

## Structure or No Structure in Psychological Assessment – Is that a question?

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### Risk-need assessment of youths with or at risk for conduct problems

- **Risk-need assessment**
  - To assess/identify and grade **risk factors** for conduct problems
  - To assess/identify and grade **protective factors** for conduct problems
  - Then use this information to plan for interventions.
    - ✦ Decreasing the risk factors
    - ✦ Increasing/strengthening the protective factors

## Structure or No Structure in Risk-Need Assessment?

- **It is a common question in practice**
  - Among social workers in particular
    - ✦ "Do I really need to use an instrument to conduct good assessments?"
  - Among psychologists and psychiatrists as well
- **Important with good, reliable and valid, and treatment-relevant assessments**
  - Reliability: High degree of agreement between independent raters is essential
    - ✦ Inter-rater reliability
  - Validity: (correctness) is fundamental as well
- **Can we reach high reliability and validity without an instrument?**

Can **you**, without and instrument, decide whether two lines are equally long or not?

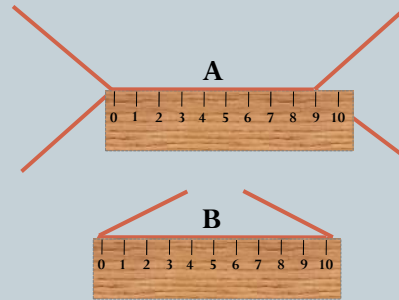
## Are A and B equally long?

- **Without an instrument:**

- Three alternatives:
  - Equally long.
  - Not equally long.
  - Don't know.

- **With an instrument:**

- They are not equally long
  - Assessment becomes both reliable and valid



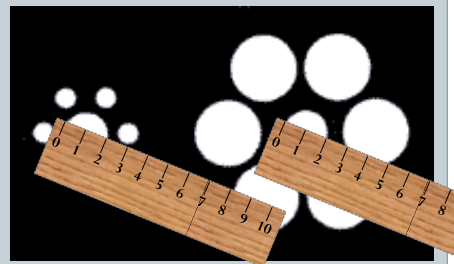
## Are the center circles equally big?

- **Without an instrument:**

- Alternatives:
  - Equally big.
  - Not equally big.
  - Don't know.

- **With an instrument:**

- They are equally big
  - Assessment becomes reliable and valid



Difficult to conduct assessments with reliability  
and validity without an instrument...

Structure (instrument) better than unstructure  
(no instrument)?

- A common hypothesis:
  - Assessments conducted with a structured instrument are reliable and good and also
    - ✦ **More reliable and better than assessments conducted without a structured instrument**
- Is this correct?

## Previous research?

- Assessments with instruments used in practice (EARL-20B, SAVRY, ESTER-assessment)
  - From poor to excellent inter-rater reliability
- Assessments **without** instruments
  - Poor to fair inter-rater reliability
    - ✦ Small studies – conclusions must be preliminary
- However, **no previous studies** have directly compared assessments with these instruments with assessments without an instrument
  - **We do not know whether the use of these instruments is associated with "better" and more reliable assessments as compared to assessments done without an instrument**
  - The question remains: "Do I really need to use an instrument to conduct good assessments?"

## ESTER-assessment

(see Andershed & Andershed, 2010)

- Professional structured risk-need assessment instrument
- 19 risk and protective factors
- Fourth-generation risk-need assessment instrument  
(see Andrews et al., 2006 concerning the generations):
  - ✦ It is structured, research based, and explicitly developed to be used from first assessment/intake to case closure
  - ✦ Support for decisions for interventions rather than an actuarial instrument
  - ✦ Use of the assessment for preventive/intervening purposes rather than prediction

## ESTER-assessment (cont.)

- 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
- Total mean time appr. 7-8 hours to conduct
- Made for follow-up assessments (must not do follow-up assessment)
- Easy-to-use computerized system

## Can be used by all professions and organizations and to improve collaboration

- E.g., preschool, school, social service, child and adolescent psychiatry, juvenile justice institutions, etc
- Uses a neutral behavior-focused language that can be accepted by all professions
  - Can improve collaboration between organizations
- The computerized system is designed to facilitate collaboration

<b>Risk factors</b> assessed with ESTER-assesment	
<b>The youth</b>	<b>The family</b>
<ul style="list-style-type: none"> <li>• Defiant behavior, anger, or fearlessness</li> <li>• Overactivity, impulsiveness, or concentration difficulties</li> <li>• Difficulties with empathy, feelings of guilt or remorse</li> <li>• Insufficient verbal abilities or school performance</li> <li>• Negative problem solving, interpretations or attitudes</li> <li>• Depressive mood or self harming behavior</li> <li>• Conduct problems</li> <li>• Alcohol or drug abuse</li> <li>• Problematic peer relations</li> </ul>	<ul style="list-style-type: none"> <li>• Parents' own difficulties</li> <li>• Difficulties in parent-youth relations</li> <li>• Parents' difficulties with parenting strategies</li> </ul>

<b>Protective factors</b> assessed with ESTER- assesment	
<b>The youth</b>	<b>The family</b>
<ul style="list-style-type: none"> <li>• Positive school attachment and performance</li> <li>• Positive attitudes and problem solving strategies</li> <li>• Positive relations and activities</li> <li>• The youths' awareness and motivation</li> </ul>	<ul style="list-style-type: none"> <li>• Parents' energy, engagement and support</li> <li>• Parents' positive attitudes and parenting strategies</li> <li>• Parents' awareness and motivation</li> </ul>

## Assessment of a risk factor with ESTER-assessment

### 2. Overactivity, impulsiveness or concentration difficulties

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

#### WHICH BEHAVIORS?

Have any of the behaviors below occurred during the period in question?  
Mark accurate descriptions with a cross.

Overactivity

- Walks, climbs or runs around constantly or cannot sit still – stands out in situations where sitting still is demanded.

Impulsivity

- Seems to do or say things without thinking or has difficulties to wait for his/her turn.

Concentration difficulties

- Has difficulties to concentrate longer times or to keep attention on what is supposed to be in focus.

Other

- Other observed behaviors which are consistent with the definition of "Overactivity, impulsiveness or concentration difficulties" (specify):

#### HOW PRONOUNCED?

How frequent or problematic has this been during the period in question?  
Make a summarized judgement.

X Not known	0 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The information is insufficient concerning all these behaviors during the period in question.	None of the above behaviors have occurred 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.

## Risk-need profile

All risk and protective factors ratings on one single page

### Assessment 1

This assessment was finalized 3/9/08.  
This assessment is based on the latest 6 months.

Youth risk factors	1 Not known	2 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
1. Defiant behavior, anger or hostility						
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						
<b>Sum youth risk factors = 24 (0 Unknown)</b>						
Family risk factors	1 Not known	2 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
10. Parents own difficulties						
11. Difficulties in parent-youth relations						
12. Parents discipline difficulties						
<b>Sum family risk factors = 4 (0 Unknown)</b>						
<b>Sum risk factors = 28 (0 Unknown)</b>						
Youth protective factors	1 Not known	2 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
13. Positive school attachment and performances						
14. Positive attitudes and problem solving strategies						
15. Positive relations and activities						
16. The youth's awareness and motivation						
<b>Sum youth protective factors = 3 (0 Unknown)</b>						
Family protective factors	1 Not known	2 Not present	1 Weak	2 Evident	3 Pronounced	4 Very pronounced
17. Parents strength, engagement and support						
18. Parents positive attitudes and discipline strategies						
19. Parents awareness and motivation						
<b>Sum family protective factors = 4 (0 Unknown)</b>						
<b>Sum protective factors = 7 (0 Unknown)</b>						



## Previous research on ESTER-assessment (Andershed et al., 2010)

- Is the use of ESTER-assessment related to high reliability?
- Two independent (ESTER-trained) raters assessed (independently from each other) the same 30 youths
  - 30 girls on a youth institution (SiS-institution) for psychosocial problems (criminality, substance abuse, etc)

	Exact agreement	Exact agreement or difference by one step	Total disagreement	ICC <sup>a</sup> (95% CI)
1. Defiant behavior, anger, or fearlessness	14/30 (47%)	26/30 (87%)	0/30 (0%)	.59*** (.29-.78)
2. Overactivity, impulsiveness or concentration difficulties	10/26 (38%)	20/26 (77%)	0/30 (0%)	.60*** (.28-.80)
3. Difficulties with empathy, feelings of guilt or remorse	11/26 (42%)	20/26 (77%)	0/26 (0%)	.66*** (.37-.83)
4. Insufficient verbal abilities or school performance	14/30 (47%)	25/30 (83%)	1/30 (3%)	.53*** (.22-.75)
5. Negative problem solving, interpretations or attitudes	18/30 (60%)	28/30 (93%)	0/30 (0%)	.72*** (.49-.86)
6. Depressive mood or self harming behavior	13/30 (43%)	24/30 (80%)	1/30 (3%)	.59*** (.29-.78)
7. Conduct problems	16/30 (53%)	25/30 (83%)	0/30 (0%)	.60*** (.31-.79)
8. Alcohol or drug abuse	21/29 (72%)	29/29 (100%)	0/29 (0%)	.89*** (.77-.95)
9. Problematic peer relations	15/27 (56%)	25/27 (93%)	0/27 (0%)	.72*** (.47-.86)
<b>Youth risk factors total</b>				.78*** (.58-.89)
10. Parents' own difficulties	13/27 (48%)	22/27 (82%)	0/27 (0%)	.77*** (.56-.89)
11. Difficulties in parent-youth relations	12/29 (41%)	25/29 (86%)	0/29 (0%)	.20 (-.18-.52)
12. Parents' difficulties with parenting strategies	13/29 (45%)	26/29 (90%)	0/29 (0%)	.49*** (.16-.72)
<b>Family risk factors total</b>				.62*** (.34-.80)
<b>Youth and family risk factors total</b>				.67*** (.41-.83)
13. Positive school attachment and performance	21/30 (70%)	26/30 (87%)	0/30 (0%)	.38* (.03-.65)
14. Positive attitudes and problem solving	11/28 (39%)	24/28 (86%)	0/28 (0%)	.55*** (.23-.76)
15. Positive relations and activities	15/26 (58%)	25/26 (96%)	0/26 (0%)	.64*** (.35-.82)
16. The youths' awareness and motivation	16/29 (55%)	25/29 (86%)	0/29 (0%)	.51** (.19-.74)
<b>Youth protective factors total</b>				.71*** (.48-.85)
17. Parents' energy, engagement and support	11/28 (39%)	24/28 (86%)	0/28 (0%)	.33* (-.04-.62)
18. Parents' positive attitudes and parenting strategies	10/23 (44%)	21/23 (91%)	0/23 (0%)	.53** (.28-.78)
19. Parents' awareness and motivation	12/30 (40%)	27/30 (90%)	0/30 (0%)	.58*** (.28-.78)
<b>Family protective factors total</b>				.68*** (.43-.84)
<b>Youth and family protective factors total</b>				.58*** (.28-.78)

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . <sup>a</sup> Single measure ICC. CI = Confidence Interval.

## Conclusions based on this study?

- Relatively good to excellent reliability
- Thus, **pretty good** reliability
  - Is the glass half full or half empty?
- We need to compare with something else



## Structure better than no structure?

- Is the use of ESTER-assessment related to:
  - More reliable assessments?
  - More correct/adequate assessments?
  - More treatment-relevant assessments?
  - That fewer important things are missed in an assessment?
- ...as compared to assessments done without an instrument?

## Are Structured Assessments of a Youths' Risks and Needs Really Better Than Unstructured? – A Case Vignette Study

(Andershed & Andershed, in prep.)

### Method: The Case Vignette Methodology

- **Step 1:**
  - The vignette is authored and rated on the degree of realism.. The rating was conducted by two professionals with practical experience with troubled youths. The rating was 9,5 out of 10 in realism.
- **Step 2:**
  - Information in the vignette was categorized into two categories:
    - (1) research based risk factors
    - (2) research based protective factors
- **Step 3:**
  - The vignette together with a questionnaire was sent out to 60 social workers:
    - 30 social workers use ESTER-assessment in the assessment of the vignette
    - 30 social workers use no structured assessment instrument in the assessment of the vignette
- **Step 4:**
  - All 60 assessments are read through by two independent researchers and the risk and protective factors that have been brought up in the assessment are extracted
- **Step 5:**
  - To gain a measure of what other professionals thought about the assessments, four social directors (socialchefer) finally rated the 60 assessments
    - Examples of questions: Is this a good/edquate assessment? Are important things missed in this assessment?
  - Blind ratings – they did not know which of the assessments that had been done with ESTER-assessment and not

## Participants: 60 social workers + four social directors

- **30 social workers – Used ESTER-assessment**
  - All with formal training in ESTER
  - 28 women – 2 men
  - Age between 25 and 60 years. Mean age = 40,1 (SD=10,61).
  - Worked on average 7,8 years as social workers and 6,8 years with assessment of children and adolescents
- **30 social workers – Did not use an instrument (majority used BBIC as a support)**
  - 27 women – 3 men
  - Age between 25 and 59 years. Mean age = 37,9 år (SD=9,83).
  - Worked on average 8,6 years as social workers and 6,4 years with assessment of children and adolescents

## The four social directors (socialchefer)

- **Two independent ratings of all 60 assessments**
  - Each of the directors rated 30 assessments
    - × **Overall a good/adequate assessment?**

## Results: Which risk factors are identified?

	ESTER- assessment (n=30)	Unstructured assessment (n=30)
Overactivity, impulsiveness, or concentration difficulties	<b>97%+</b>	83%
Difficulties with empathy, feelings of guilt or remorse	<b>60%**</b>	7%
Insufficient verbal abilities or school performance	<b>87%</b>	73%
Conduct problems	<b>97%*</b>	80%
Alcohol or drug abuse	<b>97%*</b>	80%
Problematic peer relations	<b>77%**</b>	30%
Difficulties in parent-youth relations	<b>77%**</b>	40%
Parents' difficulties with parenting strategies	<b>90%**</b>	37%

## Results: How many of the eight risk factors are identified?

Number of risk factors identified	ESTER- assessment	Unstructured assessment
All 8	<b>37%</b>	0%
7	<b>20%</b>	10%
6	<b>30%</b>	20%
5	<b>13%</b>	17%
4	0%	23%
3	0%	17%
2	0%	3%
1	0%	7%
0	0%	3%

## Results: Which protective factors are identified?

	ESTER-assessment	Unstructured assessment
Positive school attachment and performance	37%**	0%
Positive attitudes and problem solving strategies	20%*	0%
Positive relations and activities	43%**	3%
Parents' energy, engagement and support	57%**	7%

## Results: How many of the four protective factors are identified?

Number of protective factors identified	ESTER-assessment	Unstructured assessment
Samtliga 4	10%	0%
3	20%	0%
2	20%	3%
1	17%	3%
0	33%	94%

## Social directors' (socialchefers) opinions about the assessments

	ESTER-assessment	Unstructured assessment
<b>Overall a good/adequate assessment?</b> 1. Not at all adequate 2. To some extent adequate 3. Adequate 4. Very adequate	2,68*	2,40
<b>Missed things in the assessment?</b> 1. No 2. Yes, some individual things 3. Yes, several things	1,48***	1,93
<b>Are the interventions that are suggested in the assessment relevant/correct?</b> 1. No, probably not 2. Yes, partially 3. Yes, probably	2,03+	1,95

## Conclusions?

- The use of ESTER-assessment is related to:
  - That more research based risk- and protective factors are identified in assessments
    - ✦ Higher degree of inter-rater reliability
  - According to social directors:
    - ✦ Better/more adequate assessments
    - ✦ Fewer important things are missed
- ... as compared to when a structured instrument is NOT used (but for example BBIC is used)
  - BBIC is not efficient in helping social workers to identify risk and protective factors

## Strengths and limitations with present study?

- **The 60 social workers and 4 social directors were not randomly selected**
  - They were matched – No significant difference in age or experience.
- **A vignette study – not real life**
  - Difficult (impossible?) to conduct this kind of study in real life?
- **The vignette is only one kind of case**
  - Different with other kinds of cases?
- **No previous study has done this!**

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Thank you.



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