

Adolescent Decision Making

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Overview

1. What skills do people need to make good decisions?
2. Do adolescents have the skills to make good decisions?
3. How can we help adolescents to make good decisions about OTC medication?

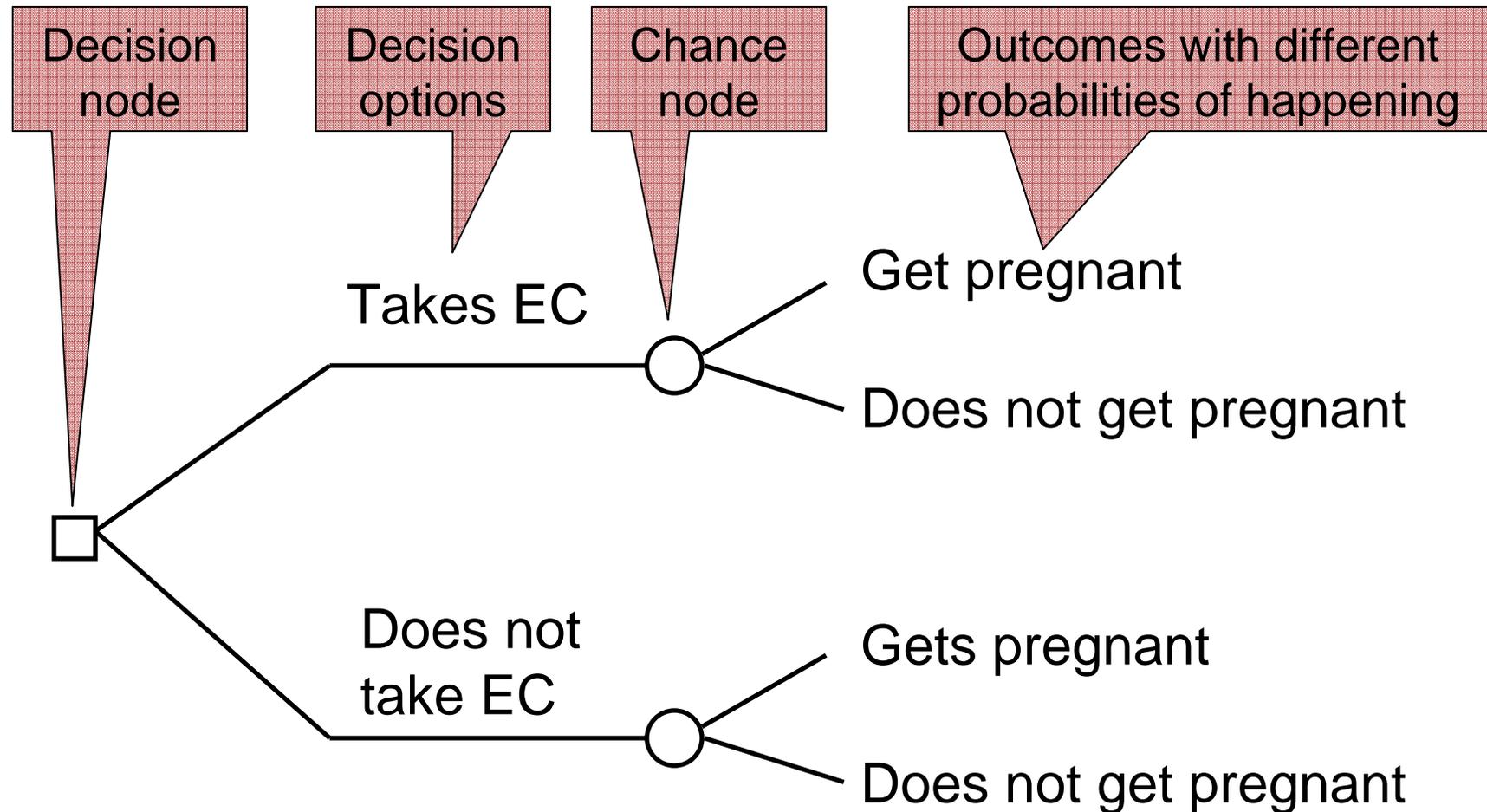
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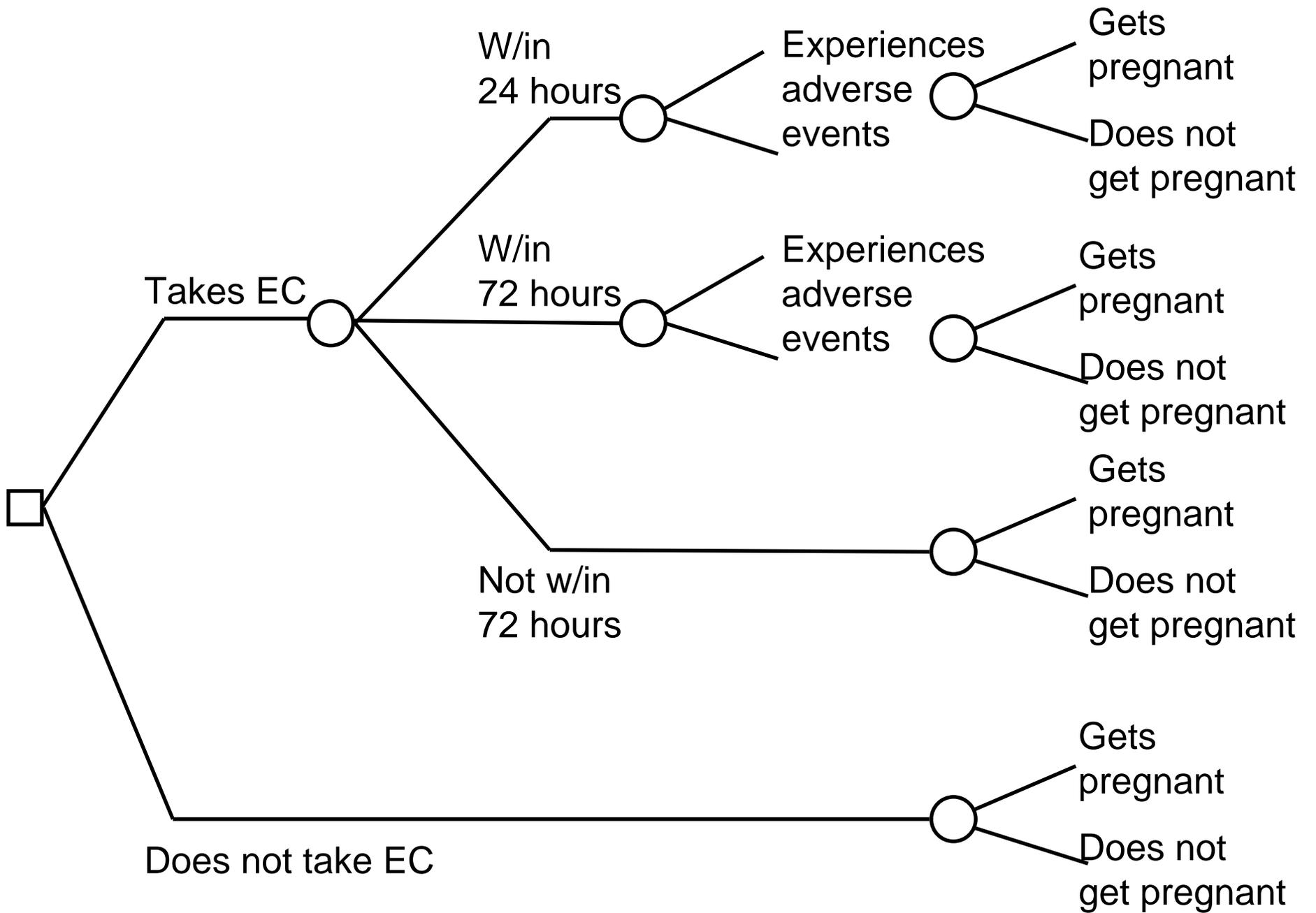
Overview

1. What skills do people need to make good decisions?
 - Theories of decision-making
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Simplified decision tree



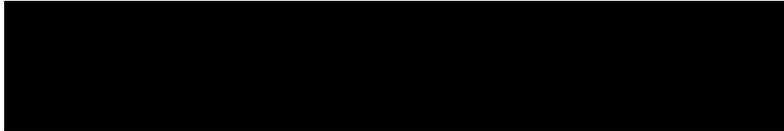
From: Krishnamurti & Fischhoff (in preparation)



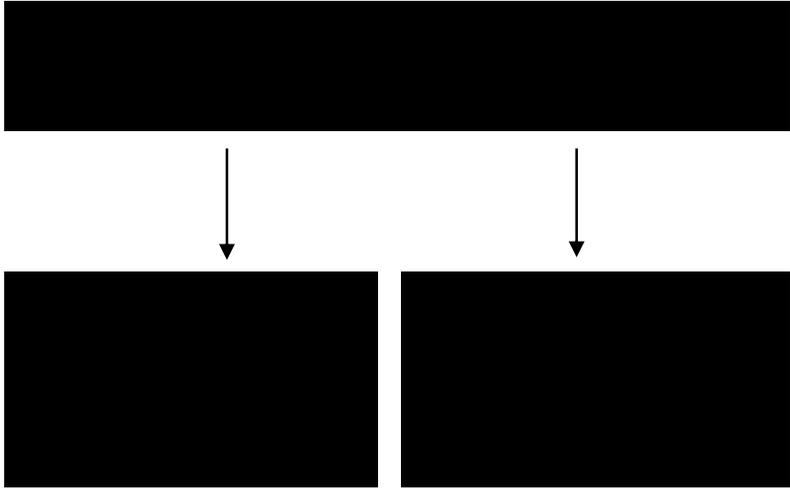
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Theories of decision making

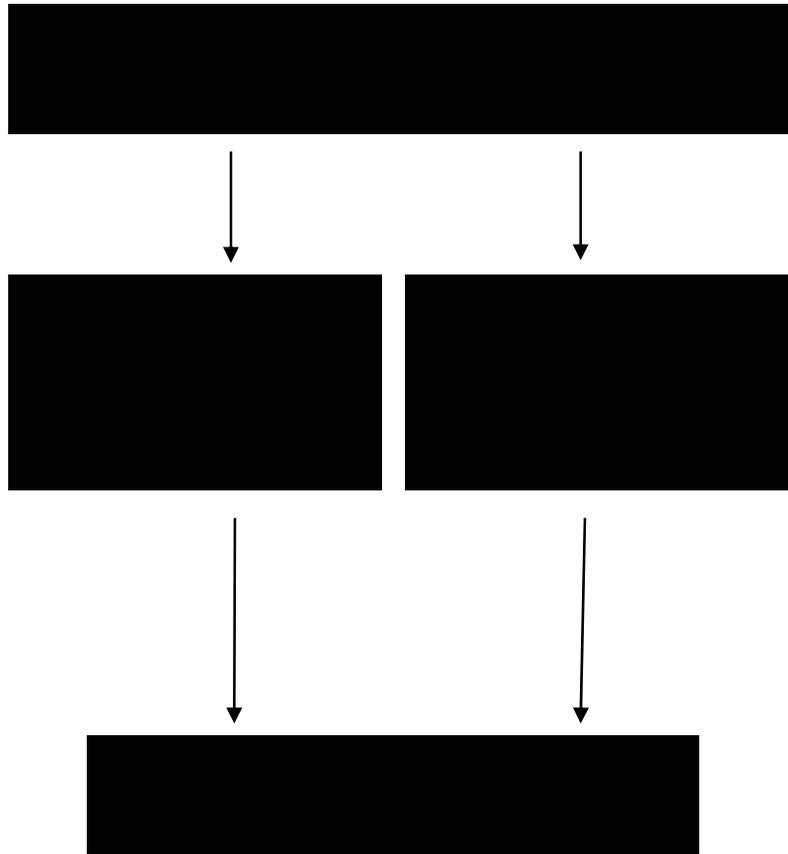
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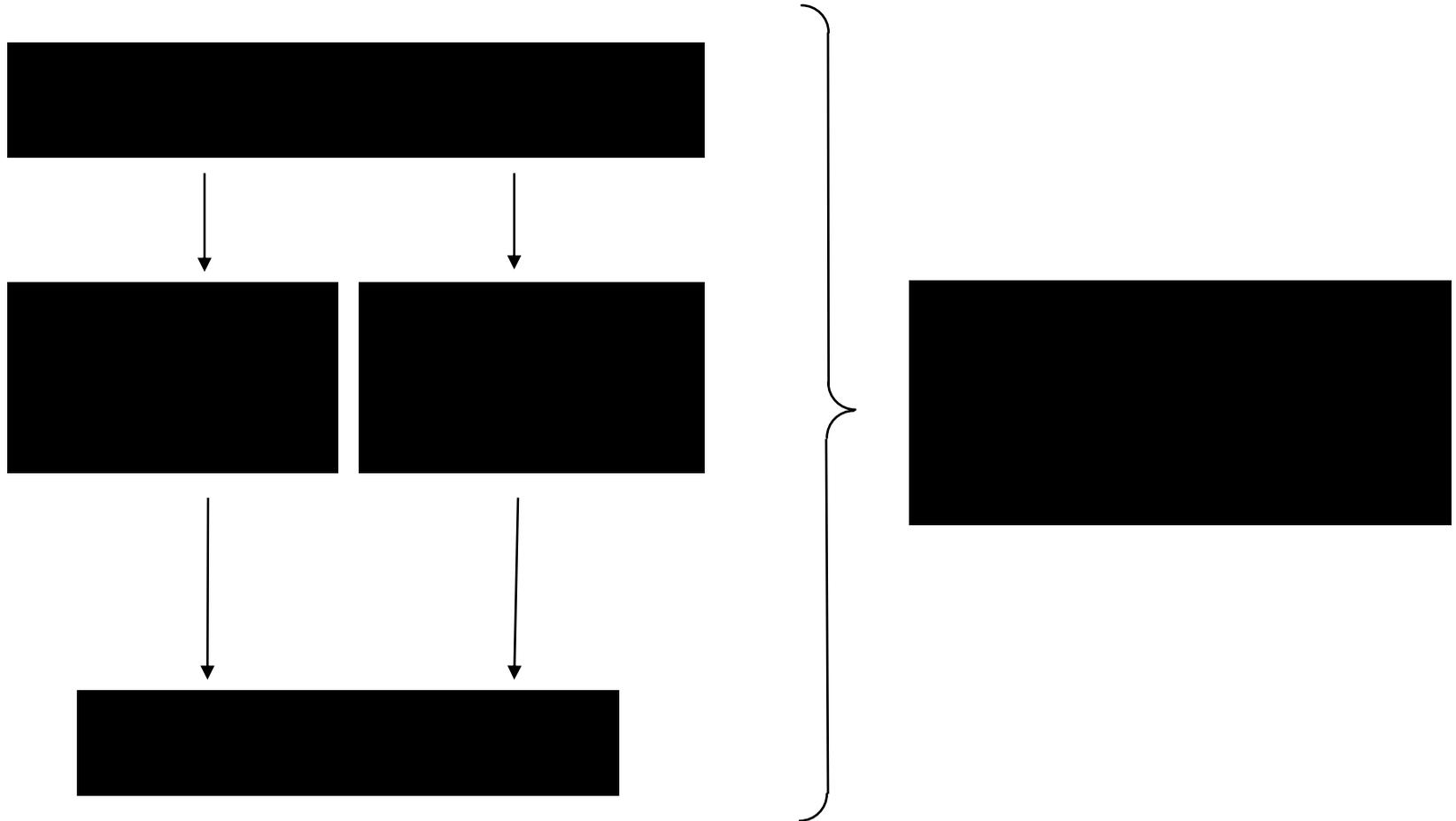
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1. What skills do people need to make good decisions?
2. Do adolescents have the skills to make good decisions?
 - Example: probability assessment
 - Measure of Decision-making competence (DMC)
3. How can we help adolescents to make good decisions about OTC medication?

Example: probability assessment

- No systematic study of adult vs. adolescent Decision-Making Competence (DMC)
 - Most studies focus on probability assessment, showing no differences between adults and adolescents
- Adolescents show biases in probability assessment
 - As do adults
 - Example: Perceptions of invulnerability
- Adolescents' assessed probabilities of life events (on NLSY97) related to experiencing the event
 - Getting pregnant next year
 - Being in school next year
 - Getting HS diploma by age 20

Measure of Decision-Making Competence (DMC)

- Method
 - Paper-and-pencil tasks taken from literature
 - Measures skills identified by decision-making theory (i.e., probability assessment, value assessment, etc.)
- Results
 - In adolescents, better DMC scores are correlated with fewer risk behaviors
 - Less juvenile delinquency
 - Lower lifetime number of instances of marijuana use
 - Lower lifetime number of sexual partners
 - Results hold even after controlling for socio-economic status and general cognitive ability

Promise of DMC work

- Examine age effects on DMC
- Identify levels (or ages) at which people have good DMC
- Develop interventions to teach DMC
 - Recognizing that DMC may not be used
 - Adolescents may also need domain-specific messages
- Adjust domain-specific messages, depending on DMC

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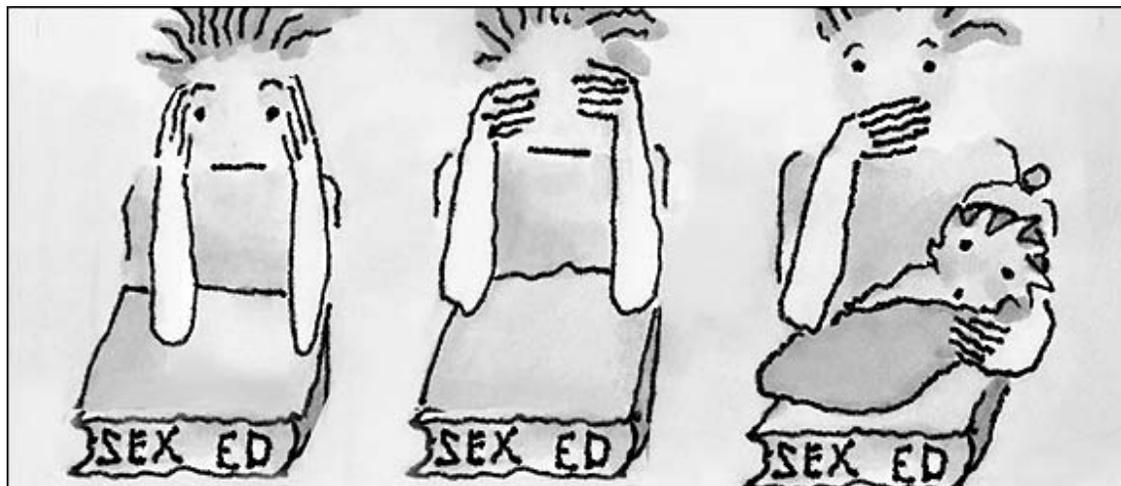
1. What skills do people need to make good decisions?
2. Do adolescents have the skills to make good decisions?
3. How can we help adolescents to make good decisions about OTC medication?
 - Interventions targeting sexual decisions
 - Adolescent use of emergency contraception

Effective interventions

- Have a theoretical basis
 - Represents what experts know
 - Take an interdisciplinary approach
- Are based on formative research with members of the intended audience
 - Use wording that adolescents understand
 - Present decision contexts relevant to adolescents
 - Address decision-relevant gaps and misconceptions
- Provide information *and* behavioral skills training
 - How to overcome barriers to implement the decision

Existing interventions

- Often lack the features of effective interventions
 - Use wording teens don't understand (e.g., “abstinence”)
 - Present basic facts, but leave out information, especially on taboo topics
 - Fail to give behaviorally realistic advice
- Are often ineffective (if they are evaluated)

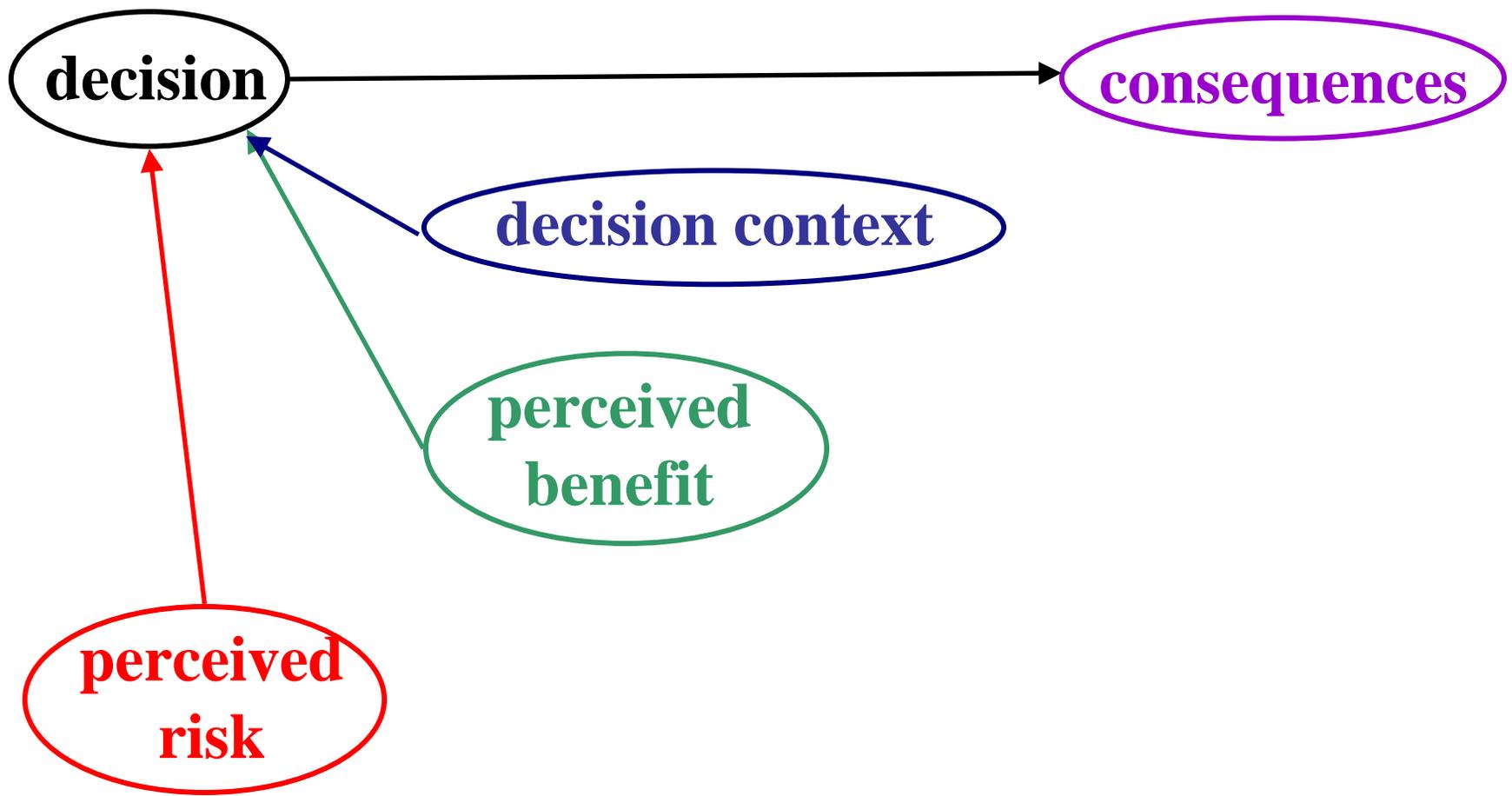


Mental Models Approach

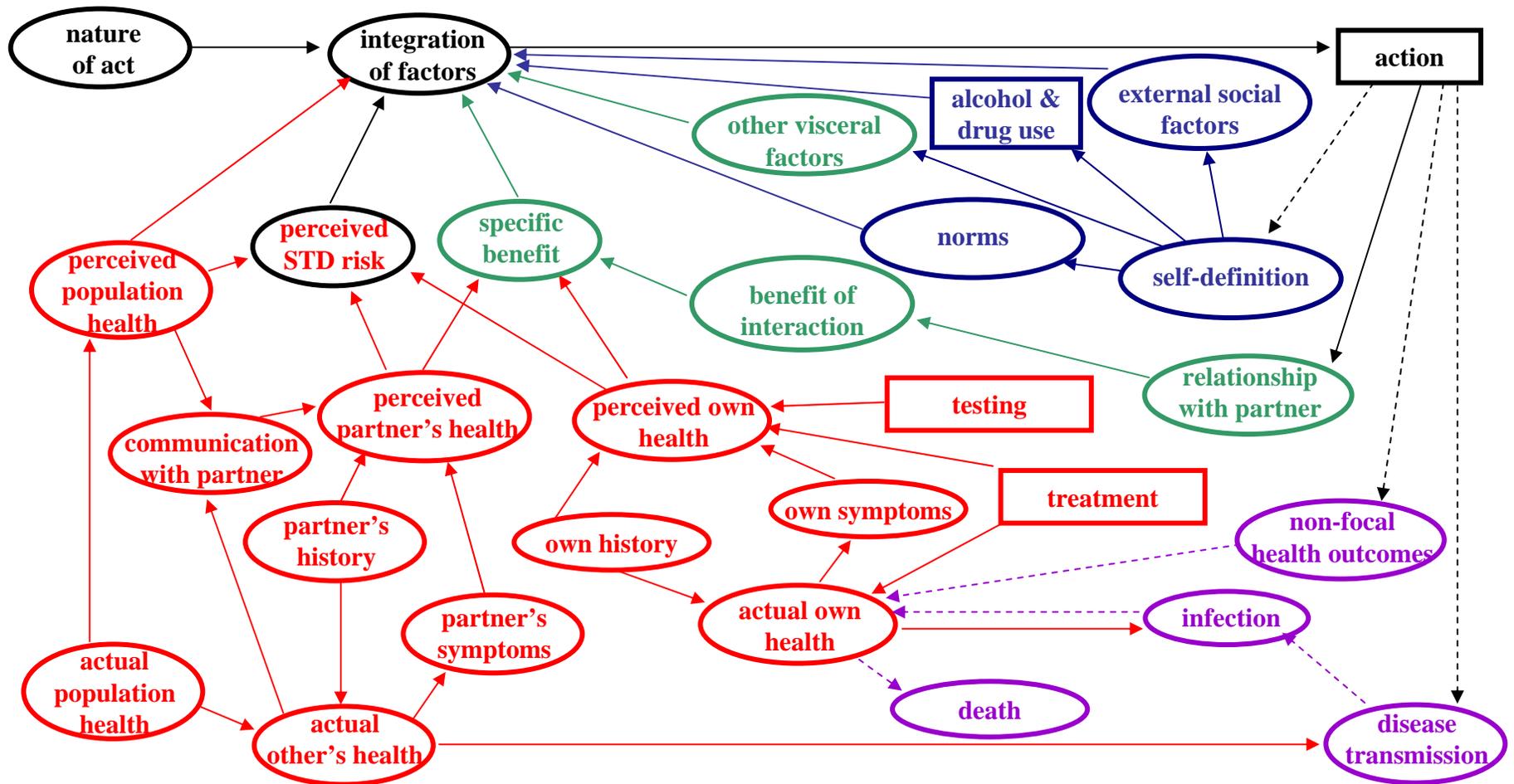
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1. What should people know?
 - Interdisciplinary literature review and expert panel
 - Create expert model
2. What do people already know?
 - Conduct qualitative interviews and quantitative surveys
 - Identify relevant wording and decision contexts
 - Create lay model
3. What do people still need to know?
 - Comparison of expert model and lay model
 - Identify gaps, misconceptions, and other barriers
 - Message development
4. Does the intervention work?
 - Evaluation

Step 1: Expert model



Sexually Transmitted Infections Model



Step 2: What do teens know?

- Gaps and misconceptions underlying correct knowledge, for example
 - Correct use of condoms
 - HIV vs. other STIs
- Decision context
 - Relationship
- Female adolescents often do not perceive that they have choices
 - Perceive lack of control

Step 3: Message development

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- Interactive DVD *What Could You Do* allowed users to select content relevant to them
- Decision-relevant information
 - Used wording understood by adolescents
 - Addressed gaps and misconceptions
- Behavioral skills training
 - Identifying choice points in interaction
 - Cognitive rehearsal of negotiations

See http://sds.hss.cmu.edu/risk/WCYD_clips.htm

Step 4: Evaluation

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Compared to controls, female adolescents watching *What Could You Do?*

- Were more than twice as likely to not have sex at all
- Had condom failures half as often
- Were 45% less likely to report STIs
- Were less likely to test positive for Chlamydia

Initial research on adolescent use of EC

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- Mental models approach is being applied to adolescent decision making about EC (Krishnamurti & Fischhoff, in preparation)
 - Developed expert model
 - Conducted qualitative interviews and quantitative surveys
 - Examined potential barriers to appropriate use of OTC EC
- Concerns have been expressed that OTC availability of EC will increase the chance that adolescents will have unprotected sex
- Gold et al. (2004) gave take-home EC to adolescents, and compared them to controls
 - They were *not* more likely to have unprotected sex
 - They *were* more likely to use EC, and use it earlier
- However, there may be other barriers to appropriate use of OTC EC

Conclusion

- Adolescents and adults may have comparable DMC
 - However, a systematic study is lacking
- Adolescents can make better decisions if we provide *effective* risk communication
 - Even in the context of sexual decisions
- Effective risk communication requires content that is
 - Evidence-based
 - Useful to adolescents

Relevant references

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