



# The SChool REfusal EvaluationN scale for adolescents (SCREEN)

*Development, Validation and feedback from the field*

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Biostatistique

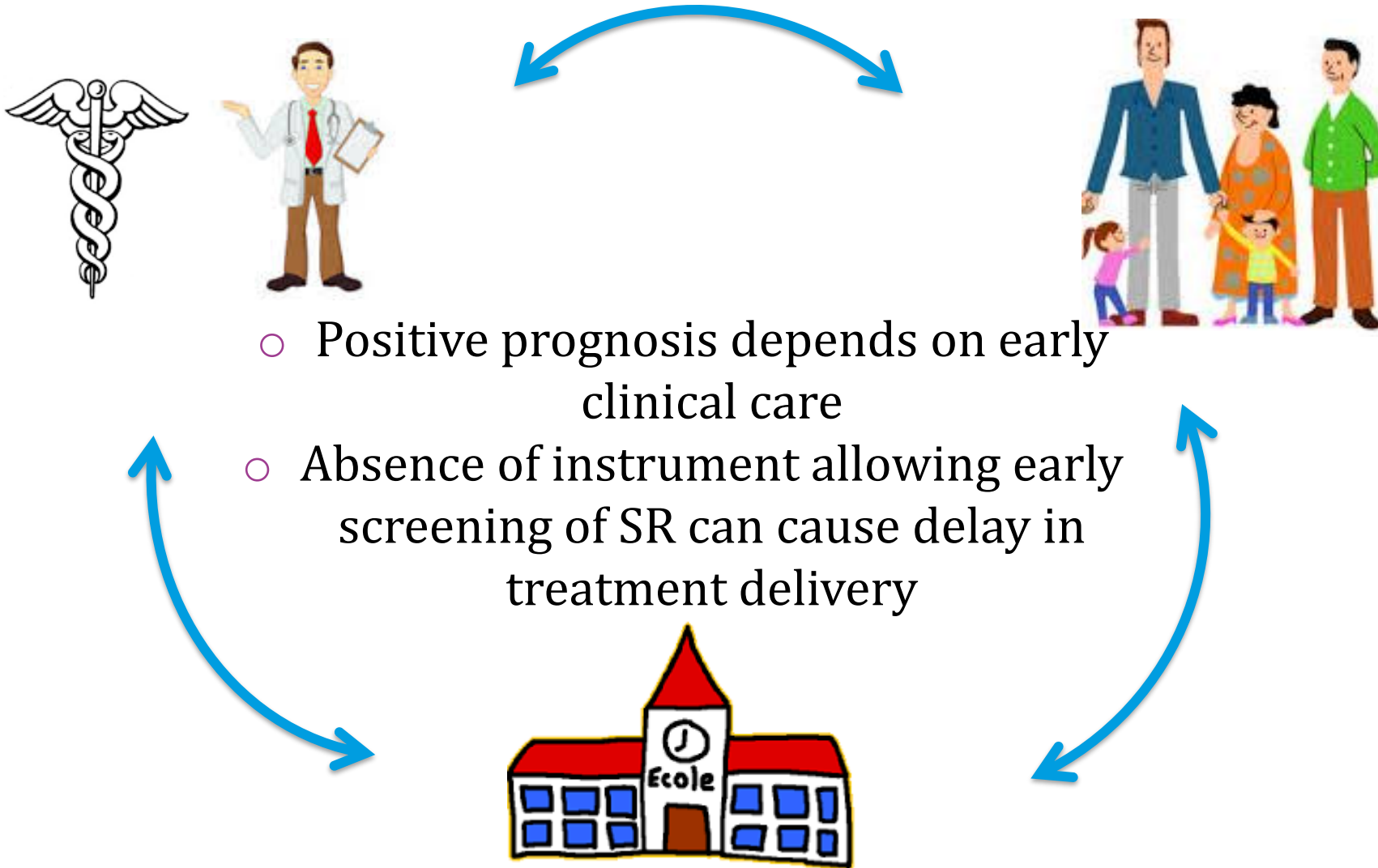
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# ASSESSING SR : WHAT AND WHY?

- The SCREEN background = typological approach of SAP
- SR as a type of SAP



# ASSESSING SR : WHAT AND WHY?



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- 4 instruments used to capture some constructs close to SR:
  - SRAS-R (Kearney, 2002, 2006)
  - ISAP (Knollman, Reissner and Hebebrand)
  - The reason of school non-attendance scale (Havik, 2015)
  - SNACK (Heyne et al., 2019)

But nothing developed specifically to measure SR  
No scale provide a « SR score », to quantify SR

# ASSESSING SR : WHAT AND WHY?

## ➤ Objectives of the SCREEN:

- Have a measure of SR that can be used in different contexts (schools, care services, research...)
- Have a field approach and not a theoretical approach (no theoretical items)
- No absenteeism criteria in order to identify emerging SR
- No anxiety disorder criteria
- Provide reliable cutoff for diagnosis, research, clinical practice...
- Provide a « SR score », to quantify SR

# Construction of the SCREEN

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## ❖ ***Identify relevant manifestations of SR*** (Gallé-Tessonneau & Heyne, submitted)

- 42 interviews (adolescents displaying SR; adolescents attending public school; middle school professionals ; care professionals working with adolescents displaying SR)
- Inductive AND Deductive content analysis



## ❖ ***Items generation***

- Based on the verbatim interviews
- 64 items were created and worded at the first person

## ❖ ***Item selection & content validity of item pool***

- Items reviewed by experts: 11 care professionals and 11 adolescents displaying SR
- They selected 42 items

## ❖ ***Clarity & comprehensibility of the 42-items pilot version***

- Pre-testing with 12 adolescents

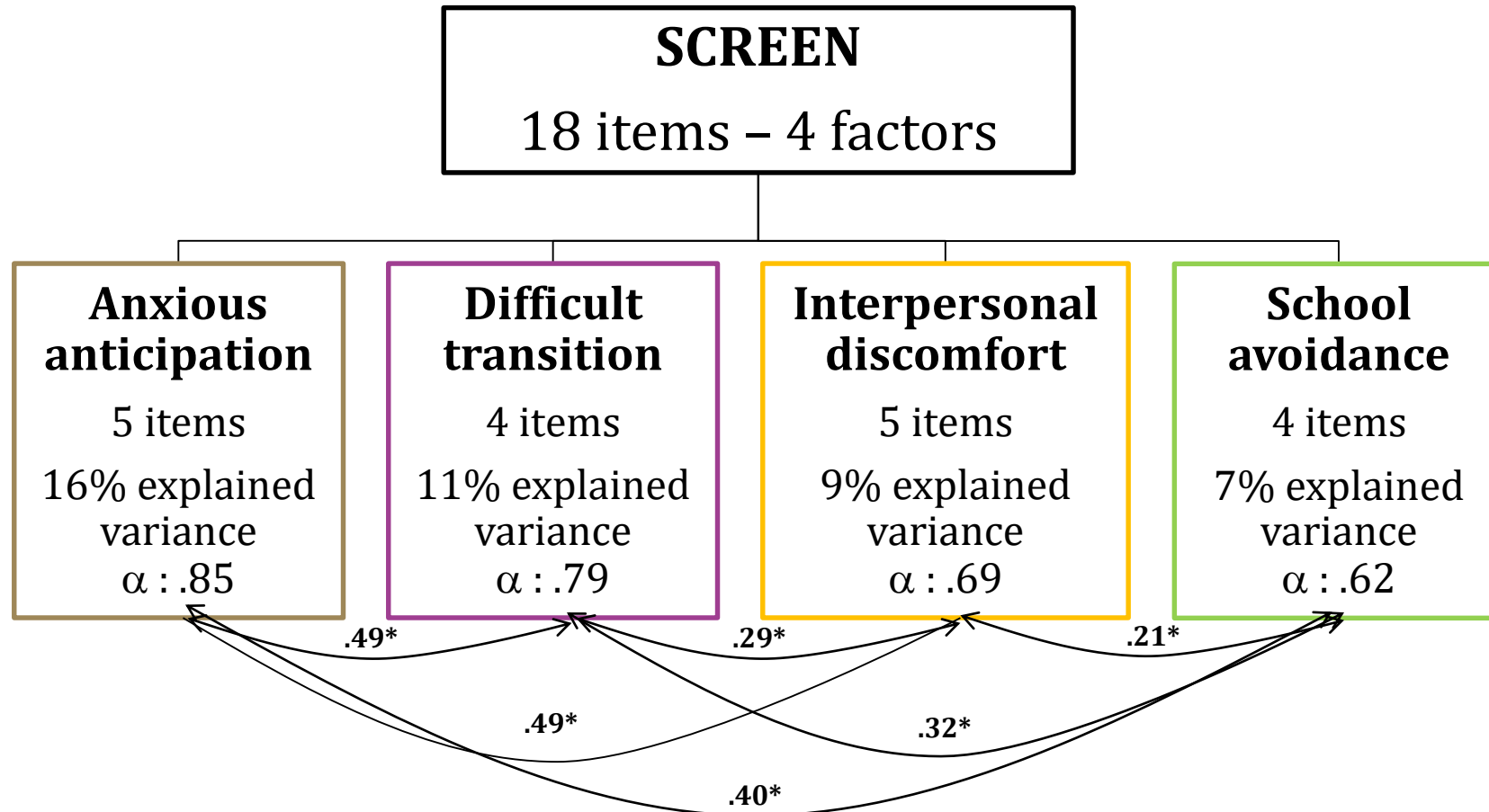


# Validation of the SCREEN



# EXPLORATORY FACTOR ANALYSIS

- Community sample of 420 adolescents (10-16 years old, M= 12,2, SD = 1,2, 58% girl) from 6 french public middle schools



44% of the item variance – principal axis factor analysis, oblique rotation, bootstrap = 1000; N = 420; \* =  $p < .05$ ,

# CROSS-VALIDATING & RELIABILITY

- Community sample of 204 adolescents (10-16 years old,  $M = 12,7$ ,  $SD = 1,3$ , 58% girl) from 6 french public middle schools
  
- **Confirmatory factor analysis → good fit**
  - Chi-square (128,  $N=202$ ) = 148.81,  $p = .100$
  - RMSEA = .028 [90% CI = .000, .046]
  - SRMR = .061
  - CFI = .928
  - TLI = .914

## School Refusal Evaluation<sup>1</sup>(SCREEN)

The sentences below describe what young people sometimes do or feel. Read each sentence carefully. For each sentence, indicate how much this applies to you at the moment. Tick the box matching your choice. There are no right or wrong answers. If there are words or sentences you don't understand, please ask them explained.

As an example, please answer the following question :

N° Item	Item	Doesn't apply to me at all	Applies to me a little	Applies to me somewhat	Applies to me a lot	Applies to me completely
EX	I watch television on Wednesday afternoons					

If you understand what to do, please continue :

	Item	Doesn't apply to me at all	Applies to me a little	Applies to me somewhat	Applies to me a lot	Applies to me completely
1 B4	I'm afraid of what others in my class think of me					
2 Q1	I tell my parents that I don't want to go to school and I want to stay at home					
3 Q3	I can't explain why I can't go to school					
4 L2	When I get to school, I don't feel well when it comes time to go into the building					
5 B1	In class, I'm scared of doing a bad job					
6 I1	I'm absent more often this year than last year					
7 K3	I feel like I have a mental block when it comes to going to school, like I won't be able to					
8 K2	In the morning, I don't want to go to school					
9 J1	I often go to the school infirmary or administration office because I don't feel well					

## SCREEN

18 items

5 points likert-scale

Global score from 18 to 90

Higher score – higher SR

# Convergente validity

- Community sample of 624 adolescents  
(10-16 years old, M= 12,4, SD = 1,3, 58% girl)

**SCREEN  
(Global Score)**

## **SRAS**

Avoidance of school-related stimuli  
Escape from aversive social-evaluative situation  
Pursuit of care from significant others  
Pursuit of tangible reinforcers outside of school

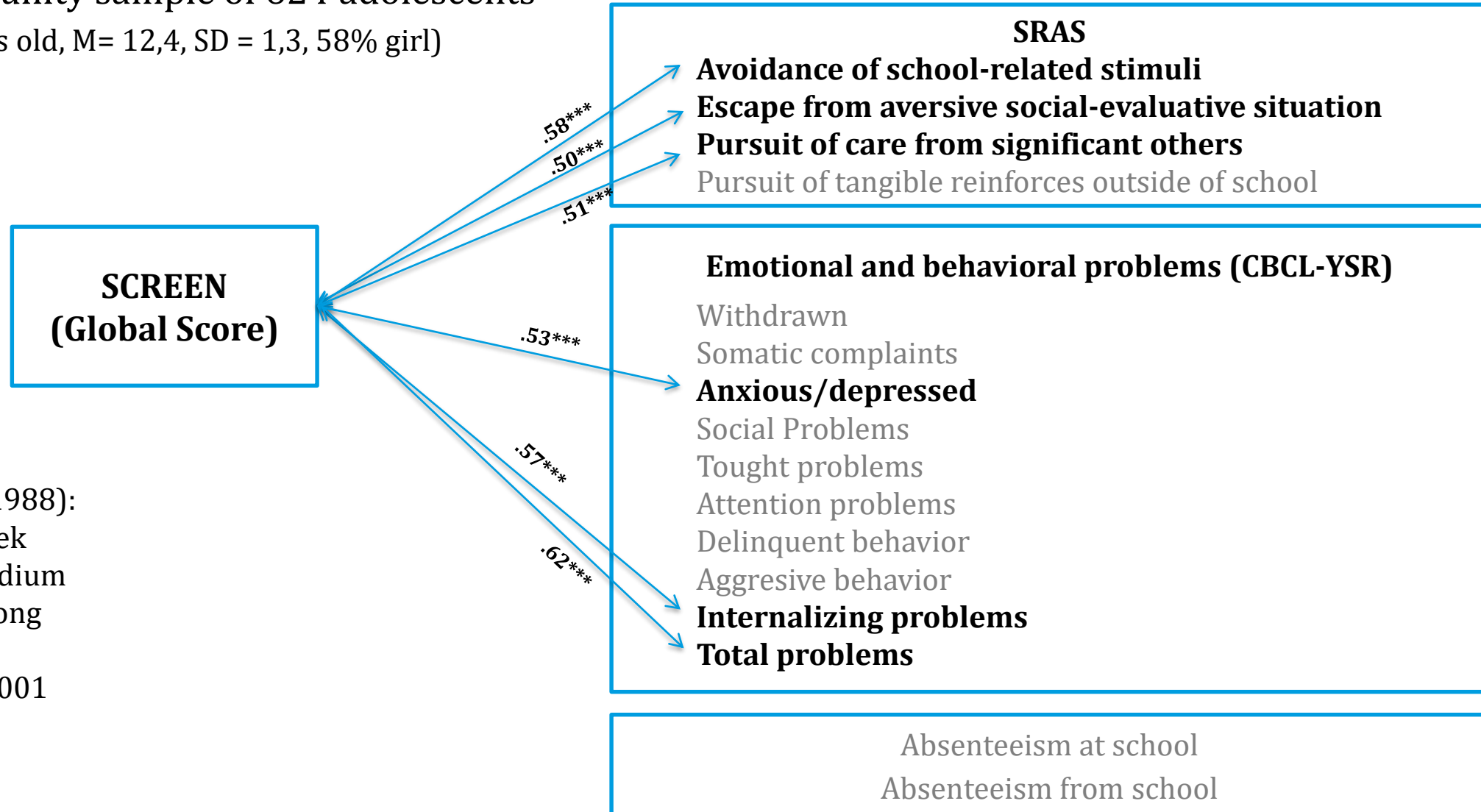
## **Emotional and behavioral problems (CBCL-YSR)**

Withdrawn  
Somatic complaints  
Anxious/depressed  
Social Problems  
Thought problems  
Attention problems  
Delinquent behavior  
Aggressive behavior  
Internalizing problems  
Total problems

**Absenteeism at school**  
**Absenteeism from school**

# Convergente validity

- Community sample of 624 adolescents  
(10-16 years old, M= 12,4, SD = 1,3, 58% girl)



Cohen (1988):

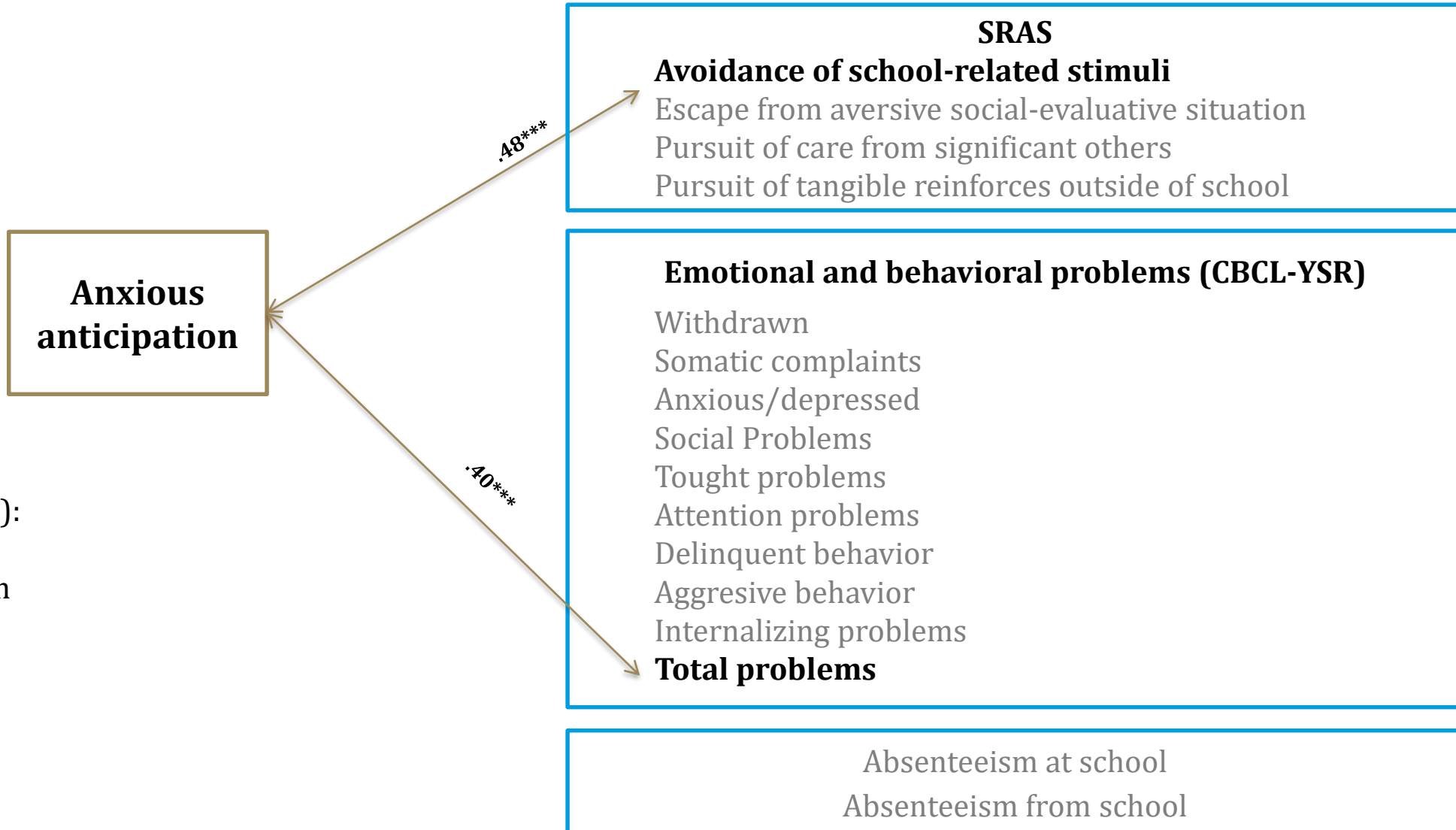
.10 = weak

.30 = medium

.50 = strong

\*\*\* = p < .001

# Convergente validity



Cohen (1988):

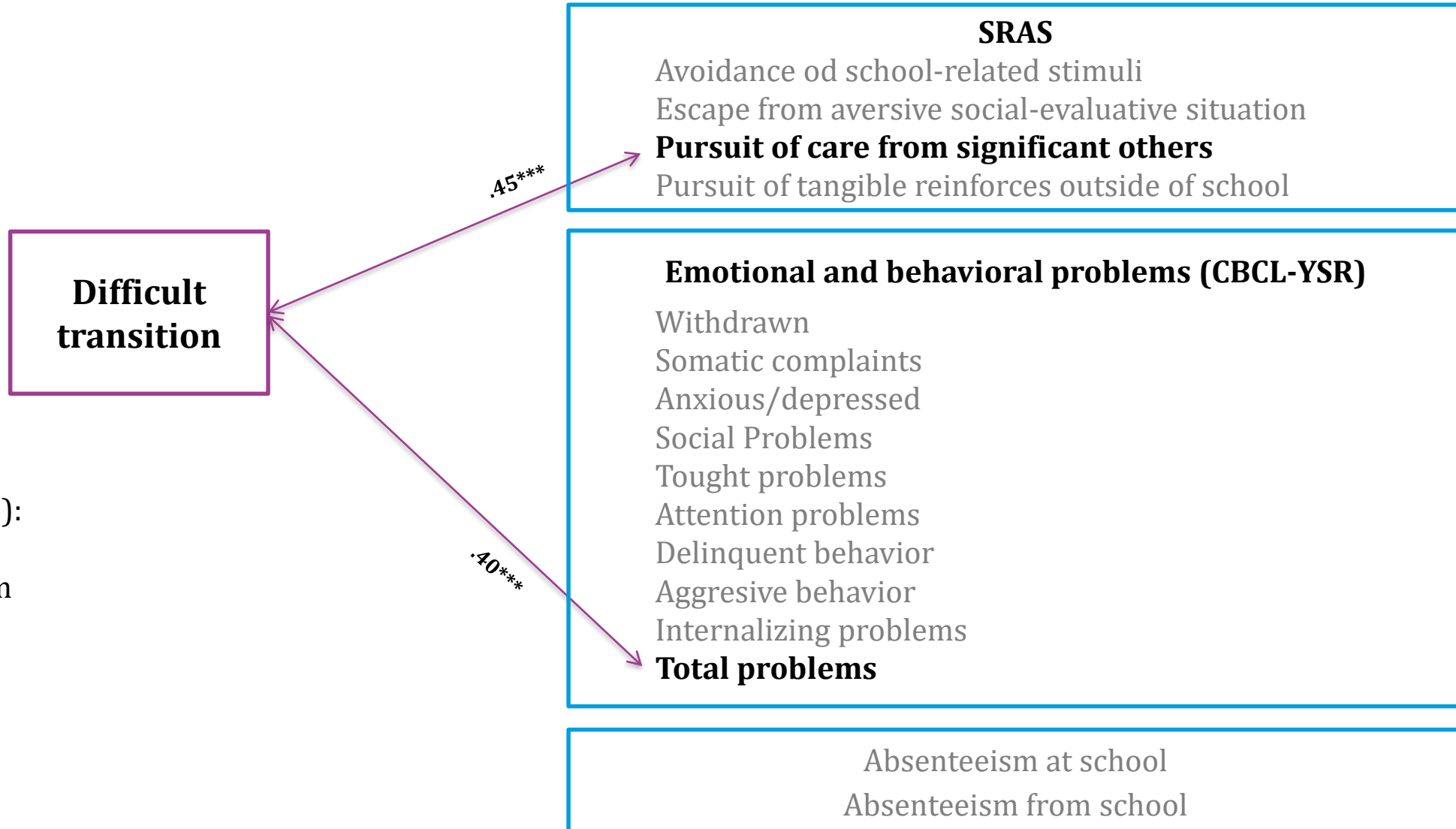
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# Convergente validity



Cohen (1988):

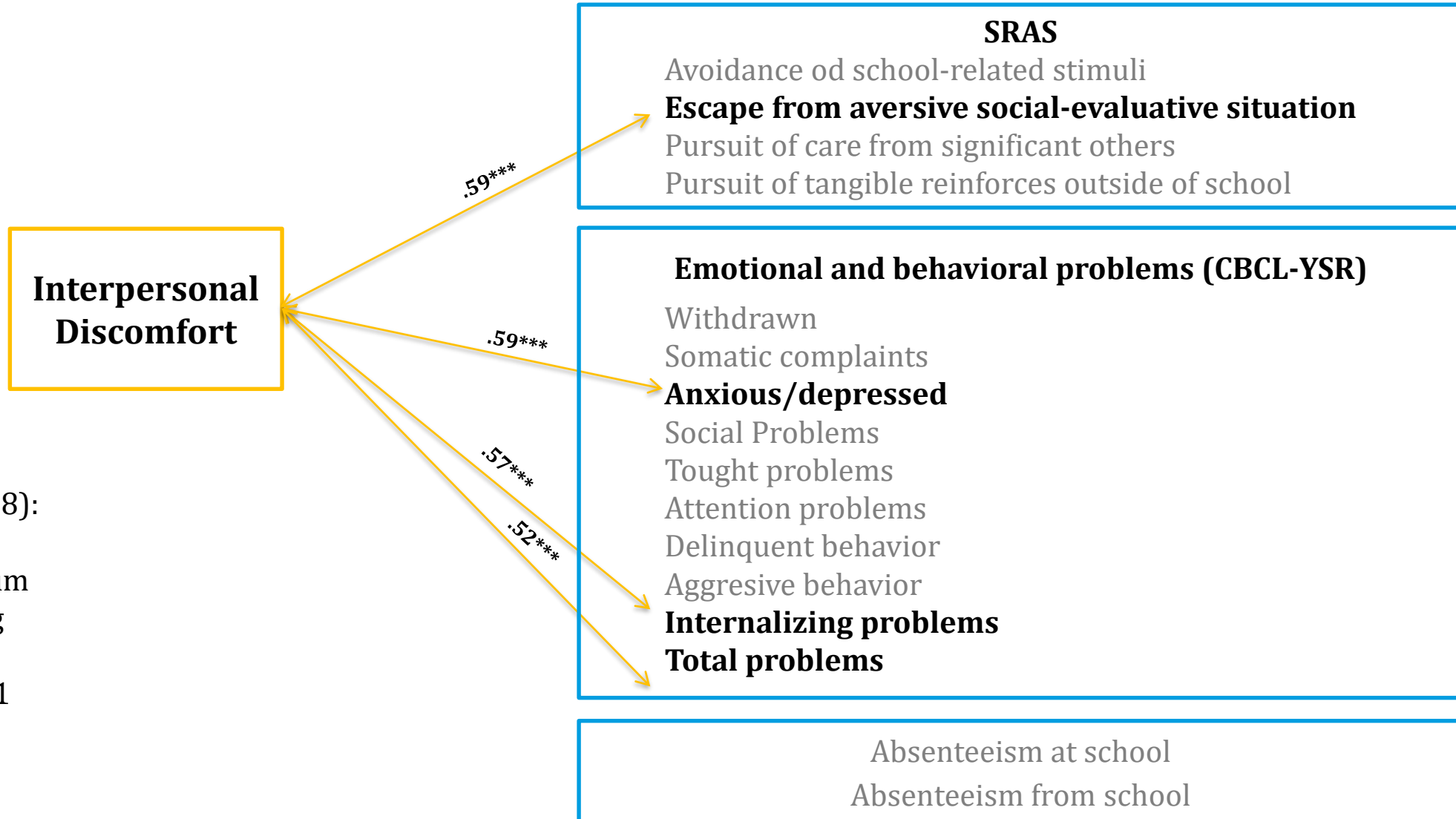
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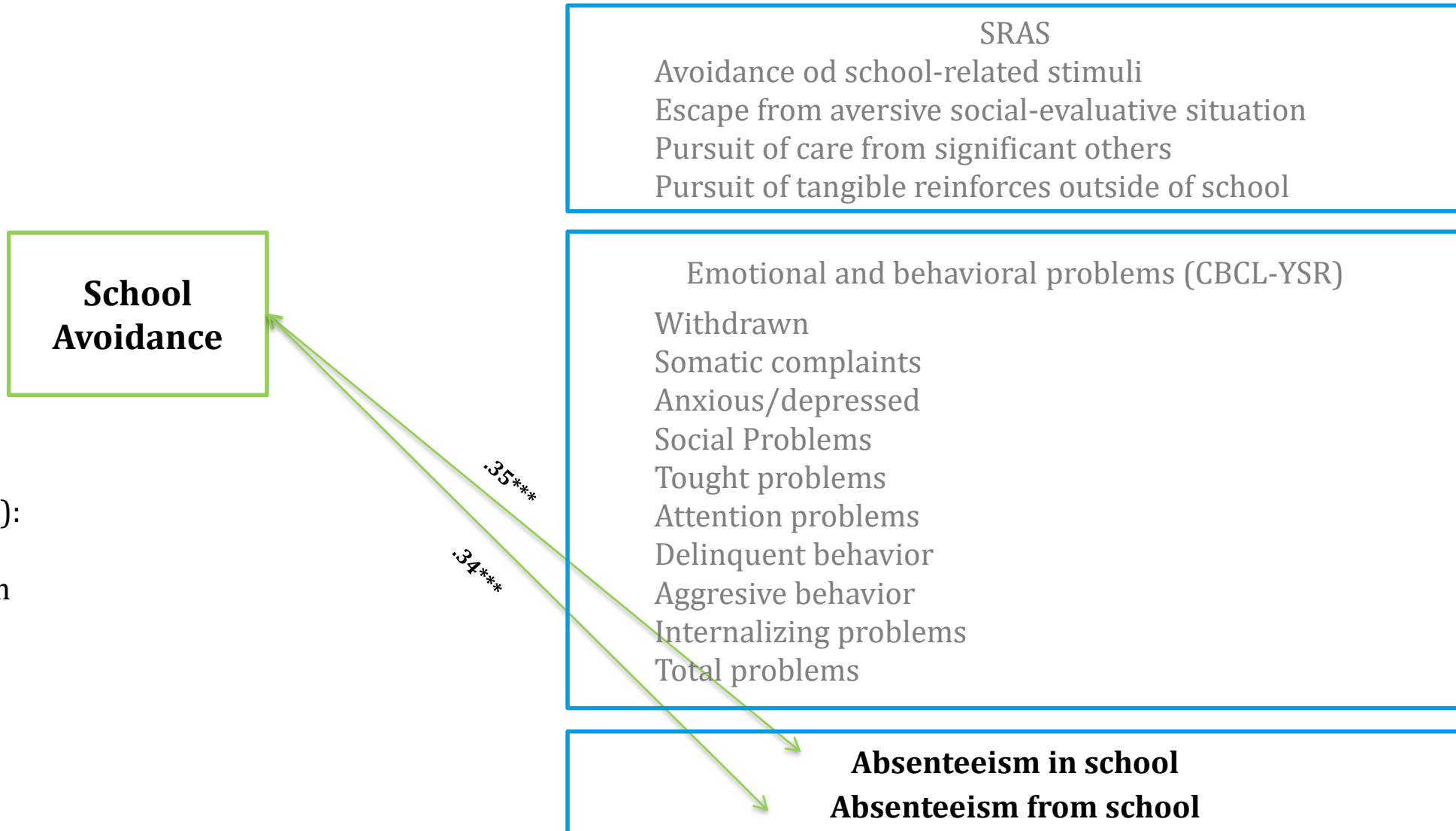
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# IDENTIFICATION OF A CLINICAL SCORE

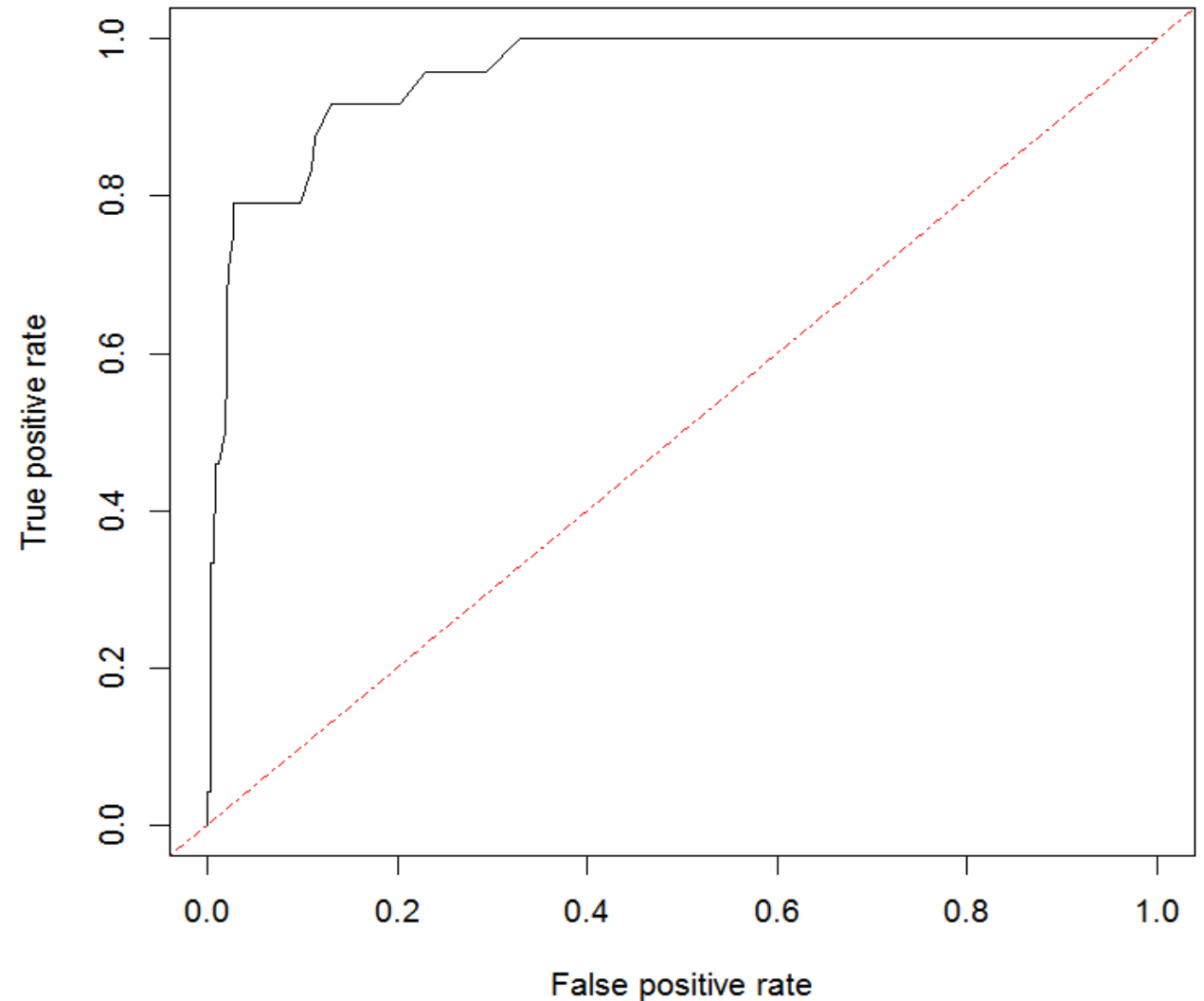
*ROC Curve analysis; N = 655*

**Clinical Score = 41**

**Precision of the SCREEN = 96%**

**Sensibility = 94%**

**Specificity = 88%**



**AUC = .96**

Feedbacks from the field

# Who use the SCREEN so far ?

School's  
professionals  
(mainly nurses and  
psychologists)

Psychologists  
and  
psychiatrists in  
private  
consultations

Care  
professionals  
outpatient  
service

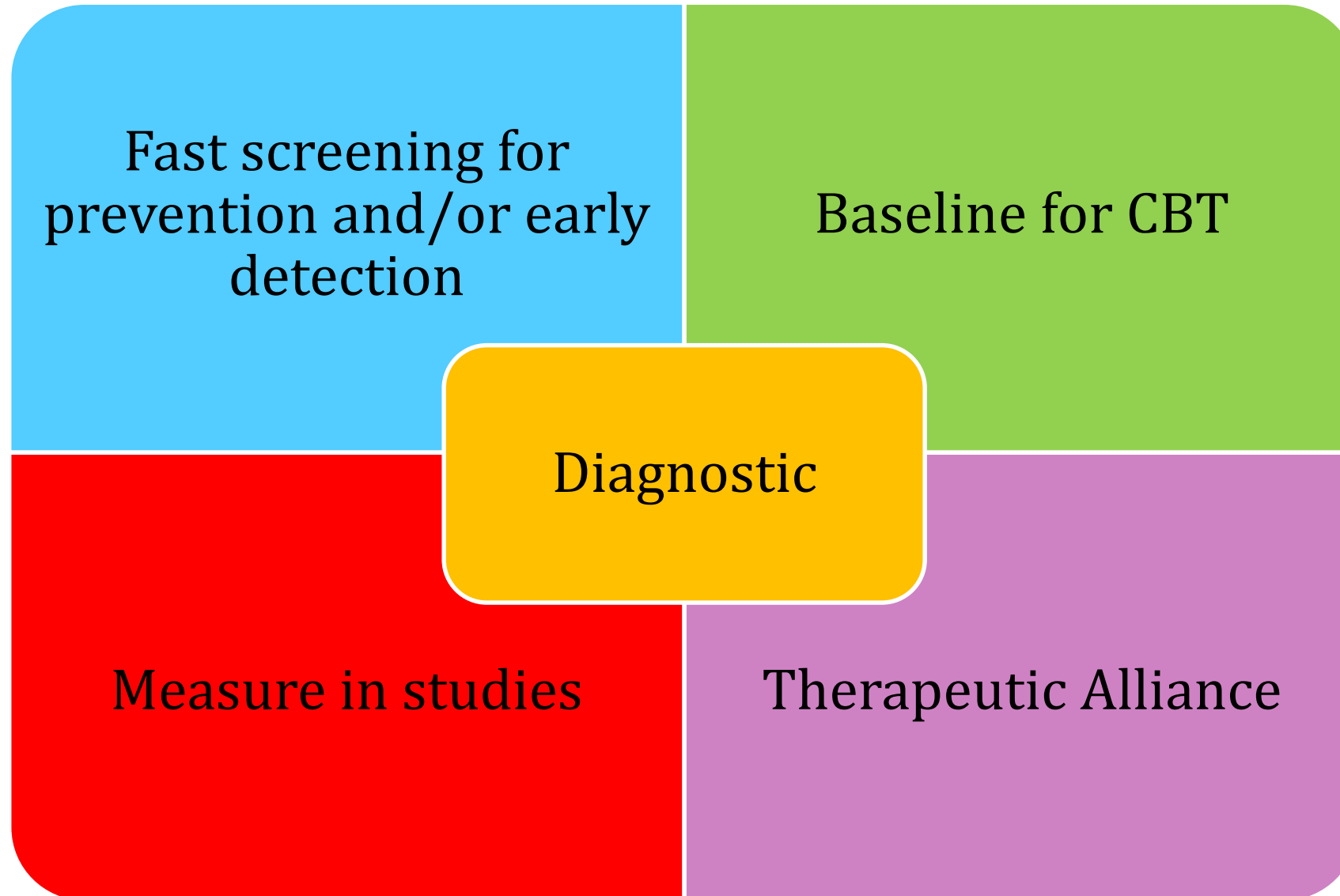
Care  
professionals  
Inpatient  
service

Researchers

Pediatricians  
& family  
physicians

Social  
workers

# Why they use the SCREEN ?



# USING THE SCREEN FOR EARLY SCREENING IN A SCHOOL

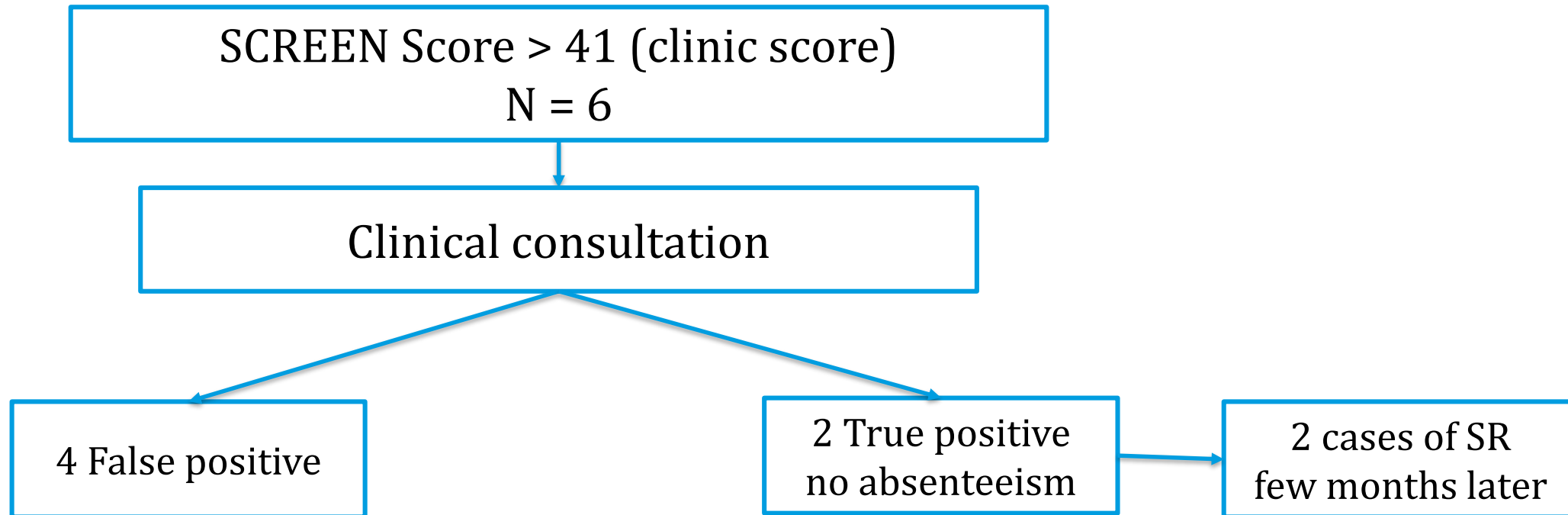
- Systematic utilization of the SCREEN in a French secondary school
- For every first year pupil

**Goal** : Fast screening for prevention and early detection of SR

- Project conducted by the psychologist of the school at the beginning of the school year (around 2-3 months)

# USING THE SCREEN FOR EARLY SCREENING IN A SCHOOL

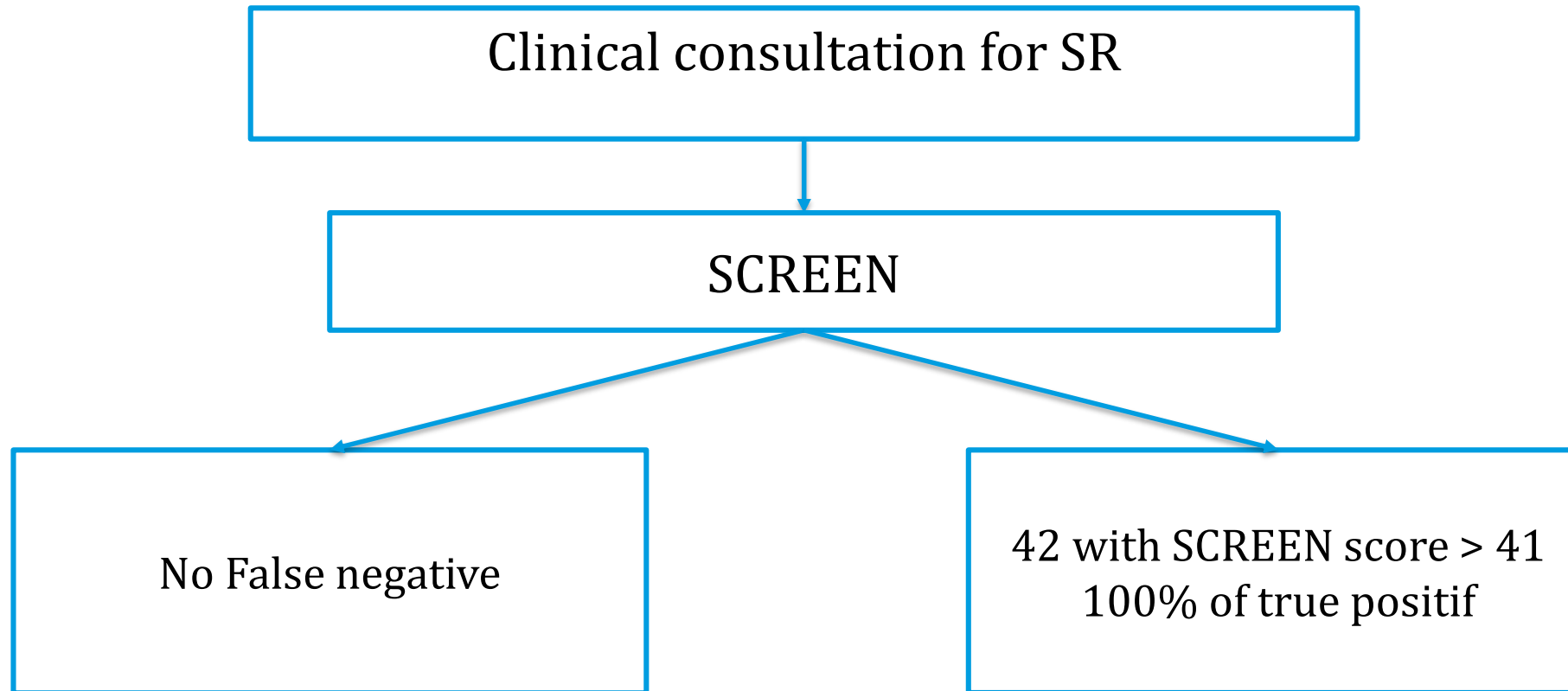
**N = 121 – school – community sample**



**Conclusion:** easy to use and quick - no require for a lot of resources  
**But :** what to do next ? What intervention?  
This will be our next step ...

# USING THE SCREEN IN A CLINICAL PRACTICE

**N = 42 – clinical sample**





# USING THE SCREEN

## *Conclusions of these two examples of using the SCREEN*

- SCREEN is very good for early diagnosis
- Better sensibility than specificity
- Risk of over-diagnosis → *But is that an issue?*

# Conclusion

# Benefits and limitations of the SCREEN

## ➤ Benefits:

- Self-questionnaire specific to SR
- Fast and easy to use
- Diagnosis score and dimensional score
- Several goals : diagnosis, screening, baseline in CBT...
- No absenteeism criteria, good for emerging cases of SR

## ➤ Limitations:

- Lack of replication and cross-culture validation
- Lack of information on the outcomes of this assessment (what is the evolution of the students detected?)

# What next?

- We need to study children with “medium score”?
- What about other psychometric aspects of the SCREEN?  
*(factors, reliability and stability of the measure during the therapy, test-retest, primary school...)*
- Translation, replication and cross-culture validation

*English translation with help of Christian Stewart-Ferrer*

*Translation project*

*Iran (Dr. Minaei)*

*Turkish (Dr. Birlik)*





*Thank you for your attention*

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Gallé-Tessonneau, M., & Gana, K. (2019). Development and Validation of the School Refusal Evaluation Scale for Adolescents, *Journal of Pediatric Psychology*, 44(2), 153-163.

<https://doi.org/10.1093/jpepsy/jsy061>