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AUTHOR Schuster, Lauren; Srebro, Karen; Chambliss, Catherine
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ABSTRACT

This preliminary study examined the feasibility of using home videotape vignettes in the process of diagnosing young children's behavioral problems. It assessed whether recurrent symptomatic behaviors would appear spontaneously on home videotape. Twenty-eight mental health providers-in-training competed symptom checklists after viewing tapes of two children without diagnoses and two children already diagnosed with mild attachment disorder or attention deficit hyperactivity disorder. Evaluators were able to detect a behavior difference between the diagnosed and undiagnosed children on the attachment scale, the hyperactivity and oppositional behavior scale, and the attention and social skills scale. Across diagnosis groups, male children were perceived as showing more hyperactive and oppositional symptoms than females. (DB)

The Use of Videotaped Vignettes in Diagnosing Children:

A Preliminary Exploration

Lauren Schuster

Karen Srebro

Catherine Chambliss, Ph.D.

Ursinus College

1999

The Use of Home Videotaped Vignettes in Diagnosing Disorders in Children: A Preliminary Exploration

Lauren Schuster, Karen Srebro, and Catherine Chambliss, Ph.D.

This preliminary project will explore the feasibility of using home videotape vignettes in improving the process of diagnosing children's behavioral problems. One of the obstacles in accurately diagnosing children's disorders involves children's tendency to behave atypically with strangers. As a result, parents are often frustrated by their failure to accurately convey relevant problematic behaviors to diagnosticians. Videotaping problematic behaviors at home may therefore improve communication between parents and professionals, thus enhancing the diagnostic procedure.

This study assessed whether recurrent symptomatic behaviors appear spontaneously on home videotapes. Mental health providers-in-training completed the Randolph Questionnaire (Attachment Disorder) and ACTeRS (ADD/ADHD) symptom checklists after viewing videotaped segments of target children. Their responses to tapes of children without diagnoses and those already diagnosed with mild Attachment Disorder or ADHD were compared. The diagnosed and undiagnosed cases were matched on the basis of age, sex and situation taped.

The providers-in-training were able to detect a behavioral difference between the diagnosed and undiagnosed children on the revised Attachment scale, the revised ADD/ADHD Hyperactivity and Oppositional scale and the revised ADD/ADHD Attention and Social Skills scale. Tapes of the diagnosed target children received higher ratings on the revised Attachment scale and lower ratings on the ADD/ADHD Attention and Social Skills scale than tapes depicting undiagnosed children. On the revised

ADD/ADHD Hyperactivity and Oppositional scale a significant sex effect was found. Across diagnosis groups, males were perceived as showing more hyperactive and oppositional symptoms than females.

The Use of At-Home Videotaped Vignettes in Diagnosing Disorders in Children: A Preliminary Exploration

Lauren Schuster, Karen Srebro, and Catherine Chambliss, Ph.D.

Ursinus College

1999

In behavioral health care, the accurate diagnosis of childhood disorders is often extremely challenging (Riccio, et al, 1994). The tremendous variability in developmental timetables across children makes it difficult to establish valid criteria for normal behavioral responding (Wicks-Nelson & Israel, 1997). In the absence of clear age-appropriate behavioral baselines against which to evaluate the responses of a child referred for treatment, clinicians are often forced to rely on vague estimates of what constitutes "normal" behavior for children of a given age. These clinicians' estimates are generally based as much upon unsystematic, impressionistic data as on carefully collected normative data.

Complicating matters still further is the tendency for children to behave atypically in unfamiliar contexts. Often children who present serious behavior management problems at home are capable of behaving quite asymptomatically during a visit to the doctor. Similarly, some children have unusual difficulty with strange situations, and may display an exaggerated picture of their problems during an evaluation conducted by an unfamiliar adult. Children may also be reluctant to discuss their problems with the clinician, and often do not possess the necessary verbal skills to adequately relay to the clinician how they are feeling (Erikson, 1998). This introduces considerable error into the diagnostic decision-making process.

One constructive response to these obstacles has involved clinicians' making use of parent and teacher ratings of children. Such ratings take advantage of parents' and teachers' familiarity with a broad range of children of the same age as the referred child,

and introduces information based on longer term contact with the child across a variety of settings. Parents can, however, distort the information given to diagnosticians. If the parent feels guilty about their child's behavior or believes that they will be blamed for how the child is reacting, the parent may not relate all necessary information to the clinician (Erikson, 1998). Teachers can assist in rating the child, yet tend to be culturally influenced by arbitrary conceptualizations of what is considered normal development by certain subgroups (Mueller, et. al, 1995).

While use of such ratings improves diagnostic accuracy, it does not eliminate the risks of over- or under-diagnosis. The language used in symptom checklists is often ambiguous. Furthermore, unless different raters adopt a similar frame of reference in responding to items (e.g., use the same comparison groups in making determinations about particular characteristics), score differences may be more a reflection of the differential application of standards than differences between children. Parental and teacher expectations are not based on objective standards.

In an effort to improve the accuracy of childhood diagnosis, it seems reasonable to expand our search for relevant behavioral information. Videotaping may permit clinicians to have greater access to natural behavioral settings, and allow them to view the child's behavior at home. Using videotapes to portray disruptive or normal behaviors in different settings may broaden the narrow description of what constitutes normal behavior (Mueller, et. al, 1995).

Prior research has demonstrated that the use of archival data can generate a reliable distinction between preschizophrenic subjects and their siblings. Walker and Lewine (1990) used previously taped home videos of schizophrenics that were taken during the first 17 months of life and which extended into at least the fifth year. The preschizophrenics were portrayed in the videotapes with siblings, who were used as the control group. Although none of the subjects had any psychiatric disorders in childhood, they were reliably distinguishable by the viewers from the control group. No significant

relationship between the viewers' accuracy of judgement and their clinical experience was found. Many of the viewers saw the preschizophrenic child as manifesting atypical emotional expressions and movements.

Inclusion of videotape data can also facilitate the treatment process. Viewing specific problem behavior incidents at home can offer clinicians a basis for developing helpful interventions. Since much of the work in helping children change involves assisting parents in restructuring situations at home, information about specific interaction can make treatment far more efficient.

The reactive nature of videotaping can be viewed as a source of error or as an asset to treatment. While taping interactions with children may produce some artificial, self-conscious responding because parents may feel defensive, it may also carry the benefit associated with enhanced accountability. Parents may practice more optimal ways of responding to specific encounters because they are aware of being taped. While this may "distort" the interaction and make it unrepresentative, it may also promote an advantageous change process. Videotaping may help to make parents a bit more conscious of the choices they make in responding to their children's problem behaviors, and may help them see the connection between their own and their children's responses.

This project explored the feasibility of using videotaped vignettes of children's spontaneous at-home behavior to enhance the diagnostic process. Undergraduate clinicians-in-training viewed tapes of two formerly diagnosed (ADHD and Attachment Disorder) and two non-diagnosed children (matched for age and sex). After each tape was viewed, they completed two standard clinical scales for each of the four target children. Comparison of their responses of the different targets provides an estimate of how sensitive viewers of videotapes are to behavioral differences across children.

Methods

Twenty-eight (22 female, 6 male) undergraduate mental health providers-in-training were asked to view four videotaped vignettes of children. Two of the target children (one three-year-old male and one five-year-old female) had been previously diagnosed with psychological problems (one with ADHD; one with mild Attachment problems). The two remaining children had never been diagnosed, and were selected in order to provide an age and sex match to the diagnosed children.

Home videotaped segments of each child opening holiday presents were selected from family videotape archives. This situation was chosen because it provides a good opportunity to view children relating to others, managing frustration, and following instructions. Each segment was roughly five minutes long.

After viewing each segment, the providers-in-training completed two clinical scales, the ACTeRS profile (Ullmann, Sleator & Sprague, 1986) for ADD/ADHD and the Randolph Attachment Disorder Questionnaire (Randolph). The ACTeRS consists of twenty-four statements, divided into four categories (Attention, Hyperactivity, Social Skills, and Oppositional). The items are rated on a scale of 1 to 5 (1=almost never; 5=almost always). Low scores in the Attention and Social Skills (AS) sections, and high scores in the Hyperactivity and Oppositional (HO) areas indicate nonadaptive functioning. The RADQ consists of thirty Likert-style statements that describe symptoms of Attachment Disorder. High scores on the RADQ are indicative of attachment problems. For the purpose of this study an option of "0" was added to all scale items to indicate insufficient evidence for making a judgment about the symptoms.

In order to increase the scales' validity for the purpose of the current study, items whose content was irrelevant to the videotaped situations were omitted (for example, steals, or shows up with things that belong to others with unusual or suspicious reasons for how he/she got them; has set fires, or is preoccupied with fire; functions well in the classroom). Items that received a total score of 2 or less from all viewers were eliminated from each questionnaire. The remaining items

comprise the revised Randolph Attachment scale and the revised ACTeRS scale for Attention and Social Skills.

Results

For all participants, responses to items from the Attachment scale and AS and HO sections of the ACTeRS ADD/ADHD scale were totaled, yielding three summary scores for each of the four target children. 2X2 ANOVA (diagnosis status X sex of the target children) were performed on each of these three summary measures. No significant main nor interaction effects were found on the Attachment (att) score (Table 1). On the ADD/ADHD HO scale (addho) a significant sex effect was found (Table 2). Across diagnosis groups, males were perceived as showing more hyperactivity and oppositional symptoms than females. There was a trend on the ADD/ADHD AS scale (addas) indicating a diagnosis main effect (Table 3). Tapes of the diagnosed target children received higher ratings in behavior relating to attention and social skills than tapes of undiagnosed children.

2X2 ANOVA were performed on the two revised scales (the revised ACTeRS ADD/ADHD AS scale (revaddas) and the revised Attachment scale (revatt)). No significant interaction effects were found for the revised scales. There were trends on both the revised Attachment scale and the revised ADD/ADHD Attention and Social Skills scale indicating a diagnosis main effect (Tables 4 and 5). The revised ADD/ADHD AS scale showed a greater significant diagnosis main effect than the original ADD/ADHD AS scale. Tapes of the diagnosed target children received higher ratings on the revised Attachment scale and the ADD/ADHD AS scale than tapes depicting undiagnosed children.

Discussion

The providers-in-training were able to detect a behavioral difference between the diagnosed and undiagnosed children on the revised Attachment Scale, the original and revised ACTeRS scale for Attention and Social Skills, and on the ACTeRS Hyperactivity and Oppositional scale. Even though these tapes had not been made with the intention of permitting detection of symptoms, the viewers perceived significantly more symptomatic behaviors among children who had been

formally diagnosed. This supports the notion that home videotapes may capture clinically relevant behaviors and that viewers are sensitive to subtle behavioral differences on videotape. This suggests that using videotapes to aide in the diagnosis of problem children may be useful, and that such tapes may help diagnosticians better understand parents.

Future research might employ improved videotape materials, specifically designed to portray symptoms. Presumably tapes intentionally focused on children's problems would provide the audience with more diagnostically relevant information.

The sample size of this study was too small to justify any strong generalizations about which symptoms can be detected from home videotape vignettes. Future research using a larger sample size may enhance the understanding about the potential use of videotapes in diagnosing children. The fact that even spontaneous home videotapes revealed functioning with differences between diagnosed and undiagnosed children supports further exploration of the use of this technology.

Tests of Between-Subjects Effects

Dependent Variable: ATT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[a]
Corrected Model	241.189[b]	3	80.396	1.226	.307	3.677	.315
Intercept	8368.105	1	8368.105	127.575.	.000	127.575	1.000
DX	143.079	1	143.079	2.181	.144	2.181	.308
SEX	89.403	1	89.403	1.363	.247	1.363	.210
DX * SEX	5.723	1	5.723	.087	.769	.087	.060
Error	4657.158	71	65.594				
Total	13283.000	75					
Corrected Total	4898.347	74					

a. Computed using alpha = .05

b. R Squared = .049 (Adjusted R Squared = .009)

Tests of Between-Subjects Effects

Dependent Variable: ADDAS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[a]
Corrected Model	428.866[b]	3	142.955	1.507	.220	4.522	.382
Intercept	32912.049	1	32912.049	347.064	.000	347.064	1.000
SEX	118.359	1	118.359	1.248	.268	1.248	.197
DX	301.811	1	301.811	3.183	.079	3.183	.421
SEX * DX	3.118	1	3.118	.033	.857	.033	.054
Error	6732.921	71	94.830				
Total	40069.000	75					
Corrected Total	7161.787	74					

a. Computed using alpha = .05

b. R Squared = .060 (Adjusted R Squared = .020)

General Linear Model

Between-Subjects Factors

		Value Label	N
SEX	1.00		37
	2.00		38
DX	1.00		37
	2.00		38

Tests of Between-Subjects Effects

Dependent Variable: ADDHO

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[a]
Corrected Model	242.612[b]	3	80.871	1.708	.173	5.123	.428
Intercept	6593.323	1	6593.323	139.225	.000	139.225	1.000
SEX	221.954	1	221.954	4.687	.034	4.687	.570
DX	1.507	1	1.507	.032	.859	.032	.054
SEX * DX	21.580	1	21.580	.456	.502	.456	.102
Error	3362.374	71	47.357				
Total	10157.000	75					
Corrected Total	3604.987	74					

a. Computed using alpha = .05

b. R Squared = .067 (Adjusted R Squared = .028)

Tests of Between-Subjects Effects

Dependent Variable: REVATT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[a]
Corrected Model	264.611[b]	3	88.204	1.658	.184	4.974	.417
Intercept	7606.984	1	7606.984	142.999	.000	142.999	1.000
SEX	108.916	1	108.916	2.047	.157	2.047	.292
DX	146.889	1	146.889	2.761	.101	2.761	.374
SEX * DX	5.395	1	5.395	.101	.751	.101	.061
Error	3776.909	71	53.196				
Total	11662.000	75					
Corrected Total	4041.520	74					

a. Computed using alpha = .05

b. R Squared = .065 (Adjusted R Squared = .026)

Tests of Between-Subjects Effects

Dependent Variable: REVADDAS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power[a]
Corrected Model	427.580[b]	3	142.527	1.481	.227	4.443	.376
Intercept	32582.209	1	32582.209	338.578	.000	338.578	1.000
SEX	99.360	1	99.360	1.033	.313	1.033	.171
DX	317.852	1	317.852	3.303	.073	3.303	.434
SEX * DX	4.935	1	4.935	.051	.822	.051	.056
Error	6832.500	71	96.232				
Total	39833.000	75					
Corrected Total	7260.080	74					

a. Computed using alpha = .05

b. R Squared = .059 (Adjusted R Squared = .019)

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Signature: Catherine Chambliss

Printed Name/Position/Title: Catherine Chambliss, Ph.D., Chair, Psychology

Organization/Address: Dept. of Psychology, Ursinus College, Collegeville, PA 19426

Telephone: (610) 409 3000

FAX: (610) 489 0627

E-Mail Address: cchambliss@acad.ursinus.edu

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