland-3 and SIB-R (i.e., z-scores for skewness and kurtosis were within a range of ± 3.29 ; Kim, 2013). Although the correction did not entirely transform data from the ABAS-3 to

acceptable levels of skewness and kurtosis, it did improve the distribution of scores by lessening the severity of distortion.

Mimicking the methods of the original authors (Doane & Salekin, 2009), three one-way between subjects analyses of variance (ANOVAs) and three one-way between subjects multiple analyses of variance (MANOVAs) were employed to test the effect of condition on participants' performance on the ABAS-3, SIB-R, and Vineland-3. The one-way between subjects ANOVAs were performed to determine whether participants' composite standard scores on each measure could be predicted by their respective conditions. The one-way between subjects MANOVAs were employed to assess whether participants' domain or cluster scores on each measure could be predicted by their respective conditions. Additionally, frequency analyses were conducted to assess participants' ability to meet AAIDD (2010) criteria for ID and successfully malingering across conditions.

The results of the three one-way between subjects ANOVAs revealed no significant main effect for condition on participants' standard score performance on the General Adaptive Composite (GAC) from the ABAS-3, $F(3, 178) = 2.200, p = .090$, and the Broad Independence Score from the SIB-R, $F(3, 178) = 2.133, p = .098$, indicating the provision of educational materials did not significantly impact participants' overall performance on these two measures. However, the Adaptive Behavior Composite (ABC) from the Vineland-3 yielded a significant main effect for condition, $F(3, 178) = 3.557, p = .016$, partial $\eta^2 = .057$. As was done in the original study (Doane & Salekin, 2009), a Bonferroni correction post-hoc method was used to determine where significant differences between conditions occurred. Namely, the ID condition yielded significantly lower standard scores on the ABC than the Control group ($p = .025$). No

other significant differences were observed (see Tables 3, 4, and 5 for participants' mean standard score performance by condition).

The results of the three one-way between subjects MANOVAs revealed no significant main effect for condition on participants' standard score performance on the domains of the Vineland-3, $F(9, 428.488) = 1.766, p = .073$; Wilks' $\Lambda = .915$; partial $\eta^2 = .029$, the domains of the ABAS-3, $F(9, 428.488) = 1.366, p = .201$; Wilks' $\Lambda = .933$; partial $\eta^2 = .023$, or the clusters of the SIB-R, $F(12, 463.298) = 1.232, p = .258$; Wilks' $\Lambda = .920$; partial $\eta^2 = .027$ (see Tables 3, 4, and 5). These results indicate the provision of educational materials did not significantly impact participants' performance on the different domains and clusters of the adaptive behavior measures.

Table 3
Mean Standard Score Performance by Condition on the Vineland-3

Condition	\bar{X}	<i>SD</i>	s^2
Adaptive Behavior Composite			
Control	49.77	19.065	363.482
ID	39.51	14.128	199.603
Mild ID	48.60	17.705	313.473
Moderate ID	46.52	14.669	215.188
Communication			
Control	43.43	22.936	526.065
ID	35.04	15.553	241.911
Mild ID	42.47	20.309	412.436
Moderate ID	38.93	17.196	295.707
Daily Living Skills			
Control	47.66	18.433	339.765
ID	39.49	14.127	199.560
Mild ID	48.53	18.664	348.345
Moderate ID	46.04	16.736	280.087
Social			
Control	48.25	22.470	504.890
ID	33.81	17.346	300.897
Mild ID	45.91	22.642	512.674
Moderate ID	43.43	20.329	413.273

Table 4
Mean Standard Score Performance by Condition on the SIB-R

Condition	\bar{X}	SD	s^2
Broad Independence			
Control	17.73	26.315	692.482
ID	9.32	13.864	192.222
Mild ID	17.40	20.313	412.609
Moderate ID	18.96	21.548	464.309
Motor Skills			
Control	36.91	26.924	724.922
ID	24.91	24.885	619.253
Mild ID	31.22	24.341	592.495
Moderate ID	39.67	29.197	852.491
Social/Communication			
Control	27.86	26.767	716.493
ID	18.60	19.375	375.377
Mild ID	28.47	23.057	531.618
Moderate ID	26.93	24.100	580.818
Personal Living			
Control	21.23	26.057	678.970
ID	12.72	15.057	226.726
Mild ID	20.87	21.168	448.073
Moderate ID	23.04	21.990	483.554
Community Living			
Control	30.05	26.581	706.556
ID	17.70	18.391	338.214
Mild ID	31.40	22.704	515.473
Moderate ID	29.63	23.437	549.305

Table 5
Mean Standard Score Performance by Condition on the ABAS-3

Condition	\bar{X}	<i>SD</i>	s^2
General Adaptive Composite			
Control	54.84	9.068	82.230
ID	52.23	3.649	13.314
Mild ID	55.93	8.646	74.745
Moderate ID	54.24	6.868	47.164
Conceptual			
Control	56.77	7.965	63.436
ID	54.98	3.200	10.239
Mild ID	57.96	7.781	60.543
Moderate ID	56.35	5.828	33.965
Social			
Control	64.66	10.264	105.346
ID	60.60	6.632	43.985
Mild ID	65.20	10.365	107.436
Moderate ID	62.91	8.273	68.437
Practical			
Control	54.48	8.636	74.581
ID	52.87	2.909	8.462
Mild ID	55.78	7.946	63.131
Moderate ID	54.72	7.098	50.385

Lastly, frequencies were calculated to assess participants' ability to meet AAIDD (2010) criteria for ID (i.e., scoring at least two standard deviations below the normative mean). The number of participants and percentages of those who did not endorse enough deficits to meet diagnostic criteria versus those who did endorse enough deficits to at least meet diagnostic criteria in each condition are included in Tables 6, 7, and 8. Generally speaking, participants in the Control condition were able to meet AAIDD diagnostic criteria (i.e., produce standard composite scores that fell at least two standard deviations below the normative mean) at a success rate that varied from 93% to 95%, depending on the adaptive behavior measure. All participants in the ID condition endorsed enough adaptive behavior deficits to meet diagnostic criteria. Regarding the Mild ID condition, 86% to 100% of participants, depending on the measure, produced scores low enough to meet diagnostic criteria. Lastly, 93% to 97% of participants in the Moderate ID condition yielded standard scores that met diagnostic criteria for ID.

Table 6
Frequencies of Participants Who Met AAIDD Criteria on the Vineland-3

Condition	Met Criteria	Did Not Meet Criteria
Control	42 (95.5%)	2 (4.5%)
ID	47 (100%)	0
Mild ID	39 (86.7%)	6 (13.3%)
Moderate ID	43 (93.5%)	3 (6.5%)
Totals	171 (94%)	11 (6%)

Table 7

Frequencies of Participants Who Met AAIDD Criteria on the SIB-R

Condition	Met Criteria	Did Not Meet Criteria
Control	41 (93.2%)	3 (6.8%)
ID	47 (100%)	0
Mild ID	45 (100%)	0
Moderate ID	45 (97.8%)	1 (2.2%)
Totals	178 (97.8%)	4 (2.2%)

Table 8

Frequencies of Participants Who Met AAIDD Criteria on the ABAS-3

Condition	Met Criteria	Did Not Meet Criteria
Control	41 (93.2%)	3 (6.8%)
ID	47 (100%)	0
Mild ID	40 (88.9%)	5 (11.1%)
Moderate ID	44 (95.7%)	2 (4.3%)
Totals	172 (94.5%)	10 (5.5%)

Frequencies were also calculated to assess participants' ability to malingering successfully across conditions for each measure. Participants were considered successful malingerers if they produced composite scores between two and three standard deviations below the normative mean. If composite scores fell more than three standard deviations below the mean, they were considered to be severe enough to indicate exaggeration. This cut score of three standard deviations below the normative mean was employed to mimic the cut score used by Doane and Salekin (2009). The percentages of participants who fell in these ranges in each condition are provided in Figures 1, 2, and 3. The majority of participants across conditions produced

composite scores that fell at least three standard deviations below the normative mean on all measures.

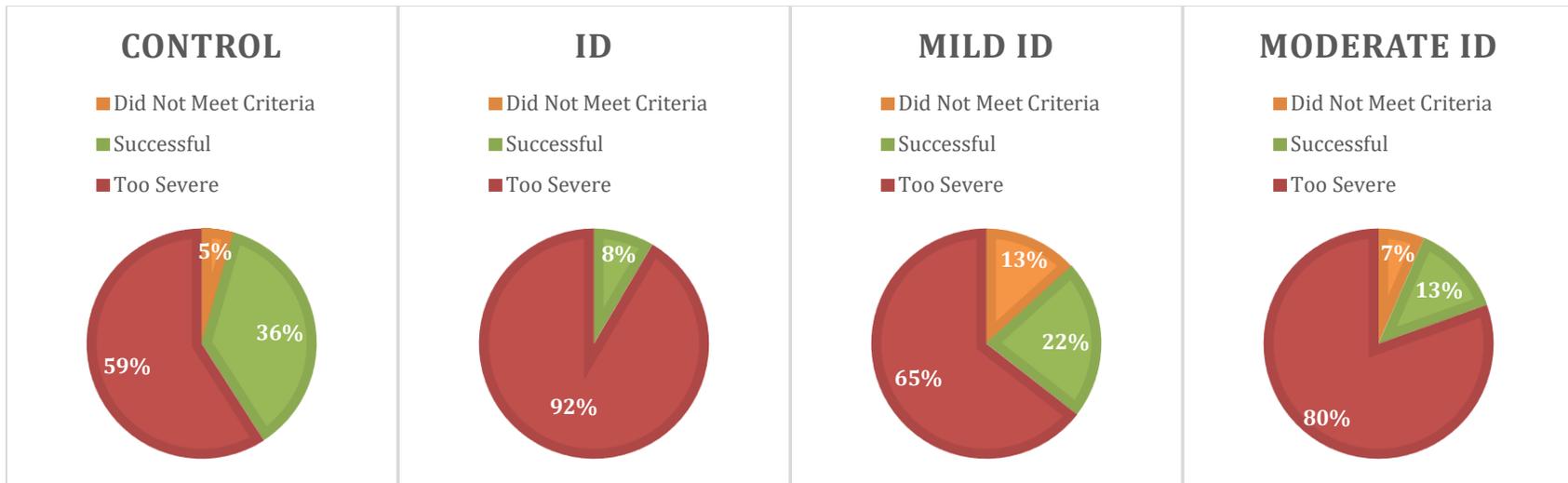


Figure 1. Participants' Malingering Performance on the Vineland-3

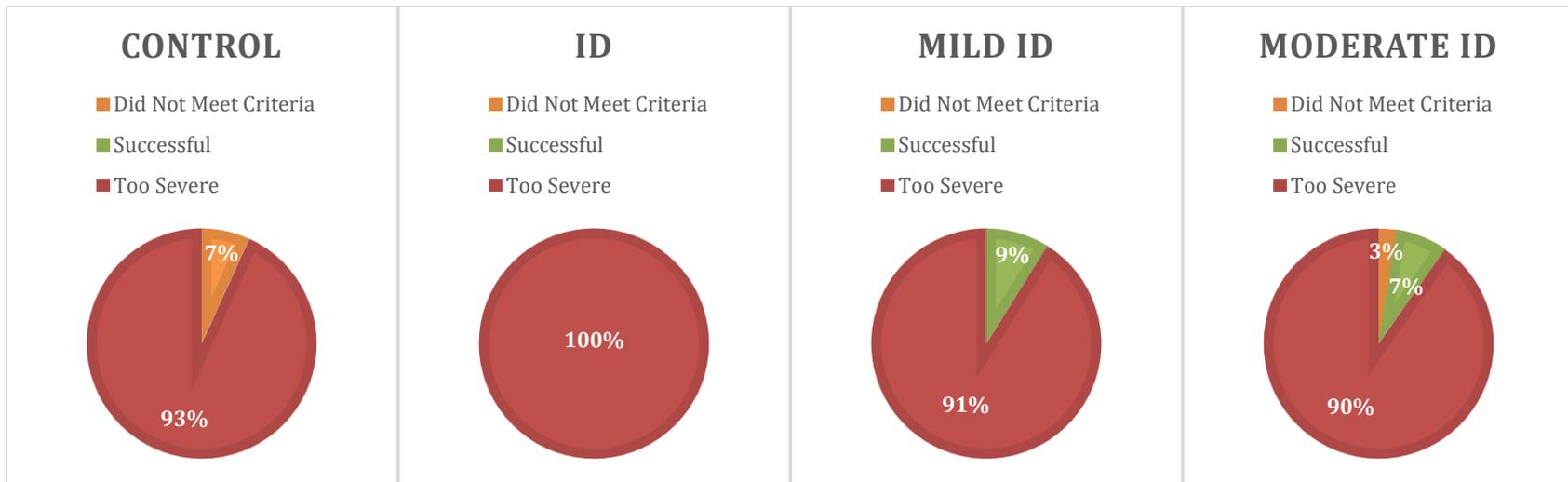


Figure 2. Participants' Malingering Performance on the SIB-R

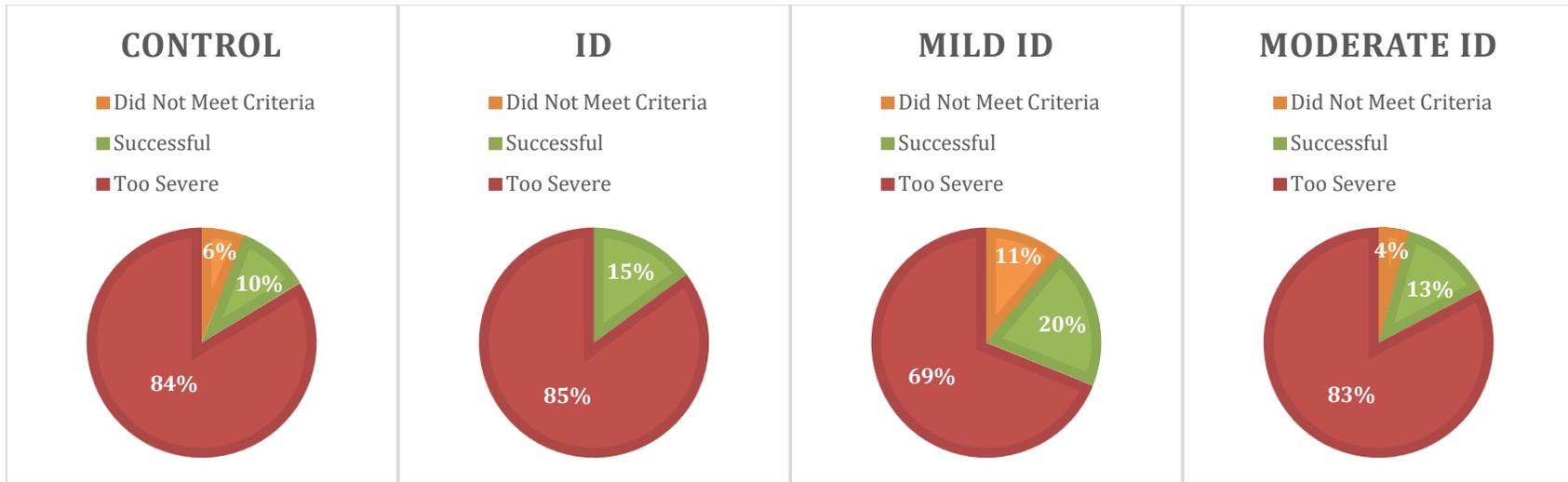


Figure 3. Participants' Malingering Performance on the ABAS-3

5. DISCUSSION

To date, only one previous study has assessed the susceptibility of commonly used adaptive behavior measures to malingered deficits (Doane & Salekin, 2009). The authors of that study found the ABAS-II was susceptible to malingering due to a lack in sensitivity in differentiating severity of deficit endorsement, and the SIB-R was more sensitive to detecting feigned responses. They also noted the provision of education did not help participants feign in a manner that was more believable than naïve malingerers.

In the intervening time since the Doane and Salekin (2009) study, there have been pertinent developments in the assessment and diagnosis of ID: the release of an updated version of a commonly used adaptive functioning measure, the Vineland-3 (Sparrow et al., 2016), that is now available in rating scale format; the release of an updated version of another commonly used adaptive functioning measure, the ABAS-3 (Harrison & Oakland, 2015), that is purported to now have improved sensitivity to aid in distinguishing low versus high ability; and new APA (2010) diagnostic criteria that includes examples of deficits associated with each severity level within each domain of adaptive functioning. The current study served as a replication and extension of Doane and Salekin's (2009) study and assessed whether these developments have resulted in novel findings regarding the feasibility of malingering adaptive behavior deficits.

General Findings: Overall Sample's Performance on Adaptive Functioning Measures

On all measures, an overwhelming majority of individuals endorsed deficits commensurate with ID as hypothesized. Although the sample generally produced scores that met the threshold for ID (i.e., at least two standard deviations below the normative mean), the level of

endorsed deficits was extreme and ranged as much as six standard deviations below the mean. Due to the low probability that these scores would naturally occur (i.e., less than 1% based on normal distribution), this over-reporting of deficits was considered to be indicative of exaggeration, or malingered responses.

General Findings: Adaptive Functioning Measures' Susceptibility to Feigned Deficits

Another focal point of the study was to determine the measures' sensitivity to detecting biased responding. The dispersion of scores demonstrated the strengths and weaknesses of each instrument, particularly with regard to scoring floors. Scoring floors and ceilings represent the lowest and highest possible standard scores an individual can produce on a measure; therefore, the scoring floor and ceiling may expand or restrict the possible range of scores. In the current study, the varying scoring floors on the different measures produced distinctive effects, and either strengthened or weakened the measure's likelihood of detecting biased responding.

The three measures utilized in the current study have a wide range of scoring floors. For example, the lowest possible Broad Independence standard score on the SIB-R is zero, while the lowest possible GAC standard score on the ABAS-3 is 50. The Vineland-3's scoring floor is between these two measures, with the lowest possible ABC standard score equaling 20. These different scoring floors produced dispersion among scores in the current study, patterned as a negative relationship; in other words, as the scoring floor increased, the range of produced scores decreased. For example, ABAS-3 had the least amount of variation among standard scores and the SIB-R had the greatest. The correspondent relationship between scoring floor and the range of produced scores related to the instrument's ability to detect exaggerated responding.

In the original study, Doane and Salekin (2009) found that ABAS-II's high scoring floor (i.e., the lowest possible GAC standard score on this instrument was 40) produced a limited

range in scores. This limited scoring range left this measure particularly susceptible to malingered responses because participants who endorsed heavily exaggerated deficits were not producing standard scores were remarkably low. This pattern remained evident in the current study. Due to the high scoring floor on the ABAS-3, participants generated a much smaller range in scores on this instrument compared to the other adaptive behavior measures. In fact, the scoring floor of the ABAS-3 is actually higher than the ABAS-II's scoring floor (i.e., the lowest possible standard score is 50). Although the addition of new items was suspected to improve the ABAS-3's sensitivity to biased responding, the continuation of this pattern suggests that perhaps the impact of the raised scoring floor outweighs the items' abilities to differentiate between high and low ability.

In addition, as was observed among participants in the original study (Doane & Salekin, 2009), participants in the current study who endorsed deficits resulting in the lowest possible scaled scores (i.e., receiving scaled scores of 1 on all subscales) were still yielding standard scores that fell within two to three standard deviations below the normative mean due to this measure's high scoring floor. This suggests that, even if individuals significantly over-endorse deficits, they can still produce scores that manifest as a believable clinical presentation of ID. Subsequently, as was concluded about the ABAS-II in the original study (Doane and Salekin, 2009), this measure may still lack the psychometric properties needed to identify manipulation by exaggerated deficit endorsement.

Regarding the SIB-R, this measure's absolute scoring floor of zero allows the measure to still be extremely sensitive to deficit endorsement. Doane and Salekin (2009) observed participants' scores generally falling in a very low range (i.e., six standard deviations below the normative mean), and in the current study, a similar occurrence was witnessed (i.e., scores

typically falling between four and five standard deviations below the normative mean).

Additionally, the sample produced the widest range of standard scores on the SIB-R. Because the scoring floor allows for the recognition of standard scores that fall well outside of normal distribution, this measure's sensitivity is increased. However, despite a decreased susceptibility to biased responding, the SIB-R may be overly sensitive with regard to uncertainty from respondents. For example, a rater may endorse only a small number of items as *Never or rarely – even if asked to* (i.e., the lowest scoring response choice for an item) and still receive a standard score low enough to be commensurate with ID. If raters are unsure on some items, and happen to underestimate the individual's abilities, this could result in a standard score that is much lower than what would truly be representative of that individual's level of functioning. Therefore, while this measure's sensitivity makes it less susceptible to biased responding, it could potentially come at a cost to the measure's validity.

Lastly, with a scoring floor that fell between the two previous measures, a sensitivity to biased responding was observed on the Vineland-3. For example, while deficit endorsement that resulted in the lowest possible scaled scores produced standard scores of zero on the SIB-R and 50 to 60 on the ABAS-3, such endorsement on the Vineland-3 resulted in standard scores of 20 to 21. This moderate scoring floor allowed participants to produce standard scores approximately five standard deviations below the mean, without producing standard scores of zero. It also permits for an increased range of responses in comparison to the ABAS-3. This measure's sensitivity is also demonstrated when looking at the number of participants who were receiving the lowest possible composite standard scores. In comparison to 75 and 65 participants producing the lowest possible composite scores on the SIB-R and ABAS-3, respectively, only 15 participants produced an ABC of 20 on the Vineland-3. This decreased frequency of "bottoming

out” demonstrates this measures’ reactivity to small changes in level of deficit endorsement. In sum, this pattern indicates this instrument may have a more balanced sensitivity to differentiating between high and low deficit endorsement, while still allowing more room for error from genuine responders.

General Findings: Additional Information Does Not Aid in Minimizing Exaggeration

One question sought to answer through the current study was the impact of education on an individual’s ability to malingering successfully; specifically, the researcher investigated if the provision of severity-specific information aided individuals in their attempt to malingering in a believable manner. The results of the current study indicated the amount of educational material received significantly impacted participant performance on one measure (i.e., the Vineland-3), but overall, did not demonstrate a significant difference in participant response style based on condition. It was hypothesized the provision of specific education about the level of adaptive functioning commensurate with varying severities of ID would help participants malingering in a more sophisticated fashion, and would allow participants to respond in a manner congruent with their provided information. For example, Moderate ID participants were expected to produce scores that were significantly lower than Mild ID participants’ scores. This hypothesis was generally not supported.

Although the mean composite scores for the Moderate ID condition were lower than those of the Mild ID condition on the Vineland-3 and ABAS-3 (see Tables H1 and H3), the differences were not statistically significant. Scores produced by these two groups resulted in only a one- to two-point difference, which indicated the information specific to severity was either not applied in a sophisticated manner, or perhaps not understood well enough to significantly differentiate between these conditions. Furthermore, on the SIB-R, the mean

composite score for the Moderate ID condition was higher than the mean composite score for the Mild ID condition, though the difference between these two means was also miniscule (i.e., 2-point difference).

As aforementioned, the only measure in which a significant difference between conditions was observed was the Vineland-3; however, the relationship that emerged was not expected. The significant finding on this measure was in relation to the Control and ID conditions. Specifically, the ID condition yielded composite scores that were significantly lower than the Control condition. While this difference was only statistically significant on this one measure, this same pattern of scores was evident across all measures; that is, the ID condition consistently produced composite scores that were lower than the three other conditions on all measures (see Tables 3, 4, and 5). This finding is in stark contrast to the results of the original study, where (a) significant differences between groups were not observed and (b) the Control condition scored lower than the MR condition on both measures (Doane & Salekin, 2009).

One possible explanation for this unexpected result may be a common cognitive bias known as the focusing effect. Schkade and Kahneman (1998) described this bias in the following manner: “When a judgment about an entire object or category is made with attention focused on a subset of that category, a focusing illusion is likely to occur, whereby the attended subset is overweighted relative to the unattended subset” (p. 340). The shift in the definition of ID that occurred between the completion of the original study and this study involved greater emphasis being placed on the adaptive functioning component of ID; and thus, this emphasis on adaptive functioning deficits was reflected in the new, updated information provided to the ID condition in the current study. It is possible this emphasis on adaptive functioning deficits led participants to give too much weight to the severity of adaptive functioning deficits when trying to malingering

in a way that is commensurate with ID. Although the Moderate and Mild ID conditions were provided examples of levels of adaptive functioning, the ID condition was merely provided with information regarding the presence of deficits, and not the typical presentation of such deficits. It is possible the limited available information regarding these deficits caused participants to fixate upon the presence of limitations in adaptive behavior with little consideration for the severity of the endorsed deficits and the believability of such endorsement.

Analyses addressing participants' standard domain and cluster scores revealed there was no significant effect of provision of educational material. Interestingly, even though group differences were not statistically significant, the same scoring pattern that was observed among the composite scores of ID condition (i.e., participants' yielding lower standard scores than other conditions) remained consistent for all domains and clusters for each measure. This finding is in contrast to what was found in the original study. In that study, Doane and Salekin (2009) observed a significant difference in how participants rated items on the Personal Living cluster of the SIB-R (i.e., Control participants yielded significantly lower standard scores than Mild ID participants; Doane & Salekin, 2009). Though the researchers found this significant difference, its importance was dismissed due to the fact that the standard scores produced by both groups were so low that they were readily identifiable as the product of exaggerated responding.

Considering the Control condition produced higher standard scores than the ID condition across both composite and domain or cluster scores, it stands to reason that no information may aide in successfully malingering more so than limited information, because it prevents the individual from engaging in biases such as the focusing effect. As participants became more informed (i.e., Mild ID and Moderate ID conditions) their scores increased, while still remaining greater than two standard deviations below the mean. It is also possible the more detailed

information regarding adaptive functioning abilities for different severities of ID that was provided to these two groups helped combat the “overweighting” of adaptive functioning deficits that may have resulted from this bias.

Regardless of condition, participants overall endorsed severe deficits that resulted in extremely low standard scores. Thus, the hypothesis that participants in the Mild and Moderate ID groups would endorse deficits indicative of ID but not severe enough to suggest exaggeration was not supported. However, as hypothesized, participants in the Control condition endorsed deficits at a rate that indicated exaggeration. Though participants in Mild ID group were less likely to yield standard scores falling more than three standard deviations below the mean compared to other groups (see Figures 1, 2, and 3), an overwhelming majority of participants across all conditions produced scores that were low enough to indicate exaggeration of deficits. Despite the provision of more detailed information regarding ID and the presentation of adaptive behavior deficits, participants generally were unable to successfully malingering on the three measures.

These general findings of education not helping reduce extreme endorsement of deficits across conditions could be due to a few factors. One such influence could be participants’ pre-conceived notions of ID, as people tend to underestimate the abilities of individuals with ID (McConkey, McCormack, & Naughton, 1983). It may be that participants’ performance in the current study was the result of their pre-conceived notions holding constant, despite of the amount of education they were provided about ID. Another influence that could have overpowered the effect of education in the current study was the tendency individuals have to over-report when attempting to malingering (Rogers, 1997; Rogers, Bagby, & Dickens, 1992). These findings have important implications for capital cases, as they call into question the

validity of claims that studying or coaching could have a significant effect on the outcome of these adaptive functioning measures.

Limitations

The current study has some limitations that warrant discussion. The first limitation pertains to the study's sample. More specifically, utilizing a sample of college students may not be representative of individuals who serve as collateral sources in capital cases. The second limitation concerns the monetary incentive employed in the current study. While every attempt was made to replicate the incentive to malingering that one might experience in the context of a capital case while remaining within ethical boundaries, there is no doubt that the external incentive that collateral sources experience in capital cases would be more significant.

Implications

Findings from the current study indicate that individuals from a sample of college students were capable of simulating adaptive functioning deficits that, while commensurate with ID, were very severe. What was also demonstrated was how these individuals' scores present in unique ways on the different measures employed in this study. More specifically, individuals' scores in the current study illustrated that, out of these three instruments, the SIB-R may be the most sensitive to detecting biased responding, while the ABAS-3 could be considered the most susceptible to malingering.

Considering these findings in the context of forensic evaluations, where there the threat of malingering or biased responding must be considered by evaluators when choosing measures to employ, the ABAS-3 may not be an appropriate choice. As evidenced by participants' standard scores in the current study, exaggerated endorsement of adaptive behavior deficits on this measure may not be as detectable as would be on other measures due to this instrument's

high scoring floor. Conversely, in a scenario where malingering may be highly suspected, the SIB-R may be a fitting measure for evaluators to utilize due to its extreme sensitivity to over-reporting of deficits that is apparent in the resulting standard scores. Alternatively, if evaluators are seeking a measure that has a more moderate susceptibility to biased responding, which balances sensitivity to exaggeration with allowing more room for error from genuine responders, then the Vineland-3 may be an appropriate adaptive behavior measure to use.

Additionally, outcomes from this study indicate the provision of educational material does not aid malingerers in producing more believable clinical presentations. Regardless of the amount of information participants received about ID, standard scores yielded on all three adaptive functioning measures were remarkably low. Furthermore, it was evidenced in this study that providing raters with limited information about ID was actually less likely to result in sophisticated malingering than if participants were not given any education on ID at all.

This finding is particularly important when considered in the context of capital cases. Following the *Atkins v. Virginia* Supreme Court ruling in 2002, which banished the death penalty for individuals with ID, former Justice Antonin Scalia expressed concern in his dissent that this ruling would lead to (a) an onslaught of individuals coming forward claiming to have ID in order to potentially escape the death penalty and (b) that this disability could be easily feigned by simply reading the diagnostic criteria put forth by the APA (2013) and AAIDD (2010). Previous research has already refuted Justice Scalia's assertion about the vast number of individuals who would dishonestly attempt to use this ruling to avoid capital punishment (Blume et al., 2014); and now, the findings of both Doane and Salekin in 2009 and results from the current study seriously challenge the validity of his statement that "one need only read the definitions of mental retardation adopted by the American Association of Mental Retardation and the

American Psychiatric Association (set forth in the Court's opinion, ante, at 2-3, n. 3) to realize that the symptoms of this condition can readily be feigned” (*Atkins v. Virginia*, 2002, p. 17).

REFERENCES

- American Association on Intellectual and Developmental Disabilities (2010). *Intellectual disability: Definition, Classification, and systems of support*. Washington, DC: Author.
- American Association on Intellectual and Developmental Disabilities (2013). *Diagnostic Adaptive Behavior Scale*. Retrieved from <https://aidd.org/intellectual-disability/diagnostic-adaptive-behavior-scale#.WEokBfkrLIU>
- American Psychiatric Association (APA): *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition, Text Revision). Washington, DC: American Psychiatric Association, 2000.
- American Psychiatric Association (APA): *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition). Washington, DC: American Psychiatric Association, 2013.
- Atkins v. Virginia*, 536 U.S. 304, 122 S. Ct. (2002). 2242.
- Blume, J. H., Johnson, S. L., Marcus, P., & Paavola, E. (2014). A tale of two (and possibly three) *Atkins*: Intellectual disability and capital punishment twelve years after the Supreme Court's creation of a categorical bar. *William & Mary Bill of Rights Journal*, 23, 393-414.
- Bruininks, R. H., Woodcock, R. W., Weatherman, R. F., & Hill, B. K. (1996). *SIB-R—Scales of Independent Behavior—Revised: Comprehensive manual*. Itasca, IL: Riverside.
- Butcher, J., Graham, J., Ben-Porath, Y. S., Tellegen, A., Dahlstrom, W., & Kaemmer, B. (2001). *Minnesota Multiphasic Personality Inventory – 2: MMPI-2: Manual for administration, scoring, and interpretation* (Revised edition). Minneapolis: University of Minnesota Press.
- Chafetz, M. (2015). *Intellectual disability: Civil and criminal forensic issues*. New York, NY: Oxford University Press.
- Doane, B. M. (2006). *Possible or preposterous? Simulated malingering of adaptive functioning deficits*. (Unpublished master's thesis). The University of Alabama, Tuscaloosa, AL.
- Doane, B. M. & Salekin K. L. (2009). Susceptibility of current adaptive behavior measures to feigned deficits. *Law and Human Behavior*, 33, 329-343.

- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Ford v. Wainwright*, 477 U.S. 399, 405, 416-417 (1986).
- Graue, L.O., Berry, D.T., Clark, J.A., Sollman, M.J., Cardi, M., Hopkins, J., & Werline, D. (2007). Identification of feigned mental retardation using the new generation of malingering detection instruments: Preliminary findings. *The Clinical Neuropsychologist*, 21, 929-942.
- Harrison, P. L., & Oakland, T. (2003). *Adaptive Behavior Assessment System—Second Edition: Manual*. San Antonio, TX: Psychological Corporation.
- Harrison, P. L., & Oakland, T. (2015). *Adaptive Behavior Assessment System – Third Edition: Manual*. San Antonio, TX: Psychological Corporation.
- Kim, H.-Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, 38(1), 52–54. <http://doi.org/10.5395/rde.2013.38.1.52>
- McConkey, R., McCormanck, B., & Naughton, N. (1983). A national survey of young people's perceptions of mental handicap. *Journal of Mental Deficiency Research*, 27, 171-183.
- Moore, D. P. & Jefferson, J. W. (1996). *Handbook of medical psychiatry*. St. Louis: Mosby.
- Moore v. Texas*, 581 U.S. ____ (2017)
- Rogers, R. (1997). *Clinical assessment of malingering and deception*. (2nd ed.) New York: Guilford Press.
- Rogers, R., Bagby, M. R., & Dickens, S. E. (1992). *SIRS—Structured Interview of Reported Symptoms Professional Manual*. Odessa, FL: PAR.
- Schkade, D. A., & Kahneman, D. (1998). Does living in California make people happy? A focusing illusion in judgments of life satisfaction. *Psychological Science*, 9(5), 340-346.
- Shandera, A. L., Berry, D. T., Clark, J. A., Schipper, L. J., Graue, L. O., & Harp, J. P. (2010). Detection of Malingering Mental Retardation. *Psychological Assessment*, 22(1), 50-56.
- Sparrow, S. S., Cicchetti, D. V., & Balla, D. (2005). *Vineland adaptive behavior scales* (2nd ed.). Minneapolis, MN: Pearson Assessments.
- Sparrow, S. S., Cicchetti, D. V., & Saulnier, C. A. (2016). *Vineland adaptive behavior scales* (3rd ed.). Bloomington, MN: Pearson.

Tassé, M. J. (2009). Adaptive behavior assessment and the diagnosis of mental retardation in capital cases. *Applied Neuropsychology, 16*, 114-123. doi:10.1080/09084280902864451

Tassé, M. J., Schalock, R. L., Balboni, G., Bersani Jr, H., Borthwick-Duffy, S. A., Spreat, S., ... & Zhang, D. (2012). The construct of adaptive behavior: Its conceptualization, measurement, and use in the field of intellectual disability. *American journal on intellectual and developmental disabilities, 117*(4), 291-303.

APPENDIX A: DEMOGRAPHIC QUESTIONNAIRE

Please check, or write your answers in the spaces provided:

Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female
Age:	
Race/Ethnicity:	<input type="checkbox"/> White/Caucasian not Hispanic <input type="checkbox"/> Hispanic/Latino/Latina <input type="checkbox"/> Black/African American <input type="checkbox"/> Asian/Asian American <input type="checkbox"/> Pacific Islander <input type="checkbox"/> Biracial <input type="checkbox"/> Other (please specify):
Education (years completed):	<input type="checkbox"/> GED <input type="checkbox"/> High School Graduate College: <input type="checkbox"/> 1 year <input type="checkbox"/> 2 years <input type="checkbox"/> 3 years <input type="checkbox"/> 4 years (not graduated) <input type="checkbox"/> Other, Please Specify:
College GPA: <i>(if this is your first semester please put N/A)</i>	
High School GPA:	

Please indicate below any previous employment with mental health providers and any special knowledge or experience with intellectual disability or individuals with intellectual disability:

Have you ever been assessed for intellectual disability? **YES** **NO**
If yes, how many times? _____

Have you ever been assessed for a learning disability? **YES** **NO**
If yes, how many times? _____

APPENDIX B: CONTROL CONDITION'S BASELINE DEFINITION QUESTIONNAIRE

Please define the term “intellectual disability” to the best of your ability using the lines below.

APPENDIX C: ID, MILD ID, AND MODERATE ID DEFINITION COMPREHENSION
QUESTIONNAIRES

**Intellectual Disability without Specifier [ID] Condition's Definition Comprehension
Questionnaire**

Please define the term “intellectual disability” to the best of your ability using the lines below.

Please define the term “adaptive functioning” (also known as “adaptive behavior”) to the best of your ability using the lines below.

Mild Intellectual Disability [Mild ID] Condition’s Definition Comprehension Questionnaire

Please define the term “intellectual disability” to the best of your ability using the lines below.

Please define the term “adaptive functioning” (also known as “adaptive behavior”) to the best of your ability using the lines below.

Please list two (2) behaviors associated with an individual who has a mild intellectual disability.

Moderate Intellectual Disability [Moderate ID] Condition's Definition Comprehension Questionnaire

Please define the term “intellectual disability” to the best of your ability using the lines below.

Please define the term “adaptive functioning” (also known as “adaptive behavior”) to the best of your ability using the lines below.

Please list two (2) behaviors associated with an individual who has a moderate intellectual disability.

APPENDIX D: ADAPTIVE BEHAVIOR MEASURES' SUBSCALE STRUCTURES AND EXPLANATIONS

Domain, Subscale Structures and Explanations in the ABAS-3

Conceptual Domain		Comprised of three subscales assessing behaviors needed to communicate with others, apply academic skills, and manage and accomplish tasks	
Subscale	Number of Tasks	Raw Score Range	Behaviors
Communication	25	0-75	Speech, language, and listening skills needed for communication with other people, including vocabulary, responding to questions, conversation skills, and nonverbal communication skills
Functional Academics	24	0-72	Basic skills that form the foundations for reading, writing, mathematics, and other skills needed for daily, independent functioning, including recognizing letters, counting, telling time, measuring, and writing notes and letters
Self-Direction	25	0-75	Skills needed for independence, responsibility, and self-control, including making choices, starting and completing tasks, following a daily routine, and following directions

Social Domain		Comprised of two subscales assessing behaviors needed to engage in interpersonal interactions, act with social responsibility, and use leisure time	
Subscale	Number of Tasks	Raw Score Range	Behaviors
Leisure	22	0-66	Skills needed for engaging in and planning leisure and recreational activities, including playing with others, playing with toys, engaging in recreation time at home, and following rules in games
Social	25	0-75	Skills needed for interacting socially and getting along with other people, including expressing affection, having friends, showing and recognizing emotions, assisting others, and using manners

Practical Domain		Comprised of five subscales assessing behaviors needed to address personal and health needs; take care of home, classroom, or work settings; and function in a community	
Subscale	Number of Tasks	Raw Score Range	Behaviors
Community Use	24	0-72	Skills needed for functioning and performing important behaviors in the community, including getting around in the community, expressing interest in activities outside the home, and recognizing different facilities
Home Living	24	0-72	Skills needed for basic care of a home or living setting, including cleaning, straightening, and taking care of personal possessions
Health and Safety	20	0-60	Skills needed for protecting health and responding to illness and injury, including following safety rules, using medicines, showing caution, and keeping out of physical danger
Self-Care	26	0-78	Skills needed for personal care, including eating, dressing, bathing, toileting, grooming, and hygiene
Work	24	0-72	Skills needed for successful functioning and holding a part- or full-time job in a work setting, including completing work tasks, working with supervisors, and following a work schedule

Cluster and Subscale Structures and Explanations in the SIB-R

Motor Skills Cluster			
Comprised of two subscales assessing a range of motor proficiency tasks involving mobility, fitness, coordination, hand-eye coordination, and precise movements.			
Subscale	Number of Tasks	Raw Score Range	Behaviors
Subscale A: Gross Motor Skills	19	0-57	Skills achieved by 12 months of age; Tasks involving balance, coordination, strength and endurance
Subscale B: Fine-Motor Skills	19	0-57	Skills requiring the use of hand-eye coordination and usage of small muscles in the arms, hands, and fingers

Social Interaction & Communication Skills Cluster			
Comprised of three subscales measuring an individual's interaction with others in various social settings; understanding and communication of information through signs, oral expression, or written symbols.			
Subscale	Number of Tasks	Raw Score Range	Behaviors
Subscale C: Social Interaction	18	0-54	Skills used in social interaction ranging from appropriate socialization in infancy (sharing toys) to complex interactions (entertaining and making plans for social activities)
Subscale D: Language Comprehension	18	0-54	Skills related to understanding signals, signs, or speech and deriving information from spoken and written language
Subscale E: Language Expression	20	0-60	Skills related to talking and other forms of expression (including non-oral methods such as sign language or language boards)

Personal Living Skills Cluster			
Comprised of five subscales measuring adaptive behaviors related to eating and preparing meals, taking care of personal hygiene and appearance, and maintaining an orderly home environment. Assesses an individual's independence and autonomy in home and community environments.			
Subscale	Number of Tasks	Raw Score Range	Behaviors
Subscale F: Eating and Meal Preparation	19	0-57	Skills related to eating and preparing meals
Subscale G: Toileting	17	0-51	Skills related to performance in using the toilet and bathroom

Subscale H: Dressing	18	0-54	Skills related to performance in dressing independently
Subscale I: Personal Self-Care	16	0-48	Skills related to performance in basic grooming and health maintenance
Subscale J: Domestic Skills	18	0-54	Skills related to performance of tasks needed to maintain a home environment

Community Living Skills Cluster	Comprised of four subscales measuring the skills an individual needs to successfully use community resources; performance in an employment setting; performance in other social and economic settings involving time and punctuality, money and value, work skills, and home and community orientation.		
Subscale	Number of Tasks	Raw Score Range	Behaviors
Subscale K: Time and Punctuality	19	0-57	Skills related to evaluation of time concepts and their use
Subscale L: Money and Value	20	0-60	Skills related to determining the value of items and using money
Subscale M: Work Skills	20	0-60	Generally developmentally advanced skills related to simple work tasks and prevocational skills
Subscale N: Home/Community Orientation	18	0-54	Skills related to getting around the home and neighborhood and traveling in the community

Note. The above table was adapted from Bruininks, et al., 1996, pages 12-15.

Domain, Subdomain Structures and Explanations in the Vineland-3

Communication Domain			
Subdomain	Number of Tasks	Raw Score Range	Behaviors
Receptive	39	0-78	Attending, understanding, and responding appropriately to information from others
Expressive	49	0-98	Using words and sentences to express oneself verbally to others
Written	38	0-76	Using reading and writing skills

Daily Living Skills Domain			
Subdomain	Number of Tasks	Raw Score Range	Behaviors
Personal	55	0-110	Self-sufficiency in such areas as eating, dressing, washing, hygiene, and health care
Domestic	30	0-60	Performing household tasks such as cleaning up after oneself, chores, and food preparation
Community	58	0-116	Functioning in the world outside the home, including safety, using money, travel, rights and responsibilities, etc.

Socialization Domain			
Subdomain	Number of Tasks	Raw Score Range	Behaviors
Interpersonal Relationships	43	0-86	Responding and relating to others, including friendships, caring, social appropriateness, and conversation
Play and Leisure	36	0-72	Engaging in play and fun activities with others
Coping Skills	33	0-66	Demonstrating behavioral and emotional control in different situations involving others

APPENDIX E: INSTRUCTION #1 FOR ID, MILD ID, AND MODERATE ID CONDITIONS

Instruction #1 for Intellectual Disability without Specifier [ID] Condition

Please read and study the following definitions of intellectual disability and adaptive behavior. After 10 minutes, you will be asked to fill out three measures concerning adaptive behavior.

The American Association for Intellectual and Developmental Disabilities [AAIDD]'s current definition of Intellectual Disability and Adaptive Behavior:

Intellectual disability is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.

The following five assumptions are essential to the application of this definition:

1. Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture.
2. Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors.
3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitations is to develop a profile of needed supports.
5. With appropriate personalized supports over a sustained period, the life functioning of the person with intellectual disability generally will improve.

Adaptive behavior is the collection of conceptual, social, and practical skills that have been learned and are performed by people in their everyday lives.

- A. Conceptual skills – language and literacy; money, time, and number concepts; and self-direction
- B. Social skills – interpersonal skills, social responsibility, self-esteem, gullibility, naïveté (i.e., wariness), social problem solving, and the ability to follow rules/obey laws and to avoid being victimized
- C. Practical skills – activities of daily living (personal care), occupational skills, healthcare, travel/transportation, schedules/routines, safety, use of money, use of telephone

The American Psychiatric Association [APA]’s current definition of Intellectual Disability and Adaptive Behavior:

Intellectual Disability: This is a disorder characterized by an onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains.

Diagnostic Criteria for Intellectual Disability

- A. Deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
- B. Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.
- C. Onset of intellectual and adaptive deficits during the developmental period.

Adaptive functioning refers to how well a person meets community standards of personal independence and social responsibility. Adaptive functioning involves adaptive reasoning in three domains:

- A. Conceptual (academic) domain: involves competence in memory, language, reading, writing, math reasoning, acquisition of practical knowledge, problem solving, and judgment in novel situations, among others.
- B. Social domain: involves awareness of others' thoughts, feelings, and experiences; empathy; interpersonal communication skills; friendship abilities; and social judgment, among others.
- C. Practical domain: involves learning and self-management across life settings, including personal care, job responsibilities, money management, recreation, self-management of behavior, and school and work task organization, among others.

Instruction #1 Mild Intellectual Disability [Mild ID] Condition

Please read and study the following definitions of intellectual disability and adaptive behavior. After 15 minutes, you will be asked to fill out three measures concerning adaptive behavior.

The American Association for Intellectual and Developmental Disabilities [AAIDD]'s current definition of Intellectual Disability and Adaptive Behavior:

Intellectual disability is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.

The following five assumptions are essential to the application of this definition:

1. Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture.
2. Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors.
3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitations is to develop a profile of needed supports.
5. With appropriate personalized supports over a sustained period, the life functioning of the person with intellectual disability generally will improve.

Adaptive behavior is the collection of conceptual, social, and practical skills that have been learned and are performed by people in their everyday lives.

- D. Conceptual skills – language and literacy; money, time, and number concepts; and self-direction
- E. Social skills – interpersonal skills, social responsibility, self-esteem, gullibility, naïveté (i.e., wariness), social problem solving, and the ability to follow rules/obey laws and to avoid being victimized
- F. Practical skills – activities of daily living (personal care), occupational skills, healthcare, travel/transportation, schedules/routines, safety, use of money, use of telephone

The American Psychiatric Association [APA]’s current definition of Intellectual Disability and Adaptive Behavior:

Intellectual Disability: This is a disorder characterized by an onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains.

Diagnostic Criteria for Intellectual Disability

- A. Deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
- B. Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.
- C. Onset of intellectual and adaptive deficits during the developmental period.

Adaptive functioning refers to how well a person meets community standards of personal independence and social responsibility. Adaptive functioning involves adaptive reasoning in three domains:

- A. Conceptual (academic) domain: involves competence in memory, language, reading, writing, math reasoning, acquisition of practical knowledge, problem solving, and judgment in novel situations, among others.
- B. Social domain: involves awareness of others’ thoughts, feelings, and experiences; empathy; interpersonal communication skills; friendship abilities; and social judgment, among others.
- C. Practical domain: involves learning and self-management across life settings, including personal care, job responsibilities, money management, recreation, self-management of behavior, and school and work task organization, among others.

Excerpt from the APA’s definition of Intellectual Disability:

Severity Level	Conceptual Domain	Social Domain	Practical Domain
Mild	<p>For preschool children, there may be no obvious conceptual differences. For school-age children and adults, there are difficulties in learning academic skills involving reading, writing, arithmetic, time, or money, with support needed in one or more areas to meet age-related expectations. In adults, abstract thinking, executive function (i.e., planning, strategizing, priority setting, and cognitive flexibility), and short-term memory, as well as functional use of academic skills (e.g., reading, money management), are impaired. There is a somewhat concrete approach to problems and solutions compared with age-mates.</p>	<p>Compared with typically developing age-mates, the individual is immature in social interactions. For example, there may be difficulty in accurately perceiving peers’ social cues. Communication, conversation, and language are more concrete or immature than expected for age. There may be difficulties regulating emotion and behavior in age-appropriate fashion; these difficulties are noticed by peers in social situations. There is limited understanding of risk in social situations; social judgment is immature for age, and the person is at risk of being manipulated by others (gullibility).</p>	<p>The individual may function age-appropriately in personal care. Individuals need some support with complex daily living tasks in comparison to peers. In adulthood, supports typically involve grocery shopping, transportation, home and child-care organizing, nutritious food preparation, and banking and money management. Recreational skills resemble those of age-mates, although judgment related to well-being and organization around recreation requires support. In adulthood, competitive employment is often seen in jobs that do not emphasize conceptual skills. Individuals generally need support to make health care decisions and legal decisions, and to learn to perform a skilled vocation competently. Support is typically needed to raise a family.</p>

Instruction #1 for Moderate Intellectual Disability [Moderate ID] Condition

Please read and study the following definitions of intellectual disability and adaptive behavior. After 15 minutes, you will be asked to fill out three measures concerning adaptive behavior.

The American Association for Intellectual and Developmental Disabilities [AAIDD]'s current definition of Intellectual Disability and Adaptive Behavior:

Intellectual disability is characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.

The following five assumptions are essential to the application of this definition:

1. Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture.
2. Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors.
3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitations is to develop a profile of needed supports.
5. With appropriate personalized supports over a sustained period, the life functioning of the person with intellectual disability generally will improve.

Adaptive behavior is the collection of conceptual, social, and practical skills that have been learned and are performed by people in their everyday lives.

- D. Conceptual skills – language and literacy; money, time, and number concepts; and self-direction
- E. Social skills – interpersonal skills, social responsibility, self-esteem, gullibility, naïveté (i.e., wariness), social problem solving, and the ability to follow rules/obey laws and to avoid being victimized
- F. Practical skills – activities of daily living (personal care), occupational skills, healthcare, travel/transportation, schedules/routines, safety, use of money, use of telephone

The American Psychiatric Association [APA]'s current definition of Intellectual Disability and Adaptive Behavior:

Intellectual Disability: This is a disorder characterized by an onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains.

Diagnostic Criteria for Intellectual Disability

- A. Deficits in intellectual functions, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
- B. Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.
- C. Onset of intellectual and adaptive deficits during the developmental period.

Adaptive functioning refers to how well a person meets community standards of personal independence and social responsibility. Adaptive functioning involves adaptive reasoning in three domains:

- A. Conceptual (academic) domain: involves competence in memory, language, reading, writing, math reasoning, acquisition of practical knowledge, problem solving, and judgment in novel situations, among others.
- B. Social domain: involves awareness of others' thoughts, feelings, and experiences; empathy; interpersonal communication skills; friendship abilities; and social judgment, among others.
- C. Practical domain: involves learning and self-management across life settings, including personal care, job responsibilities, money management, recreation, self-management of behavior, and school and work task organization, among others.

Excerpt from the APA’s definition of Intellectual Disability:

Severity Level	Conceptual Domain	Social Domain	Practical Domain
Moderate	<p>All through development, the individual’s conceptual skills lag markedly behind those of peers. For preschoolers, language and pre-academic skills develop slowly. For school-age children, progress in reading, writing, mathematics, and understanding of time and money occurs slowly across the school years and is markedly limited compared with that of peers. For adults, academic skill development is typically at an elementary level, and support is required for all use of academic skills in work and personal life. Ongoing assistance on a daily basis is needed to complete conceptual tasks of day-to-day life, and others may take over these responsibilities fully for the individual.</p>	<p>The individual shows marked differences from peers in social and communicative behavior across development. Spoken language is typically a primary tool for social communication but is much less complex than that of peers. Capacity for relationships is evident in ties to family and friends, and the individual may have successful friendships across life and sometimes romantic relations in adulthood. However, individuals may not perceive or interpret social cues accurately. Social judgment and decision-making abilities are limited, and caretakers must assist the person with life decisions. Friendships with typically developing peers are often affected by communication or social limitations. Significant social and communicative support is needed in work settings for success.</p>	<p>The individual can care for personal needs involving eating, dressing, elimination, and hygiene as an adult, although an extended period of teaching and time is needed for the individual to become independent in these areas, and reminders may be needed. Similarly, participation in all household tasks can be achieved by adulthood, although an extended period of teaching is needed, and ongoing supports will typically occur for adult-level performance. Independent employment in jobs that require limited conceptual and communication skills can be achieved, but considerable support from co-workers, supervisors, and others is needed to manage social complexities, job responsibilities such as scheduling, transportation, health benefits, and money management. A variety of recreational skills can be developed. These typically require additional supports and learning opportunities over an extended period of time. Maladaptive behavior is present in a significant minority and causes social problems.</p>

APPENDIX F: INSTRUCTIONS FOR CONTROL (NAÏVE) CONDITION

In 2002, the Supreme Court ruled that execution of individuals with an intellectual disability was cruel and unusual punishment, thus making execution of the intellectually disabled unconstitutional and illegal in the United States of America. Adaptive functioning is an important component in the diagnosis of an intellectual disability. Currently, many individuals accused and convicted of capital crimes are undergoing assessments to determine if they are indeed intellectually disabled, and if so, are ineligible for the death penalty.

When assessing someone's adaptive functioning for a possible diagnosis of an intellectual disability, family members and loved ones are often asked to rate the individual's ability to perform certain activities or tasks.

For the purposes of this study, pretend that one of your loved ones, Terry Smith, was convicted of a capital crime and given the death penalty before the 2002 Supreme Court ruling. The court has ordered a psychological assessment to determine if Terry has an intellectual disability. The court's psychologist has asked you to rate Terry's adaptive functioning abilities. Although you are not sure whether Terry might be intellectually disabled, you are sure that you do not want Terry to die. In order to ensure that Terry's life will be spared you must respond to the measures in a manner that simulates the adaptive functioning deficits found in an individual with an intellectual disability. If you are successful, Terry's life will be spared and Terry will not receive the death penalty.

Although you have not been provided with any materials to aid you in learning about adaptive functioning, please just try your best and feel free to refer to these instructions and the instructions on each measure at any time during the study.

If you have any questions about the task, please ask the nearest researcher. If not, or if all of your questions have been answered, please begin.

APPENDIX G: INSTRUCTION #2 FOR ID, MILD ID, AND MODERATE ID CONDITIONS

Instruction #2 for Intellectual Disability without Specifier [ID] Condition

In 2002, the Supreme Court ruled that execution of individuals with an intellectual disability was cruel and unusual punishment, thus making execution of the intellectually disabled unconstitutional and illegal in the United States of America. As you have just read in the previous sections, adaptive functioning is an important component in the diagnosis of an intellectual disability. Currently, many individuals accused and convicted of capital crimes are undergoing assessments to determine if they are indeed intellectually disabled, and if so, are ineligible for the death penalty.

When assessing someone's adaptive functioning for a possible diagnosis of intellectual disability, family members and loved ones are often asked to rate the individual's ability to perform certain activities or tasks.

For the purposes of this study, pretend that one of your loved ones, Terry Smith, was convicted of a capital crime and given the death penalty before the 2002 Supreme Court ruling. The court has ordered a psychological assessment to determine if Terry has an intellectual disability. The court's psychologist has asked you to rate Terry's adaptive functioning abilities. Although you are not sure whether Terry might be intellectually disabled, you are sure that you do not want Terry to die. You have been recently briefed on the definitions of intellectual disability and adaptive behavior by Terry's attorney. In order to ensure that Terry's life will be spared you must respond to the measures in a manner that simulates the adaptive functioning deficits found in an individual with intellectual disability. If you are successful, Terry's life will be spared and Terry will not receive the death penalty.

You have been provided with the current definitions of intellectual disability and adaptive functioning. Please feel free to refer to these instructions and the instructions on each measure at any time during the study.

If you have any questions about the task, please ask the nearest researcher. If not, or if all of your questions have been answered, please begin.

Instruction #2 for Mild Intellectual Disability [Mild ID] Condition

In 2002, the Supreme Court ruled that execution of individuals with an intellectual disability was cruel and unusual punishment, thus making execution of the intellectually disabled unconstitutional and illegal in the United States of America. As you have just read in the previous sections, adaptive functioning is an important component in the diagnosis of an intellectual disability. Currently, many individuals accused and convicted of capital crimes are undergoing assessments to determine if they are indeed intellectually disabled, and if so, are ineligible for the death penalty.

When assessing someone's adaptive functioning for a possible diagnosis of an intellectual disability, family members and loved ones are often asked to rate the individual's ability to perform certain activities or tasks.

For the purposes of this study, pretend that one of your loved ones, Terry Smith, was convicted of a capital crime and given the death penalty before the 2002 Supreme Court ruling. The court has ordered a psychological assessment to determine if Terry has a mild intellectual disability. The court's psychologist has asked you to rate Terry's adaptive functioning abilities. Although you are not sure whether Terry might be intellectually disabled, you are sure that you do not want Terry to die. You have been recently briefed on the definitions of mild intellectual disability and adaptive behavior by Terry's attorney. In order to ensure that Terry's life will be spared you must respond to the measures in a manner that simulates the adaptive functioning deficits found in an individual with a mild intellectual disability. If you are successful, Terry's life will be spared and Terry will not receive the death penalty.

You have been provided with the current definitions of mild intellectual disability and adaptive functioning. Please feel free to refer to these instructions and the instructions on each measure at any time during the study.

If you have any questions about the task, please ask the nearest researcher. If not, or if all of your questions have been answered, please begin.

Instruction #2 for Moderate Intellectual Disability [Moderate ID] Condition

In 2002, the Supreme Court ruled that execution of individuals with an intellectual disability was cruel and unusual punishment, thus making execution of the intellectually disabled unconstitutional and illegal in the United States of America. As you have just read in the previous sections, adaptive functioning is an important component in the diagnosis of an intellectual disability. Currently, many individuals accused and convicted of capital crimes are undergoing assessments to determine if they are indeed intellectually disabled, and if so, are ineligible for the death penalty.

When assessing someone's adaptive functioning for a possible diagnosis of a moderate intellectual disability, family members and loved ones are often asked to rate the individual's ability to perform certain activities or tasks.

For the purposes of this study, pretend that one of your loved ones, Terry Smith, was convicted of a capital crime and given the death penalty before the 2002 Supreme Court ruling. The court has ordered a psychological assessment to determine if Terry has a moderate intellectual disability. The court's psychologist has asked you to rate Terry's adaptive functioning abilities. Although you are not sure whether Terry might be intellectually disabled, you are sure that you do not want Terry to die. You have been recently briefed on the definitions of moderate intellectual disability and adaptive behavior by Terry's attorney. In order to ensure that Terry's life will be spared you must respond to the measures in a manner that simulates the adaptive functioning deficits found in an individual with a moderate intellectual disability. If you are successful, Terry's life will be spared and Terry will not receive the death penalty.

You have been provided with the current definitions of moderate intellectual disability and adaptive functioning. Please feel free to refer to these instructions and the instructions on each measure at any time during the study.

If you have any questions about the task, please ask the nearest researcher. If not, or if all of your questions have been answered, please begin.

APPENDIX H: IRB APPROVAL

THE UNIVERSITY OF
ALABAMA

Office of the Vice President for
Research & Economic Development
Office for Research Compliance

August 11, 2017

Stephanie Chambers Doran
Dept. of Psychology
College of Arts & Sciences
Box 870348

Re: IRB#: 17-OR-266 "Adaptive Behavior and Malingering in *Atkins* Cases"

Dear Stephanie Chambers Doran:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of informed consent for use of concealment/deception. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on August 9, 2018. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,


Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer

IRB Project #: 17-02-266

UNIVERSITY OF ALABAMA
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying information

	Principal Investigator	Second Investigator	Third Investigator
Names:	Stephanie Chambers Dorn	Karen Salekin	
Department:	Psychology	Psychology	
College:	Arts & Sciences	Arts & Sciences	
University:	University of Alabama	University of Alabama	
Address:	Box 870348	Box 870348	
Telephone:	(919) 612-4614	(205) 348-0679	
FAX:	(205) 348-8648	(205) 348-8648	
E-mail:	schambers1@crimson.ua.edu	ksalekin@ua.edu	

Title of Research Project: Adaptive Behavior and Malingering in *Atkins* Cases

Date Submitted:

Funding Source: University of Alabama Graduate School; University of Alabama Department of Psychology

Type of Proposal New Revision Renewal Completed Exempt

Please attach a renewal application

Please attach a continuing review of studies form

Please enter the original IRB # in the top of the page

UA faculty or staff member signature: _____

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):

Type of Review: _____ Full board Expedited

IRB Action:

____ Rejected Date: _____

____ Tabled Pending Revisions Date: _____

____ Approved Pending Revisions Date: _____

Approved-this proposal complies with University and federal regulations for the protection of human subjects.

Approval is effective until the following date: 8/9/2018

Items approved: Research protocol (dated _____)

Informed consent (dated _____)

Recruitment materials (dated _____)

Other: Waiver for deception (dated _____)

Approval signature: _____ Date: 8/11/2017

Appendix B

AAHRPP DOCUMENT #192
CONSENT FORM FOR NONMEDICAL RESEARCH STUDY
UNIVERSITY OF ALABAMA

Study title: Adaptive Behavior and Malingering in *Atkins* Cases

Principal Investigator: Stephanie C. Doran, M.A., Graduate Student

Faculty Supervisor: Karen L. Salekin, Ph.D.

You are being asked to be in a research study. This study is called "Adaptive Behavior and Malingering in *Atkins* Cases". This study is being done by a graduate student, Stephanie Doran, M.A., and her supervisor, Dr. Karen Salekin.

What is this study about? What is the investigator trying to learn?

The current study aims to explore whether or not individuals can successfully report adaptive functioning deficits (skills needed for independence) consistent with a diagnosis of intellectual disability for another individual. In other words, the investigator is interested in whether or not college students can successfully report "fake" deficits for another individual involved in the penal system.

Why is this study important or useful?

This knowledge is important because it is unconstitutional, and therefore illegal, to sentence someone with intellectual disability to death. One part of *Atkins* evaluations, which is an evaluation in which professionals work to determine whether an individual has intellectual disability, involves having loved ones complete adaptive behavior measures about the person facing sentencing. This study is important because it can help psychologists and legal professionals better understand the likelihood that someone can successfully "fake" adaptive functioning deficits for another person to help them evade the death penalty.

Why have I been asked to be in this study?

You have been asked to be in this study because you are in the Psychology Department's subject pool.

How many people will be in this study?

About 200 people will be in this study.

What will I be asked to do in this study?

If you agree to participate in this study you will be asked to fill out a demographic form, then possibly study definitions for a brief period of time. You will then be asked to complete a questionnaire concerning your current knowledge of intellectual disability and read a vignette describing a scenario where you want to try to save your loved one from the death penalty. You will then be asked to complete three measures of this loved one's adaptive functioning.

How much time will I spend being in this study?

Participation in this study will take approximately 3.5 – 4 hours.

Will being in this study cost me anything?

The only cost to you is your time.

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CONSENT FORM APPROVED: 8/10/17
EXPIRATION DATE: 8/9/2018

Will I be compensated for being in this study?

In appreciation of your time, you will receive 6 course experiment credits. You will be given this credit at the end of the session. Additionally, if you successfully “fake” adaptive functioning deficits, you will be entered in a drawing to receive one of five \$100 cash prizes.

Can the investigator take me out of this study?

The investigator may remove you from the study if he/she feels the material is upsetting you.

What are the risks (dangers or harms) to me if I am in this study?

Potential risks associated with your participation include mild fatigue from responding to the paper and pencil measures. A 10-minute break will be offered approximately half way through your completion of the study. You also have the right to stop at any time without any punishment or penalty and skip any questions that may cause your anxiety or discomfort. Additionally, if you experience distress during or after the study, you may contact the UA Counseling Center at (205) 348-3863 or <http://counseling.ua.edu/>.

What are the benefits (good things) that may happen if I am in this study?

Potential benefits include gaining greater knowledge of the area of intellectual disability including the disorder’s features, methods of assessment, and its assessment in death row populations.

What are the benefits to science or society?

This study may benefit society by increasing the accuracy of forensic evaluations of adaptive functioning and consequently, the assessment of intellectual disability. The potential increase in the validity and accuracy of assessments of intellectual disability could lead to better determinations of supports and services for those with the disorder as well as increasing the possibility for justice for disordered individuals within the penal system.

How will my privacy be protected?

All of the forms and questionnaires in this study will be completed on your own. The only people with access to these data will be the trained members of the research team. Because identifying information is not collected with your data (see below), there will be no way to match what you reported with your identifying information.

How will my confidentiality be protected?

No identifying information will be paired with your data. You will provide your name and email at the end of the study solely for the purpose of awarding credit and entering the drawing. This information will not be paired with your data in any way. Also, only trained individuals will have access to the data from this project.

What are the alternatives to being in this study? Do I have other choices?

If you do not wish to participate in this study but still wish to receive experiment credit, you can choose among other available studies found on <http://alabama.sona-systems.com>. If you do not wish to participate in any research studies, you have the option to complete the alternative assignment as outlined in your course syllabus.

What are my rights as a participant in this study?

Taking part in this study is voluntary. It is your free choice. You can refuse to be in it at all. If you start the study, you can stop at any time. There will be no effect on your relations with the University of Alabama.

The University of Alabama Institutional Review Board (“the IRB”) is the committee that protects the rights of people in research studies. The IRB may review study records from time to time to be sure that people in research studies are being treated fairly and that the study is being carried out as planned.

Who do I call if I have questions or problems?

If you have questions, concerns, or complaints about the study right now, please ask them. If you have questions or concerns about the study later on, please email Stephanie C. Doran at schambers1@crimson.ua.edu or Karen L. Salekin at ksalekin@ua.edu.

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 8/10/17
EXPIRATION DATE: 8/9/2018

If you have questions about your rights as a person in a research study, call Ms. Tanta Myles, the Research Compliance Officer of the University, at 205-348-8461 or toll-free at 1-877-820-3066.

You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at http://osp.ua.edu/site/PRCO_Welcome.html or email the Research Compliance office at participantoutreach@bama.ua.edu.

After you participate, you are encouraged to complete the survey for research participants that is online at the outreach website at <http://osp.ua.edu/site/IRBGrid.html>.

I have read this consent form. I have had a chance to ask questions.

Signature of Participant:

Date: _____

Participant's Name (in print)

Research Team Member's Name

Date: _____

UNIVERSITY OF ALABAMA IRB
CONSENT FORM APPROVED: 8/10/17
EXPIRATION DATE: 8/9/2018

Appendix R

Debriefing: Adaptive Behavior and Malingering in *Atkins* Cases

Dear Participant,

Thank you for your time and participation.

This study investigated the susceptibility of three commonly used measures of adaptive behavior to “faked” deficits. More specifically, the researchers are interested in learning more about how likely it is that someone can successfully “fake” adaptive functioning deficits found in individuals with intellectual disability. The investigators hope that this research can provide further information regarding the accuracy of forensic evaluations of adaptive functioning and consequently, the assessment of intellectual disability.

The Informed Consent for this study stated that only those participants who can successfully “fake” adaptive functioning deficits will be eligible for a drawing to win one of five \$100 cash prizes; however, all participants will be entered into this drawing given they answered the mascot trivia question correctly. This compensation procedure was used as a way of simulating the high level of motivation one would have in a real life scenario where they are trying to save a loved one from the death penalty.

Please do not share with others about your participation in this study. Information shared among potential participants could potentially bias future responses from participants. If you have additional questions about this project or the purpose of the study, please contact the principal or secondary investigator directly. Their contact information is below.

Stephanie C. Doran, M.A.
Graduate Student
Department of Psychology
The University of Alabama
Tuscaloosa, AL 35487
schambers1@crimson.ua.edu

Karen L. Salekin, Ph.D.
Associate Professor
Department of Psychology
The University of Alabama
Tuscaloosa, AL 35487
ksalekin@ua.edu

You may also contact Ms. Tanta Myles, Research Compliance Officer at The University of Alabama, at (205) 348-8461. She can answer any questions or concerns about your rights as you take part in this study. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach website at http://osp.ua.edu/site/PRCO_Welcome.html or email us at participantoutreach@bama.ua.edu. After you participate, you are encouraged to complete the survey for research participants that is online at the outreach website or you may ask the investigator for a copy of it and mail it to the University Office for Research Compliance, Box 870127, 358 Rose Administration Building, Tuscaloosa, AL 35487-0127.

UA IRB Approved Document
Approval date: 8/10/17
Expiration date: 8/19/2018

Now that you know the full procedure in this study, please indicate by checking below to show whether you are still willing to allow your data to be included in this study.

- Yes. I will allow my data to be used in this study.
- No. I do not want my data to be used. Please destroy it as soon as possible.

Signature of Participant:

Date: _____

Participant's Name (in print)

UA IRB Approved Document
Approval date: 8/10/17
Expiration date: 8/9/2018