Applying Health Behavior Theory to Prevention Programming

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Who Are We

- Who are you and what institution do you represent?
- My prior experiences with health behavior theories and models include:
- Today, I am hoping to take away from this training?
- I am excited to be here because…
- The aspect about health behavior theory that I am most apprehensive about is:_____

There's nothing quite so useful as a good theory- K. Lewin

What is Health Behavior Theory?

Health behavior theories provide a basis for:
- Understanding and explaining human behavior
- Planning, implementing, and evaluating individual and community health interventions

What is Theory

- A theory is a set of interrelated concepts, definitions, and propositions that present a systematic view of events or situations by specifying relations among variables in order to explain or predict the events or situations (Kerlinger, 1986).

Other terms often used

- Concepts – building blocks, primary elements of a theory, ideas (beliefs, attitudes)
- Constructs – key concepts developed or adopted for a particular theory, how concepts are used
- Variables – operational forms of constructs, way construct is measured
- Models – number of theories to help understand a particular problem in a certain setting or context

How Theory Can Help Programs

- Helps design interventions based on understanding of behavior
- Moves beyond intuition
- Consistent with using evidence-based interventions
- Explains dynamics of health behaviors and processes to change them
- Helps identify suitable target populations
- Helps define what should be evaluated

Characteristics of a Useful Theory

- A good theory makes assumptions about a behavior, health problem, target population or environment that are:
  - Logical
  - Consistent with everyday observations
  - Similar to those used in previous successful programs
  - Supported by past research in the same or related areas

3-in-1 approach

- NIAAA uses a tier approach to addressing high risk alcohol consumption
  - Individuals
  - Student body
  - College and surrounding community

3-in-1 approach with theory

- Individual/intrapersonal approaches
  - Ind. Characteristics that influence behavior – KAB, personality
- Interpersonal
  - Interpersonal processes and primary groups – family, friends, social id, soc support
- Environmental/Sociological/Systems
  - Focuses on the larger picture and how different parts work together.
    - Institutional Factors (rules, regulations, policies that may constrain/promote behavior)
    - Community Factors (informal and formal social networks, norms and standards among inds., groups and orgs.)
    - Public Policy (policies & laws that regulate or support healthy actions and practices)

Intrapersonal/ Individual Theories

Self-Efficacy Theory

Self-Efficacy Constructs

- Mastery Experience
  - Prior experience at having accomplished something similar to the new behavior
- Vicarious Experience
  - Learning by watching
- Verbal Persuasion
  - Encouragement by others
- Somatic and Emotional States
  - Physical and emotional states caused by thinking about doing the new behavior

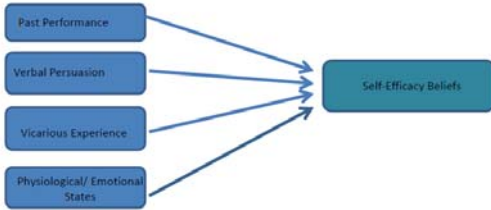## Going to a Party Without Drinking

Attribution Theory

Attribution Theory Constructs

- Locus of Control
  - Internal vs. External
- Stability
  - Is cause permanent or temporary
- Controllability
  - Extent a person can willfully change.

Health Belief Model

Health Belief Model

- Explain and predict preventative health behaviors
- Originally used to describe the relationship between
  - health behaviors
  - Health practices
  - Utilization of resources
- Most recently has been used to distinguish illness and sick-role behavior from health behavior

Core Constructs

- Perceived Susceptibility
- Perceived Severity
- Barriers
- Benefits
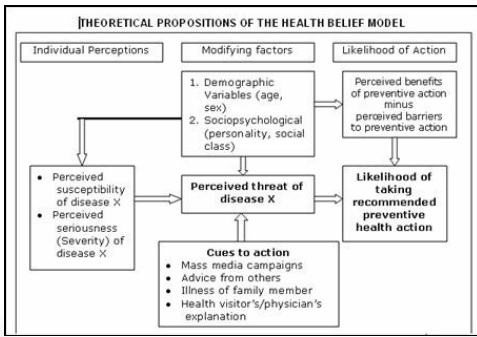- Cues to Action
- Modifying Factors
- Self-Efficacy

Health Belief Model

Using HBM – Increasing Adherence to Drinking in Res. Halls
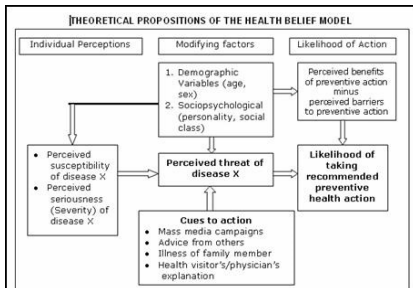
Example: Obeying Alcohol Policy Campaign

- Susceptibility – What's the likelihood that I will get caught? How strong is enforcement
- Severity – If I get caught, how bad will be the punishment? How much will it cost? Will Mom and Dad find out – what will their reaction be?
- Perceived threat – How bad will it be?
- Barriers – What factors make it difficult for me to obey policy? High availability/accessibility
- Benefits – What are the positive aspects of obeying alcohol policy
- Self-Efficacy

Theory of Reasoned Action

Key Constructs

- Attitude – personal evaluation of behavior
  - Beliefs about the behavior
  - Evaluation of the behavior (is it positive or negative)
- Subjective Norm
  - Opinions of referent others
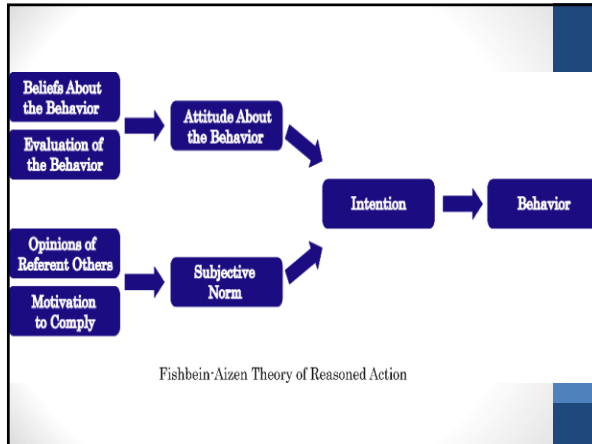 - Motivation to Comply
- Behavioral Intention

Beliefs About the Behavior
Evaluation of the Behavior
Attitude About the Behavior
Opinions of Referent Others
Motivation to Comply
Subjective Norm
Intention
Behavior

Fishbein-Aizen Theory of Reasoned Action

- Meet Hank Hill….
- Drinks daily
- Alcohol = manly!!
- Alcohol = fun times
- Friends think that alcohol is a must at alley gatherings
- Occasionally worries about consequences
- Thinks everybody is drinking like him

Hank and Drinking- *Intention*

- How motivated is Hank to drink responsibly/not drink?
- How hard is Hank planning to try to convince his friends to drink responsibly/not drink?
- To what extent is Hank willing to get out of his way to drink responsibly/not drink?

Hank and Alcohol - *Attitude*

- How does Hank feel about drinking responsibly or abstaining?
- To Hank, is it a good thing or a bad thing?
- What kind of consequences does Hank foresee if he were to drink responsibly/not drink?

_____

_____

_____

_____

_____

_____

_____

Hank and Drinking - *Subjective Norm*

- Does Hank think his friends consider drinking responsibly/not drinking as important?
- Does Hank believe they drink responsibly/not drink?

_____

_____

_____

_____

_____

_____

_____

Theory of Planned Behavior

_____

_____

_____

_____

_____

_____

_____

Key Constucts

- Same as Theory of Reasoned Action
- Adds Perceived Behavioral Control
    - Control Beliefs – how much control do I have over the behavior or events surrounding the behavior
    - Frequency of occurrence – how often do I expect to perform this behavior

Hank and Drinking – *Control Beliefs*

- Does Hank think that he is in control over the events which surround his drinking?
- Does Hank believe that he has control over Pat's behaviors?

Pat and Drinking – *Frequency of Occurence*

- How often does Pat think Pat is going to drink?
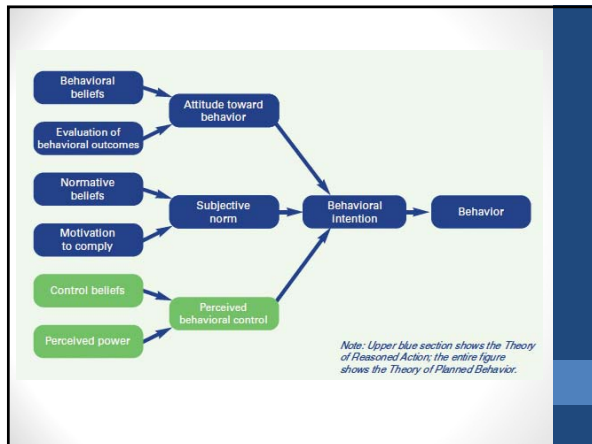- How often does Pat think Pat is going to get drunk?

Note: Upper blue section shows the Theory of Reasoned Action; the entire figure shows the Theory of Planned Behavior.

Using TPA/TPB to Address Drinking Games

Note: Upper blue section shows the Theory of Reasoned Action; the entire figure shows the Theory of Planned Behavior.
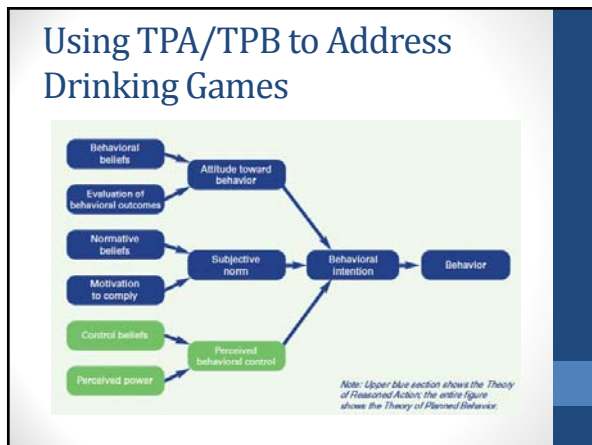
Example – Social Norming & Drinking Games

- What do students think about drinking games?
- What positive/negative value do they put on drinking games?
- What do others in their life think about participation in drinking games?
- Do students wish to comply with the thoughts of others important in their lives?
- How much personal power do students have to refrain from drinking games?
- How often is the average student participating in drinking games?

Prochaska's Transtheoretical Model

Stages of Change

Stages of Change

- Pre-contemplation
- Contemplation
- Preparation
- Action
- Maintenance
- Termination
  - Relapse/recycle

Definition of Stages

- Pre-contemplation
  - Denial of a problem, no action planned
- Contemplation
  - On the fence – maybe will take action in 6 months
- Preparation:
  - Motivated; let's go!, will take action in 30 days, has taken steps towards behaviors
- Action: 3-6 months
  - Doing it; go!
- Maintenance:> 6 months
  - Living it!
- Termination
- Relapse/Recycle

Example – DUI Prevention

- Pre-Contemplation – Doesn't think about it, relies on the person who has been drinking the least.
- Contemplation – Maybe I shouldn't be driving after drinking? Maybe we need a designated driver?
- Preparation – We need a designated driver who has not been drinking! Who will not drink this weekend? What public transportation is available?
- Action – Designated driver used, public transportation is used to and from bar.
- Maintenance – DUI does not occur

Self Efficacy

- Confidence
  - The perception that one can engage in health behaviors across different challenging situations.
- Temptation
  - Temptation to engage in the unhealthy behavior across different challenging situations.

Decisional Balance

- Pros – Benefits of Changing
- Cons – The Costs of Changing, the Disadvantages of Changing

Processes of Change

- Consciousness raising
- Dramatic Relief
- Environmental Re-Evaluation
- Self-Re-Evaluation
- Self-Liberation
- Counter Conditioning
- Helping Relationships
- Reinforcement Management
- Stimulus Control

Pre-Contemplation to Contemplation

- Consciousness Raising
  - Feedback, confrontations, interpretations, media campaigns
- Dramatic Relief
  - Psychodrama, role play, personal testimonies, media campaigns – move people emotionally
- Environmental Re-Evaluation
  - Empathy training, family interventions, restorative justice programming

Contemplation to Preparation

- Self Re-Evaluation
  - Values clarification
  - Healthy role models
  - Imagery/expectancies

Preparation to Action

- Self-Liberation
  - Personal commitment
  - Resolutions
  - Goal setting/action planning
  - Public testimony
  - Menu of choices

Action to Maintenance

- Counter Conditioning
  - Relaxation skills
  - Assertiveness training
  - Positive Self-Statements
- Helping Relationships
  - Rapport building
  - Buddy systems
  - Counselor calls
- Reinforcement Management
  - Contingency contracts
  - Group recognition
  - Overt and covert rewards
- Stimulus Control
  - Alcohol free social choices

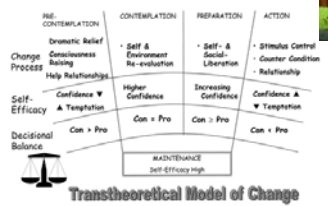## Using TTM to Reduce Episodic, High Risk Drinking

Transtheoretical Model of Change

Interpersonal Level Theories

Social Learning/Social Cognitive Theory
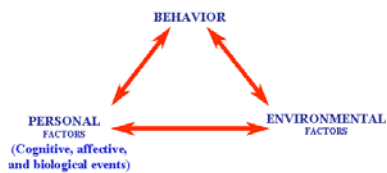
Social Learning/Social Cognitive Theory

- Behavior is explained via a 3-way, dynamic reciprocal theory in which personal factors, environmental influences and behavior continually interact

BEHAVIOR

PERSONAL FACTORS
(Cognitive, affective, and biological events)

ENVIRONMENTAL FACTORS

Key Concepts associated with SCT

- Reciprocal determinism
- Behavioral capability
- Expectations
- Self-Efficacy
- Observational learning
- Reinforcement

Concept	Definition	Application
Reciprocal determinism	Behavior changes result from interaction between person and environment; chance is bidirectional	Involve the individual and relevant others; work to change the environment, if warranted
Behavioral capability	Knowledge and skills to influence behavior	Provide information and training about action.
Expectations	Beliefs about likely results of action	Incorporate information about likely results of action in advice.

Concept	Definition	Application
Self-Efficacy	Confidence in ability to take action and persist in action	Point out strengths; use persuasion and encouragement; approach behavior change in small steps.
Observational learning	Beliefs based on observing others like self and/or visible physical results	Point out others' experience, physical changes; identify role models to emulate.

Concept	Definition	Application
Reinforcement	Responses to a person's behavior that increase or decrease the chances of recurrence	Provide incentives, rewards, praise; encourage self-reward; decrease possibility of negative responses that deter positive changes.

SCT Constructs

- Environment – Factors physically external to the person
  - Provide opportunities and social support, e.g. alcohol-free social choices, limit access and restriction
  - Social support provided by friends who encourage responsible drinking/no drinking. Also, friendly atmosphere at places where alcohol is not present.
- Reciprocal determinism
  - Consider multiple strategies to behavior change including environmental, skill, and personal change.
  - As individual becomes more familiar with environment a more positive social atmosphere develops, skills are increased and enhanced which in turn increases a positive personal change.

SCT Constructs

- Behavioral capability
  - Knowledge and skills increase naturally through training
  - Mastery of skills in turn increase expectations and provide positive reinforcement
- Expectations
  - Beliefs about anticipated outcomes of the change in behavior are positive
  - "If I drink responsibly/don't drink I will probably make better choices, make actual friends rather than drinking buddies "
  - "If I start getting drunk, I'll probably act like a fool, get argumentative, be an A-hole, and no one will want to me around me."

SCT Constructs

- Self-efficacy
  - Person's confidence increases in performing a particular behavior and in overcoming barriers to that behavior
  - "I can do alternate alcoholic and non-alcoholic drinks." "I can say 'No' when someone offers me a beer."
  - "I played a drinking game last night, but I know I play other games at the next party."
- Observational learning
  - Learn by observing the actions and outcomes of others' behaviors
  - Vicarious learning through modeling behavior
  - "My friend is alternating drinks, pacing her drinks, and not playing drinking games with great results; I think I will too."
  - "I've seen the problems my friend has when he plays drinking games. I don't want to go through that."

SCT Constructs

- Reinforcement
  - Direct
  - Vicarious
  - Self-Management

SCT Constructs

- Reciprocal determinism
  - Consider multiple strategies to behavior change including environmental, skill, and personal change.
  - As individual becomes more familiar with environment a more positive social atmosphere develops, skills are increased and enhanced which in turn increases a positive personal change.

Example – Bystander Intervention – Alcohol Poisoning

- Environment
  - Provide opportunities and social support for recognition and reinforcement
  - Social support provided by friends who encourage bystander intervention.
  - Social Norm – majority approve of bystanding
- Reciprocal Determinism
  - Involves multiple individuals
  - Incorporates social norms and expectations
  - Multiple strategies of teaching bystander intervention

Example – Bystander Intervention – Alcohol Poisoning

- Behavioral capability
  - Knowledge and skills increase naturally through training
  - Mastery of skills in turn increase expectations and provide positive reinforcement
- Expectations
  - Beliefs about anticipated outcomes of the change in behavior are positive
  - "If I intervene, I will create a safer environment, and not have regret "
  - "My friends will most likely be thankful that I intervened ."

Example – Bystander Intervention – Alcohol Poisoning

- Self-Efficacy
  - Bystanders receive training that involves role play, practice, etc.
  - Confidence is boosted, errors are tactfully corrected
- Observational learning
  - Bystanders observe role plays
  - Bystanders observe videos of actual implementation of bystander training
  - Bystanders visit environments where BI's are being implemented
- Reinforcement
  - Organizations implementing receive lower insurance premiums
  - Organizations implementing receive "perks" should there be a violation
  - Money saved from reductions in vandalism, fights, damages, etc. are
  - Improved living/social environments
  - Individuals are reinforced

Using SCT to Develop a Responsible Beverage Server Training

Social Network/Social Support Theory

Social Networks

- Structure – Size and Density
- Interaction – reciprocity (mutual sharing), intensity & frequency of interactions,
- Function – social support, provide social identity, connections to social contacts, resources

Example – Family Involvement Vs. Affiliated Group, 1st year students

- Structure – more #, more interaction – which might have a greater influence?
- Interaction – how intense & frequent are discussions re: alcohol
- Function - how does soc. support help with transitions, how does networks help push or pull toward alcohol, how is alcohol involved as a family/group event?
- Study – more beer drinkers, more greek members, and less older family members in network = increase alcohol use

Social Support

- Emotional Support – listening, showing trust and concern
- Instrumental support – offering real aid in the form of labor, money, time
- Informational Support – providing advice, suggestions, directives, referrals
- Appraisal Support – affirming one another and giving feedback

Social Support Strategies

- Strengthening existing network and support (helicopter parents, religious groups)
- Develop new linkages (mentoring, support groups)
- Enhancing networks through natural or lay helpers (resident assistants, student leaders)
- Enhance networks at the community level through community building

Using Social Network/Social Support Theory to Address Prevention

Community Level

Communications Persuasion Model

Input Variables

- Source (number, demographics, appeal, credibility)
- Message (appeal, info, what's included/excluded, organization, repetition)
- Channel (modality – audio/video, direct/indirect, context)
- Receiver (demographics, knowledge, skills, motivation, lifestyle)
- Behavior (long/short term,)

Output Variables

- Exposure to Commo
- Attention
- Developing interest and attraction
- Understanding/learning from the communication
- Skill acquisition
- Attitude Change

Output variables

- Remembering the message and attitude toward it
- Retrieval of information
- Deciding what to do
- Acting in accord with decision
- Being reinforced for behavior
- Behavioral consolidation

effective communication

- focused
- relevant
- clear
- repeated
- engaging

Persuasive Health Message Framework

Concepts & Constructs

- TRA/TPB + HBM + Communications Persuasion
- Message Goals (overall message + behavior + population)
- Salient Beliefs (susceptibility, severity, self-efficacy, response efficacy)
- Salient Referrents (susceptibility, severity, self-efficacy, response efficacy)

Example – Salient Beliefs

- Susceptibility – little susceptibility to negative consequences of alcohol
- Severity – little severity if negative consequences occur
- Barriers to self efficacy – associate protective factors as non-fun/boring, lack of education on how to drink responsibly
- Barriers to response efficacy – will protective factors really reduce my risk?

Example – Salient referrents

- Susceptibility – little susceptibility to negative consequences of alcohol
- Severity – little severity if negative consequences occur
- Barriers to self efficacy – associate protective factors as non-fun/boring, lack of education on how to drink responsibly
- Barriers to response efficacy – will protective factors really reduce my risk?

Using PHMF

- Message Goals
  - Overall – to reduce negative consequences related to high-risk drinking
  - Behavior – protective behaviors
  - Population – EIU first year students

Social Marketing

The 4 P's

- price--what the consumer must give up in order to receive the program's benefits. These "costs" may be intangible (e.g., changes in beliefs or habits) or tangible (e.g., money, time, or travel)
- product--what the program is trying to change within the target audience
- promotion-- how the exchange is communicated (e.g., appeals used)
- place--what channels the program uses to reach the target audience (e.g., mass media, community, interpersonal)

Using Social Marketing to Promote Protective Behaviors

- See Handout from Haines – JACH Article

Diffusion of Innovation

What piece of technology/gadget do you possess that you can't live without?
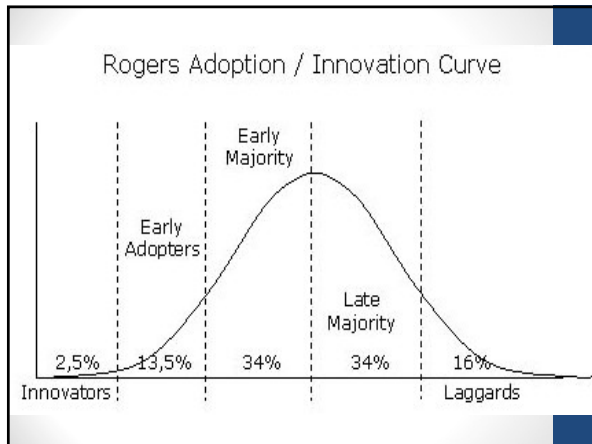
Constructs

- Innovation – An idea, object, or practice that is thought to be new by an individual, org, or community
- Communication Channels – means of transmitting the new idea
- Social System – group of inds. Who together adopt the innovation
- Time – how long it tales to adopt innovation

Attributes Affecting the Speed and Extent of Diffusion

- Relative Advantage – is innovation better than what it replaces?
- Compatibility – does it fit with intended audience?
- Complexity – is it easy to use
- Trialability – can it be tried before making a final decision
- Observability – are results easily observable and easily measured

Ecological/Environmental Model of Health Behavior

Assumes an interaction among both physical and social contingencies to explain and ultimately control health behavior.

- Interrelations between organisms and their environments
- *Behaviors are influenced by…*
  - Intrapersonal, sociocultural, policy, and physical-environmental factors
- *Purpose is…*
  - To focus attention the environmental causes of behavior and to identify environmental interventions
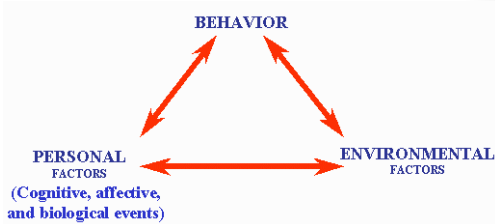

Extension of SCT Reciprocal Determinism

BEHAVIOR

PERSONAL FACTORS
(Cognitive, affective, and biological events)

ENVIRONMENTAL FACTORS

Socio-Ecological Model

POLICY, SYSTEMS, ENVIRONMENTS
nation, state, local laws

COMMUNITY

ORGANIZATIONAL
organizations, social institutions

INTERPERSONAL
family, friends, social

INDIVIDUAL
knowledge, attitudes, skills
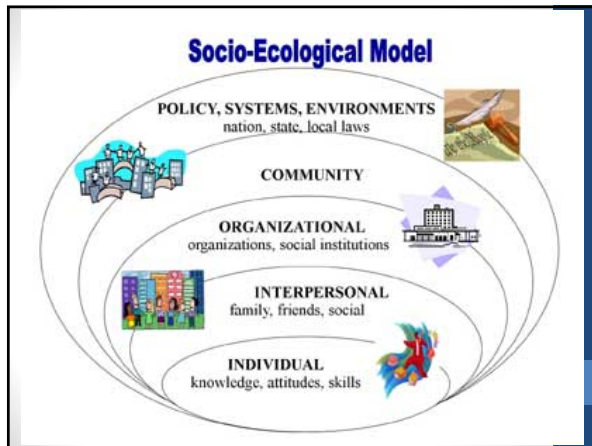
Considerations

- Multiple levels can influence behavior
- Those levels may interact
- Environment can have a direct influence on behavior

An Ecological Approach to Addressing High Risk Drinking

Socio-Ecological Approach

- Emphasizes multiple factors related to high risk drinking
- Emphasizes the role of society, community, and institutions
- Emphasizes interrelations between contributory factors
- Decreases victim-blaming

"Holding young people
solely responsible
for underage (or high-risk) drinking
is like holding fish responsible
for dying in a polluted stream."

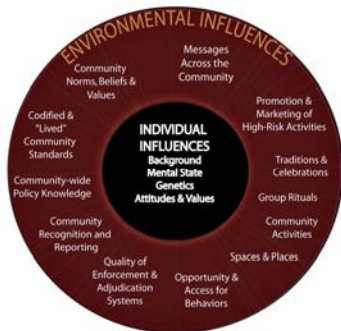- *Higher Education Center for Alcohol & Other Drug Prevention*

Person-Environment Interaction
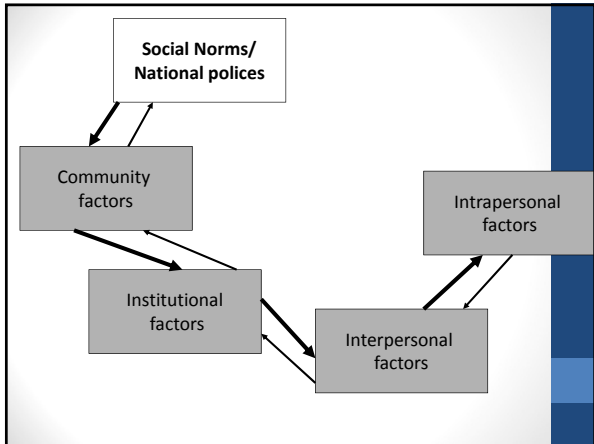
Social Norms & National Policies

- Increased technology
  - Alcohol availability
  - Types of available alcohol
  - Decrease in academic rigor/requirements?
- Alcohol advertising
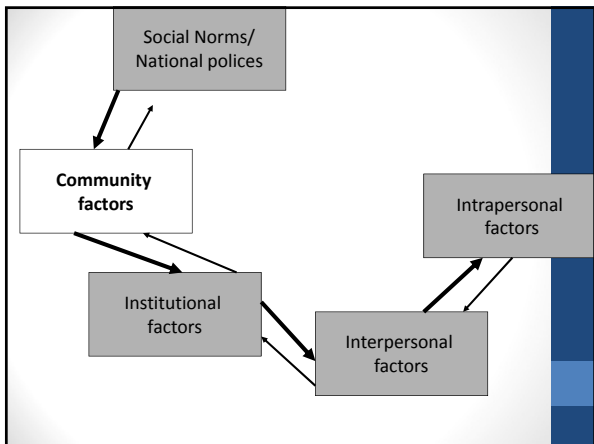- Pricing strategies
- Social norms about alcohol and activities

Community Factors

- Safety concerns
- Lack of monitored/supervised off campus housing options
- Many alcohol distributors/bars
- Lack of alcohol free options
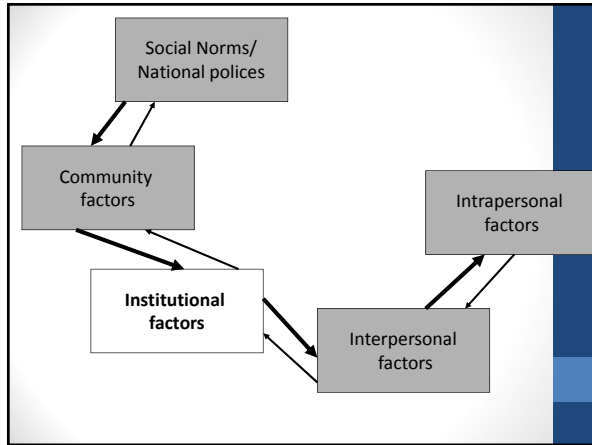- Lack of town-gown relations
- Inconsistent enforcement

Institutional Factors

- Proximity to bars
- Town/gown relations
- Lack of Alcohol-free choices
- Lack of connectivity between curricular and co/extra-curricular activities
- Lack of interaction between faculty and students outside of academic context
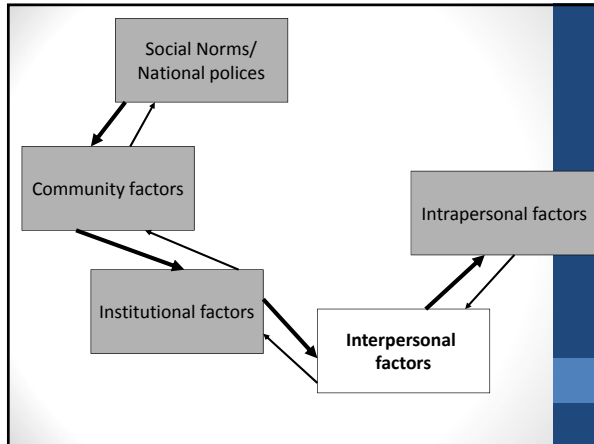- Inconsistent enforcement on-campus, or inconsistent with off-campus enforcement

Interpersonal Factors

- Learned behaviors
  - Family alcohol patterns
  - Low levels of family engagement
  - Parental attitudes about child's alcohol use
  - Lack of peer norms that encourage abstinence and responsible use.
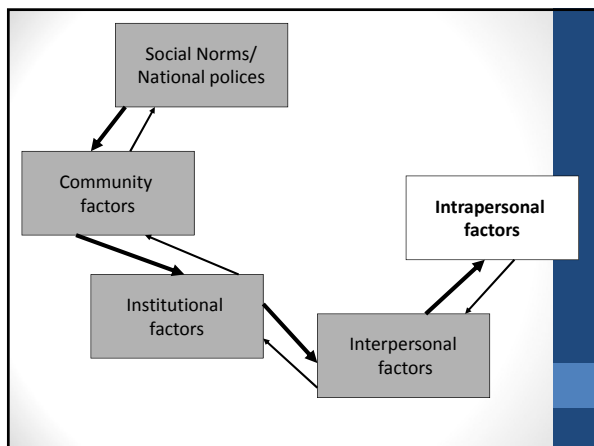 - Norms that emphasize unhealthy drinking as socially acceptable

Intrapersonal Factors

- Genetic predisposition
- Poor self image
- Dislike or lack of skill re: protective factors
- Low academic/co-curricular activity activity
- Perceived norms
- Perceptions about referents' views on norms

Socio-Ecological Approach

- What would a comprehensive socio-ecological approach look like?

In conclusion

- Use appropriate theories to guide programming
- Use constructs to help define intervention activities, as well as evaluate/measure
- Use multiple theories together
- Continue to look at new theories

Selecting Appropriate Theories

Basic Steps in Theory/Model Selection

- Identify the health issue that you're wanting to address.
- Ultimately what are the impact outcomes you're wanting to see.
- Identify the population you wish to address.
- Identify possible reasons or causes for the problem occurring within the identified population.
- Identify the level(s) of interaction under which these reasons or causes appear to have the greatest alignment (individual, interpersonal, community)
- Review theories and models and determine which ones best match up

Last application

- Determine a problem in your school/community that you wish to address
- Determine the best theory of those we described today
- Develop a program/intervention based on that theory

Questions

Contact Information

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