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Patterns and priorities of service need identified through the Child and Adolescent Needs and Strengths (CANS) assessment

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ABSTRACT

Using recursive partitioning on thousands of enrollment Child and Adolescent Needs and Strengths (CANS) assessments, we identified characteristics of the most troubled children/youth requiring comprehensive interventions reflected by a count of total actionable items (TAI) from 129 possible CANS actionable treatment planning items. Samples included 2557 and 6982 children/youth from two separate large, multi-program, California-based mental health treatment agencies administering CANS routinely upon enrollment. In two separate random forest analyses, 20 top predictors were identified which indicated very high levels of clinical severity needing comprehensive, urgent intervention at each agency, with 13 out of the 20 predictors common to both agencies' populations. Agency-specific decision trees were constructed with the top 20 predictors to examine relationships between predictors, which further identified four predictors of need highly prioritized at both agencies: child's frustration management problems, recreation and leisure time activity challenges, poor response to consequences for aggressive behavior, and lack of optimism. Within these service populations, children with actionable need for intervention in these four areas had four to five times more TAI as compared to children without these areas identified. A handful of the CANS items assessed can indicate very high severity ratings for a service population, and localized use of recursive partitioning analysis based on TAI can identify these core problems for specific programs or across agencies, helping clinicians to understand patterns and priorities within populations served.

1. Introduction

The Child and Adolescent Needs and Strengths (CANS) assessment is widely used for clinical mental health assessment of children, and many state health and human services authorities now employ it statewide to evaluate children's behavior and living conditions. CANS assessments evaluate strengths, concerns and service needs of children with mental health disorders, developmental disabilities, emotional and behavioral health care needs, and family issues, including children entering the child welfare system. Many agencies have adopted the CANS because it presents key behavioral dimensions for describing children's behavior, symptoms, and immediate living conditions in easy to comprehend terms accessible to families and clinicians, and because it can be adapted to particular circumstances of programming and characteristics of the population at hand. Published research provides evidence that the CANS is sound psychometrically (Hodges, Kline, Stern, Cytryn, & McKnew, 1982; Lyons, Rawal, Yeh, Leon, & Tracy, 2002), assists in treatment planning, and is sensitive to children's treatment-linked behavioral improvement (Dunleavy & Leon, 2011).

1.1. CANS assessments for treatment planning

CANS assessors are trained to implement the CANS in accordance with standard assessment procedures. Upon satisfactory assessment of a target case and after agreement with criterion ratings at acceptable levels, assessors are certified to use the CANS in routine practice. For rating needs for action CANS assessors rate each on a 0 to 3 scale: 0 = no need for remedial action; 1 = watchful waiting to see whether remedial action is necessary; 2 = indicates remedial action is necessary; 3 = remedial action immediately or intensive remedial action needed. For rating children's strengths the scoring is: 0 = centerpiece strength which can be used as the focus or foundation of a strength-based plan; 1 = useful strength which can be used in a strength based plan; 2 = strengths have been identified but they require significant strength building efforts before they can be effectively utilized as a focus of a strength-based plan; 3 = efforts are needed in order to identify potential strengths for strength building efforts.

Each item scored with 2 or 3 is an 'actionable item,' calling for targeted clinical intervention. For example, an actionable item for anxiety might be paired with a cognitive-behavioral treatment such as the Coping Cat intervention (Albano & Kendall, 2002). Total counts of actionable items assess intensity of treatment for areas of problematic

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functioning or for areas suitable for building or reinforcing strengths (Anderson, Lyons, Giles, Price, & Estle, 2003).

1.2. Recursive partitioning

Using recursive partitioning random forests and regression trees, the present study extracts key items from CANS assessments presenting potent markers of distress by identifying those items with the strongest associations with total CANS actionable items. In the present study, recursive partitioning resembles well-established psychometric approaches such as factor analysis and Item Response Analysis in that recursive partitioning uses item's correlations with assessments' total actionable items (TAI) as a benchmark of significance. Recursive partitioning differs from other approaches by not locating items (or, for item response theory, both respondents and items) on theory-based, underlying behavioral dimensions. Conversely, recursive partitioning's flexible, pragmatic analysis assumes nothing as it screens items for the most highly predictive item with which to form a cluster. These item clusters can be used to construct client profiles with meaningful results that are potentially valuable to clinical staff (James, White, & Kraemer, 2005). Recursive partitioning results have been found to be comparable to that of logistic regression for psychological screening (James et al., 2005), yet recursive partitioning enables the use of large numbers of predictor variables against small numbers of subjects, circumventing both collinearity and interaction concerns (Strobl, Malley, & Tutz, 2009). Thus, recursive partitioning is particularly appropriate for handling the large number of correlated CANS items assessed for children within specialized programs.

Recursive partitioning maximizes predictive accuracy: it moves through a decision-tree choosing, at each choice point, an item which can add most to predictive accuracy at that point (Strobl et al., 2009). In effect, recursive partitioning sorts items, unconstrained by prior assumptions, maximizing use of information for predictive purposes. The result boils down the CANS, after sorting through sometimes more than a trillion possibilities, to a handful of items with great utility for identifying and understanding clients most in need of intensive programming.

This study isolated CANS items with the strongest association to TAI. By characterizing children with the greatest intervention need in example datasets, the study seeks to provide theoretical and clinical insight into problematic functioning to support development of hypotheses for future research. A second purpose for conducting the study was heuristic: to demonstrate, at two different agencies, recursive partitioning's usefulness for isolating the most salient actionable items from the pool of all candidate CANS items and to provide meaningful descriptions of children in greatest need.

2. Method

2.1. Study setting

Data represent assessments collected from two multiservice children's agencies each operating many child/youth-serving programs. Each offers comprehensive care to thousands of families and children/youth with mental illness, social, behavioral and familial problems across overlapping population bases of California counties. Through partnerships with county's mental health, public health, social services and other community-based providers, the agencies offer: mobile crisis response, crisis stabilization, therapeutic foster family care, wraparound, community mental health, therapeutic behavior services, multisystemic therapy, and intensive case management. Service modalities include community-based services, school-based services, foster/adoption services, clinic-based, outpatient mental health treatment services, day treatment, residential programs, and 24-h response teams. Most programs are contracted partnerships with schools, local government and other community-based providers to support children/youth and families at home, at school and in the community; only a small proportion of children/youth are served through residential treatment.

2.2. Study participants

All children/youth ages 5–20 enrolled in any of the agencies' programs between 2009 to 2013 for one agency and 2010 to 2015 for the other, who received a CANS assessment upon enrollment were considered for the study. A small proportion (~1%) of enrollment CANS assessments had no actionable items, and these children/youth were excluded from the study as these assessments provided no clinical relevance and were likely for children/youth not requiring direct service. The final sample represented 2557 and 6982 children/youth from each agency, respectively. University of California Berkeley Committee for the Protection of Human Subjects provided approval for this study.

2.3. CANS assessment

The CANS was administered to incoming children/youth within the first two months of program entry. All members of agency's staff performing assessments were trained and certified for CANS administration. The assessment included a series of basic questions given to all children/youth along with additional supplemental items utilized to explore additional areas of need when answers on base questions were indicative of potential problems in an area. Based on the use of all items, one agency included a total of 199 possible items on the CANS while the other agency had 315 total possible items. For this analysis, only the common items used by both agencies were evaluated, which included 129 possible CANS questions for identifying strengths or needs. A complete list of CANS items used in the analysis is available upon request. However, the descriptions and rating scales for the top predictors identified in our analysis are displayed in Appendix A.

2.4. Analysis

CANS items were coded as “A” for actionable (2 or 3), “N” not actionable (0, 1) or “U” for null (not answered or answered as unknown), and the total count of actionable items “A” per child/youth was identified as the TAI. To reduce over-fitting in the final regression tree, recursive partitioning random forests were utilized to identify the top 20 from the 129 possible CANS items which were most strongly predictive of TAI for each agency. Random forest analysis creates a set of regression trees based on a random sample from the entire dataset, which are used to identify the importance of each potential predictor (Breiman, 2001). Results of random forest analysis generate a prioritized list of variable importance based on individual measures of increased node purity and differences in models' mean squared error when individual predictors are selected for the model. For each agency's dataset, random forest recursive partitioning was used to create 151 regression trees by identifying at each step of a tree, an item which maximized difference in TAI between groups of children/youth who were actionable, not actionable or null for each item. This nonparametric approach assumed that selection for each sampled tree was random and representative of the underlying population. The random forest identified, from all CANS items, top items which best predicted the highest TAI for presenting children/youth. The top 20 items were then used to formulate a final regression-based decision tree for each agency, which demonstrates the nonparametric and complex relationship between predictive items, identifying ‘profiles’ of high-need children/youth within the population served. Common predictors within decision tree profiles from both agencies were used to generate a final set of population profiles, comparing frequency and severity of each profile at both agencies. Analysis was performed utilizing randomForest and Rpart packages within R version 3.0.2.

3. Results

From 129 possible CANS items, random forests identified 20 items which were most predictive of TAI for each agency. Thirteen of the top 20 most predictive items were held in common for both agencies, and Table 1 provides occurrence and severity related to children/youth with each of the 13 items commonly emerging as the strongest predictors of total service need. At the top of the table, the entire service population is represented: children/youth from Agency 1 had fewer actionable items identified at enrollment vs. children/youth served at Agency 2 (13.2 vs. 18.8, respectively). Among the 13 common predictive items identified by random forest analysis, lack of strength in community life and lack of child optimism strength were identified most often for children/youth at both agencies, but independently only predicted slightly greater than total average mean TAI among both populations. At the first agency, child's response to consequences and child's substance use disorder with peer influences independently predicted the highest TAI. For the second agency, the top two independent predictors of highest TAI also included child's substance use disorder with peer influences along with caregiver's supervision problems.

While the random forest analysis identified important predictors to include within a decision tree, it is the decision tree which helps to relate these predictors in combination to form profiles of

children/youth served. Therefore, Fig. 1 displays the relationship between predictors of TAI, with all partitions having $P < 0.001$ for the split. These figures read like a decision tree, and stepping through the tree identifies profile frequencies and average TAI for subsets of children/youth scored as having or not having each CANS-assessed characteristic. Within Agency 1, the highest priority predictor of TAI was the Frustration Management item, for which the 1005 (14%) children/youth with this identified issue had 28.7 TAI and the 5977 (86%) children/youth without this issue had 11.1 TAI on average. Frustration management problems alone predicted a much greater need for wide-ranging intervention, such that just after enrollment children/youth having trouble managing frustration had almost 20 additional areas identified for targeted services or treatments vs. children/youth without frustration management issues. If frustration management was not identified as actionable, then living situation problems identified for 1914 (27%) predicted higher TAI at 16.1 vs. 8.8 for the 4063 who were not actionable for frustration management nor living situation problems. A similar tree was formulated for the second agency (not shown).

While the service populations likely have different levels of severity and need, these commonalities emerged within decision tree profiles. Four CANS predictors were common to the two service population's decision trees: child's frustration management problems, child's recreational & leisure time problems, child's poor response to consequences, and lack of child's optimism strengths. Table 2 focuses on the four predictors which were common between the two service populations, identifying the frequency and severity of children/youth who were actionable for one or more of these areas. The most frequent 12 of 16 possible profiles are displayed, representing over 98% of both service populations. Endorsement of these items strongly differentiated among children/youth on the basis of their TAI. Among the possible profiles, the largest proportions of both populations were not actionable in any of these four areas (39.5% for Agency 1 and 24.8% for Agency 2), and this subgroup represented the group with the least service need, on average (7.4 and 9.6 TAI, respectively). The 3–5% of children/youth actionable in all four areas had the most TAI for both service populations, similarly around 36 items identified for service focus at both agencies.

Table 1
Proportion and Severity of Service Population Actionable for Most Predictive CANS Items Common to Two Agencies.

Actionable CANS item	Agency 1 (n = 6982)		Agency 2 (n = 2557)	
	%	Mean TAI	%	Mean TAI
Any of 129 items	100.0	13.2	100.0	18.8
Lack of strengths in community life	63.3	15.5	64.2	21.2
Lack of child's optimism strengths	47.8	16.9	46.9	22.5
Family problems	47.0	17.8	42.3	24.7
Lack of child's education strength	38.2	16.8	48.1	22.9
Child's school achievement issues	37.8	17.4	50.0	23.0
Living situation problems	36.4	19.2	22.1	28.8
Child's school behavior issues	35.3	17.8	54.5	22.3
Child's recreation & leisure time challenges	24.0	20.9	32.0	26.5
Caregiver's supervision problems	20.8	21.1	16.9	30.4
Child's adverse adjustment to trauma	19.9	19.7	19.2	28.0
Child's frustration management problems	14.4	25.7	44.5	24.7
Child's poor response to consequences	10.0	27.8	17.8	29.6
Child substance use disorder with peer influences	8.1	27.1	20.5	28.6

4. Discussion

Children/youth fitting the profiles for highest severity of need are likely to be recognized as vulnerable and challenging by many child mental health professionals and others attempting to meet the needs of mentally ill children. The CANS assessments utilized in this study reflect a population of children and adolescents who have been exposed to very unfavorable environmental influences including neglect, trauma, and adverse peer influences; they reflect a population who have poor frustration control and are prone to externalizing behavioral problems, sometimes posing a threat to themselves and others, rendering them especially personally troubled and leading them to be socially disruptive. The presence of a constellation of factors leads to elevated CANS TAI indicating a need for urgent, wide-ranging intervention.

Understanding the constellation of factors that are most salient within an agency or service population can be of extreme value in program planning, staff training, and prioritizing integration of evidenced based practices which address areas of greatest need. Thirteen of the top 20 CANS items most predictive of elevated need were the same at the two agencies studied. As seen in Table 1, common predictors of need included factors indicating trouble within the family and home, trouble within the community and school, negative peer influences, and lack of optimism in the child's own self-appraisal. Extending a belief that programs need to know if the children they serve are “in home, in school and out of trouble” (Rosenblatt, 1993, p. 276), our results suggest the importance of also knowing if the children are ‘with hope’.

However, from the many possible intervention needs present on the CANS, some different combinations of items were distinctive between agencies. Characteristics selected through this analysis are representative of the populations served, dictated by referral patterns, contractual obligations and community relationships which impel enrollment. For an issue to be noted as actionable, the issue needs to be both present and recognized. Some concerns may not appear on an initial CANS assessment as certain areas of need or strength may take longer to discover. It is possible that clinical training and ecological forces played a role in staff's ability to recognize the presence of an issue. For example, an agency which has trained its entire staff on dual diagnoses for substance abuse among adolescents might be apt to assess, recognize and treat substance abuse issues more readily, and an agency which delivered services in coordination with juvenile courts would likely find justice involvement a salient predictor of need. These differences are to be expected. In practice, the methods used to develop the decision tree for these two agencies could, and likely should, be extended to programs and sub-programs within the agency, such that each group of clinicians serving a focal population of children understands the distinct relationships between salient factors which describe the needs of their population, thereby facilitating effectual and focused treatment plans.

Intriguing too are the similarities between the two agencies. In the final decision trees, which included four levels of partitioning, four common items appeared salient at both agencies at varying levels of severity: child's frustration management problems, child's recreation and

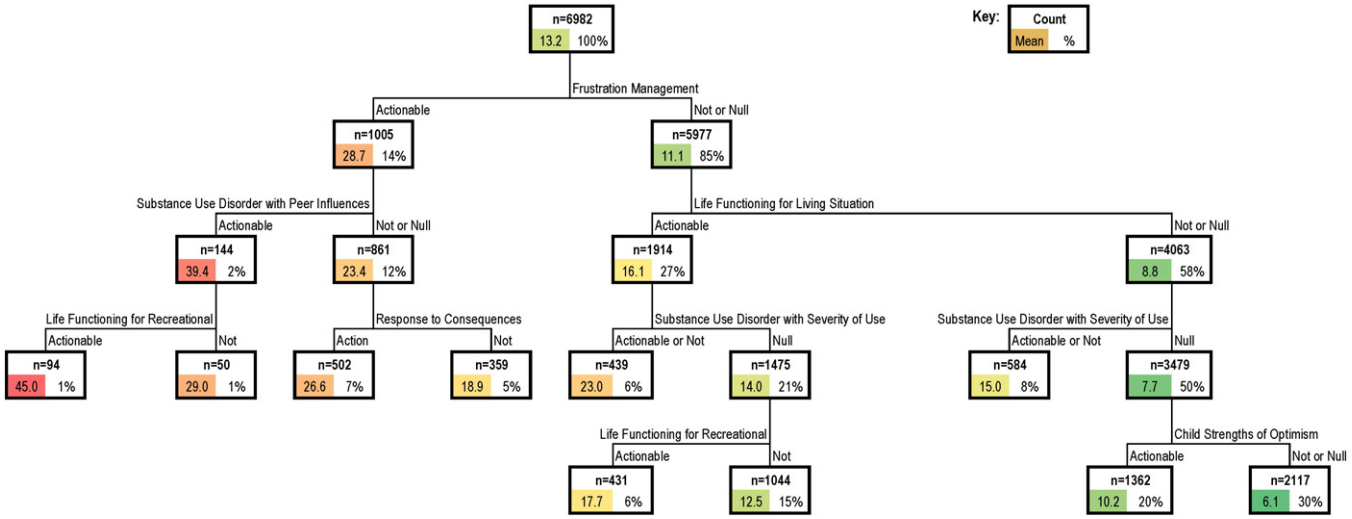

Fig. 1. Agency 1 decision tree identifying predictors of total actionable items (All Splits at $P < 0.001$).

leisure time challenges, lack of child's optimism strengths, and child's poor response to consequences. These items highlight shared vulnerabilities of their high-need populations and provide a focus through which to seek better understanding of the service population.

The inability to manage frustration is associated with higher levels of needs and could be conceptualized as both a cause and consequence of other areas of need. Issues with frustration tolerance have been found to be associated with risk for suicide (Brent & Mann, 2005) and implicate need for crisis intervention within early periods of children's service programs (Cordell & Snowden, 2014). Associated with actionable frustration management issues in these populations, the addition of poor responses to consequences after aggressive outbursts suggests more complex dysfunctional mechanisms at play, implying greater need for intensive services throughout this and other CANS assessment identified areas.

Children/youth who have difficulty making productive use of leisure time experience a greater need in both populations. In the after school hours many parents are working, and 26% of school-age children are unsupervised (Afterschool Alliance, 2009). Strongly influencing opportunities for harmful use of leisure time, poor parental supervision, also identified in the top 20 CANS predictors of need for both populations, is related to delinquency and externalizing behaviors (Dishion & McMahon, 1998). Serious juvenile crimes peak in the after school hours (Gottfredson, Gerstenblith, Soulé, Womer, & Lu, 2004). For these populations, promoting productive use of leisure time is a priority within treatment.

Greater service need was also indicated in both agencies among children/youth facing difficulties with positive outlooks toward themselves or the future. Children who lack optimism are at increased risk for a myriad of physical and mental health disorders (Ey et al., 2005) and an increased risk for suicide, especially among girls (Barbe et al., 2005). Research links optimism with improved health and recovery (Carver & Scheier, 2014; Scheier & Carver, 1992). That lack of optimism was identified as a strong predictor of need within this study demands further research to identify the role of optimism and pessimism as they relate to children's mental health needs and treatment outcomes.

That these CANS-assessed characteristics were plausibly influential is not to say that their emergence was inevitable. The CANS' usefulness and its considerable clinical appeal arise from its wide coverage of problems and targets including the many vulnerabilities of high-need populations. Other indicators of serious needs with high risk for collateral problems and wide-ranging consequences for adjustment did not emerge from competition with those areas identified. For example, caregiver's needs were less important within these populations, but may rise to the highest significance among other focal populations, such as for child welfare service populations. The CANS allow for myriad combinations of children's problems and living circumstances, and no configuration is foreordained to emerge, but the strength of local analyses are that it reflects true profiles and tangible problems within the populations served.

Local analyses utilized at an agency, and even program level, have the potential to enhance program structures and intake procedures. To the extent that analyses highlight consistent patterns of predictors of need, an agency could focus resources, tailor training and customize programs to address predictors of severity. Furthermore, research

Table 2
Profiles of actionable items for youth from two agencies using common predictive items.

Profile ID	Child's frustration management problems	Child's poor response to consequences	Child's recreation & leisure time challenges	Lack of child's optimism strengths	Agency 1 (n = 6982)		Agency 2 (n = 2557)	
					%	Mean TAI	%	Mean TAI
1	Not	Not	Not	Not	39.5	7.4	24.8	9.6
2	Not	Not	Not	Actionable	26.8	12.1	15.2	14.4
3	Not	Not	Actionable	Not	7.0	14.6	6.5	17.4
4	Actionable	Not	Not	Not	2.3	16.0	10.9	17.0
5	Not	Not	Actionable	Actionable	10.9	18.9	6.9	22.9
6	Actionable	Not	Not	Actionable	1.9	20.5	8.3	21.5
7	Actionable	Actionable	Not	Not	1.6	21.5	3.5	22.6
8	Actionable	Not	Actionable	Not	0.5	23.7	3.6	24.6
9	Actionable	Actionable	Not	Actionable	3.1	26.1	4.3	26.4
10	Actionable	Not	Actionable	Actionable	1.2	28.6	6.0	29.0
11	Actionable	Actionable	Actionable	Not	0.9	31.6	2.7	34.4
12	Actionable	Actionable	Actionable	Actionable	3.0	35.7	5.2	36.2
Total					98.9		98.4	

could examine the potential benefits of developing a multistage screening process incorporating an intake stage in which screening with only top CANS predictors helps to identify which programs and staff training/expertise are best matched to a child/youth, followed by a treatment stage in which therapeutic staff utilize the complete CANS information to inform treatment planning and prioritization of service activity. Regular local analyses of predictors of CANS TAI could provide supplemental information supporting enhanced data-driven decision making, benefiting the program and the client.

The present study contributes to children's mental health knowledge both for what was learned about CANS–based intervention needs and about what characteristics are most associated with many calls for intervention–as well as for its heuristic contribution. Recursive partitioning proved to be capable of identifying a handful of items strongly associated with high levels of CANS assessed need. Especially salient is that children/youth registering four common actionable items had TAI four to five times greater than children/youth registering no actionable items on the four items identified. This differentiation indicates that recursive partitioning was usefully employed, and suggests that other users of the CANS are well-advised to consider recursive partitioning as they pursue a better understanding of local service populations or programs of focus.

4.1. Limitations

The CANS is purposefully adapted to local circumstances, and this underscores a need for caution in generalizing results from the present study to any local use of the CANS. Thus, the present results apply elsewhere only insofar as the populations served and CANS items used match the populations and the 129 CANS items investigated here. Certain items emerged from both agencies we studied suggesting that some of our results are not unique. However, other items were agency-specific, both to the presence of a strength or need and to the staff's ability to recognize that presenting concern upon a child's enrollment. This limitation highlights the heuristic value of the present study and emphasizes the suitability of recursive partitioning to meet the desire to probe CANS TAI under local conditions of use.

A final caution is that the association of CANS items within the decision tree does not suggest causal relationships. Some salient items may be nonspecific consequences related to a host of underlying items, and the focus of the intervention might more aptly target the underlying issue, which is not necessarily the nonspecific salient item identified. However, this limitation should not preclude programs from utilizing recursive partitioning in order capitalize on often unmined knowledge available from CANS assessments–permitting a deeper understanding of the population served and a stronger commitment to assessing their needs.

4.2. Conclusions

Local population characteristics, social and clinical concerns, treatment resources, and treatment preferences dictate the CANS version that is used. For each combination of factors, it is useful to understand which CANS items contribute most to the need for a wide-ranging response. In the present context and possibly beyond, recursive partitioning can identify a meaningful core of actionable items with corresponding problems which are useful for efficiently identifying the neediest clients requiring the most clinical and programmatic attention. As core items and profiles accumulate, we come to better understand the needs of mentally ill children who are distributed over regions, jurisdictions, programs, and who exhibit various demographic, social, and clinical profiles. By recognizing priorities and patterns we can more efficiently and effectively serve individual children within service populations.

Disclosures

The authors report no financial or other potential conflicts of interest. This article has not been published and is not under consideration for publication elsewhere. There are no funders associated with this work. We have no conflict of interest to disclose.

Appendix A. Description of ratings for top 13 commonly identified CANS items

Cans item	Ratings (2,3 = actionable; 0,1 = not actionable)
Caregiver's supervision	This rating is used to determine the caregiver's capacity to provide the level of monitoring and discipline needed by the child: 0 = Caregiver monitoring & discipline are appropriate. 1 = Caregiver provides generally adequate but inconsistent supervision. 2 = Caregiver supervision and monitoring are very inconsistent and frequently absent. Caregiver needs assistance to improve supervision skills. 3 = Caregiver supervision and monitoring are nearly always absent or inappropriate. Caregiver requires immediate and continuing assistance.
Family problems	Family ideally should be defined by the child: 0 = Child is doing well in relationships with family members. 1 = Child is doing adequately in relationships with family members although some problems may exist. For example, some family members may have some problems in their relationships with the child. 2 = Child is having moderate problems with parents, siblings and/or other family members. Frequent arguing, difficulties in maintaining any positive relationship may be observed. 3 = Child is having severe problems with parents, siblings, and/or other family members. This would include problems of domestic violence, constant arguing, etc.
Living situation problems	This item refers to how the child is functioning in their current living environment: 0 = No evidence of problem with functioning in current living environment. 1 = Mild problems with functioning in current living situation. Caregivers concerned about child's behavior in living situation. 2 = Moderate to severe problems with functioning in current living situation. Child has difficulties maintaining his/her behavior in this setting creating significant problems for others in the residence. 3 = Profound problems with functioning in current living situation. Child is at immediate risk of being removed from living situation due to his/her behaviors.
Child's recreational & leisure time challenges	This item is intended to reflect the child access to and use of leisure time activities: 0 = Child has sufficient access to and enjoys positive recreation activities on an ongoing basis. 1 = Child is doing adequately with recreational activities although some problems may exist. 2 = Child is having moderate problems with recreational activities. Child may experience some problems with effective use of leisure time. 3 = Child has no access to or interest in recreational activities. Child has significant difficulties making use of leisure time.

(continued on next page)

Appendix A (*continued*)

Cans item	Ratings (2,3 = actionable; 0,1 = not actionable)
Child's adverse adjustment to trauma	This item covers the child's reaction to any of a variety of traumatic experiences not required to meet definitions within the Diagnostic Statistical Manual (DSM) – such as emotional, physical, or sexual abuse, separation from family members, witnessing violence, or the victimization or murder of family members or close friends. 0 = Child has not experienced any significant trauma or whose traumatic experiences no longer impact their functioning. 1 = Child has some mild adjustment problems to trauma or there is a history or suspicion of problems associated with trauma. 2 = Child has evidence of adjustment problems associated with traumatic experiences. 3 = Child has post-traumatic stress difficulties or disorder (PTSD) as a result of traumatic experience. Symptoms may include intrusive thoughts, nightmares, significant anxiety, and other symptoms of PTSD.
Child's frustration management problems	0 = Child appears to be able to manage frustration well. No evidence of problems of frustration management. 1 = Child has some mild problems with frustration. He/she may anger easily when frustrated; however, he/she is able to calm self down following an angry outburst. 2 = Child has problems managing frustration. His/her anger when frustrated is causing functioning problems in school, at home, or with peers. 3 = Child becomes explosive and dangerous to others when frustrated. He/she demonstrates little self-control in these situations and others must intervene to restore control.
Child's poor response to consequences	Rate the youth's highest level in the past 30 days: 0 = Child is clearly and predictably responsive to identified consequences. Youth is regularly able to anticipate consequences and adjust behavior. 1 = Child is generally responsive to identified consequences; however, not all appropriate consequences have been identified or he/she may sometimes fail to anticipate consequences. 2 = Child responds to consequences on some occasions but sometimes does not appear to care about consequences for his/her violent behavior. 3 = Child is unresponsive to consequences for his/her violent behavior.
Child substance use disorder with peer influences	Rate the highest level from the past 30 days 0 = Child's primary peer social network does not engage in alcohol or drug use. 1 = Child has peers in his/her primary peer social network who do not engage in alcohol or drug use but has some peers who do. 2 = Child predominantly has peers who engage in alcohol or drug use but youth is not a member of a gang. 3 = Child is a member of a peer group that consistently engages in alcohol or drug use.
Lack of child's optimism strength	This rating should be based on the child or adolescent's sense of him/herself in his/her own future. This is intended to rate the child's positive future orientation: 0 = Child has a strong and stable optimistic outlook on his/her life. 1 = Child is generally optimistic. 2 = Child has difficulties maintaining a positive view of him/herself and his/her life. Child may vary from overly optimistic to overly pessimistic. 3 = Child has difficulties seeing any positives about him/herself or his/her life.
Lack of strength in community life	This rating should be based on the child or adolescent's level of involvement in the cultural aspects of life in his/her community: 0 = Child has extensive and substantial, long-term ties with the community. Child is a member of community organizations and has positive ties to the community. 1 = Child is somewhat involved with his/her community. Child has significant community ties although they may be relatively short term. 2 = Child has limited ties and/or supports from the community. 3 = Child with no known ties or supports from the community.
Lack of child strengths for education	This rating refers to the strengths of the school system and may or may not reflect any specific educational skills possessed by the child or youth: 0 = This level indicates a child who is in school and is involved with an educational plan that appears to exceed expectations. School works exceptionally well with child, family and caregivers to identify and successfully address educational needs or child excels in school. 1 = This level indicates a child who is in school and has a plan that appears to be effective. School works fairly well with family and caregivers to ensure appropriate educational development. 2 = This level indicates a child who is in school but has a plan that does not appear to be effective or adequately addressing the child's needs. 3 = This level indicates a child who is either not in school or is in a school setting that unable and/or unwilling to address child's educational needs.
Child's school achievement	This item describes academic achievement and functioning: 0 = Child is doing well in school. 1 = Child is doing adequately in school, although some problems with achievement exist. 2 = Child is having moderate problems with school achievement. He/she may be failing some subjects. 3 = Child is having severe achievement problems. He/she may be failing most subjects or is more than one year behind same age peers in school achievement.
Child's school behavior	This item rates the behavior of the child or youth in school or school-like settings: 0 = No evidence of behavior problems at school or day care. Child is behaving well. 1 = Mild problems with school behavioral problems. 2 = Child is having moderate behavioral difficulties at school. He/she is disruptive and may receive sanctions including suspensions or multiple detentions. 3 = Child is having severe problems with behavior in school. He/she is frequently or severely disruptive. School placement may be in jeopardy due to behavior.

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