

An Exploratory Study of the Influences on Response Stability of the Interactive Dominic/Terry Questionnaire

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The Dominic Interactive is a pictorial structured child interview screener with features to address developmental issues that are often problematic for young informants. It includes items depicting non-symptomatic activities as well as activities demonstrating DSM-IV (American Psychiatric Association, 1994) symptoms of several childhood disorders. We examined the reliability of the Interactive Dominic/Terry, as well as potential factors influencing response stability, with a sample of 59 inpatient adolescents. Response stability refers to the tendency for the same response to be given over time. Analyses yielded good to excellent reliability for the majority of the scales. Response stability was similar regardless of age, gender, or race. Results also suggested an inverse relationship between Verbal IQ and rate of response change. Overall, these preliminary results suggest that this instrument is suitable for children and adolescents of different racial backgrounds, although the impact of intelligence requires further investigation.

Children and adolescents referred to inpatient psychiatric facilities are frequently the focus of extensive medical and psychological assessment. The primary diagnostic tool often is the clinical interview even though interviewer-and/or diagnostic criteria variance are common (Silverman & Ollendick, 2005). To overcome this limitation a number of diagnostic interviews, either highly structured or semi-structured, have been developed (McClelland, 2004). In the inpatient setting a "respondent-based" interview (Angold & Fisher, 1999) yielding information regarding the thoughts and feelings of the youth is desirable to complement observational material from staff reports.

However, difficulties with traditional interview methods such as the use of abstract language, cumbersome

length, and references to time have been noted (Edelbrock & Bohnert, 2000; Fallon & Schwab-Stone, 1994). Studies have shown that up to half of adolescents are not interested in traditional interviews and one-third has difficulty paying attention (Shaffer et al., 1993). Adolescents have also reported difficulty understanding interview questions (Edelbrock & Bohnert, 2000). These factors may impede the utility of the information gathered. In order to increase interest and attention, a diagnostic interview may necessitate a concrete format to which young informants can relate. Instruments showing pictures representing psychopathology, thereby combining auditory and visual modalities, seem appropriate.

As demonstrated by Furman and Bierman (1983), presenting a combination of both auditory and visual information when posing questions to children as young as four years old results in increased comprehension of the question (see also Bierman, 1984). This dual-modality approach is consistent with Paivio's dual-coding theory, which posits two distinct subsystems, an auditory and a visual system, that process cognitive information (Paivio, 1986). Such a combined approach has been shown to aid comprehension and learning, enhance children's memory (Pressley & Miller, 1987; Schneider & Pressley, 1997), improve attention, and stimulate interest (Calvert, 1999; Peeck, 1987; Pezdek & Stevens, 1984). In addition, according to Bender and Levin (cited in Pressley & Miller, 1987) the dual-modality approach significantly improved learning in a

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group of educable mentally retarded children. Given previous research indicating that adolescents, similar to younger children, have difficulty paying attention during structured interviews, the combination of visual and auditory stimuli may also be beneficial when interviewing adolescents, particularly those with lower intelligence.

Among pictorial instruments, the Dominic is one of the oldest and most widely tested (Bidaut-Russell, Valla, Thomas, Bergeron, & Lawson 1998; Ederer, 2004; Valla, Bergeron, Berube, Gaudet, & St-Georges, 1994). The Dominic demonstrates robust psychometric properties in the general population and outpatient clinic children (Cotler, Reich, Rourke, Cunningham-Williams, & Compton, 2000; Loney & Frick, 2003; Murphy, Cantwell, Jordan, Lee, Cooley-Quille, & Lahey, 2000). It has, however, not been validated with inpatient youths.

The Dominic Interactive (Valla, 2000) is part of a relatively new set of structured child interview screeners (Dominic-R, Interactive Dominic/Terry) developed in an attempt to resolve many of the problems with traditional face-to-face interviews (Valla et al., 1994; Valla, Bergeron, Bidaut-Russell, St-Georges, & Gaudet, 1997; Valla, Bergeron, & Smolla, 2000). This screening tool is a pictorial structured interview that, in addition to blending visual and verbal information, has a short administration time (10-20 minutes), presents the child with simple response options, and does not include questions regarding time and frequency. As the interviewee views the pictures he or she simultaneously hears a voice describing the pictured activity. This interview portrays, in still-frame, a boy or girl named Dominic (Caucasian), or Terry (African-American) engaging in various activities and situations. Some of the activities and situations demonstrate non-symptomatic activities and are included on a Strengths and Competencies Scale, which has received little empirical investigation. Other activities and situations presented demonstrate DSM-IV (American Psychiatric Association, 1994) symptoms of Attention-Deficit/Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), Conduct Disorder (CD), Major Depressive Disorder (MDD), Separation Anxiety Disorder (SAD), Generalized Anxiety Disorder (GAD), and Specific Phobias (SPh). Upon presentation of the items, the child either answers "yes" or "no" as to whether s/he acts similarly to Dominic/Terry (Valla et al., 2000). Currently, an incomplete set of versions is available across age, language, and race. Thus, this instrument has considerable potential as a tool for cross-cultural applications.

Valla and colleagues (1994, 1997, & 2000) have reviewed the construction and psychometric properties of the paper-based version of the Dominic and Dominic-R. Of 42 symptom scales (7 diagnostic-approximates, or "tendencies," for six age groups) included on the Dominic-R, 33 obtained an Intraclass Correlation Coefficient (ICC) above .70. Seven were between .60 and .69 and 2 were below .60. The 2 symptom scales below .60, Specific Phobia and Conduct Disorder, were obtained from the group of 6-year-olds. Internal consistency for both internalizing and exter-

nalizing Tendency scales were .89. Alphas for the individual symptom scales ranged from .64 to .83.

Bidaut-Russell and colleagues (1998) introduced Dominic-R versions depicting African Americans (Terry). Using 36 referred and non-referred children, these researchers obtained test-retest kappas for Terry tendencies from .70 to .76 and ICCs between .77 and .88. Cronbach's alphas ranged from .78 to .90. These findings are commensurate with those obtained using the Dominic-R and indicate that the measure can be used reliably with African American children. Still, as noted by Valla et al. (2000), it is necessary to further document the psychometric characteristics of the Terry. This is consistent with the need to develop more ecologically sensitive instruments to facilitate identification with the material and enhance self-disclosure (Merrell, 2003).

The computer-based Interactive Dominic was first introduced by Valla, Bergeron, and Smolla (1997). Unpublished research conducted by Bergeron and Smolla (2002), using 609 non-clinical and clinical French and English-speaking children, report psychometric properties that were similar to or better than the paper version. Valla et al. (2002), demonstrated the measure's transcultural appropriateness and ability to discriminate between clinically referred and non-referred children, as well as referred children with and without a clinical judgment-based diagnosis. The psychometric characteristics of the Interactive Terry have not been reported.

Previous findings suggest that the Dominic-R elicits responses that demonstrate better test-retest reliability than those yielded from the K-SADS, the DISC, and the DISC-2 (Valla et al. 1994). However, initial studies with the Dominic-R using both outpatient clinic and community samples resulted in limitations in the calculation of some kappa values due to the low base rate of some symptoms.

Because the Dominic already demonstrated acceptable psychometric qualities in other settings, and instruments tend to be more reliable in clinical settings (Boyle et al., 1993; Schwab-Stone, Fisher, Piacentini, Shaffer, Davies, & Briggs, 1993; Welner, Reich, Herjanic, Jung, & Amado, 1987), the current study was not designed as a comprehensive validation study. Instead, we first aimed to extend the reliability evidence of the Interactive Dominic to an inpatient setting and its parallel version (Terry) with a sample of African Americans. Second, we were interested in examining whether measured intelligence affected response stability. A plethora of literature has documented adaptive behavior deficits (e.g., difficulties with hygiene care, daily living skills) and the full range of psychopathology in children presenting with intellectual deficits (see Dykens, 2000 for a review). It follows, therefore, that children with intellectual delays would be well represented in inpatient psychiatric settings. Comorbid cognitive delays and behavioral/emotional problems pose particular assessment challenges (Dykens, 2000; Hodapp & Dykens, 1996; Singh, Oswald, & Ellis, 1998). Indeed, previous reliability studies on traditional structured diagnostic interviews frequently

INFLUENCES ON RESPONSE STABILITY

have excluded children due to low intelligence (Edelbrock, Costello, Dulcan, Conover, & Kalas, 1986; Herjanic & Reich, 1982; Moretti, Fine, Haley & Marriage, 1985; Welner et al., 1987). Third, the influence of gender, age, race, test-retest interval, and attenuation was explored as possible factors affecting response stability.

Method

Participants

Participants were 59 inpatient adolescents consecutively referred between July 2002 and April 2003 to a residential treatment and diagnostic center, which provides short-term emergency shelter in East Alabama. Males (52.5%) and females (47.5%), African Americans (46%) and Caucasians (54%) were equally represented in the sample, and ranged in age from 12 to 17 ($M = 14.3$, $SD = 1.63$). Inclusion criteria were: age between 12 and 17, informed consent/assent, and presence during the period of data collection. There were no exclusion criteria. The range of presenting problems was wide and these teens participated in a variety of treatment programs, in addition to an evaluation.

Measures

Interactive Dominic/Terry Interactive (Valla, 2000). We used the 6-11 version of the instrument with our inpatient sample since the African-American version (Terry) is not yet available for adolescents. Downward extensions of adult questionnaires have been widely criticized because children's language comprehension may differ markedly from that of adults due to factors previously outlined. In the present study, however, the measure has been developed with young children, and the more recent adolescent version (Smolla, Valla, Bergeron, Berthiaume, & St-Georges (2004), with few exceptions, utilizes the same formulations as the 6-11 version (J. P. Valla, personal communication, July 2006). The child version of the Dominic/Terry yields diagnostic-approximate information (tendencies) based on a normative sample aged 6-11. Cut-off points obtained with that sample were irrelevant for our adolescent participants and no attempt was made to study diagnostic prevalence estimates.

Wechsler Intelligence Scales. The Wechsler Intelligence Scale for Children, Third Edition (WISC-III; Wechsler, 1991) and Wechsler Adult Intelligence Scale, Third Edition (WAIS-III; Wechsler, 1997) represent the most widely used measures of intellectual abilities (Kaufman & Lichtenberger, 2000), and yield a Full Scale IQ, Verbal IQ, Performance IQ, and four factor scores. Reliability and validity of these instruments are well documented (Sattler, 2001).

Procedures

Upon arrival at the facility each resident received a standard diagnostic battery, which among other measures, included a semi-structured clinical interview, the WISC-III or WAIS-III, and the Interactive Dominic/Terry. Nothing was mentioned regarding Dominic's/Terry's youthful appearance. Interviewers presented the task using the standard prompt provided in the test. The test-retest interval for the Dominic/Terry ranged from 3 to 17 days ($Mdn = 7$; $M = 8.33$; $SD = 3.3$). Informed consent and assent were secured from the parents/guardians and adolescents, respectively, prior to the data being obtained in an anonymous fashion from the participants' file.

Analyses

The overall sample of 59 participants was used to determine the internal consistency (Cronbach's alpha) of the Interactive Dominic/Terry tendency scales. Of these 59 youths, 10 left the facility before completing retest. No differences on any study variable existed between youths with retests and those without. Therefore, test-retest analyses were based on a sample of 49 adolescents (24 females [49%], 23 African Americans [46.9%]). Kappa coefficients were calculated to assess the test-retest reliability of symptoms. Intra-class Correlations (ICCs) were computed to examine the test-retest reliability of the seven tendency scales, the Strengths and Competencies scale, and the total instrument.

Of these 49 subjects, 47 (23 females, 21 African-Americans) were administered the WISC-III or WAIS-III, depending on age (12-17; $M = 14.4$; $SD = 1.62$). We computed Pearson product-moment correlations in order to examine the relationship between the amount of response change on the Interactive Dominic/Terry and intelligence. Response change at retest was calculated for every tendency scale and every participant. Response change refers to the change from one response to another from the first to second administration. Less response stability results in greater response change. The amount of response change was computed by summing the number of responses that were changed from test to retest and dividing by the number of possible responses per tendency scale.

In order to further examine differences in terms of amount of response change and IQ, participants were grouped according to IQ. Those with IQs of 79 and below were classified as "Moderately or Significantly Below Average," those with IQs between 80 and 89 were classified as "Below Average," and those with IQs of 90 and above were classified as "Average or Above." We conducted an analysis of variance (ANOVA) for each diagnostic scale with post-hoc comparisons (Tukey HSD). These IQ groups were also used to examine ICC patterns among the seven tendency scales, the Strengths and Competencies scale, and the total instrument. Univariate analyses explored other possible factors affecting response change, and examined

attenuation differences according to gender and two age groups (12-14 and 15-17).

Results

Acceptability of the Pictorial Approach

Participants were observed to be quite interested in the computer-based interview relative to other components of the assessment. There was no reaction to the age of Dominic with the exception of two participants who commented on how young Dominic/Terry appeared.

Internal Consistency

Cronbach's alphas ranged from .66 (Strengths) to .91 (ADHD). Alphas for the internalizing and externalizing tendency scales were both very high (.94).

Test-retest Reliability

ICCs were calculated for the overall sample as well as for groups based on gender, race, and age. For the overall sample, ICCs of the eight tendency scales ranged from .81 to .96. The ICC for the total instrument was .97. Except for the Strengths and Competencies scale and the Specific Phobia tendency scale, all ICCs were above .90. ICCs ranged from .79 to .97 for the younger group (12 to 14) and .84 to .96 for the older group (15-17). ICCs for the two groups for each scale and the total test were similar; however, the younger group obtained an ICC of .83 on the Specific Phobia tendency scale while the older group obtained an ICC of .94.

Because the Interactive Dominic/Terry provides slightly different characters based on gender and race, test-retest reliability was examined depending on the version given (see Table 1). ICCs for both genders were similar except for the Specific Phobia tendency scale: males obtained a lower ICC (.69) than females (.91) on that scale. ICCs for the African American and Caucasian groups were similar with the exception of the Strengths and Competencies scale where the African American group obtained a lower ICC (.71) than the Caucasian group (.91).

Of the 91 symptoms, *kappas* were .70 or above for 42 symptoms, between .60 and .69 for 17 symptoms, between .50 and .59 for 14 symptoms, and below .50 for 18 symptoms. Using the classification approach offered by Landis and Koch (1977), the Interactive Dominic/Terry yielded 27 symptoms with excellent reliability (above .75), 34 with good reliability (.59 to .74), 19 with fair reliability (.40 to .58), and 5 with poor reliability. Six items had low base rates at both test and retest.

Intelligence and Response Stability

Full Scale IQ (FSIQ) scores ranged from 54 to 116 ($M = 84.13, SD = 12.76$), Verbal IQ (VIQ) scores ranged from 52 to 126 ($M = 84.02, SD = 14.23$), Performance IQ (PIQ) scores ranged from 62 to 112 ($M = 87.11, SD = 11.09$), and Verbal Comprehension Index scores ranged from 54 to 102 ($M = 84.16, SD = 11.85$). FSIQ and PIQ were negatively correlated with response change for four of the eight tendency scales (SPh: $r = -.35$ and $-.34, p < .05$; SAD: $r = -.40$ and $-.40, p < .01$; CD: $r = -.31$ and $-.29, p < .05$; Strengths: $r = -.44, p < .01$ and $r = -.30, p < .05$) and the overall instrument ($r = -.50$ and $-.30, p < .01$). Significant negative associations were also obtained between VIQ and response change for all but one (ODD) tendency scale ($p < .05$: SPh $r = -.31$, SAD $r = -.35$, GAD $r = -.29$, MDD $r = -.29$, CD $r = -.29$, ADHD $r = -.29, p < .01$; Strengths $r = -.48$) as well as the overall instrument ($r = -.53, p < .01$). The Verbal Comprehension Index was negatively associated with five tendency scales (SAD $r = -.42, p < .05$; MDD $r = -.38, p < .05$; CD $r = -.35, p < .05$; ADHD $r = -.46, p < .01$; Strengths $r = -.59, p < .01$) and the overall instrument ($r = -.56, p < .01$).

Table 1
Intraclass Correlation test-retest reliability of scales of the Interactive Dominic/Terry based on gender and race

Tendencies	Males N=25		Females N=24		African American N=23		Caucasian N=26	
	ICC ^a	CI ^b	ICC	CI	ICC	CI	ICC	CI
SPh	.69	.29, .86	.91	.80, .96	.86	.68, .94	.89	.76, .95
SAD	.95	.88, .98	.94	.86, .97	.94	.86, .97	.95	.89, .98
GAD	.96	.91, .98	.91	.80, .96	.95	.89, .98	.93	.85, .97
MDD	.95	.88, .98	.96	.91, .98	.97	.93, .99	.95	.89, .98
ADHD	.95	.88, .98	.97	.93, .99	.96	.91, .98	.96	.91, .98
ODD	.88	.72, .95	.94	.87, .98	.95	.87, .98	.89	.75, .95
CD	.96	.90, .98	.88	.71, .95	.94	.86, .97	.94	.87, .97
Overall Total	.96	.91, .98	.97	.94, .99	.98	.94, .99	.96	.92, .98
Strengths	.83	.62, .93	.80	.53, .91	.71	.31, .88	.91	.80, .96

^aIntraclass Correlation Coefficient

^b95% confidence interval

Based on the ANOVA between VIQ groups (“Moderately or Significantly Below Average,” “Below Average,”

INFLUENCES ON RESPONSE STABILITY

and “Average or Above”), the lowest VIQ group tended to show higher response changes, but only significantly so on the CD and SAD tendency scales as well as on the Strengths and Competencies scale (see Table 2). Similarly, all scale ICCs remained above .90 regardless of VIQ group, except for the lowest VIQ group’s SPh scale (.79) and the lower two VIQ groups’ Strengths and Competencies scale (.35 and .84, respectively).

Table 2
VIQ group differences in amount of response change

Tendencies	Mean Amount of Response Change			<i>F</i>	<i>p</i>	Tukey HSD
	MSBA VIQ ^a N=13	BA VIQ ^b N=19	AA VIQ ^c N=15			
SPh	.128	.076	.052	1.72	.191	NS
SAD	.163	.145	.050	4.43	.018	MSBA, BA>AA
GAD	.226	.140	.142	2.33	.109	NS
MDD	.181	.158	.093	2.64	.083	NS
ODD	.188	.164	.178	.097	.908	NS
CD	.165	.071	.109	3.52	.038	MSBA>BA
ADHD	.170	.130	.081	2.65	.080	NS
Overall Total	.177	.127	.089	7.39	.002	MSBA > AA
Strengths	.231	.168	.053	8.40	.001	MSBA, BA>AA

^a Moderately or Significantly Below Average VIQ = 79 and below

^b Below Average VIQ = 80-89

^c Average or Above VIQ = 90 and above

Note. SPh=Specific Phobia, SAD=Separation Anxiety Disorder, GAD=Generalized Anxiety Disorder, MDD=Major Depressive Disorder, ADHD=Attention-Deficit/Hyperactivity Disorder, ODD=Oppositional Defiant Disorder, CD=Conduct Disorder, Strengths=Strengths and Competencies

Other Factors Affecting Response Stability

Age, gender, race, and test-retest interval were explored as possible factors affecting amount of response change. Univariate analyses resulted in no significant differences for gender, age, or test-retest interval indicating that these factors did not affect response change. Only one scale (Strengths) resulted in a significant difference when

comparing African Americans ($M = .19, SD = .14$) and Caucasians ($M = .11, SD = .11$), $t(47) = 2.18, p < .05$.

Attenuation is the tendency to change positive responses at the first administration to negative responses at the second administration. Thus, attenuation is an important phenomenon to consider when examining response change. Attenuation was seen for all scales. On the SPh scale, mean rate of attenuation for males ($M = 1.5, SD = 0.97$) was lower than females ($M = 2.71, SD = 1.23$), $t(47) = 2.33, p < .05$. All other comparisons showed no differences. No correlation was found between age and attenuation.

Discussion

The goals of the current study were to: 1) test the reliability evidence of the Interactive Dominic in an inpatient setting and its parallel version with African American youth; and 2) explore the relationship between response stability, intelligence, and demographic variables.

Reliability

Internal consistency statistics derived in the present study are generally commensurate with those obtained on the paper-based version (Bidaut-Russell et al, 1998; Valla, Bergeron, Bidaut-Russell et al., 1997), though notably higher values were found on the GAD/OAD scale (.86 versus .66) and the CD scale (.85 versus .64). Furthermore, the test-retest reliability results of the present study are higher than those obtained previously by the authors of the Interactive Dominic/Terry both for symptoms and symptom scales. ICCs obtained in the present study also compare favorably with those obtained by Valla and colleagues. Such improved reliability was expected in an inpatient sample of older youth, since younger children tend to be less consistent in their reports than older ones (Edelbrock et al, 1985). In addition, community samples are unlikely to endorse a sufficient number of the more severe symptoms (Shaffer, Fisher, & Lucas, 1999), which influences statistical power. Thus, the higher rates of symptom endorsement in our inpatient sample could have accounted for the higher reliabilities. Consistent with this, test-retest reliabilities obtained in the present study with inpatient adolescents were considerably higher than those reported by Fisher et al. (1997; see also Shaffer et al., 2000), using the DISC-IV on a sample of psychiatric outpatient children and adolescents (9-17 years old).

In an early study of the Child and Adolescent Psychiatric Assessment self-report (CAPA-C) reliability, Angold and Costello (1995) also found typically higher ICCs for inpatients relative to outpatients. Our results compare favorably with these authors’ ICCs for symptoms of Major Depression; in contrast, our ICCs were considerably higher for symptoms of Separation Anxiety Disorder, Oppositional Defiant Disorder, and Conduct Disorder. Few other studies of inpatients are available, making further comparisons difficult. Regardless, no other diagnostic screening instrument has combined auditory and visual stimuli. Audio computer-assisted self-interviewing has been shown

to foster adolescent disclosure of socially undesirable symptoms (Turner et al., 1998). In addition, the Voice DISC-IV has shown utility in juvenile justice settings, where the use of evidence-based instruments is highly variable (Wasserman, McReynolds, Lucas, Fisher, & Santos, 2002). Attention should, therefore, be directed towards establishing the incremental utility of the Dominic Interactive as part of an evidence-based diagnostic evaluation process.

The tendency scales on the Interactive Dominic/Terry demonstrated acceptable reliability for both genders and for African-Americans and Caucasians, indicating that the instrument may be quite useful for children and adolescents of different racial backgrounds. Similar to previous studies of the Dominic (Bidaut-Russell et al., 1998; Valla, Bergeron, Bidaut-Russell et al., 1997), attenuation was seen for all tendency scales. This phenomenon has been documented by other interview developers as common (e.g., Angold & Costello, 1995; Piacentini et al., 1999).

The Specific Phobia (SPh) and Strengths and Competencies scales demonstrated lower ICCs and internal consistency than other scales, and of the items with poor reliability, four were on the Strengths scale and three were on the SPh scale. Various types of specific phobias (e.g., dogs, bugs, heights) are represented on the SPh scale, as opposed to the severity of any one specific experience required in the DSM-IV. Specific phobias tend to diminish as children age (Barrios & O'Dell, 1998); thus, for our adolescent sample, endorsement base rate was very low. Valla, Bergeron, Bidaut-Russell et al. (1997), reported adequate internal consistency and good test-retest reliability for the SPh scale in their sample aged 6-11 years.

Items on the Strengths scale refer to having fun with friends, feeling good about school, and liking the place where the youth lives. Affirmative responses may be expected from well adjusted children living in the community. However, due to the upheaval associated with a residential placement, this scale may not translate into inpatients' current situation. As noted, African-Americans obtained a lower ICC on this scale compared to Caucasians. This finding may indicate less cultural applicability of this scale to African-American youths' perception of their strengths and competencies. Previous studies did not report the psychometric properties of this scale. Therefore, clarification of the utility and integrity of this scale is needed.

Response Stability and IQ

Our adolescent participants did not have a parental report available and were the sole providers of information during the diagnostic evaluation, in addition to historical records. This limited access to information is also a concern in juvenile justice settings (see Wasserman et al., 2002). For adolescents of lower cognitive functioning who do not have parental report available to supplement their self-report, the method of eliciting information is crucial. The Interactive Dominic/Terry was developed with the

receptive and expressive limitations of children in mind. It relies less on the respondents' verbal ability than sentence-based interviews that ignore limitations, and as a result, is likely less influenced by measured "verbal intelligence." Although age of our participants would suggest that a sentence-based interview is acceptable, the cognitive abilities of many participants suggest otherwise. Verbal IQ is still an associated factor in respondents' ability to provide stable responses over time on the Interactive Dominic/Terry. Although there is an impact of IQ on the Dominic's reliability, this impact seems minimal and should not preclude the use of this instrument with intellectually delayed individuals.

Systematic research on the impact of intelligence on reliability of traditional questionnaires and interviews is surprisingly sparse. The fact that many studies investigating the properties of sentence-based interviews exclude children based on cognitive ability suggest that those interviews (and other self report measures) may not have an adequate base of evidence on which to claim reliability. The format of the Interactive Dominic/Terry may allow for useful diagnostic screening that might otherwise not have been possible.

Limitations and Future Directions

The main limitation of our preliminary study is the small sample size. A larger sample size allows for better examination of symptoms rarely endorsed. Further, larger samples of each race and gender would have been desirable.

Another clear limitation of the present study is the use of the 6-11 year old version of the instrument with an adolescent population. At the time of the current investigation, the adolescent version of the measure was in the process of being created and had not yet been made available. However, the authors of both versions of the measure indicated that with few exceptions the adolescent version used the same formulations as the 6-11 version (J. P. Valla, personal communication, July 2006). One primary difference is the older appearance of the child in the adolescent version. Given that only two of the participants made statements about the age of the child depicted, it is likely that this is an insignificant factor. In addition, given that diagnostic information was not relevant to the current study, cut-off scores based on a younger normative sample were not used. Lastly, although the age of our participants would suggest that a sentence-based interview would be sufficient, the cognitive abilities of many participants and lack of an adolescent version suggests that use of the child version of the instrument was appropriate.

This study did not examine the Interactive Dominic/Terry and a DSM-IV-, sentence-based interview simultaneously, and thus the extent of the improvement presumably brought about by the combination of verbal and visual information with adolescents of lower cognitive functioning could not be determined. It would be important

INFLUENCES ON RESPONSE STABILITY

to examine the relationship between Verbal IQ and both types of interview in order to determine whether the dual modality presentation improves response stability of low functioning adolescents. As noted by Klein, Dougherty, and Olino (2005), most studies have not directly compared different diagnostic interviews in the same sample, thus making it difficult to identify advantages with particular instruments (see also Angold & Fisher, 1999). It might also be worthwhile to investigate whether order effects are present with the Interactive Dominic, consistent with findings that youths (and parents) report more symptoms for diagnoses assessed early in the more traditional structured interviews (Jensen, Watanabe, & Richters, 1999). Although an inverse relationship between IQ and response change was seen with some scales for lower functioning individuals relative to higher functioning individuals, the impact seems minimal and may be less of a factor when using a pictorial interview compared to more traditional structured interviews. The current investigation did not directly compare the effects of IQ on response stability using the two interview formats. Future studies should directly compare these two modalities to determine the impact of IQ when using a dual-modality approach compared to traditional interviews. Lastly, although the length of the retest interval was examined as a potential factor affecting response stability, we did not specifically examine the effect on attenuation. Future investigations should include this analysis to fully understand the effects of the length of the retest interval.

Clinical Implications

As implied above, this study provides preliminary evidence on the reliability of the Interactive Dominic/Terry with both African-American and Caucasian adolescent inpatient populations, yielding useful information in an efficient manner. This novel assessment approach based on both visual and auditory stimuli may be indicated with low functioning adolescents for whom traditional sentence-based interviews and inventories pose particular challenges. Attention might also be directed towards establishing the incremental utility of the Dominic Interactive as part of an evidence-based diagnostic evaluation process. Investigations of convergent and divergent validity and factors that influence the validity of obtained Dominic/Terry responses are essential. This information would provide support for the usefulness of this type of interview with an adolescent population. In addition, similar investigations of test-retest reliability with the adolescent version of the instrument are warranted.

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INFLUENCES ON RESPONSE STABILITY

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