

Linking the Most Predictive Risk Factors for Antisocial Behavior with the Most Effective Interventions for Changing those Risk Factors

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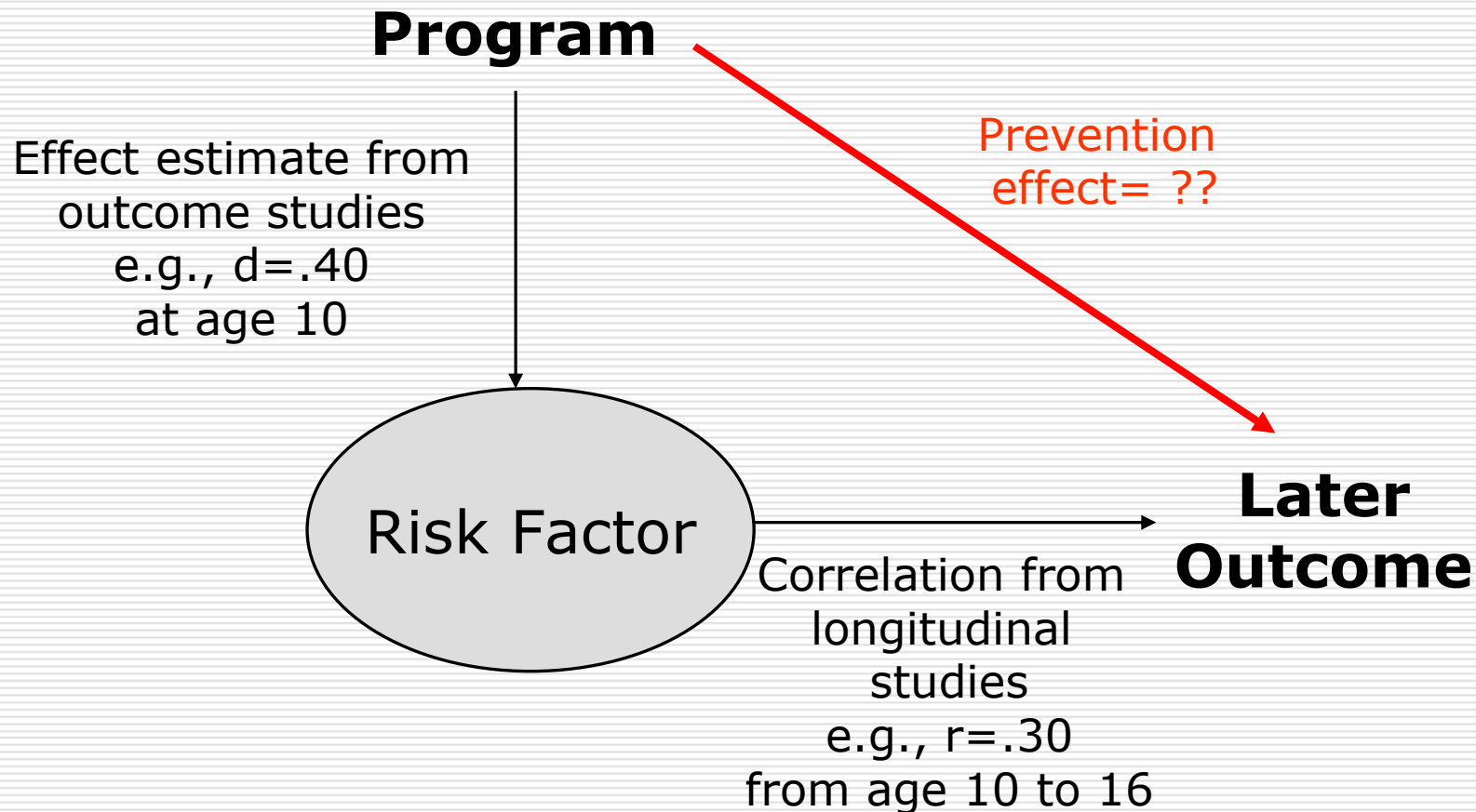
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Major Functional Relationships Central to the Risk-Oriented Prevention Strategy



Estimating Possible Prevention Effect Sizes

r = change in SD units on the T2 variable with a 1 SD difference on the T1 predictor

d = intervention effect size in SD units

$d \times r$ = change in SD units on T2 variable with intervention effect d on T1 variable

if r represents a causal relationship

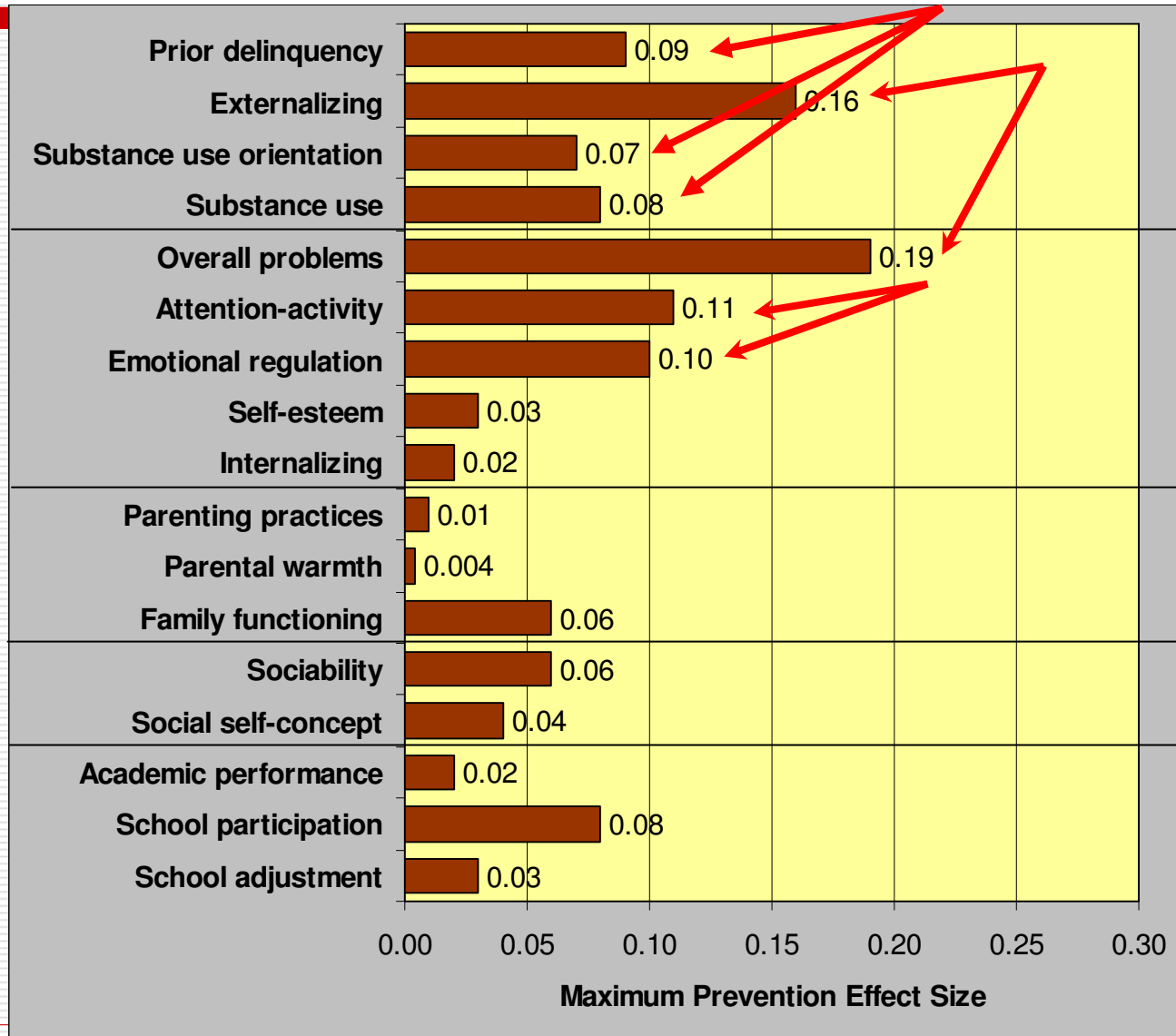
E.g. $.40 \times .30 = .12$ (effect size)

An estimate of the upper limit of the prevention effect size

Prevention Effects on Major Delinquency Risk Factors

Risk Factor	$d=75^{\text{th}}$ %tile ES	$r=\text{Risk-}$ outcome correlation	$d \times r =$ max T2 ES
Prior delinquency	.24	.39	.09
Externalizing	.43	.37	.16
Sub use orientation	.17	.41	.07
Substance use	.22	.35	.08
Overall problems	.59	.32	.19
Emotional regulation	.53	.18	.10
Attention-activity	.51	.22	.11

Estimated Maximum Prevention Effect Sizes with Intervention for Risk Factors



Change in T2 Delinquency Prevalence Rate with a .20 Prevention ES

Not all juveniles at risk at T1 will become delinquent

Base rate proportion becoming delinquent	Rate after intervention	Reduction	Reduction as a % of base
.10	.074	-.026	26%
.15	.113	-.037	25%
.20	.153	-.047	24%
.25	.194	-.056	22%
.30	.237	-.063	21%
.35	.280	-.070	20%

General Early Intervention Program Approaches

- ❑ *Behavioral approaches*: behavioral contracts, contingency management, and similar shaping and reinforcement techniques.
 - ❑ *Cognitive approaches*: cognitive restructuring, skill streaming, cognitive techniques for handling anger and stress, and the like.
 - ❑ *Social skill training*: interpersonal skill building exercises, taking the perspective of the other, assertiveness, resisting group pressure, conflict management.
 - ❑ *Counseling*: individual, group, and family counseling in some mix in which individual or group sessions were the most frequent.
 - ❑ *Parent skill training*: Consultation, counseling, and training aimed at increasing parenting skills and general family functioning.
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Prevention Potential of Program Approaches on Strongest Risk Factors

Program approach	Prevention potential (mean ES)	Prevention potential (highest ES)
Behavioral	.08	.14
Cognitive	.06	.12
Social skill training	.08	.13
Counseling	.07	.11
Parent skill training	.10	.16

*Averaged over the Delinquency, Externalizing, Emotional Regulation, Attention-activity, and Overall Problems risk-delinquency correlations x 75th percentile program effects.

Considerations and Caveats

- ❑ Extent to which the risk-delinquency correlations are causal is unknown.
 - ❑ Risk predictors are correlated; relationship of one overlaps that of others.
 - ❑ Risk predictors are not perfectly correlated; collective prediction will be stronger than for any one.
 - ❑ Observed risk-outcome relationships are attenuated by measurement error.
 - ❑ Small N of studies provide evidence on some risk-outcome relationships and some program effects on risk.
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Key Findings and Observations

- The evidence reviewed here is consistent with the possibility of worthwhile but somewhat modest prevention effects on antisocial behavior. Direct tests of those effects requires expensive longitudinal intervention studies.
 - Prior ASB and related factors are the strongest predictors of later ASB. Of these factors, early substance use and self-regulation are understudied and warrant more attention.
 - The effects of intervention programs on the strongest risk factors are uneven. Larger effects appeared for general externalizing behavior and self-regulation than for early delinquency and substance use.
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Key Findings and Observations (continued)

- Programs for higher risk children generally show larger effects, as do community based programs (in contrast to school-based), perhaps because they tend to deal with higher risk children.
 - The major program approaches have similar overall effects on the main ASB predictors but differ on which they impact the most. They also show similar prevention potential when their effects are analyzed in relation to the relative predictive strength of the different risk factors.
 - Counseling approaches, though not far behind, appear to have smaller effects on key risk factors and somewhat less prevention potential than the other program approaches.
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Key Findings and Observations (continued)

- ❑ To achieve large prevention effects for ASB, early intervention programs will need to have greater impact on the main risk factors than shown by most of the programs studied.
 - ❑ The most effective programs showed notably larger effects than the average programs, indicating overall room for improvement.
 - ❑ Studies of research and demonstration programs dominate the research evidence; few studies investigated the effects of programs in routine practice. It is an open question whether the impact on risk factors needed for worthwhile prevention effects can be attained in routine program practice.
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