RISK AND PROTECTIVE FACTORS AMONG YOUTH
Why and How to Use Them in Practice

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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
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?
THIS TRAINING IS MAINLY BASED ON...


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.
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!
DISCUSSION IN GROUPS

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


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

The person’s situation and contextual circumstances

The person’s experiences / needs and preferences

Best available knowledge

Professional expertise

Source: kunskapsguiden.se
Evidence based practice increases the possibilities to help, decreases the risk for causing damage, increases transparency, and facilitates development.

The purpose with evidence based practice is to increase the ability to help.

In an evidence based practice the aim is that treatment and care should rest upon best available knowledge, which is found in research, in the persons themselves, and in practice.

Source: kunskapsguiden.se
The ambition is that each individual should be offered the intervention that best suits him or her.

Preferably, the intervention should be evaluated so that you know that the likelihood for it to have positive effects is greater.

The minimum requirement is that it should not cause damage (have negative effects).

Source: kunskapsguiden.se
In evidence based practice, only evidence based interventions are used.

In evidence based practice, the client has no say.

In evidence based practice, the relevance of personal meetings and relationships is disregarded.

In evidence based practice, there is no consideration of the professionals’ competencies or experiences.

The only knowledge or research that is valuable, is randomized controlled trials and evaluations.

**THIS IS NOT TRUE!** – Look at the model!

Source: kunskapsguiden.se
1. Do you work according to EBP today? How concretely? If not, why not?

2. Do you REALLY know the effects of the interventions you provide How? If not, why not? Do you know if they cause harm?

3. If not work according to EBP – what is the alternative?
HOW KNOW EFFECTS OF INTERVENTIONS?

- We need to follow what we aim to change
  - before and after interventions.

- Preferably also compare with group NOT recieving the intervention.
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
DIFFERENT TYPES OF RISK AND PROTECTIVE FACTORS

- Direct (proximal) vs. **Indirect** (distal)
- **Dynamic** (Modifiable) vs. **Static** (Unmodifiable)
- **Initiating** vs. **Upholding/Maintaining**
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.
IDENTICAL TWINS MORE SIMILAR THAN FRATERNAL TWINS
(Eley et al., 1999)

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-aggressive antisocial behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identical twins</td>
<td>0.71</td>
<td>0.78</td>
</tr>
<tr>
<td>Fraternal twins</td>
<td>0.59</td>
<td>0.60</td>
</tr>
<tr>
<td>Aggressive antisocial behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identical twins</td>
<td>0.72</td>
<td>0.82</td>
</tr>
<tr>
<td>Fraternal twins</td>
<td>0.41</td>
<td>0.45</td>
</tr>
</tbody>
</table>
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!
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.
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.
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
THE MORE RISK FACTORS THE HIGHER THE RISK

(e.g., Farrington, 2003)

% convicted of crime in adulthood

Number of youth risk factors
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.

2. 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
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 famlily can benefit from.
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
DISCUSSION IN GROUPS

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?
HOW TO KNOW WHICH RISK AND PROTECTIVE FACTORS TO FOCUS ON?

- Use research reviews and existing instruments/checklists
- Which is the target group and the focus?
  - E.g.,: Adults with substance use problems
- Is there an assessment instrument/a checklist that covers research based risk and protective factors for this group?
  - If yes: Is it reliable? What does research testing the instrument/checklist say?
  - If no: Use research reviews/meta analyses to find out what the risk factors are according to research
    - Collaborate with someone who can find, interpret and summarize research
    - Summarize the factors
INSTRUMENTS? IN SWEDEN, WE USE THE METHOD GUIDE OF THE NATIONAL BOARD OF HEALTH AND WELFARE

<table>
<thead>
<tr>
<th>Metod</th>
<th>Målgrupp</th>
<th>Publicerat innehåll</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAD (Adolescent Drug Abuse Diagnosis)</td>
<td>Unga personer med missbruk och sociala problem.</td>
<td>Beskrivning, Hävvisning till kunskapsunderlag</td>
</tr>
<tr>
<td>ADDIS (Alcohol Drug Diagnos Instrument)</td>
<td>Vuxna personer och ungdomar.</td>
<td>Beskrivning, Hävvisning till kunskapsunderlag</td>
</tr>
<tr>
<td>Alcohol-E</td>
<td>Personer med identifierade alkoholproblem.</td>
<td>Beskrivning, Hävvisning till kunskapsunderlag</td>
</tr>
<tr>
<td>ASI (Addiction Severity Index)</td>
<td>Vuxna med missbruksproblem.</td>
<td>Beskrivning, Hävvisning till kunskapsunderlag</td>
</tr>
</tbody>
</table>
ASSESSMENT, INTERVENTION, FOLLOW UP, IN PRACTICE
(Andershed & Andershed, 2015; Andershed, Andershed, & Farrington, 2012)

Structured assessment of risk- and protective factors, by trained professionals

Observed factors
Pronounced risk factors, e.g., Aggression Hyperactivity Poor parenting Rejection
Weak protective factors, e.g., Warmth Safety

Analysis by trained professional(s) concerning Risk? Need? Responsivity?
Analysis to tailor a plan for intervention/s

Available interventions
Intervention A
Intervention B
Intervention C
Intervention D
Intervention E

Follow-up, re-assessment
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!
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)
SO, HOW CAN WE ASSESS RISK AND PROTECTIVE FACTORS?
One in five million = 0.00%
It is not uncommon that simple errors in handling or lack or planning of the procedure is the cause (WHO)
SURGICAL SAFETY CHECKLIST

Surgical Safety Checklist

Before induction of anaesthesia (with at least nurse and anaesthetist)
- Has the patient confirmed his/her identity, site, procedure, and consent?
  - Yes
- Is the site marked?
  - Yes
  - Not applicable
- Is the anaesthesia machine and medication check complete?
  - Yes
- Is the pulse oximeter on the patient and functioning?
  - Yes
- Does the patient have a:
  - Known allergy?
    - No
    - Yes
  - Difficult airway or aspiration risk?
    - No
    - Yes, and equipment/assistance available
  - Risk of >500ml blood loss (7ml/kg in children)?
    - No
    - Yes, and two IVs/central access and fluids planned

Before skin incision (with nurse, anaesthetist and surgeon)
- Confirm all team members have introduced themselves by name and role.
- Confirm the patient’s name, procedure, and where the incision will be made.
- Has antibiotic prophylaxis been given within the last 60 minutes?
  - Yes
  - Not applicable
- Anticipated Critical Events
  - To Surgeon:
    - What are the critical or non-routine steps?
    - How long will the case take?
    - What is the anticipated blood loss?
  - To Anaesthetist:
    - Are there any patient-specific concerns?
  - To Nursing Team:
    - Has sterility (including indicator results) been confirmed?
    - Are there equipment issues or any concerns?
- Is essential imaging displayed?
  - Yes
  - Not applicable

Before patient leaves operating room (with nurse, anaesthetist and surgeon)
- Nurse Verbally Confirms:
  - The name of the procedure
  - Completion of instrument, sponge and needle counts
  - Specimen labelling (read specimen labels aloud, including patient name)
  - Whether there are any equipment problems to be addressed
- To Surgeon, Anaesthetist and Nurse:
  - What are the key concerns for recovery and management of this patient?

This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.

Revised 1/2009 © WHO 2009
...complications were reduced by 36%

...deaths were reduced by 47%

(see Haynes et al., 2007)
...infections were reduced by more than 50%

...many lives were saved

(Pronovost et al., 2006)
- Buy 20 binders (40% off at local store until Friday)
- Create graph for Slide 4
- Finish presentation outline
- Meeting @ 10:15 AM
- Pick up car
- Get fine details from Mark
- Get shipment status (order no. #148172042M)
- Call John again when Matt gets back (after 2 to arrange meeting)
- Send quote

Shopping List (2)
- Bread (3x)
- Raisins
- Sultanas

- Water ferns
- Pick up eggs at local shop
- Mow the lawn
- Order #AE34
Other people might need instruments or checklists. But I certainly don’t...?
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
- Enhance communication and collaboration between sectors
  - The computerized system facilitates collaboration
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
RISK FACTORS ASSESSED IN ESTER-ASSESSMENT

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.
PROTECTIVE FACTORS ASSESSED IN ESTER-ASSESSMENT

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

<table>
<thead>
<tr>
<th>Number of risk factors identified</th>
<th>With ESTER-Assessment (n=30)</th>
<th>Without instrument (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 8</td>
<td>37%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>6</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>5</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>4</td>
<td>0%</td>
<td>23%</td>
</tr>
<tr>
<td>3</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>2</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>1</td>
<td>0%</td>
<td>7%</td>
</tr>
<tr>
<td>0</td>
<td>0%</td>
<td>3%</td>
</tr>
</tbody>
</table>

(Andershed & Andershed, 2015)
## RESULTS:
HOW MANY PROTECTIVE FACTORS WERE IDENTIFIED?

<table>
<thead>
<tr>
<th>Number of protective factors identified</th>
<th>With ESTER-Assessment (n=30)</th>
<th>Without instrument (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 4</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>20%</td>
<td>3%</td>
</tr>
<tr>
<td>1</td>
<td>17%</td>
<td>3%</td>
</tr>
<tr>
<td>0</td>
<td>33%</td>
<td>94%</td>
</tr>
</tbody>
</table>

(Andershed & Andershed, 2015)
## RESULTS: SOCIAL SERVICE DIRECTOR’S OPINIONS OF THE RATINGS?

<table>
<thead>
<tr>
<th></th>
<th>With ESTER-Assessment (n=30) Mean value</th>
<th>Without instrument (n=30) Mean value</th>
<th>t-value (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, an adequate/good assessment?</td>
<td>2.78</td>
<td>2.42</td>
<td>2.43*** (58)</td>
</tr>
<tr>
<td>1. Not at all adequate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Somewhat adequate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Adequate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Very adequate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missed to note things?</td>
<td>1.43</td>
<td>1.88</td>
<td>-4.26*** (58)</td>
</tr>
<tr>
<td>1. No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Yes, on a few occasions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Yes, several things</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the correct interventions suggested?</td>
<td>2.12</td>
<td>1.95</td>
<td>1.48† (58)</td>
</tr>
<tr>
<td>1. No, probably not</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Yes, partially</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Yes, probably</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*** or † indicates a significant difference between groups

(Andershed & Andershed, 2015)
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.
**THE SOCIAL WORKER’S DESCRIPTIONS OF THE INTERVENTIONS**

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

(Andershed & Andershed, manuscript)
USE OF ESTER ASSESSMENT ASSOCIATED WITH DECREASES IN PROBLEM BEHAVIOR

Normbreaking behavior

<table>
<thead>
<tr>
<th></th>
<th>Initial Assessment</th>
<th>1-year Follow-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- ESTER-Assessment as Initial Assessment
- No ESTER-Assessment as Initial Assessment

(Andershed & Andershed, Manuscript)
If you were to have a surgical procedure — 93% said YES would you like the checklist to be used?

-"Seems boring"
-"I do not need it — perhaps my colleague"
-"It takes time for no reason"

Why won’t everybody use checklists / instruments?
- Education/Continued Education
- Experience
- Checklists/assessment instruments
SUPPORT IN WORKING MORE IN LINE WITH EVIDENCE-BASED PRACTICE (EBP)

The person’s situation and contextual circumstances

The person’s experiences / needs and preferences

Best available knowledge

Professional expertise

Checklists/instruments as support
DISCUSSION IN GROUPS

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 the provide/improve?
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!
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.
THANK YOU.