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Risk-need assessment for youth with or at risk for conduct problems: introducing the assessment system ESTER

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Abstract

This paper introduces ESTER, a research based and computerized risk-need assessment system for youths (0-18 years) with or at risk for conduct problems. The ESTER-system includes a screening tool/questionnaire (ESTER-screening) and a professional structured risk-need assessment instrument (ESTER-assessment). This article briefly presents the background and purpose of ESTER, and the risk and protective factors assessed. It also illustrates how the computerized system effectively helps in presenting results of single as well as repeated assessments, assisting the practitioner in tailoring suitable interventions.

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1. Background – The importance of risk-need assessments in practice

To effectively help, guide, and council youths with or at risk for conduct problems, there is a need for practitioners to identify the specific risk and protective factors toward which interventions should be targeted. Indeed, research has shown that interventions that adhere to the principles of risk, need, and responsivity are more effective than interventions that do not (Andrews et al., 1990; Dowden & Andrews, 1999, 2002, 2003; Meerah et al., 2010). To be able to effectively adhere to these important principles one needs to conduct a risk-need assessment, in which a structured, research based instrument can be of service. Several instruments are already in use (e.g., EARL-20B/-21G; Augimeri, Koegl, Webster, & Levene, 2001; Levene et al., 2001, SAVRY; Borum, Bartel, & Forth, 2002), but suffer from some important shortcomings. For example, they do not offer a conjunct method for screening, they are not explicitly designed for repeated assessments, and they are not explicitly developed to be used by different kinds of professionals, authorities, and organizations that work with youths, to facilitate collaboration.

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2. ESTER – A new fourth generation risk-need assessment system

ESTER is an assessment system that includes a screening system: *ESTER-screening*, and a structured research-based professional risk-need instrument: *ESTER-assessment*. It is a risk-need assessment system for youths (0-18 years) with or at risk for conduct problems (antisocial/criminal behavior).

2.1. ESTER-screening

ESTER-screening is a four-page questionnaire that focuses on youth and family strengths and difficulties with a primary focus on risk factors for conduct problems. The same risk factors that are more thoroughly assessed in ESTER-assessment are also assessed in ESTER-screening (see Table 1), but in a more brief format. ESTER-screening exists for three different informants: Care-givers, professionals (e.g., teachers), and the youths themselves, from about 10 years of age and above. For each informant group, there are two versions of the questionnaire, where one includes both youth and family risk factors and the other focuses on youth risk factors only. The main purpose of ESTER-screening is to screen for whether a more in depth or qualified assessment is needed. The information gathered through ESTER-screening can also be included as a part of that more qualified assessment. For example, if a child in preschool or school has started to exhibit behavioral problems, a professional can use ESTER-screening to collect information from teachers and parents about risk factors as a basis for decisions on how to move further to help the child and family.

2.2. ESTER-assessment

ESTER-assessment is a structured risk-need assessment instrument currently available in Swedish and English. It belongs to the fourth generation of risk-need assessment instruments in that (1) it is structured, research based, and explicitly developed to be used from first assessment/intake to case closure; (2) it provides support for decisions for interventions rather than acts as an actuarial instrument; and (3) it should be used for preventive/intervening purposes rather than primarily for prediction (see Andrews, Bonta, & Wormith, 2006).

There is an ESTER-manual (Andershed & Andershed, 2008) which describes the background and purpose of ESTER and how it should be used. It also describes all the risk and protective factors that are assessed in ESTER-assessment. To conduct an ESTER-assessment, the so-called ESTER-assessment booklet is used.

ESTER-assessment includes 12 risk factors and 7 protective factors, see Table 1. These factors have been selected through an extensive research review, and represent behaviors and characteristics of relationships that in empirical research have been identified as being related to the development of conduct problems (see e.g., Campbell, Shaw, & Gilliom, 2000; Farrington, 2005; Loeber & Dishion, 1983; Moffitt, 2003; Patterson, 1982; Shaw, Bell, & Gilliom, 2000). The factors are grouped in four categories: Youth risk factors, Family risk factors, Youth protective factors, and Family protective factors (see Table 1).

The factors included have been chosen because most of them can be regarded as proximal rather than distal, meaning that they are more directly related to the conduct problem behavior pattern of the youth. All factors included are also potentially changeable (i.e., dynamic) which make them useful for practice and can lead to a constructive focus in interventions, and communicates the important message that the problematic behavior patterns exhibited for example by the youth, is possible to change.

ESTER-assessment is tailored to be used by professionals and organizations in the broadest sense, working with assessments of and interventions for youth, for example by teachers, social workers, psychologists, psychiatrists, or police officers, and in preschools, schools, youth centers, juvenile justice institutions or health care. Each risk factor is explicitly defined, and the items are written in a neutral, behavior-focused language that can be accepted and grasped by all professions regardless of previous education. This increases the possibilities for cross-professional or organizational collaboration, which often is necessary for youths with conduct problems and their families. No previous education or specific background is needed to use ESTER-screening and ESTER-assessment. A one-day introduction combined with individual studies of the material is recommended.

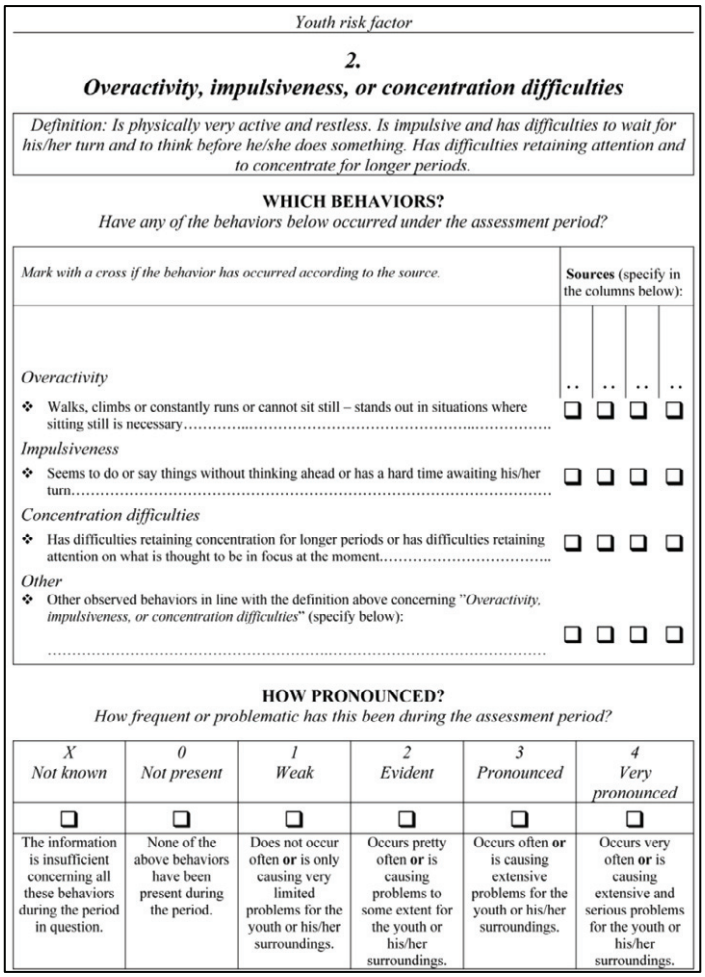
Even though change often is the purpose of interventions following an assessment, far from all assessment tools are designed to measure just that. ESTER assessment is explicitly developed to be used from first assessment/intake to case closure, and consecutive follow-up assessments. This should facilitate repeated-measurement-thinking, and inspire practitioners to perform ”before-and-after-intervention assessments.”

Table 1. The 19 Risk and Protective Factors Assessed in ESTER-assessment.

Youth Risk Factors	**Family Risk Factors**
Defiant behavior, anger, or fearlessness	Parents' own difficulties
Overactivity, impulsiveness, or concentration difficulties	Difficulties in parent-youth relations
Difficulties with empathy, feelings of guilt or remorse	Parents' difficulties with parenting strategies
Insufficient verbal abilities or school performance	
Negative problem solving, interpretations or attitudes	
Depressive mood or self harming behavior	
Conduct problems	
Alcohol or drug abuse	
Problematic peer relations	
Youth Protective Factors	**Family Protective Factors**
Positive school attachment and performance	Parents' energy, engagement and support
Positive attitudes and problem solving strategies	Parents' positive attitudes and parenting strategies
Positive relations and activities	Parents' awareness and motivation
The youths' awareness and motivation	

The professional conducting an ESTER-assessment uses the ESTER-assessment booklet where all information and steps of assessment is documented. Prior to the assessment, the rater decides and documents what period of time that should be covered in the assessment, where a time-window between 1 and 36 months can be chosen. The 19 risk and protective factors are assessed in the ESTER-assessment booklet using the same basic structure for each factor, see Figure 1. First, on top of the page, the particular factor is labeled and defined, as seen in Figure 1. Then, the professional is asked to look for a number of specified behaviors in line with the definition of the factor in question. Then, the professional shall, following a number of assessment-principles described in the ESTER-manual, rate this factor using the five-point rating scale on the bottom of the page (see Figure 1). Protective factors are assessed in the same manner as shown in Figure 1 but the definitions of the five-point rating scale differ from the risk factors.

Multiple informants (e.g., parents, teachers, the youth) and types of information (e.g., files, interviews, etc.) should be used to rate the 19 factors. The manual specifies that at least two different sources or informants should be used. After assessing the 19 risk and protective factors, the ESTER-assessment booklet also includes a module for structured documentation of planned and performed interventions. The focus is to document what has been done, when, where and by whom; what the goals with the intervention were; which specific risk factors that were assumed to be reduced and which specific protective factors that were assumed to be enhanced, and so on. A full ESTER-assessment takes on average about 7-8 hours to complete.



Youth risk factor

2.

Overactivity, impulsiveness, or concentration difficulties

Definition: Is physically very active and restless. Is impulsive and has difficulties to wait for his/her turn and to think before he/she does something. Has difficulties retaining attention and to concentrate for longer periods.

WHICH BEHAVIORS?

Have any of the behaviors below occurred under the assessment period?

Mark with a cross if the behavior has occurred according to the source.	**Sources** (specify in the columns below):			
Overactivity	..	..	..	..
❖ Walks, climbs or constantly runs or cannot sit still – stands out in situations where sitting still is necessary……	❑	❑	❑	❑
Impulsiveness				
❖ Seems to do or say things without thinking ahead or has a hard time awaiting his/her turn……	❑	❑	❑	❑
Concentration difficulties				
❖ Has difficulties retaining concentration for longer periods or has difficulties retaining attention on what is thought to be in focus at the moment……	❑	❑	❑	❑
Other				
❖ Other observed behaviors in line with the definition above concerning "*Overactivity, impulsiveness, or concentration difficulties*" (specify below):				
……	❑	❑	❑	❑

HOW PRONOUNCED?

How frequent or problematic has this been during the assessment period?

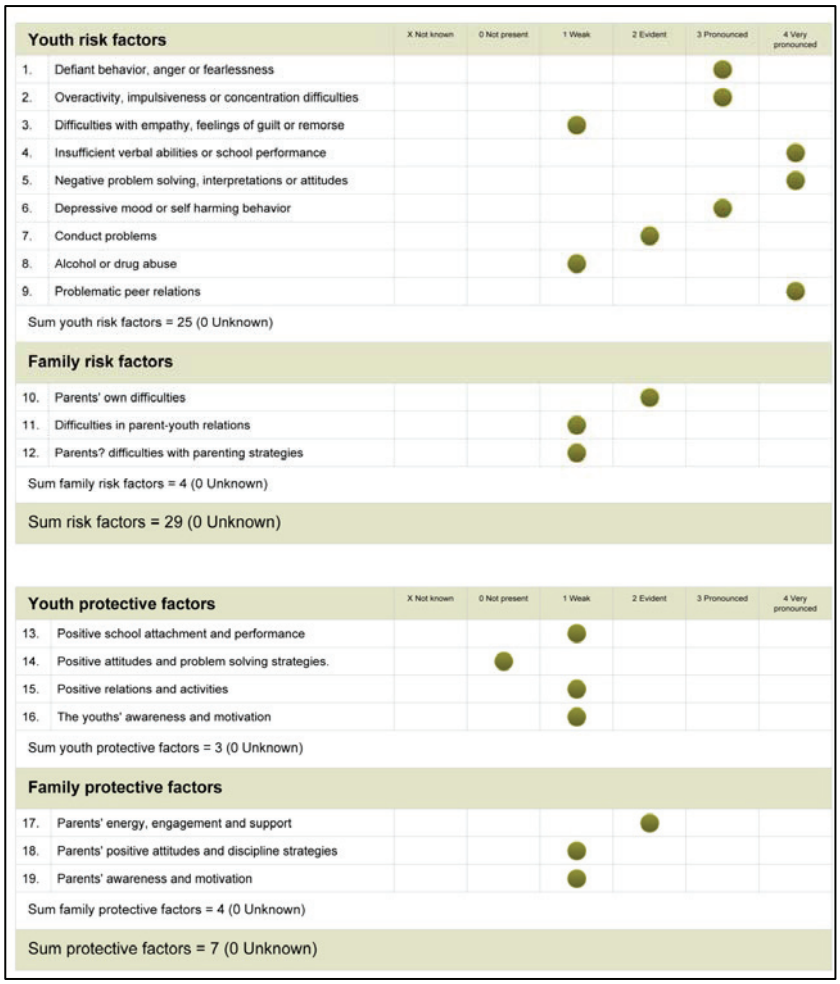
X Not known	*0 Not present*	*1 Weak*	*2 Evident*	*3 Pronounced*	*4 Very pronounced*
❑	❑	❑	❑	❑	❑
The information is insufficient concerning all these behaviors during the period in question.	None of the above behaviors have been present during the period.	Does not occur often **or** is only causing very limited problems for the youth or his/her surroundings.	Occurs pretty often **or** is causing problems to some extent for the youth or his/her surroundings.	Occurs often **or** is causing extensive problems for the youth or his/her surroundings.	Occurs very often **or** is causing extensive and serious problems for the youth or his/her surroundings.

Figure 1. How a Risk Factor is Assessed Via ESTER-assessment.

2.3. An easy-to-use computerized system

With ESTER-assessment comes an easy-to-use, internet-based, highly secure, computerized system that helps visualize and interpret assessments. The main purposes with the computerized system are that it should facilitate documentation and presentation of results, and collaboration between professionals. ESTER-users can, if they want, easily share clients in the system and collaborate concerning ESTER-assessments. When the results of the ESTER-assessment have been entered into the system, a number of different PDF-reports presenting results of single as well as repeated assessments are produced by the system assisting the practitioner in tailoring suitable interventions and in evaluating effects of interventions.

Figure 2 shows an example of a report from the computerized system. The figure illustrates the pattern of assessment made by the professional, and clearly displays which risk and protective factors that are present and to what extent. This risk-need profile facilitates interpretation of results and can be used to make an overall risk assessment as well as plans for interventions. The reports and illustrations can be used for showing and explaining the results of the ESTER-assessment for the youth and the care-givers.



Youth risk factors		X Not known	0 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
1.	Defiant behavior, anger or fearlessness					●	
2.	Overactivity, impulsiveness or concentration difficulties					●	
3.	Difficulties with empathy, feelings of guilt or remorse			●			
4.	Insufficient verbal abilities or school performance						●
5.	Negative problem solving, interpretations or attitudes						●
6.	Depressive mood or self harming behavior					●	
7.	Conduct problems				●		
8.	Alcohol or drug abuse			●			
9.	Problematic peer relations						●
Sum youth risk factors = 25 (0 Unknown)							
Family risk factors							
10.	Parents' own difficulties				●		
11.	Difficulties in parent-youth relations			●			
12.	Parents? difficulties with parenting strategies			●			
Sum family risk factors = 4 (0 Unknown)							
Sum risk factors = 29 (0 Unknown)							

Youth protective factors		X Not known	0 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
13.	Positive school attachment and performance			●			
14.	Positive attitudes and problem solving strategies.		●				
15.	Positive relations and activities			●			
16.	The youths' awareness and motivation			●			
Sum youth protective factors = 3 (0 Unknown)							
Family protective factors							
17.	Parents' energy, engagement and support				●		
18.	Parents' positive attitudes and discipline strategies			●			
19.	Parents' awareness and motivation			●			
Sum family protective factors = 4 (0 Unknown)							
Sum protective factors = 7 (0 Unknown)							

Figure 2. A Youth's Risk-Need Profile According To An ESTER-assessment Produced By The Computerized System.

In addition, the computerized system supplies the user with graphs of how each assessed factor changes over time - for example, before and after an intervention. When several ESTER-assessments have been conducted on the same youth and family, the computerized system produces a number of different graphs to show how the risk and protective changes over time and assessments. For example, for all individual 19 factors, graphs are produced that shows how the particular factor has been assessed at the various assessments (see Figure 3). The example in Figure 3 involves three assessments and shows clearly how this particular risk factor has decreased over time according to the assessments. These kinds of graphs can be used to see whether the interventions used have effects but they can also be used to motivate the youth and the family to continue with the intervention. Being able to show change in risk or increased protection can have therapeutic effects.

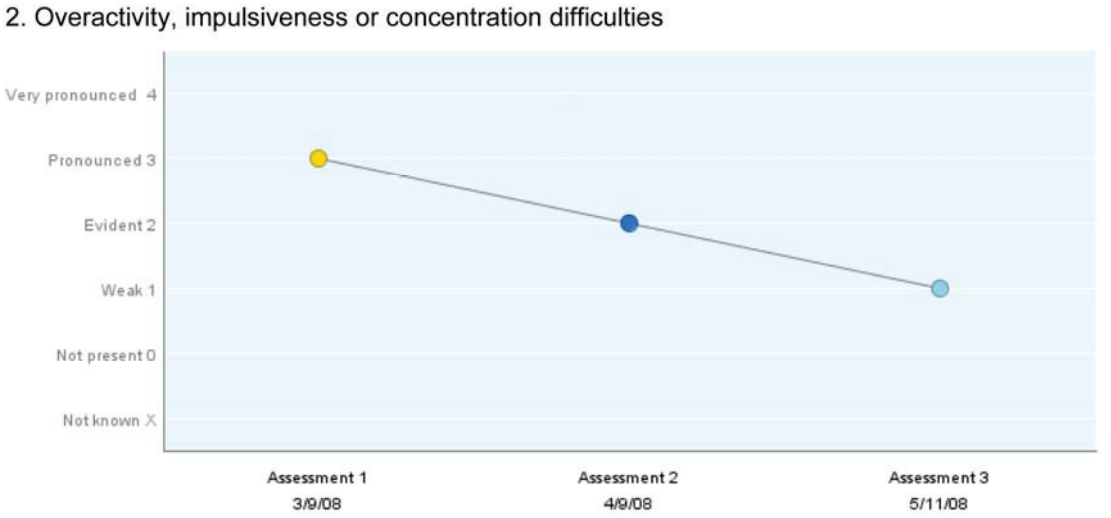


Figure 3. A Follow-Up Graph Produced by the Computerized System Showing How the Particular Risk Factor Has Changed Over Three Assessments.

3. Conclusions and future directions

Most professionals need tools to be able to perform their tasks with integrity, high quality and as effectively as possible – regardless if they are handy men or medical surgeons. Professionals with the important task to pave a new, more positive way of life for youths at stray are no exception. Yet, the tools have largely been missing or have fundamental flaws. We believe that some of these flaws can be overcome with the use of ESTER. There are basically four key aims with ESTER. First, professionals should be able to produce risk-need assessments with high inter-rater reliability (i.e., independent professionals should make similar assessments of risk and protective factors). We have shown that two independent raters to a quite large extent make the same assessment of the 19 risk and protective factors assessed via ESTER-assessment (Andershed et al., 2010). We are currently conducting a study where the inter-rater reliability of ESTER-assessment is compared with unstructured assessments. The hypothesis is that assessments conducted with ESTER-assessment are more similar (i.e., the inter-rater reliability is higher) than when assessments of the same case are conducted in an unstructured manner. Second, professionals should be able to produce risk-need assessments with high treatment efficacy (i.e., the assessment should make interventions more effective by directing attention to the most relevant risk and protective factors). We are currently studying the treatment efficacy of ESTER-assessment, where the hypothesis is that the correct use of ESTER-assessment should make interventions more effective by directing attention to the most relevant risk and protective factors. Third, the number of repeated assessments (e.g., before and after an intervention) of risk and protective factors should increase in practice, with the purpose of evaluating the effectiveness of the intervention on an individual as well as organizational level. We believe that by providing a tool which considers the possibility of changes in risk and protection, as well as a computerized system supporting the tracking of changes, encourages the interest in and feasibility of repeated measurements. Fourth, collaboration between professionals and organizations should be facilitated because ESTER supplies the professionals with a common language and definitions of risk and protective factors. Through regular meetings with professionals using the ESTER-system, we have gathered user-opinions and testimonials of practical experiences. Users state that the ESTER-system can facilitate more effective collaboration between professions, that it gives the professional useful information for interventions, that care-givers generally reacts positively toward the questions and presenting of results, and so on. The most common critique is the time-

frame needed to conduct an ESTER-assessment. It is important to weigh the time spent on an assessment against the specific information about risk and protective factors that is made explicit and can be used to make the plan for interventions more effective. These four aims are pivotal when pursuing an evidence based practice with high standards and legal security for the individual.

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