

# RISK AND PROTECTIVE FACTORS AMONG YOUTH

## Why and How to Use Them in Practice

Henrik Andershed  
Professor of Psychology and Criminology  
Center for Criminological and Psychosocial Research (CAPS)  
[www.oru.se/jps/caps](http://www.oru.se/jps/caps)

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## BRIEFLY ABOUT ME

- Researcher and teacher at Örebro University, in criminology and psychology. Head of criminology department.
- Research on risk and protective factors, assessment instrument development, and their role in making interventions more effective
- Author of more than 100 scientific papers, book chapters and volumes
- Developer of several instruments/checklists with focus on risk and protective factors
- Scientific advisor to the National Board of Health and Welfare, The Swedish National Board of Institutional Care, and Swedish agency for health technology assessment and assessment of social services.
  - Co-developer of the new version of BBIC (Barns Behov i Centrum)
- Trained staff in more than 200 of the Swedish municipalities in risk-protection and assessment
- Head of CAPS – Center for Criminological and Psychosocial Research
  - [www.oru.se/jps/caps](http://www.oru.se/jps/caps)

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## TOPICS OF THE DAY

- Why focus on risk and protective factors in practice?
- Increased demand on evidence based practice – how do risk and protective factors come into the picture?
- What do the concepts risk and protective factors mean?
- How can risk and protective factors be considered and utilized in practice?
  - Risk focused prevention, and the principles of risk, need, and responsivity and their utility in practice.
- Good reasons to use structured checklists/instruments in risk-need assessments.
  - Examples of research shown positive effects.
- How link risk and protective factors to interventions?

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## THIS TRAINING IS MAINLY BASED ON...

- Andershed, A-K., & Andershed, H. (2015). Risk and protective factors among preschool children: Integrating research and practice. *Journal of Evidence-Informed Social Work*, (ahead-of-print), 1-13.
- Andershed, A-K., & Andershed, H. (2009). Bedömning av risk- och skyddsfaktorer för normbrytande beteende hos unga: Hur kan vi använda teori och forskning i praktiken? I *Barn och unga som begår brott - Handbok för socialtjänsten* (s. 161-201). Stockholm: Socialstyrelsen.
- Andershed, H., & Andershed, A-K. (2010). Risk-need assessment for youth with or at risk for conduct problems: Introducing the computerized assessment system ESTER. *Procedia Social and Behavioral Sciences*, 5, 377-383.
- Andershed, A. K., & Andershed, H. (2015). Improving evidence-based social work practice with youths exhibiting conduct problems through structured assessment. *European Journal of Social Work*, (ahead-of-print), 1-14.
- Andershed, A-K., Andershed, H., & Farrington, D. P. (2013). *Risk and Protective Factors For Future Psychosocial Problems Among Preschool Children: What We Know From Research and How It Can Be Used in Practice*. Rapport. Stockholm: Nordens Välfärdscentrum.
- Andershed, H., & Wirius, A. (2010). Riskbedömning – En introduktion. In A. H. Berman & C. Å. Farbring (Red.), *Kriminalvård i praktiken – Strategier för att minska återfall i brott och missbruk* (s. 55-74). Lund: Studentlitteratur.
- Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law*, 16, 39-55.
- Farrington, D. P. & Welsh, B. C. (2007). *Saving children from a life of crime. Early risk factors and effective interventions*. Oxford: Oxford University Press, Inc.

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## WHY IS IT IMPORTANT TO FOCUS ON RISK AND PROTECTIVE FACTORS?

- Interventions that focus on research based risk and protective factors are more effective than interventions that do not.
- There is a lot of knowledge from research on risk and protective factors.
- The practical use of this knowledge in health care, preschool, social services and psychiatry is so far very limited.

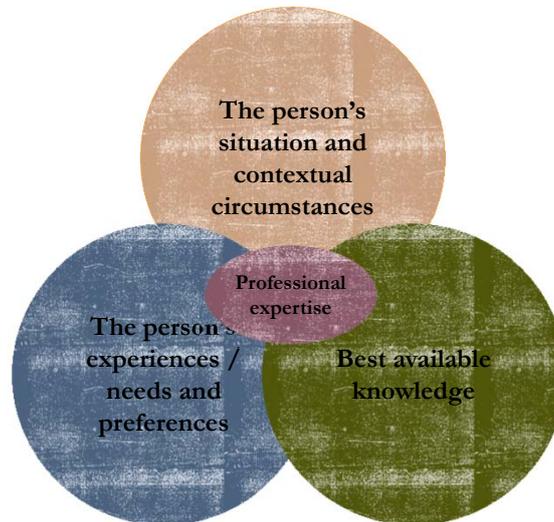
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## WHY IS IT IMPORTANT TO FOCUS ON RISK AND PROTECTIVE FACTORS? (CONT.)

- There is a long tradition of using this kind of knowledge/research in medical practice.
- Important to increase use, since it is likely to lead to more effective interventions!
  - Purpose to identify and help, not to stigmatize or label
- A concrete way of practicing evidence based practice!

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## EVIDENCE BASED PRACTICE - EBP



Source: kunskapsguiden.se

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## HOW KNOW EFFECTS OF INTERVENTIONS?

- We need to follow what we aim to change
  - before and after interventions.
- Preferably also compare with group NOT receiving the intervention.

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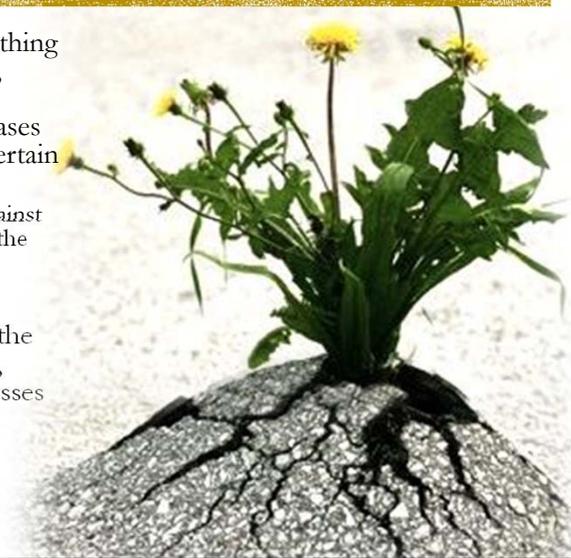
## WHAT IS A RISK FACTOR?

- A **risk** is something (e.g., characteristic, behavior, circumstance, process) that **increases the likelihood or risk for a certain outcome**.
  - There is a correlation between the risk factor and the outcome
  - May be a causal factor, but does not have to be



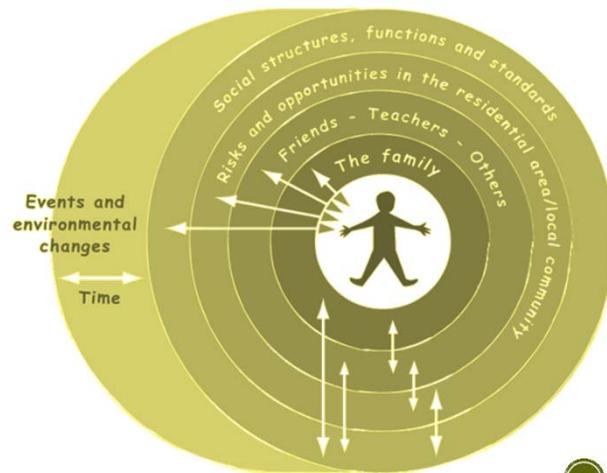
## WHAT IS A PROTECTIVE FACTOR?

- A **protective factor** is something (e.g., characteristic, behavior, circumstance, process) that, according to research, decreases the likelihood or risk for a certain outcome.
  - Through acting as a buffer against or a mechanism that changes the effects of exposure to risk.
- Presence of one or several protective factors can make the youth not develop problems, even though he or she expresses or is exposed to risk factors.



## WHAT ARE THE RISK AND PROTECTIVE FACTORS FOR PSYCHOSOCIAL PROBLEMS?

- Exist on all "levels"
  - Both in the individual and in the contexts that surround him/her
- Thus, to exclude either individual or social factors is neither effective nor correct



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## DIFFERENT TYPES OF RISK AND PROTECTIVE FACTORS

- **Direct** (proximal) vs. **Indirect** (distal)
- **Dynamic** (Modifiable) vs. **Static** (Unmodifiable)
- **Initiating** vs. **Upholding/Maintaining**

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## GENES AND/OR ENVIRONMENT?

- If there are heritable causes and risk and protective factors for psychosocial problems, identical (monozygotic) twins should be more similar than fraternal (dizygotic) twins when it comes to psychosocial problems
- ...which is exactly what has been found in research
- Both heritability and social environment is important
- That is, genes **AND** environment



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## IDENTICAL TWINS MORE SIMILAR THAN FRATERNAL TWINS

*(Eley et al., 1999)*

	Boys	Girls
Non-aggressive antisocial behavior		
Identical twins	0.71	0.78
Fraternal twins	0.59	0.60
Aggressive antisocial behavior		
Identical twins	0.72	0.82
Fraternal twins	0.41	0.45

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## WHAT DOES "HERITABILITY IN PSYCHOSOCIAL FACTORS" REALLY MEAN?

- Common misconceptions:
  - So people are programmed in their DNA to develop psychosocial problems regardless of the environment!?
    - "Biological determinism!?" – That has been dead for ages!
  - So it does not matter what we do in social interventions!?
- What it *really* means
  - That both genes and environment are important
    - That a greater risk/sensitivity for psychosocial problems may be inherited
      - Expressed in different heritable risk factors
  - BUT, that social contexts and psychosocial interventions **definitely** can affect the individual to develop in a positive manner, even though there are heritable risk factors!

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## EXAMPLE: RISK FACTORS FOR CRIME/NORMBREAKING BEHAVIOR AMONG YOUTH

### Youth

- Defiant behavior, anger or fearlessness.
- Overactivity, impulsiveness or concentration difficulties.
- Difficulties with empathy, feelings of guilt or regret.
- 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.

### Family

- Parents' own difficulties.
- Difficulties in parent-youth relations.
- Parents' difficulties with parenting strategies.

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EXAMPLE:  
PROTECTIVE FACTORS FOR CRIME/  
NORMBREAKING BEHAVIOR AMONG YOUTH

Youth

- Positive school attachment and performance.
- Positive attitudes and problem solving strategies.
- Positive relations and activities.
- The youth's awareness and motivation.

Family

- Parents' energy, engagement and support.
- Parents' positive attitudes and parenting strategies.
- Parents' awareness and motivation.

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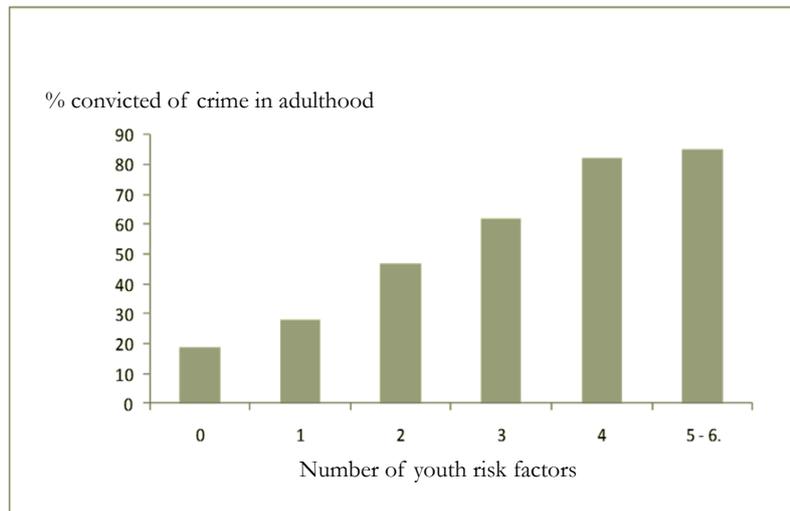
SINGLE, ISOLATED RISK FACTORS ARE  
OFTEN WEAK

- Single risk factors are often relatively weak
- Most have a relation to the outcome of approx. 0.20-0.40 (maximum 1.0)
- This means that many individuals with one risk factor will never develop the outcome that the risk factor increases the risk for
- However, risk factors have clear cumulative effects
  - This means that the greater the number of risk factors, the higher the level of risk

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## THE MORE RISK FACTORS THE HIGHER THE RISK

(e.g., Farrington, 2003)



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## PRACTICE FROM A RISK-PROTECTION PERSPECTIVE – RISK FOCUSED PREVENTION



- 1.**
  - Identify and rate risk factors
    - Risk factors that we know from research really are risk factors.
  - Identify and rate protective factors
    - Protective factors that we know from research really are protective factors.
- 2.**
  - Through interventions, aim toward:
    - Reduce/remove/exterminate risk factors
    - Strengthen protective factors

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## EFFECTIVE TO ADHERE TO PRINCIPLES OF RISK, NEED AND RESPONSIVITY

(e.g., Andrews & Bonta, 2010)

- **Risk** (Who should be offered our various interventions?)
  - The dose/intensity of the interventions is adapted to the level of risk for long lasting problems – more intensive interventions to those with high risk.
- **Need** (What should the intervention focus on?)
  - Interventions should focus on the specific needs of the youth/family – i.e., the most important research based risk and protective factors. – The factors that has to do with the problem at hand!
- **Responsivity** (How should the intervention be designed and delivered?)
  - Interventions are offered in a way that the unique child and family can benefit from.

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## WHY? THE MORE OF THE THREE PRINCIPLES THAT ARE ADHERED TO, THE GREATER THE EFFECTS OF OUTPATIENT AND RESIDENTIAL CARE

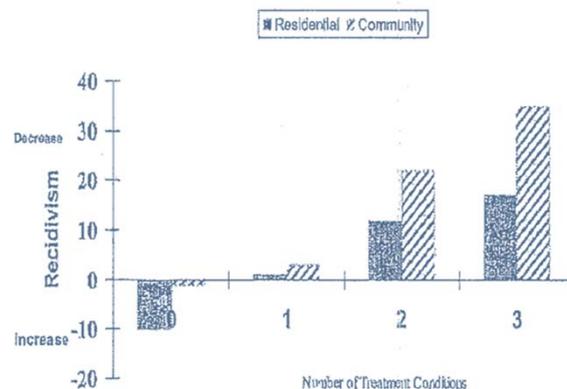


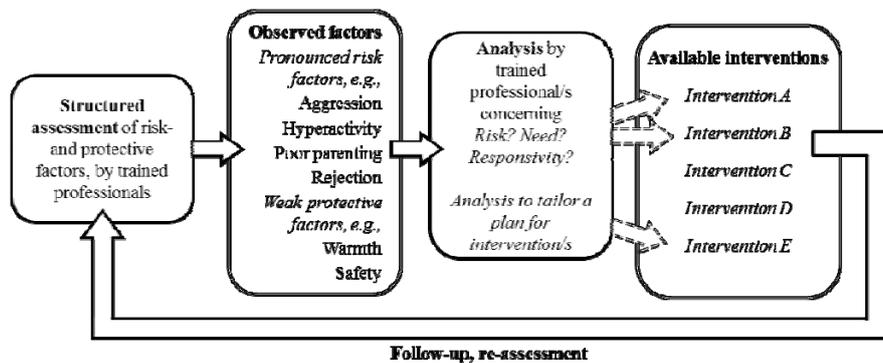
Figure 1. Adherence to the RNR principles by setting.

See Andrews & Bonta, 2010

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## ASSESSMENT, INTERVENTION, FOLLOW UP, IN PRACTICE

(Andershed & Andershed, 2015; Andershed, Andershed, & Farrington, 2012)



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## WHAT IS REQUIRED TO MATCH NEEDS AND INTERVENTIONS?

- That we know what the interventions aim to change
  - Which risks can the intervention reduce or take away?
  - Which protective factors can the intervention strengthen?
- You need to find this out, regarding your interventions!
  - Many organizations/municipalities lack in this respect
  - The tailoring is too broad and unspecific!

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## TO TAILOR/ADJUST ACCORDING TO NEEDS

- Tailor to the youth's/family's individual and most important needs – this is often not done!
  - The municipality usually uses a certain intervention, e.g., Aggression Replacement Training (ART)
    - This aims toward "Youth with aggressive behavior problems"
  - The intervention is then offered to all youths with aggressive behavior
  - This will not be effective
    - ART (just as all other interventions and programmes) is directed toward a subgroup of risk factors/causes to aggression (moral reasoning, social skills, self control)

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SO, **HOW** CAN WE ASSESS  
RISK AND PROTECTIVE  
FACTORS?



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## 3-17% LEAD TO COMPLICATIONS OR DEATH

- It is not uncommon that simple errors in handling or lack of planning of the procedure is the cause (WHO)



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# SURGICAL SAFETY CHECKLIST

Before induction of anaesthesia	Before skin incision	Before patient leaves operating room
(with at least nurse and anaesthetist)	(with nurse, anaesthetist and surgeon)	(with nurse, anaesthetist and surgeon)
<p><b>Has the patient confirmed his/her identity, site, procedure, and consent?</b></p> <input type="checkbox"/> Yes	<p><input type="checkbox"/> Confirm all team members have introduced themselves by name and role.</p> <p><input type="checkbox"/> Confirm the patient's name, procedure, and where the incision will be made.</p> <p><b>Has antibiotic prophylaxis been given within the last 60 minutes?</b></p> <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	<p><b>Nurse Verbally Confirms:</b></p> <input type="checkbox"/> The name of the procedure <input type="checkbox"/> Completion of instrument, sponge and needle counts <input type="checkbox"/> Specimen labelling (read specimen labels aloud, including patient name) <input type="checkbox"/> Whether there are any equipment problems to be addressed
<p><b>Is the site marked?</b></p> <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	<p><b>Anticipated Critical Events</b></p> <p><b>To Surgeon:</b></p> <input type="checkbox"/> What are the critical or non-routine steps? <input type="checkbox"/> How long will the case take? <input type="checkbox"/> What is the anticipated blood loss?	<p><b>To Surgeon, Anaesthetist and Nurse:</b></p> <input type="checkbox"/> What are the key concerns for recovery and management of this patient?
<p><b>Is the anaesthesia machine and medication check complete?</b></p> <input type="checkbox"/> Yes	<p><b>To Anaesthetist:</b></p> <input type="checkbox"/> Are there any patient-specific concerns?	
<p><b>Is the pulse oximeter on the patient and functioning?</b></p> <input type="checkbox"/> Yes	<p><b>To Nursing Team:</b></p> <input type="checkbox"/> Has sterility (including indicator results) been confirmed? <input type="checkbox"/> Are there equipment issues or any concerns?	
<p><b>Does the patient have a:</b></p> <p><b>Known allergy?</b></p> <input type="checkbox"/> No <input type="checkbox"/> Yes	<p><b>Is essential imaging displayed?</b></p> <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	
<p><b>Difficult airway or aspiration risk?</b></p> <input type="checkbox"/> No <input type="checkbox"/> Yes, and equipment/assistance available		
<p><b>Risk of &gt;500ml blood loss (7ml/kg in children)?</b></p> <input type="checkbox"/> No <input type="checkbox"/> Yes, and two IV/central access and fluids planned		

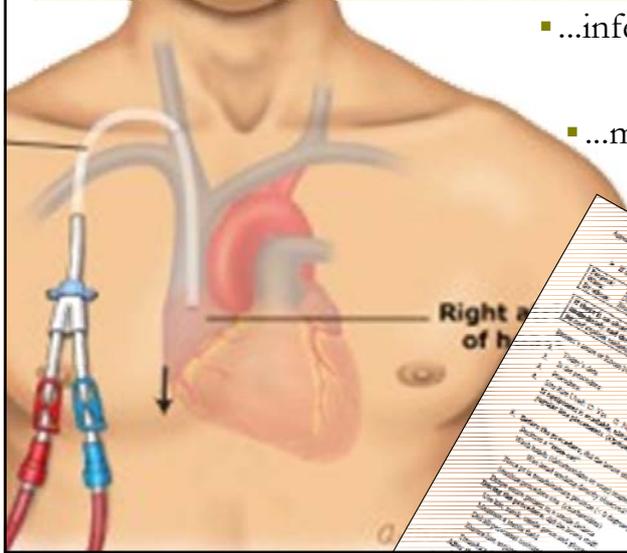
This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged. Revised 1 / 2009 © WHO, 2009

## WHEN USING THE CHECKLIST...

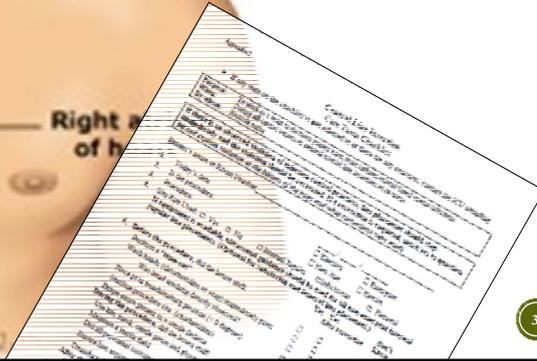


- ...complications were reduced by 36%
- ...deaths were reduced by 47% (see Haynes et al., 2007)

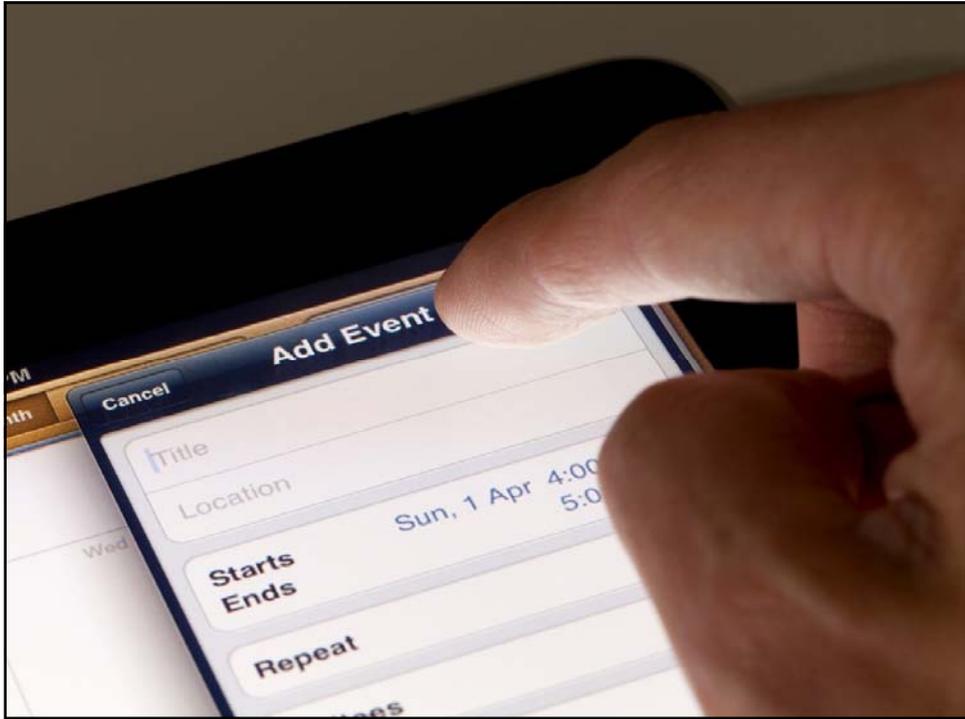
## WHEN USING THE CHECKLIST...

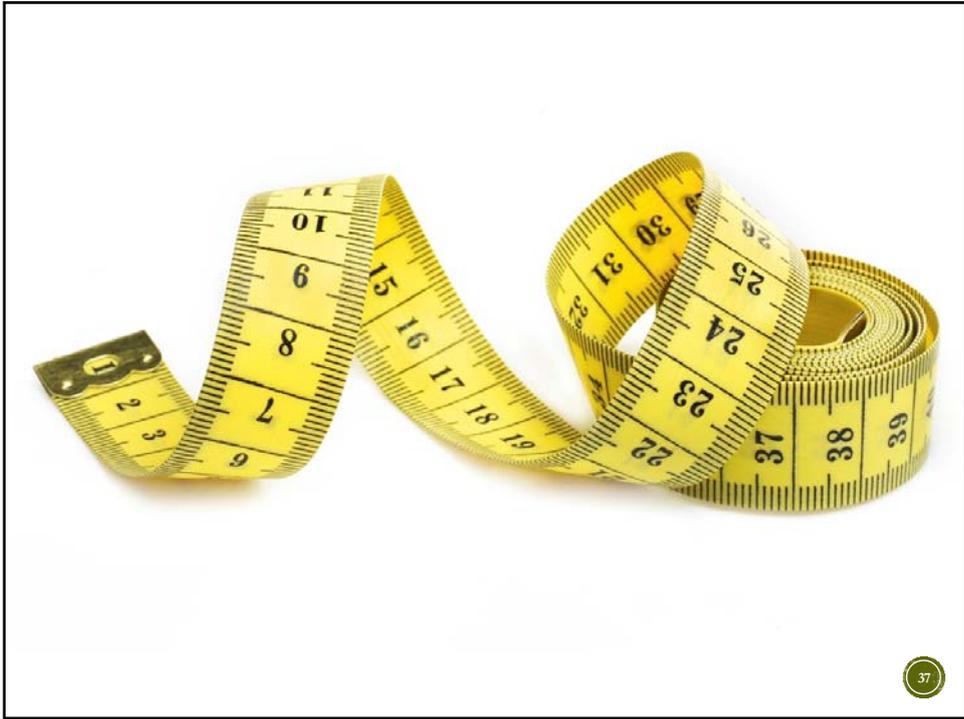


- ...infections were reduced by more than 50%
- ...many lives were saved (Pronovost et al., 2006)

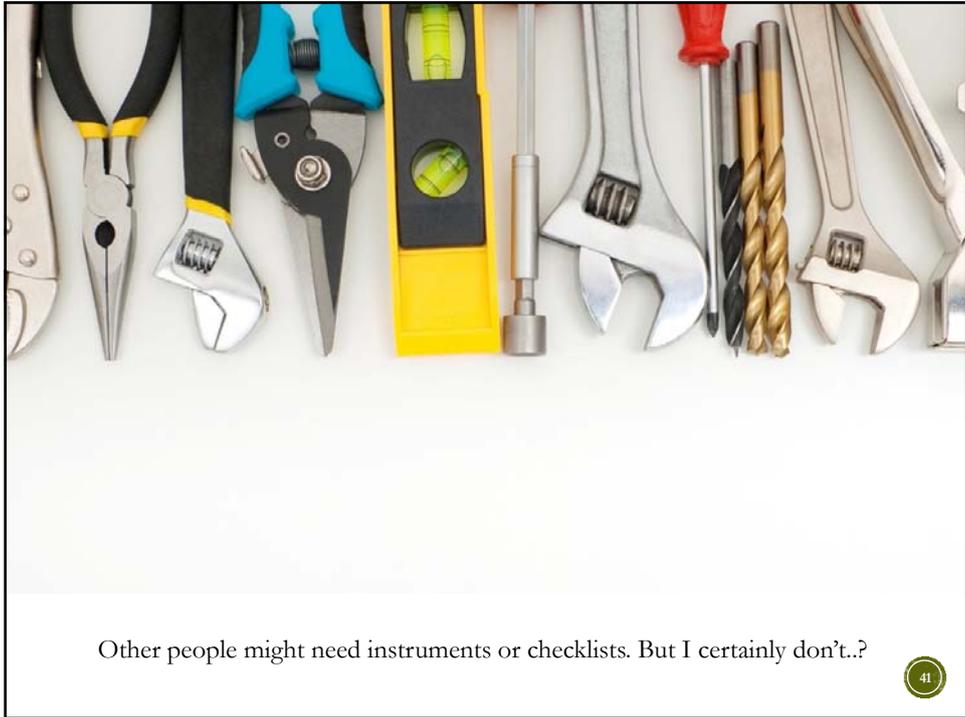












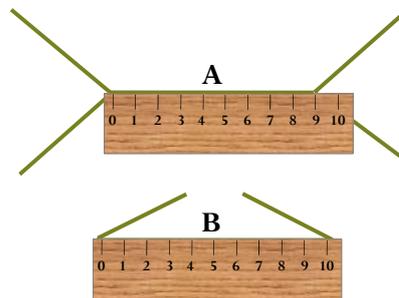
## ARE THE LINES A AND B EQUALLY LONG?

- Without instrument:

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

- With instrument:

- Use of a ruler as assessment instrument shows that **they are not equally long**
  - We make a correct and similar assessment!



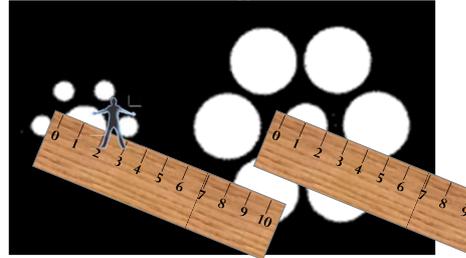
## ARE THE CENTER CIRCLES EQUALLY LARGE?

- **Without instrument:**

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

- **With instrument:**

- Use of a ruler as assessment instrument shows that **they are equally large**
  - We make a correct and similar assessment!



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## EXAMPLE OF A STRUCTURED ASSESSMENT INSTRUMENT/CHECKLIST: ESTER

- Evidence based structured assessment of risk and protective factors
- A research based assessment system that contains
  - (1) a system for screening (ESTER-Screening)
  - (2) a structured assessment instrument (ESTER-Assessment).
    - A computerized system that facilitates the interpretation of results, professional collaboration, etc.
- Risk-Need Assessment of risk and protective factors among youth (0-18 yrs) with or at risk for normbreaking behavior
  - Can be used for both prevention and treatment purposes

**ESTER**

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## CAN BE USED IN ALL SECTORS WORKING WITH CHILDREN AND ADOLESCENTS

- Enhance communication and collaboration between sectors
  - The computerized system facilitates collaboration

**ESTER**

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## ESTER ASSESSMENT

- Research based, structured risk-need assessment instrument of risk and protective factors for normbreaking behavior among youth between 0-18 years of age
- 19 risk and protective factors
- Supports decision making concerning interventions
- Incites repeated assessments (e.g., before and after interventions)
  - Computerized system that facilitates interpretation, presentation, and collaboration

**ESTER**

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## RISK FACTORS ASSESSED IN ESTER-ASSESSMENT

ESTER

### Youth

- Defiant behavior, anger or fearlessness.
- Overactivity, impulsiveness or concentration difficulties.
- Difficulties with empathy, feelings of guilt or regret.
- 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.

### Family

- Parents' own difficulties.
- Difficulties in parent-youth relations.
- Parents' difficulties with parenting strategies.

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## PROTECTIVE FACTORS ASSESSED IN ESTER-ASSESSMENT

ESTER

### Youth

- Positive school attachment and performance.
- Positive attitudes and problem solving strategies.
- Positive relations and activities.
- The youth's awareness and motivation.

### Family

- Parents' energy, engagement and support.
- Parents' positive attitudes and parenting strategies.
- Parents' awareness and motivation.

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## IS STRUCTURE (INSTRUMENT) BETTER THAN LACK OF STRUCTURE (NO INSTRUMENT)?

- A common hypothesis among researchers:
  - Assessments that are conducted with a structured assessment instrument leads not only to coherent and adequate assessments, but also...
    - MORE coherent and adequate assessments than when an instrument is NOT used.
- But, is that **really** true?

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## SOCIAL WORKERS USING AN INSTRUMENT VS. SOCIAL WORKERS NOT USING AN INSTRUMENT *(Andershed & Andershed, 2015)*

- 30 social workers trained in a structured instrument/checklist (ESTER-Assessment) were given the task to assess a written /fictitious case concerning Charlie, age 14.
- 30 other social workers were given the same task, but had no training in and were not using a structured instrument/checklist.
- Task: What is important to focus on in Charlie, to be able to help him?

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**RESULTS:  
HOW MANY RISK FACTORS WERE  
IDENTIFIED?**

Number of risk factors identified	With ESTER-Assessment (n=30)	Without instrument (n=30)
All 8	37%	0%
7	20%	10%
6	30%	20%
5	13%	17%
4	0%	23%
3	0%	17%
2	0%	3%
1	0%	7%
0	0%	3%

(Andershed & Andershed, 2015)

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**RESULTS:  
HOW MANY PROTECTIVE FACTORS WERE  
IDENTIFIED?**

Number of protective factors identified	With ESTER-Assessment (n=30)	Without instrument (n=30)
All 4	10%	0%
3	20%	0%
2	20%	3%
1	17%	3%
0	33%	94%

(Andershed & Andershed, 2015)

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## RESULTS: SOCIAL SERVICE DIRECTOR S OPINIONS OF THE RATINGS?

	With ESTER- Assessment (n=30) Mean value	Without instrument (n=30) Mean value	t-value (df)
<b>Overall, an adequate/good assessment?</b> 1. Not at all adequate 2. Somewhat adequate 3. Adequate 4. Very adequate	2,78	2,42	2,43*** (58)
<b>Missed to note things?</b> 1. No 2. Yes, on a few occasions 3. Yes, several things	1,43	1,88	-4,26*** (58)
<b>Are the correct interventions suggested?</b> 1. No, probably not 2. Yes, partially 3. Yes, probably	2,12	1,95	1,48† (58)

\*\*\* or † indicates a significant difference between groups

(Andershed & Andershed, 2015)

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## WHEN PROFESSIONALS CONDUCT ESTER- ASSESSMENTS ON REAL CASES

*(Andershed & Andershed, Manuscript)*

- ESTER-Assessments in regular practice in comparison to children who are not assessed with ESTER-Assessment
  - Collaborative teams in social services and preschool/school
  
- 65 ESTER-Assessed children and adolescents
  - 85% boys – age: 1-17 yrs.  $M = 10.29$  ( $SD = 3.96$ )
- 30 children and adolescents in a comparison group
  - 80% boys – age: 1-18 yrs.  $M = 10.25$  ( $SD = 4.38$ )
  
- Followed 1 year after initial assessment.

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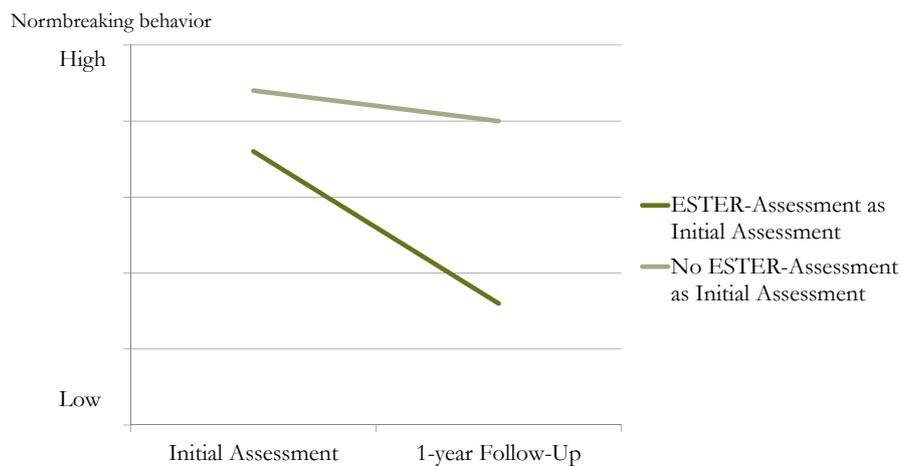
## THE SOCIAL WORKER'S DESCRIPTIONS OF THE INTERVENTIONS

	<b>ESTER-assessment at initial assessment N=65</b>	<b>No ESTER-assessment at initial assessment N=30</b>
Interventions focused on changing research based risk- and protective factors	<b>81%</b>	<b>17%</b>
Interventions have been tailored to fit the needs of the specific youth	<b>67%</b>	<b>73%</b>

(Andershed & Andershed, manuscript)

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## USE OF ESTER ASSESSMENT ASSOCIATED WITH DECREASES IN PROBLEM BEHAVIOR



(Andershed & Andershed, Manuscript)

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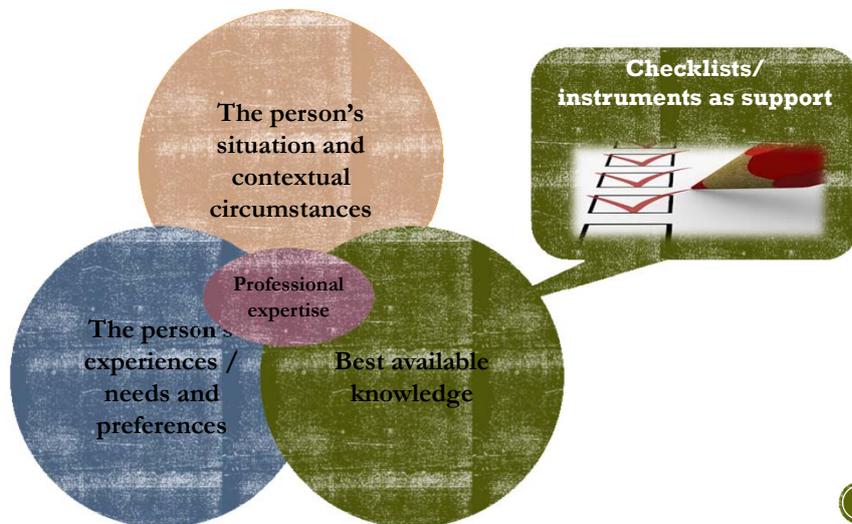




- Education/Continued Education
- Experience
- Checklists/assessment instruments

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## SUPPORT IN WORKING MORE IN LINE WITH EVIDENCE BASED PRACTICE (EBP)



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## SUMMARY / CONCLUSIONS

- The practical use of knowledge on risk and protective factors in preschool/school, social services, and psychiatry are – thus far – very limited.
  - This seems true internationally.
- There is a long tradition of using this kind of knowledge/research in medical practice, i.e., there are experiences to learn from
- A concrete way of working in an evidence based way – to use knowledge from research! The purpose is to achieve more effective interventions!

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## SUMMARY / CONCLUSIONS (CONT.)

- With structured assessment instruments/checklists assessments become more coherent and adequate/evidence based, and there is a greater focus on risk and protection → more effective interventions

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## QUESTIONS

1. Does it make sense you think that this can lead to more effective/better interventions? How/why?

2. How do you in practice work with risk- and protective factors today? In assessment? In interventions? If not, why not? Hurdles?

3. If we do not focus on research based risk- and protective factors in practice – what is the concrete alternative?

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## QUESTIONS

1. How do you in practice work with risk focused prevention? What needs to be changed in the way you work to work more according to this approach?

2. How can the different types of risk – and protective factors be important to you in practice (i.e., direct vs. indirect, etc)

3. Why even bother focusing on risk- and protective factors when they individually are so weak?

4. How do you in practice work with the principles risk, need, responsivity today? What needs to be changed in the way you work to work more according to these principles? Hurdles?

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## QUESTIONS

1. Do you use checklists or instruments? If yes, have they been tested? Do they help?

2. Do you think that YOU need help from checklists/instruments? Why or why not?

3. Which benefits can you see with using checklists/instruments? What could they provide/improve?

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THANK YOU.