

# Do adolescents benefit from AA/NA? What works?

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# At AA's core

- By 22 year DCM
  - Desire to stop drinking will get you into meeting
  - But mere attendance is not enough to gain long term benefits
  - Have to live the program
  - Involvement in AA related activities

# Factors which predict continued adult attendance

- addiction severity (withdrawal and negative consequences)
- problem recognition as a motivation for abstinence
- importance of life context factors (salvaging a marriage, maintaining employment)
- importance of spirituality and spiritual growth.

# Timing of adult attendance

- Clients who achieve immediate, rather than delayed, AA/NA attendance experience significantly better long-term outcomes.

Moos & Moos (2004) Long-Term Influence of Duration and Frequency of Participation in Alcoholics Anonymous on Individuals with Alcohol Use Disorders. *J Consult Clin Psychol*. Vol. 72, 81-90.

# Adolescent contrary factors

- dependence history not been lengthy enough to result in withdrawal episodes or negative consequences seen in adults
- adolescents are concrete thinkers as opposed to rational thinkers and have more difficulty associating life problems as a consequence of a substance abuse lifestyle
- the typical adult motivating factors are not present in adolescents

# Factors 2

- spiritual and religious factors are less appealing to adolescents than they are to adults
- adolescents feel themselves to be invincible and have difficulty accepting the notion that they are powerless when dealing with alcohol or drugs
- dependence on parents for transportation

# Kelly on adults

- Despite limited experimental evidence in support of Alcoholics Anonymous (AA) as a “stand alone” intervention, a large body of quasi-experimental and correlational research indicates that post-treatment attendance at mutual-help groups is consistently associated with improved substance use outcomes.

Kelly JF et al (2008a) Social Recovery Model: An 8-Year Investigation of Adolescent 12-Step Group Involvement Following Inpatient Treatment. *Alcoholism: Clinical and Experimental Research*. Vol 32(8) 1468-1478.

# Kelly on adolescents

- Available adolescent-specific evidence is limited in quantity and in methodological rigor but suggests that youth who participate in 12-step fellowships have better treatment outcomes, at least in the short-term.

# Kelly on clinicians

- Total 114 staff (2 out of 114 did not refer to AA/NA)
- 5 SUD Tx programs
  - 2 outpatient
  - 3 residential
- Staff surveys on
  - Perception of AA/NA for youth
  - Outcomes expected

Kelly, Yeterian & Myers, in press

# Staff perceptions of AA/NA

Level of care	Program (Staff n)	How Important is AA/NA to Recovery (1-10)	How Helpful is AA/NA to Recovery (1-10)	How Safe are youth at AA/NA Meetings (1-10)	Staff referral rates to AA/NA (%)	What % of those referred do you think attend at least once?	What do you think is the clinically optimal level of attendance? (times per week)	What % of those referred do you think attend at the clinically optimal level?
Outpatient	1 (n=4)	9.0 (0.8)	8.0 (0.8)	---	86.3 (17.0)	35.3 (26.0)	2.3 (1.0)	19.0 (21.5)
	2 (n=9)	8.1 (2.0)	7.9 (1.8)	---	85.6 (11.2)	51.3 (21.0)	3.0 (1.3)	12.8 (16.5)
	3 (n=14)	8.4 (1.5)	8.1 (1.4)	5.1 (1.7)	72.8 (26.3)	48.1 (24.3)	3.4 (1.8)	20.0 (18.8)
Residential	4 (n=60)	9.3 (1.1)	9.2 (1.2)	7.8 (1.6)	91.9 (23.7)	72.0 (25.9)	3.0 (1.3)	33.9 (22.4)
	5 (n=27)	9.0 (1.6)	8.5 (1.7)	7.6 (1.6)	80.0 (29.2)	58.2 (26.2)	3.6 (1.7)	38.5 (32.3)
Total/ Mean	N=114	<b>9.0 (1.4)</b>	<b>8.8 (1.5)</b>	<b>7.4 (1.8)</b>	<b>86.0 (25.0)</b>	<b>62.3 (27.2)</b>	<b>3.2 (1.5)</b>	<b>30.7 (25.1)</b>

# Purpose of presentation

- Who attends/does not attend?
- What are the outcomes?
- What are the predictors of successful outcomes?
- What are the barriers?
- Is there an “optimum dose” of participation?
- Suggested “what works” list

# Who attends?

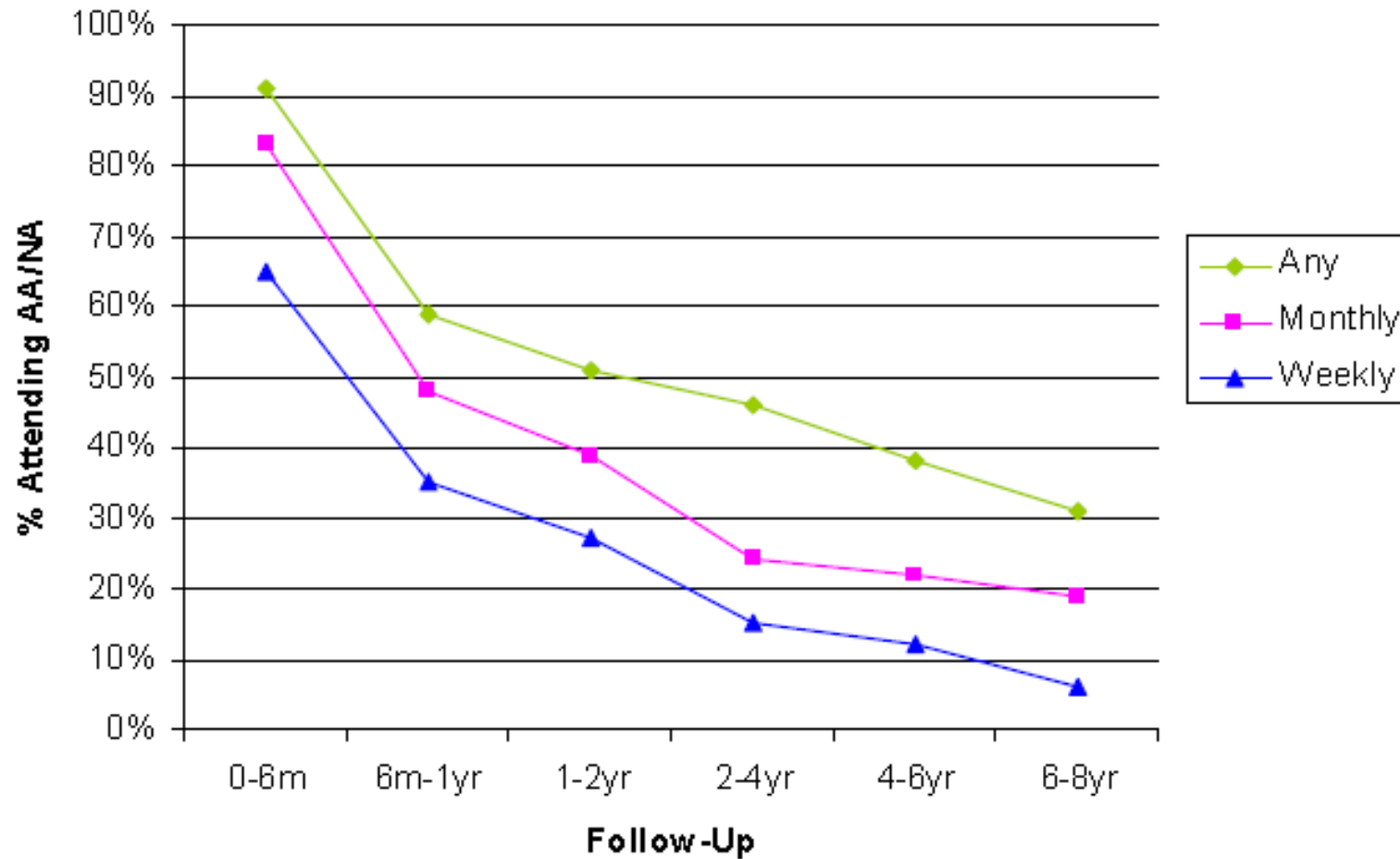
- From 5 different studies, adolescents with
  - Higher feeling of hopelessness
  - Have had unsuccessful prior treatment
  - Had friends who did not use drugs
  - Had less parental involvement during treatment
  - Had more severe AOD problems
  - Perceived themselves as unable to use AOD in moderation

# Attendance – frequency and length

- From 6 studies
  - Kennedy 1993 - 60% first 3 mts dropping to 38% of 12 mts
  - Kelly 2000 – 75% 1 meeting first 3 mts dropping to 59% 2<sup>nd</sup> 3 mts.
  - Mason 2003 – at 3 mt follow-up, 51% wk or better, at 12 mt follow-up 29% wk or better
  - Yu 2006 – 51% attended 1X/wk 6 mt >res Tx
  - Godley 2005 – 65% attended 1<sup>st</sup> 90 day>Tx
  - Kelly 2008 – following slide

# Attendance > 8 years post res. Tx

Any, Monthly, and Weekly AA/NA Attendance across 8 Years Following Inpatient Treatment



# AA attendance & outcomes

Follow up	Attended any AA/NA Meetings	Attended at least Monthly AA/NA	Attended at least weekly AA/NA	Helpfulness of AA/NA To Recovery Efforts (1-100) M (SD)		
	<i>Any</i>	<i>Monthly</i>	<i>Weekly</i>	<i>Overall</i>	<i>Females</i>	<i>Males</i>
0-6m	91%	83%	65%	72 (32)	72 (34)	72 (30)
6m-1yr	59%	48%	35%	74 (35)	76 (34)	71 (35)
1-2yr	51%	39%	27%	65 (37)	66 (39)	65 (36)
2-4yr	46%	24%	15%	55 (40)	74 (36)**	41 (37)
4-6yr	38%	22%	12%	50 (44)	67 (39)**	35 (42)
6-8yr	31%	19%	6%	44 (40)	47 (45)	42 (37)

Kelly, JMATE 2007 presentation

# AA influence on outcomes

- Alford et al (1991)
  - N=157, age 13-19, mean=16, 68% male
  - 84% of 1 or more AA/NA meetings/wk abstinent/essentially abstinent at 2 yr follow-up compared to 31% without any AA/NA attendance.
  - For those attending 1 or > meet/wk only 13% also using heavily compared to 62% in the non attending group
- Kennedy (1993)
  - N=91, age 14-20, mean=16.5, 79% male
  - non-attendees had a 4x higher odds of relapse during the 12-month FU than attendees
  - effect of drug involvement moderated by AA/NA participation – clients with most severe drug usage who attended AA/NA had similar outcomes to clients low in severity
- Hsieh (1998)
  - N=2137, age 17-19, 65% male
  - attendance most powerful discriminator of abstinence outcome in a sample from 24 residential programs at a 6 and 12-month

# Influence on outcomes

- Kelly, Myers & Brown (2000)
  - N=99, age 15-18, mean=15.9, 60% female
  - Compared to relapsers, abstainers attended 2x as many AA/NA meetings in months 1-3 and 2.5x as many in months 4-6
  - AA/NA participation uniquely associated with substance use outcomes during months 1-3 and 4-6
- Kelly, Myers & Brown (2002)
  - N=74, age 14-18, mean=16.1, 62% female
  - active AA/NA involvement predicted outcome in months 1-3 and 4-6
  - no statistically significant effect of involvement, over and above attendance at 3-month follow-up
- Kelly, Abrantes & Brown (2004)
  - N=150, age 13-18, mean=16.5, 59% male
  - relationship between AA/NA and substance use outcome was strong at 6 months, remained significant at 4 years but attenuated at 6 and 8 years
  - **more frequent AA/NA during first 6-month period predicted better long-term substance use outcomes at 4 and 6, but not 8 years,**

# Influence on outcomes 2

- Demographics
  - N=166 (139 at 8 year follow-up), age mean= 16, 60% male, 75% Caucasian
  - Met DSM-III-R criteria for SUD
  - First inpatient treatment experience for 92%
  - Drugs of choice – 53% amphetamines, 32% cannabis
  - 74% still enrolled in school

Kelly, JF et al (2008a)

# Relationship – attendance & outcomes

- Relationship between AA/NA attendance & days abstinence (PDA)
- AA/NA attendance in the first 6 and 12 mts postTx significantly associated with better outcomes at every subsequent outcome time point (2, 4, 6, 8 years)
- Relationship between 6 mts attendance and PDA gradually declines in magnitude over 8 year follow-up

# Barriers

- Do adolescents find AA helpful?
- What do they like/dislike about AA?
- Why do many drop out?
- Are clinicians painting too bleak a picture?

# Barriers – developmental

- Addiction severity
  - Consequences of
  - Problem recognition – to drive abstinence motivation
- Life context factors
  - Discussion topics mismatch (marriage, employment loss, etc...)
- 12 step specific
  - Emphasis on complete abstinence
  - spirituality less appealing to adolescents

# A side journey - Spirituality

No mention of spiritual content in 12 step fellowship as reason for discontinuing program

Kelly (2008b)

- Spirituality typically characterized as more private thoughts or behaviors not necessarily associated with formal religion
- Religion is the way an individual expresses his relationship to a higher power through belief systems or communal rituals
- High correlation between the two

Good, M et al (2008) Adolescence as a sensitive period for spiritual development. Child Development Perspectives, Vol 2(1), 32-37.

Solhkhah, R et al (2009) Spiritual orientation among adolescents in a drug-free Residential therapeutic community. J Child Adoles Sub Abuse. Vol 18, 57-71

# Solhkhah

- Goal of study
  - Assess adolescent orientation to spirituality
- Relevance - Is spirituality in AA a barrier?
- Prior experience with AA
  - 39% - never attended
  - 33% - attended <5 meetings lifetime
    - 1/4 reported some benefit
    - 1/5 reported a lot of benefit
  - 11% - attended >20 meetings lifetime

# Solhkhah 2

- N=181 therapeutic community population
- Demographics
  - Gender - 82% male
  - Age – range 18 to 21, mean 17, SD 1.8
  - Ethnicity - 37% Afr-Am, 25% Caucasian
  - Religion – 38% Cath, 26% Christian
  - Substance use
    - Cannabis 67%, alcohol 6%, cocaine 6%

# Solhkhah – findings

- Adolescents with a greater cumulative lifetime history of marijuana were less spiritually oriented than their peers who use marijuana less frequently
- Adolescents with a significant polysubstance abuse problems were less spiritually oriented than their adult counterparts
- Adolescents are significantly less spiritual than their adult counterparts

# Customer opinions

- Kelly, JF et al (2008b)
- 2 residential, non 12 step, groups
  - Group #1 - N=74, age 14-18, mean=15.9, 62% female, 70% Caucasian
  - Group #2 – N=377, age 12-21, mean=16.5, 51% male, 81% Caucasian
  - All met DSM-IV SUD criteria

Kelly, JF et al (2008b) What do adolescents exposed to Alcoholics Anonymous think about 12 step groups? Substance Abuse, Vol 29 (2), 53-62

# What kids liked best

Response Domain	Domain Description	Example	Frequency	Rank
<i>Universality</i>	Not feeling alone; a sense of belonging	"To know I am not the only one with this problem"	17	1
<i>Positive Attention/Encouragement (Support)</i>	Getting support from others – that other members care about them	"They always care what I have to say"	17	1
<i>Instillation of hope</i>	Recovery is possible; feeling better; seeing/hearing others who have recovered; feeling inspired	"Hearing stories of how other people got through"	14	3
<i>None/negative</i>	Items placed in this category pertain to generally negative responses like "nothing"	"Nothing"	10	4
<i>Catharsis</i>	A place to talk, express feelings, thoughts etc.	"Get my feelings out"	7	5
<i>Imparting of information/ Interpersonal learning</i>	Learning skills, getting information and advice from others	"Principles for everyday life"	4	6
<i>AA-specific Content/Philosophy</i>	AA content-specifics, such as working the 12 steps, spirituality, having an AA sponsor, using AA philosophy/slogans	"One day at a time philosophy"	4	6
<i>Other</i>	Providing structure, group cohesion, insight, cognitive restructuring	"Something to do to stay busy"	1	8

# Why they dropped out

Reason Domain	Domain Description	Example	Frequency	Rank
<i>Boredom/Lack of fit</i>	Bored or not feeling like AA/NA is of relevance or interest	"Lost interest"	16	1
<i>Relapsed</i>	Returned to drinking/drug use	"I started drinking and using drugs again"	15	2
<i>No perceived need/low intrinsic motivation</i>	Not believing one has a substance-related problem or see no need for AA/NA	"I felt like I didn't need AA"	9	3
<i>External Attendance Contingency Removed/extrinsic motivation</i>	Attended only as part of a treatment program or a parent or criminal justice official stated they need no longer attend	"I left the hospital"	8	3
<i>Logistical</i>	Lack of access to transportation	"No ride"	7	3
<i>Entered Formal Treatment</i>	Entered a formal treatment program or to access other help	"To get help"	4	6
<i>Iatrogenic/Other</i>	AA/NA made specific or related problems worse (instead of better)	"AA seems like a cult"	3	7

# Factors that enhance attendance

- Age similarity led to higher attendance rates – Kelly (2005)
- Increase number of outpatient services related to greater AA/NA attendance
- Staff expectations & recommendations
- Adolescent's perception of
  - severity of addiction
  - inability to live moderation route

# Predictors of AA/NA attendance

- Lifetime frequency of AOD intoxication, client perception of AOD problem, substance dependence symptoms, all predicted more attendance at 6 months
- Strong perception of the ability to use AOD in moderation a predictor of less AA/NA attendance at 6 months
- More professional outpatient services for AOD related problems associated with greater AA/NA attendance at 8 years

# Speculating on thresholds

- Kelly (2008a)
  - 1 or 2 meetings per week associated with marked increases in abstinence
  - 3 meetings per week associated with complete abstinence
  - Adolescents who do not immerse themselves into the 12 step specific program content derive benefit from more general group therapy process

# A “What works?” list

- Canvass client beliefs re: ability to successfully moderate substance use
- Increase adolescent’s understanding of the severity of his addiction & probable inability to have moderation lifestyle
- Use brief MI/MET targeted at AA/NA attendance
- Direct adolescent to AA/NA meetings with same age membership
- Schedule regular check-in appointments while in AA/NA
- Enhance awareness of factors that fall into “predictors of attendance” list

# What works 2

- Investigate nature of AA group for group therapy processes (universality, support from others, installation of hope, catharsis) and offer alternative if not present
- Reinforce min. of 1 meeting/wk
- Reinforce that relapse is not “starting over” but part of journey
- Support adolescent in social activities to relieve boredom
- Explain value of AA/NA
- Facilitate immediate attendance at AA/NA
- Establish social relations with non using peers