

Critical Dimensions of Relapse in Problem Gambling

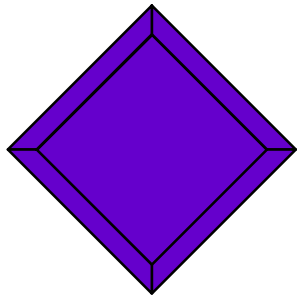
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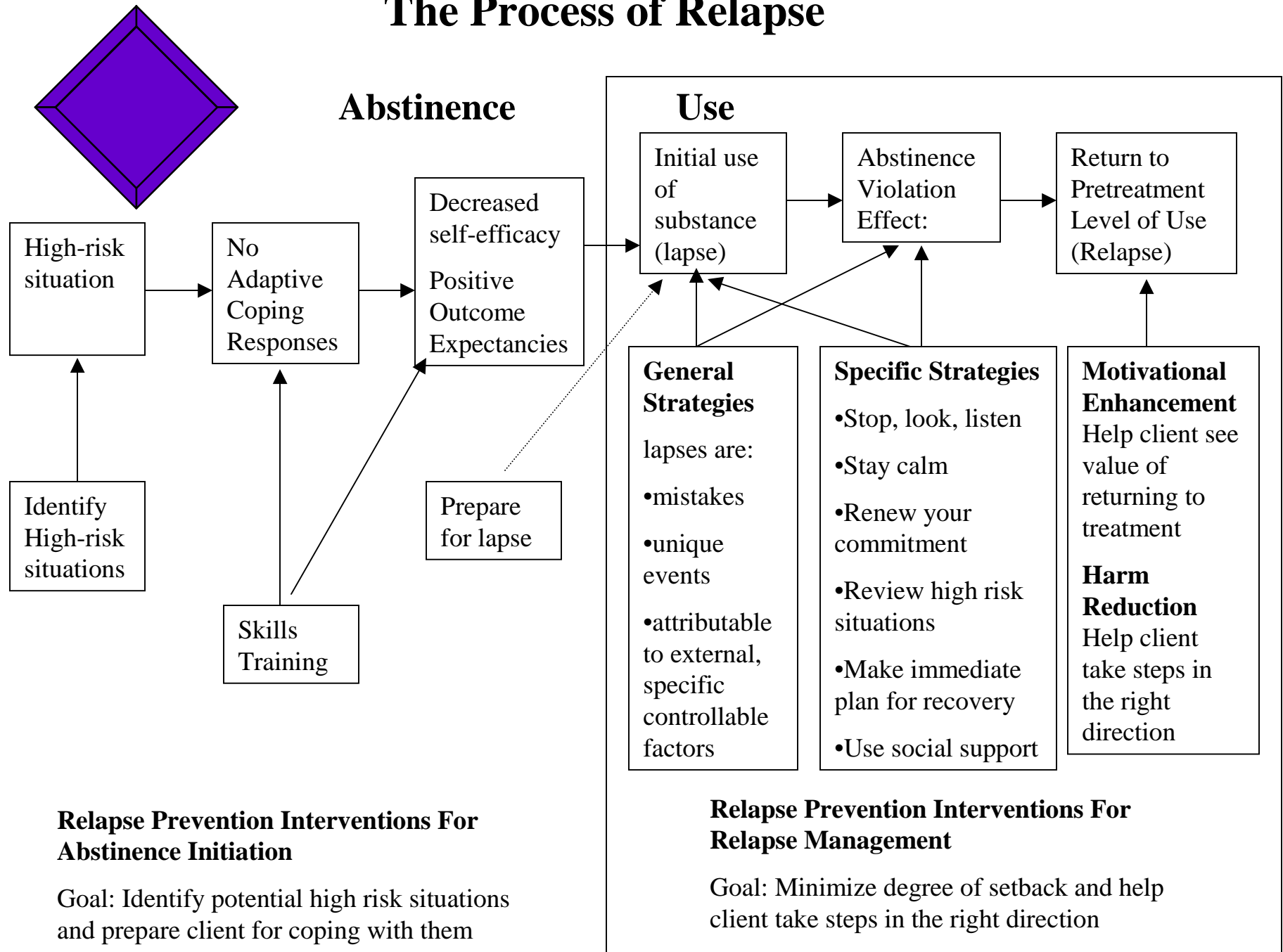


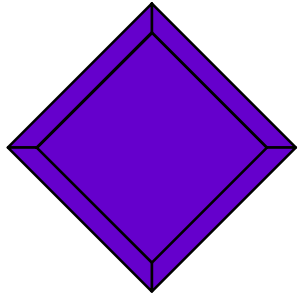
Analysis of Relapse Situations

(Cummings et al., 1980)

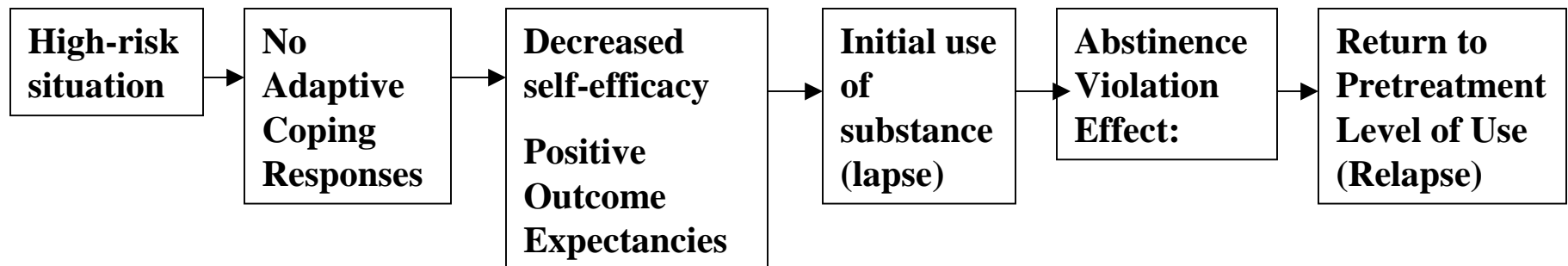
Situation	Alcoholics (N=70)	Smokers (N=64)	Gamblers (N=19)	Uncontrolled Eaters (N=29)
Intrapersonal Determinants	61%	50%	79%	46%
Negative Emotional States	38%	37%	47%	33%
Negative Physical States	3%	2%	--	--
Positive Emotional States	--	6%	--	3%
Testing Personal Control	9%	--	16%	--
Urges and Temptations	11%	5%	16%	10%
Interpersonal Determinants	39%	50%	21%	52%
Interpersonal Conflict	18%	15%	16%	14%
Social Pressure	18%	32%	5%	10%
Positive Emotional States	3%	3%	--	28%

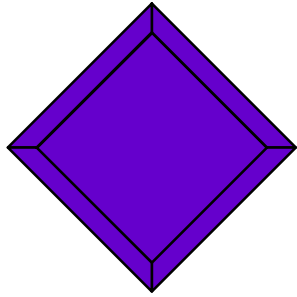
The Process of Relapse



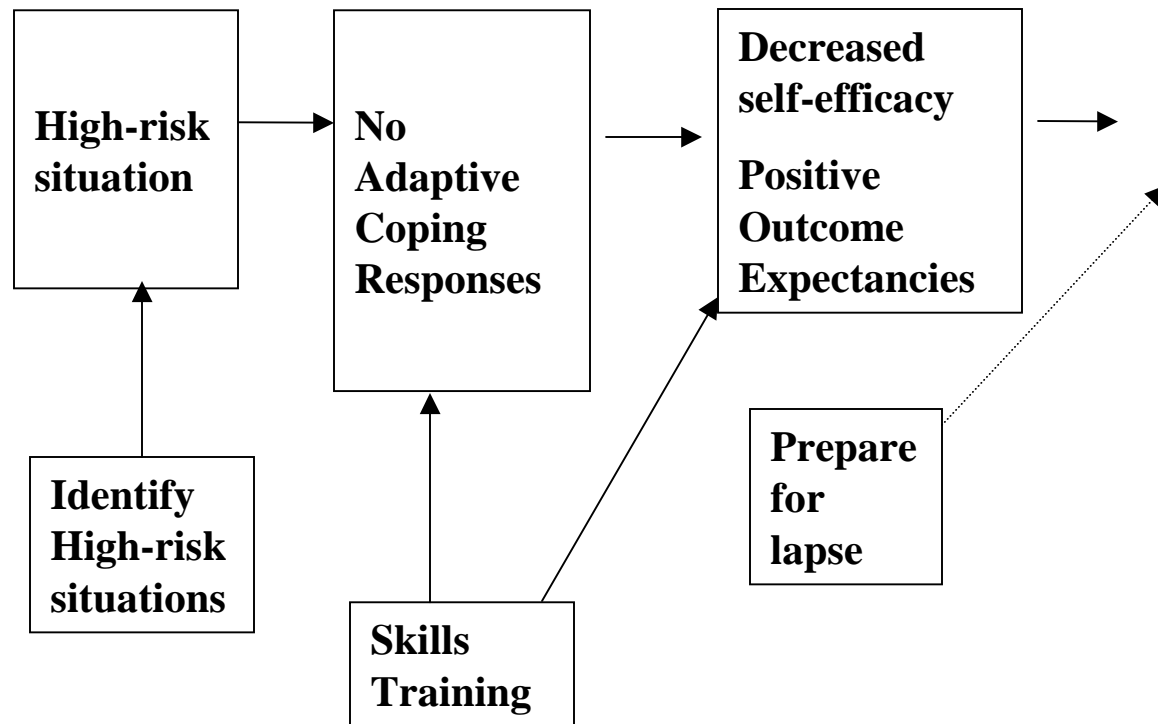


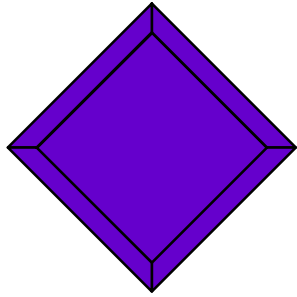
Process of Relapse



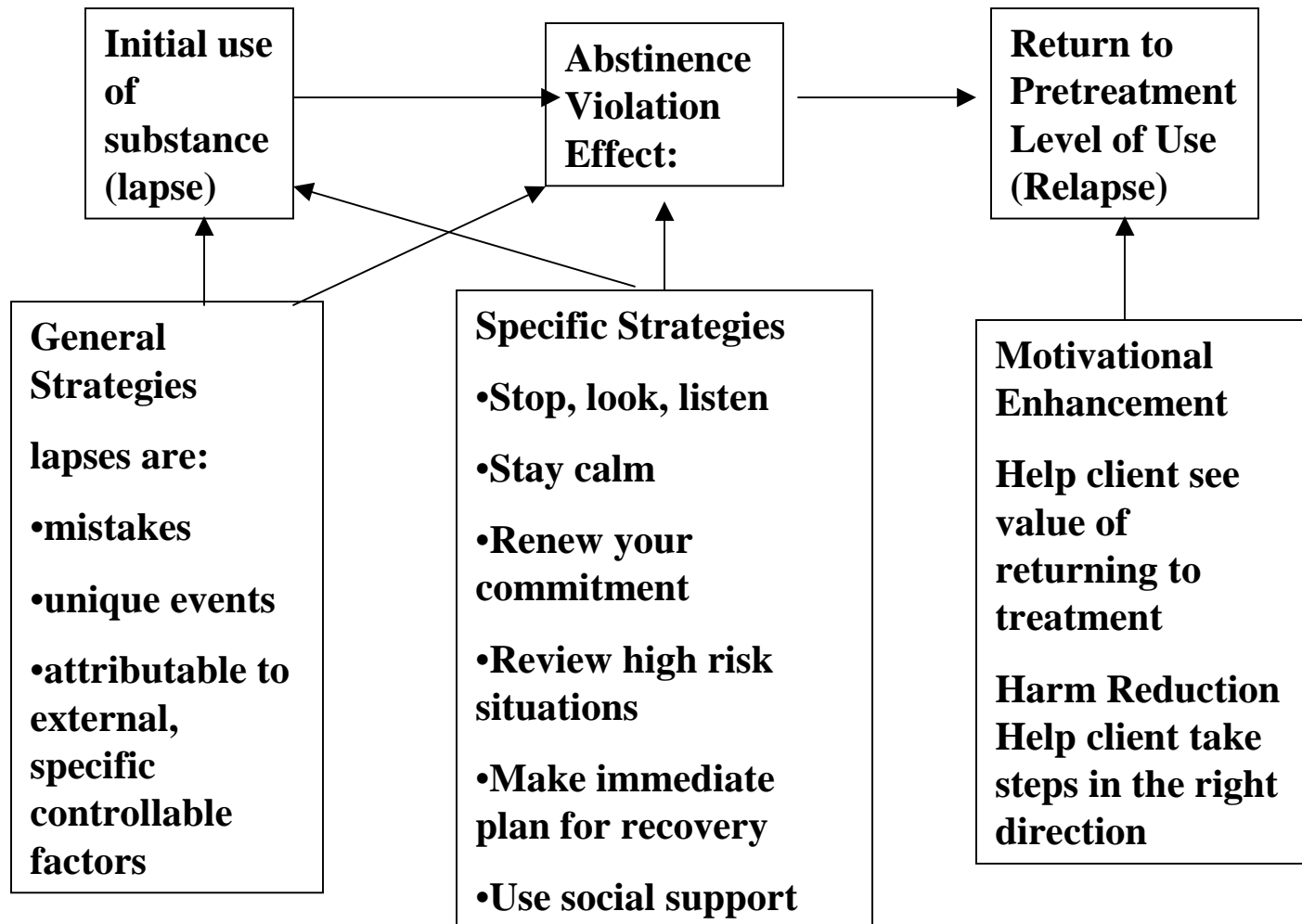


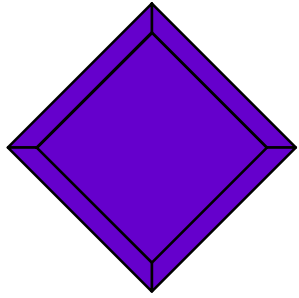
Relapse Prevention Interventions for Abstinence Initiation





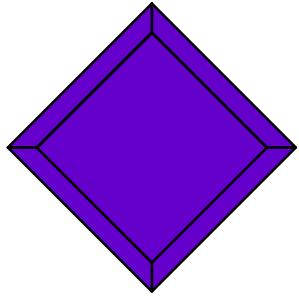
Relapse Prevention Interventions for Relapse Management





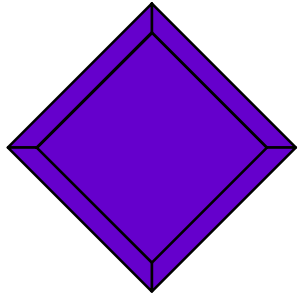
Critical Dimensions of Relapse:Project Aims

- Reasons for quitting gambling
- Relapse rates and patterns
- Characteristics of relapse
- Validity of self-reports
- Role of comorbid problems on outcome
- Retrospective and prospective reports of relapse precipitants



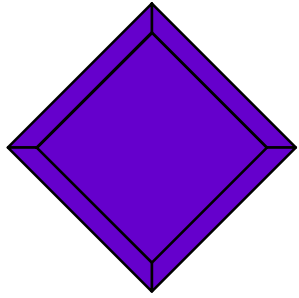
Design

- ➡ Recruited 101 people who recently quit gambling
- ➡ Media recruitment versus treatment sample
- ➡ No gambling for 2 weeks
- ➡ South Oaks Gambling Screen (SOGS) > 4
- ➡ Interviewed face to face initially, 3, 6 and 12 months



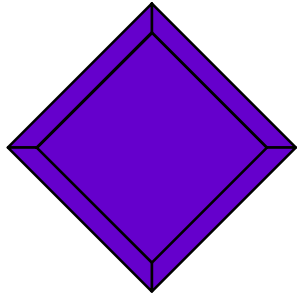
Measures

- Demographics
- Gambling history and severity
- Gambling frequency and amount
- Mood disorders (SCID)
- Substance abuse/dependence
- Relapse Experiences



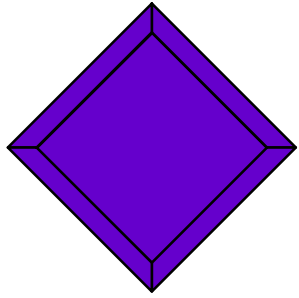
Demographics (N=101)

% Female	36
% Married or Cohabiting	29
% Never Married	38
% Some post secondary education	66
% Full-time employment	55
% Unemployed	22
% Current smoker	76
AGE Mean	39
Range	19-77

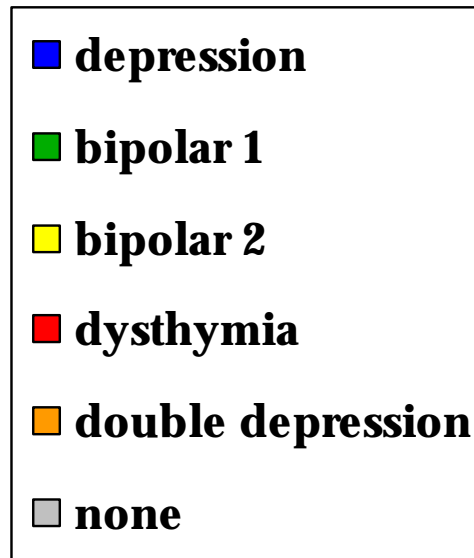
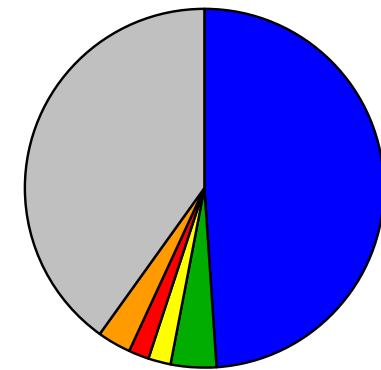


Gambling Involvement

Age of gambling problem	Mean	34
South Oaks Gambling Screen	Mean	12.2
% DSM-IV Pathological Gambling		89
% Previous quit attempt		75
% Past gambling treatment		50
% Current gambling treatment		25
Mean days abstinent at initial		19
Major problem type of gambling:		
% Video lottery terminals		49
% Mixed games		34
% Casinos		12
% Bingo		3
% Other		3



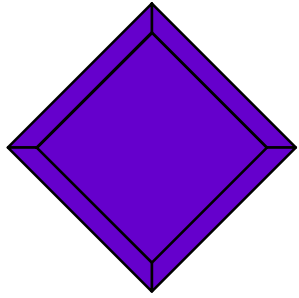
Demographics - Comorbidity



Past Mood Disorders reported by 60% of participants

Current mood reported by 20% (all major depressive disorder)

- ☞ Lifetime alcohol problems reported by 72%
- ☞ Current alcohol problems reported by 7%
- ☞ Lifetime drug problems reported by 49%
- ☞ Current drug problems reported by 7%



Comorbidity: Suicidal Ideation

☞ Suicidal ideation

ever? 71%

7 days in a row? 40%

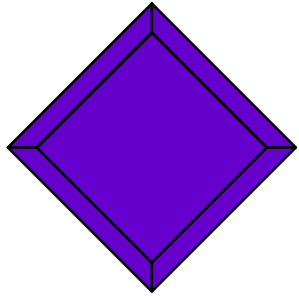
plan? 53%

☞ Suicide attempt? 33%

- required medical help in 62% of attempts

☞ Attempt related to gambling?

- 21% of those attempting or 7% of sample



Goals and Confidence

Goal

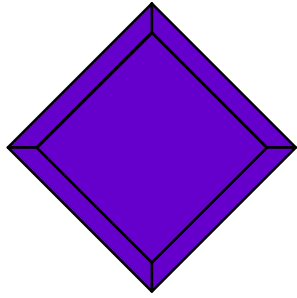
Quit all forms of gambling	33%
Quit problem type of gambling	67%

Confidence to achieve goal Scale 1-10 (10 most confident)

in the next week	M=8
in the next month	M=7
in the next year	M=6

Follow up rates

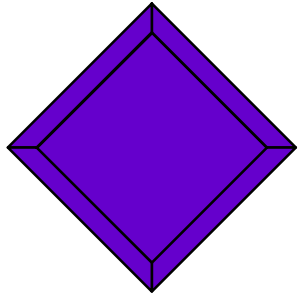
3 months - 83% 6 months - 80% 12 months -79%



Reasons for Quitting Gambling

Open-ended method

Internal	% of people	External	% of people
Financial concerns	64%	Lack of financial resources	8%
Negative emotion	32%	Legal influence	6%
Incompatible with desired self-image or goals	32%	Confrontation by others	6%
Family influence	30%	Distraction with other things	2%
Cognitive appraisal	20%	Environmental change	2%
Rational appraisal	10%	Social support	0%
Fear of future negative consequences	8%	Other	% of people
Hitting rock bottom	6%	Unclear	13%
Spiritual influences	2%	Out of awareness	0%



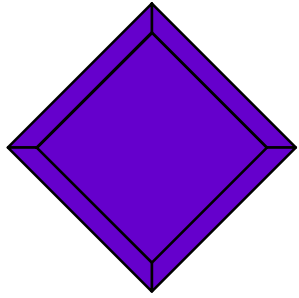
Reasons for Quitting Gambling

Checklist method

Financial problems	97%
Emotional factors	95%
Family/children	72%
Hit rock bottom	60%
Major life-style change	57%
Pros and cons evaluation	57%
Physical health	55%
Humiliating event	54%
Work-related problems	47%
Traumatic event	44%
Problems with spouse	44%
Confrontation	40%
Legal problems	28%
Change in another addictive behavior	26%
Religious involvement	22%

Participants identified significantly more reasons for quitting using the multi-item checklist than the open ended question

(7.9 versus 2.3)



Reasons for Quitting Gambling

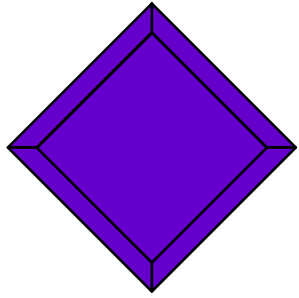
Gender and Treatment Correlates

- No differences in gender were found between the type of reasons or number of reasons identified.
- Those involved in treatment identified more reasons with the open-ended method (3 reasons) than those not involved in treatment (2 reasons).
- Those in treatment identified more reasons on the checklist for quitting gambling (9 reasons) than those not in treatment (7 reasons).

work-related problems

physical health

hitting bottom



Gambling Over Year Follow-up

Relapse - resumption of gambling after a period of 2 weeks

Over the entire follow up period:

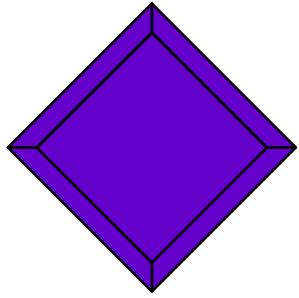
6% remained completely abstinent

37% were abstinent 2/3 of the time

17% were abstinent 1/2 of the time

29% gambled 2/3 of the time

7% continued gambling



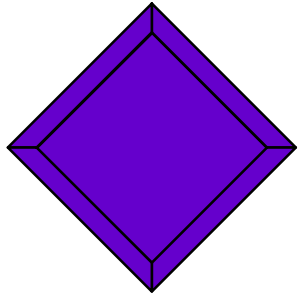
Days Gambled over the Year

Mean = 42 days

Median = 27 days

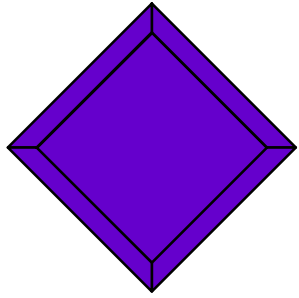
Mode = 0 days (7%)

Range: 0 to 244 days



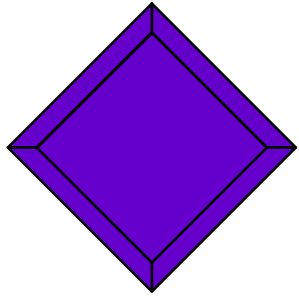
Monthly Gambling Days Before & During the Follow-up Year

Days Gambled	Before	During
0	0%	19%
1	2%	24%
2-7	33%	43%
8 or more	65%	14%



Gambling Outcome: Conclusions

- ☞ Relapse rates are very high
 - ☞ 94% relapsed
 - ☞ almost half gambled most of the year
- ☞ overall general improvement within the sample
 - ☞ 8+days per month reduced from 65% to 14% of people

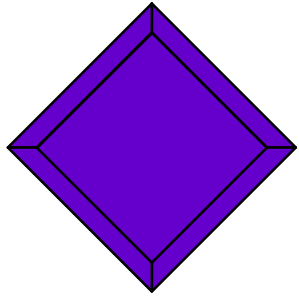


Assessment of Relapse

☞ **Open-ended interview audiotaped**

- based on Marlatt's interview
- extensive description of context, thoughts, feelings, circumstances
- mood ratings before, during, and after
- consequences
- reasons and strategies for terminating

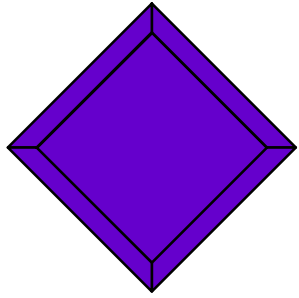
☞ **Reasons for Gambling Scale**



Relapse Rates and Patterns

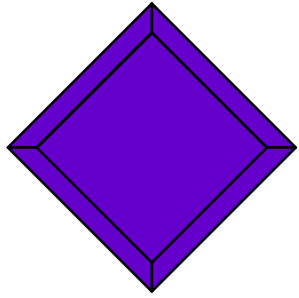
Frequency and amount gambled

	Mode	Mean	SD	Range
Days gambled	1	12	30	1-142
Length of relapse (days)	1	40	83	1-372
Money spent on first day	-200	-83	532	-3000 - +2000
Money spent per relapse	-200	-368	875	-3000 - +4000



Characterization of Relapses

Morning	12%
Noon	21%
Early afternoon	15%
Late afternoon/early evening	21%
Late evening (after 10pm)	31%
Weekday	50%
Weekend(after noon on Friday)	50%
Alone	67%
With friends/family	33%

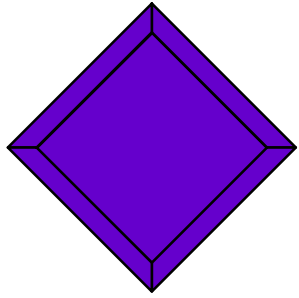


Characterization of Relapses

Engaged in task prior to relapse	49%
No task engagement	51%

Dominant Form of Gambling:

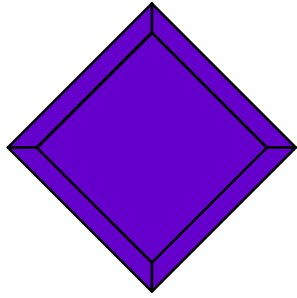
VLT's	57%
Casinos	25%
Scratch tickets	7%
Bingo	7%
Sports select	2%
Slots	2%



Characterization of Relapses

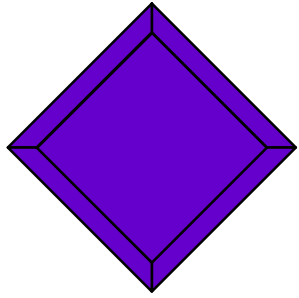
Main Reason for Relapse - open ended responses

Thought I could win	20%
Boredom/killing time	18%
Giving into urges/habit/opportunity	15%
Dealing with negative situations/emotions	15%
Make money	10%
Socializing/fitting in	10%
Seeking excitement/ enjoyment	5%
Giving up	3%
Control issues/testing	2%
Access to money	2%



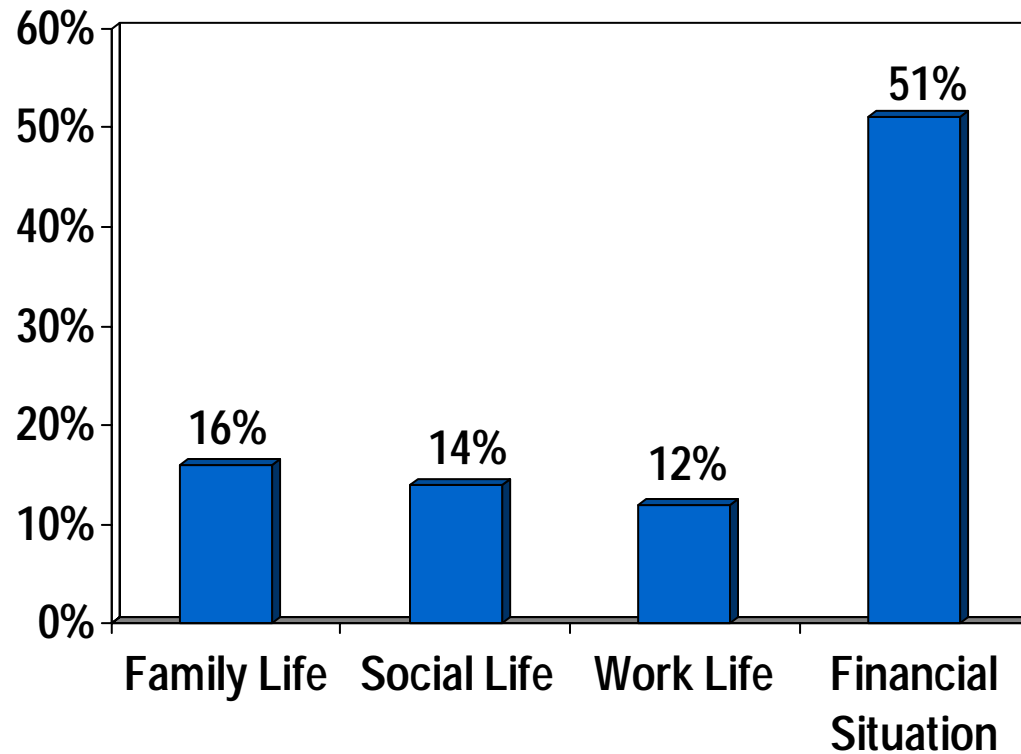
Characterization of Relapses

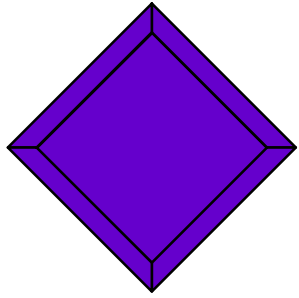
<u>Emotional State Prior to Gambling</u>	<u>%</u>
Thinking about finances	77
Frustrated	51
Happy	49
Bored	46
Active	45
Tired	42
Sad	36
Relaxed	36
Quiet	35
Irritable	34
Lonely	33
Angry	29
Nervous	29
Peppy	19



Characterization of Relapses

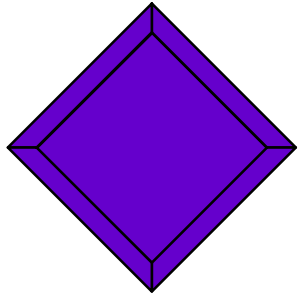
Consequences of the Relapse





Characterization of relapses

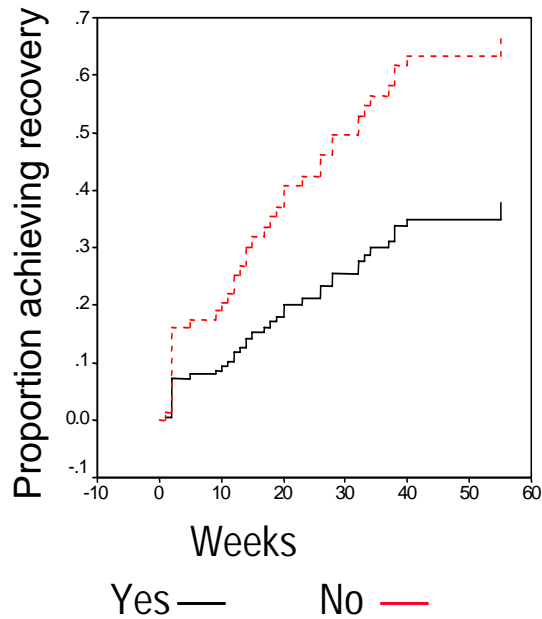
- About half of relapses (54%) had at least one extreme consequence (family, social, work, finances)
- typical relapse occurred in the late evening, when alone, equally likely to be related to negative or positive mood state, related to financial pressure
- lasted one day, loss of \$200. With VLTs



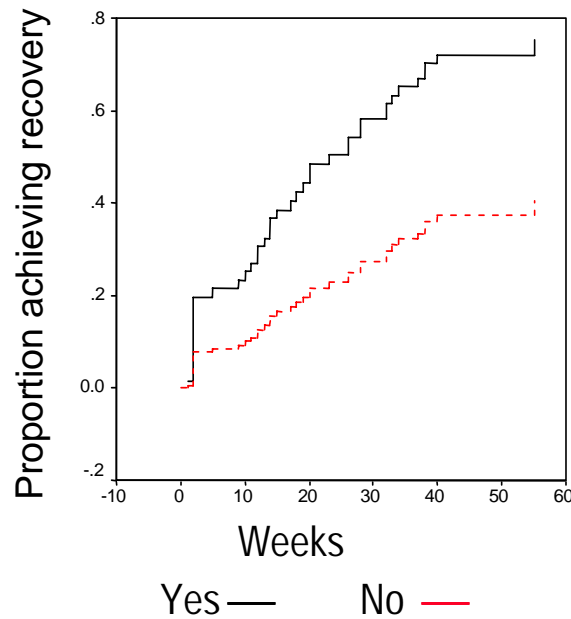
Comorbid Substance and Mood Disorders and Relapse

Three outcome variables were identified when Cox Regression Survival Analysis was performed to assess the impact of comorbidity on time to achieve 3 months of continuous abstinence from gambling

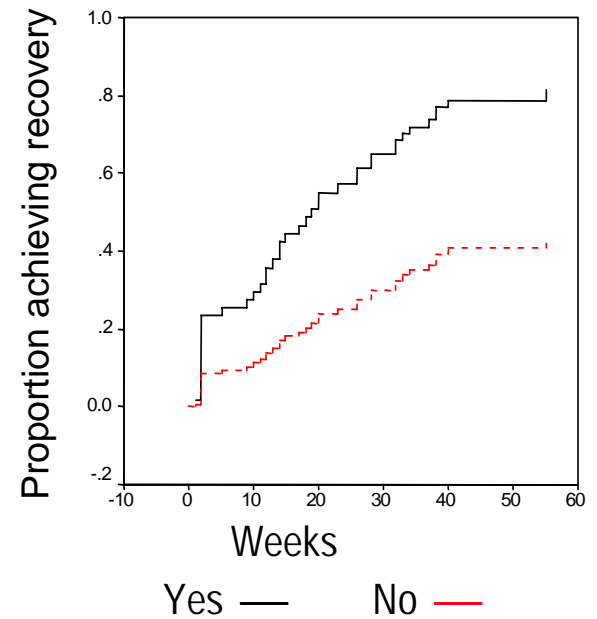
Lifetime Mood

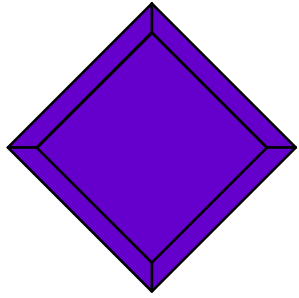


Current Treatment



Substance Abuse





Validity of Self-Reports

Collaterals for gambling were contacted

Spouse/partner	35%
Other immediate family	29%
Friend	29%
Roommate	3%
Other	5%

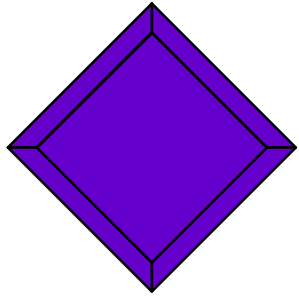
Gambler and collateral reports on the number of days gambled were correlated.

Overall agreement was fair

Spouses showed poor agreement

Non-spouses showed good agreement

Collaterals who under-reported days gambled	55%
Collaterals who over-reported days gambled	29%
Collaterals who correctly identified days gambled	16%



Retrospective and Prospective Reports of Relapse Precipitants

METHOD - Half of participants were contacted weekly for reports of mood, gambling and treatment.

Mood reports of the following 14 adjectives were obtained.

Irritable

Frustrated

Nervous

Lonely

Bored

Quiet

Active

Angry

Sad

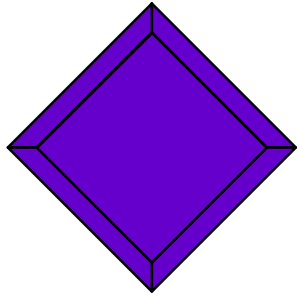
Happy

Tired

Relaxed

Peppy

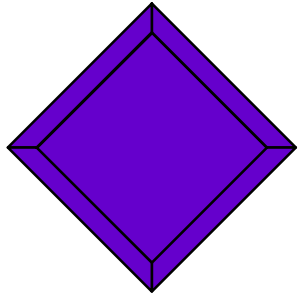
Finances on mind



Retrospective and Prospective Reports of Relapse Precipitants

RESULTS - Principal Component Analysis of the 14 adjectives isolated 3 summary scores accounting for 66% of the variance.

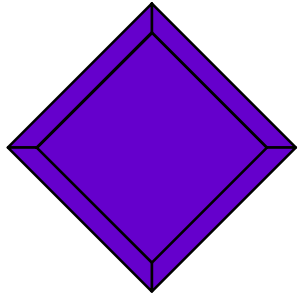
<u>Active Negative Emotion</u>	<u>Passive Negative Emotion</u>	<u>Energetic Mood</u>
Irritable	Lonely	Peppy
Frustrated	Bored	Active
Nervous	Quiet	*Reverse of Tired
Angry		
Sad		
*Reverse of Happy		
*Reverse of Relaxed		



Retrospective and Prospective Reports of Relapse Precipitants

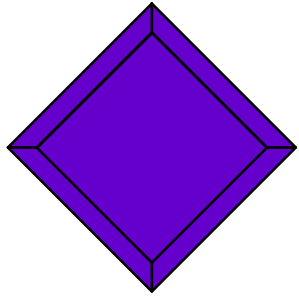
CONCLUSIONS

- ➡ Results suggest that retrospective reports are generally valid
- ➡ Good overall agreement on dimensions of active negative emotions and passive negative emotions
- ➡ Energetic mood was unreliable and influenced by current mood at the time of the retrospective report



Reasons for Gambling Scale

- Modified from Reasons for Drinking Scale
- used to describe specific relapse
- coverage and content validity examined
- 24 items
- Confidence and Temptation versions cluster into four factors



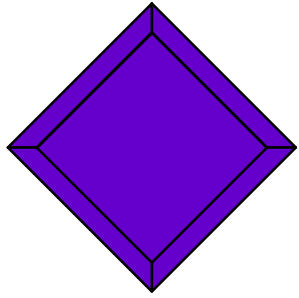
Reasons for Gambling Relapse

- Emotional/relationship

frustrated, angry, sad, tense, worried,
others being critical, happy (reversed)

- Winning

wanting to win, wanting to win,
pressured by debts, feeling lucky, to
see what would happen



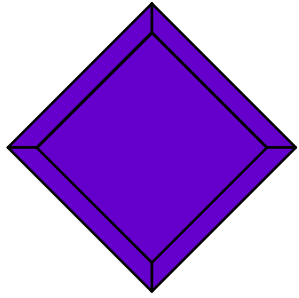
Reasons for Gambling Relapse

- ➔ Opportunity/habit

out of the blue, saw others gamble,
habit

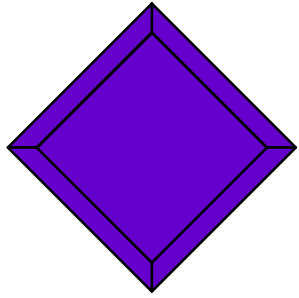
- ➔ Social influences

being with others, someone invited me



Major Conclusions

- ➡ **Relapse rates were extremely high (94%)**
- ➡ **Relapses were most likely to occur during late evening (and least likely to occur in the morning), on the weekend and when the individual was alone.**
- ➡ **Positive and negative moods were equally likely to precede gambling.**
- ➡ **Most relapses were minor (1 day duration) but half had an extremely negative consequence**



Major Conclusions

- **Comorbidity rates were high**
- **Stable abstinence from gambling for a 3 month period was more likely in participants without a past mood disorder, in those involved current treatment and in those with a current substance use disorder.**
- **Retrospective descriptions of mood were not negatively biased.**