

Substance Use in Pregnancy: Five Year's Experience What Works; What Doesn't

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Addiction 100 Years Ago

- Cocaine – the 7% solution – Sherlock Holmes
- Cannabis – the prairie home companion
- Alcohol – in vino veritas
- Laudanum – tincture of opium – drug of poets
- Morphine – from the Civil War
- Methamphetamine
 - Methylenedioxy-methamphetamine (MDMA)
 - Developed by Merck for appetite suppression
 - Today it's called “ecstasy”

Positive Toxicology Screens 2001-6 (n = 254 screened)

■ Cocaine	38
■ Cocaine and THC	49
■ Cocaine & alcohol	13
■ THC	41
■ Alcohol	15
■ Opiates	25
■ Opiates & Benzodiazapines	10
■ Methamphetamine	2
■ Other Combinations	61

Most Prevalent Drug Use

Wishard 2001-2006 n=254

■ Cocaine plus THC	49
■ Cocaine only	37
■ Cocaine plus other	14
■ Total Cocaine	100
■ THC only	41
■ THC/other	20
■ Total THC	61
■ Tobacco	167 (67.5%)

Substance Abuse

America Has Never Been Drug Free

- **Pregnant addicts/alcoholics ignored**
 - Various studies: 40-70% of treated addicts abstinent at 6 months
 - BUT, less than 5% of pregnant addicts receive treatment
- **The major problem is underutilization of proven treatment options**
 - Failure to identify the addict
 - Failure to continue treatment after delivery
- **US Dept Justice Fact Sheet 2001 May #17.**

Addiction in Women and Pregnancy

- Addiction is a Disease of the Brain
- Leshner AI. Addiction is a brain disease, and it matters. *Science* 1997;278:45-47.

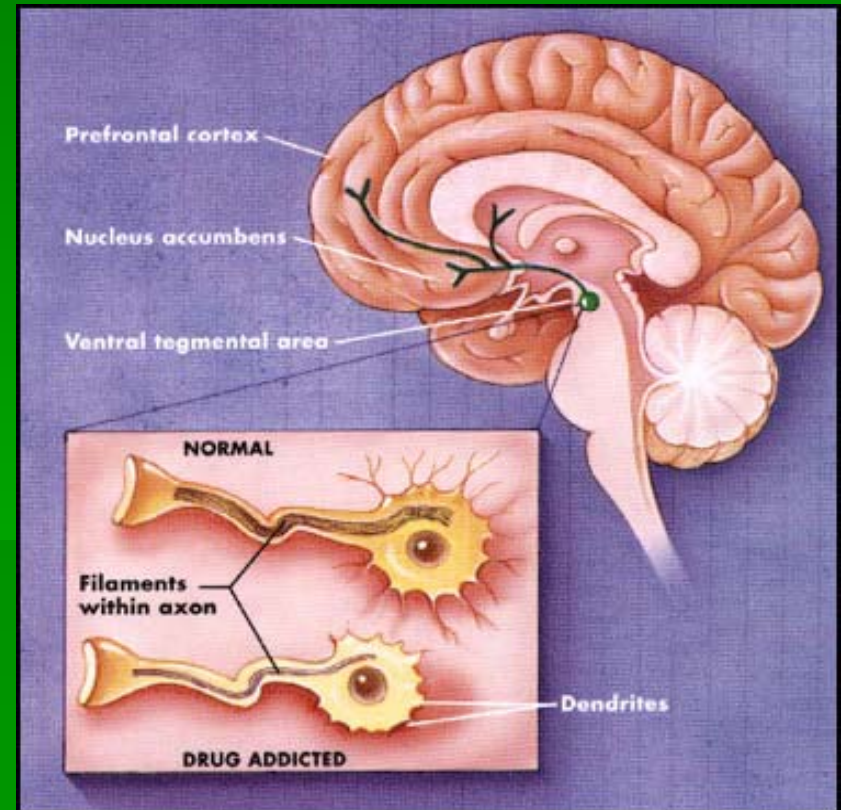
Addiction Changes Brain Cells

- Addiction is a double whammy.

Tolerance - The brain needs more and more of the drug in order to get the same effect.

And in this process, the brain cells are actually altered.

It's as if the brain is hijacked, along with the mind and the will.

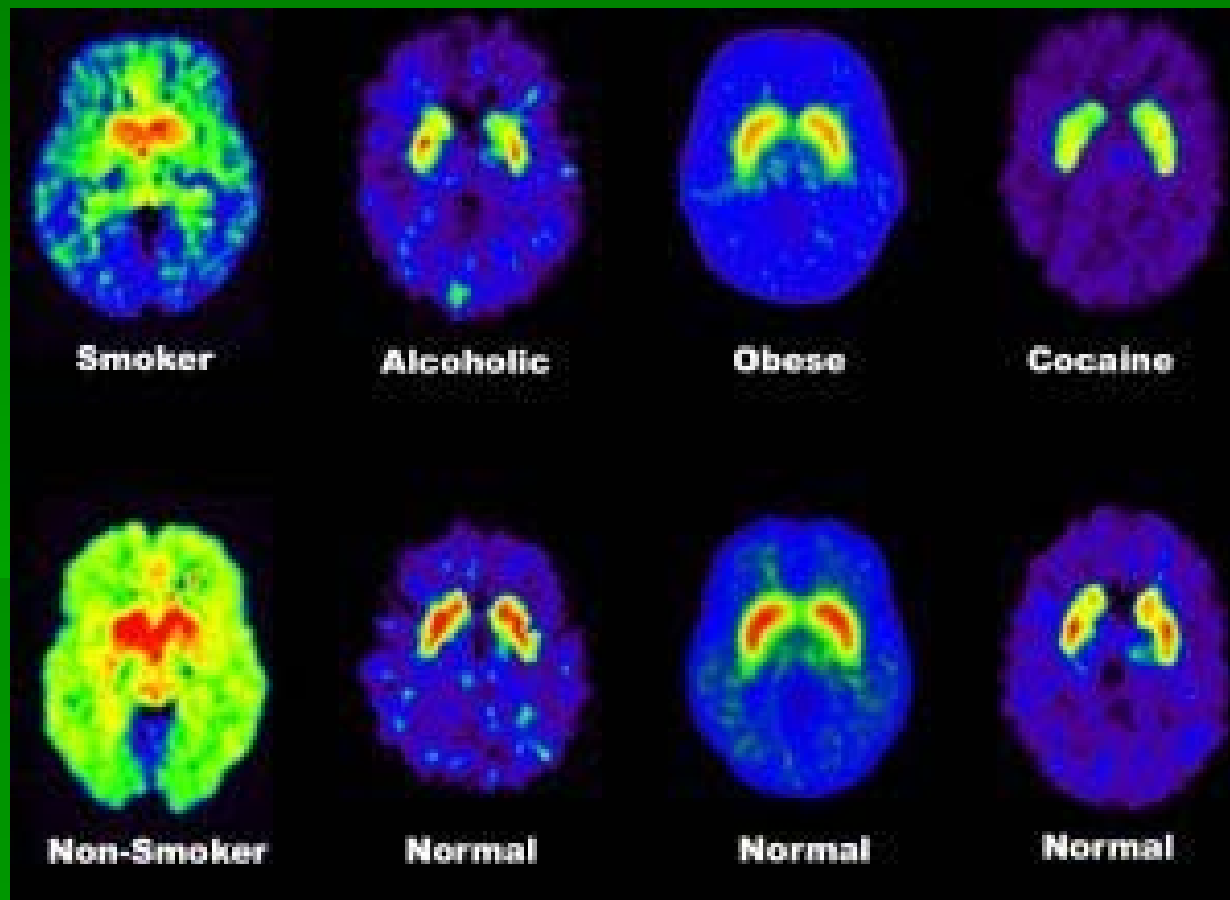


PET/MRI Reveals the Addicted Brain is Altered

- PET/MRI has mapped the location in the brain where drugs and behaviors have their effects.
- The mesolimbic **dopamine system is the primary site of dysfunction.**
- This is also known as the “pleasure center.”
- Wise RA. Addictive drugs and brain stimulation reward. *Ann Rev Neuroscience* 1996;19:319-340.
- McCann UD, Szabo Z, Scheffel U, Dannals RF, Ricuarte GA. Positron emission tomographic evidence of toxic effect of MDMA (“Ecstasy”) on brain serotonin neurons in human beings. *Lancet* 1998;352:1433-1437.

Scans from Patients with Addiction Disorders

RED Area Indicates Dopamine System



Addiction is a Chronic Relapsing Disease of the Adult Brain

- Researchers have noted that
 - Successful treatment is comparable to, or better than, compliance with treatment plans for hypertension or diabetes.
 - What's at risk to identify and treat this disorder?
- McLellen AT, Lewis DC, O'Brien CP, Kleber HD. Drug dependence, a chronic medical illness: implications for treatment, insurance and outcomes evaluation. JAMA 2000;284:1689-1695.

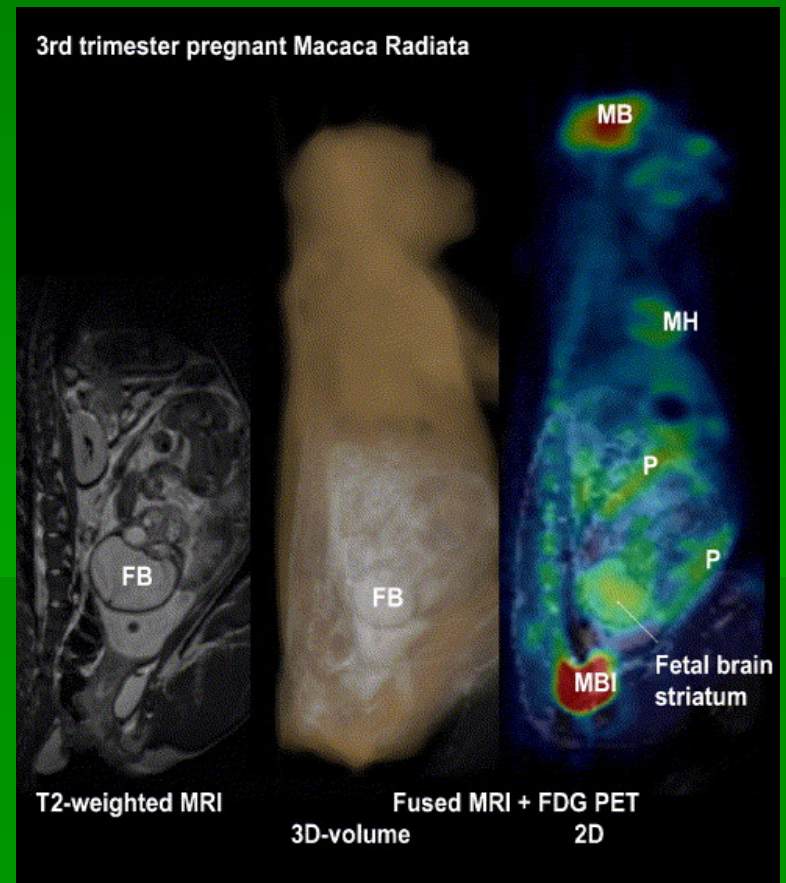
Prenatal Drug Exposure: Effects on the Fetal Brain

Many Questions - Few Answers

- Is the fetal brain altered by maternal substance use?
- Where are the changes?
- Are such changes permanent?
- Are structural changes associated with specific behaviors?
- Neurotox Teratol 2006;28:386-402

Neuroimaging of Prenatal Drug Exposure

- MRI and PET images from the same 3rd trimester pregnant Macaque radiata.
 - FB = fetal brain;
 - MB = maternal brain;
 - MBI = maternal bladder;
 - P = placenta.
 - Benveniste, et al. Drug exposure in the womb: PET and MRI imaging of drug transfer in pregnant non-human primates. NIAAA, NIH, Bethesda.



Neuroimaging in Prenatally Cocaine-Exposed Children

Behnke, et al. Univ Fla. NIH Study

- Cocaine may reduce head circumference
 - Poorer initial scores:
 - Brazelton Neonatal
 - Bayley Scales Infant Development
 - BUT no direct effects noted by ages 3-7 months
 - The “crack baby” is a myth!
-
- Only MRI finding – smaller right anterior cerebella
 - Some studies indicate such brain asymmetry may be associated with reading abilities.

Fetal alcohol spectrum disorders (FASD) and attention-deficit hyperactivity disorder

- For children with FASD, ADHD more likely to be earlier onset inattention subtype
 - Appear to have a disturbance in brain structure (in the corpus callosum)
 - Response to standard psycho-stimulant medication can be quite unpredictable.
-
- O'Malley and Nanson. Can J Psychiatry 2002;47;349–354

Effects of alcohol use, smoking, and illicit drug use on fetal growth in Black infants.

- Alcohol, Nicotine, Opiate and Cocaine; 417 mothers
- Birth weight related only to alcohol and nicotine
- Length only to alcohol
- Head circumference only to opiates
- Smoking affected birth weight at all levels of exposure, a larger deficit was seen in relation to heavy drinking than to heavy smoking
- Effect of cocaine on birth size is primarily an effect of shorter gestation and poorer nutrition.
- Jacobsen, et al. J Pediatr 1994;124(5 Pt. 1):731-3.

Smoking Cessation During Pregnancy

- If smoking cessation achieved before 16 weeks, most or all of the adverse effects are avoided, specifically:
 - 20% of all low birth weight babies
 - 8% of all preterm deliveries
 - 5% of all perinatal deaths
- Benowitz & Dempsey. Pharmacotherapy for smoking cessation during pregnancy. *Nicotine and Tobacco Research* 2004;6(suppl 2.);S189-S202

Drug addiction during pregnancy and understanding child outcomes.

- Large multi-center studies **failed to show** that prenatal cocaine and heroin exposure causes devastating child consequences when environmental variables are controlled, **especially chronic poverty.**

- Jones. Current Directions in Psychological Science 2006;15:126-30.

In Contrast, Alcohol and Smoking in Pregnancy

Cause more fetal damage than all the other drugs combined, probably by a magnitude of 10 x:

Fetal Alcohol Syndrome – mental retardation

Fetal Alcohol Spectrum Disorders

Low Birth Weight

Preterm labor.

Substance Use In Pregnancy

Scope of the Problem

- 4 million deliveries in the USA.
 - 757,000 used alcohol (18.9%)
 - 820,000 smoked cigarettes (20.5%)
 - 221,000 used illegal drugs (5%)
 - Est. 250,000 illicit use of RX meds, especially **benzodiazapines and hydrocodone** (6%)
- Source: National Pregnancy and Health Survey, National Institute on Drug Abuse, U.S. Department of Health and Human Services. 1997

Strong Link Between Alcohol/Nicotine Use and Use of Illicit Drugs

- Among Women using BOTH Alcohol and Nicotine
 - 20.4% used Marijuana
 - 9.5% used Cocaine
- Women NOT using Alcohol or Nicotine
 - 0.2% used Marijuana
 - 0.1% used Cocaine

Nicotine use is a marker for other drug use.

Pregnancy Enhances Recovery

- On a positive note, pregnancy makes a difference in recovery.
- After one year of treatment:
 - 65.7% of women who entered treatment while pregnant used no drugs, while
 - Only 27.7% of non-pregnant women remained drug free. ($p < 0.0005$)
 - Peles and Anderson. J Addictive Diseases 2006;25:39-45.

Tools for Detection & Screening

What works? What doesn't?

- Self reporting
 - Significant under-reporting
- Urine testing
 - Only captures recent use
- Urine and Meconium Testing
 - Most accurate but too expensive for screening
- Questionnaires: Only two work well:
 - Two Item
 - Five P's

Two-Item Screen Detects Alcohol, Other Drug Use

- **Current alcohol or other drug problems can be detected in nearly 80% of young and middle-aged patients by asking two questions:**
 - **"In the last year, have you ever drunk alcohol or used drugs or smoked cigarettes more than you meant to?" and**
 - **"Have you felt you wanted or needed to cut down on your drinking or drug use or cigarette smoking in the last year?"**
-
- **Richard L. Brown, M.D. J of the Amer Board Fam Prac, May 2001.**

Modified Five P's Screening

- Did any of your **PARENTS** have a problem with alcohol or drugs?
- Do any of your **PEERS** have a problem with alcohol or drugs?
- Does your **PARTNER** have a problem with alcohol or drugs?
- Have you had a **PROBLEM** with alcohol or drugs in the past?
- Have you smoked any cigarettes, used any alcohol or any drug in this **PREGNANCY**?

Positive Screen

- **Two Item**

- “No” to both questions – 7.5% using drugs or alcohol
- “Yes” to One question – 35% using
- “Yes” to Both questions – 75% using

- **Five “P’s”**

- Yes to any one question requires follow up

When The Screen is Positive

- Get urine toxicology: Consent vs. non-consent
 - The importance of clear and honest communication regarding drug testing cannot be overstated.
 - **Except in states that criminalize drug use in pregnancy – then consider testing without consent – an ethical paradox.**
- Ferguson v. City of Charleston
 - US Supreme Ct. decision
 - Protects women from criminal action if drug screen without consent
 - http://www.crlp.org/crt_preg_ferguson.html

When the Screen is positive:

- Patient is **at risk** for substance use
- Does not mean she is using.
- If Urine toxicology screen is positive:
 - **Patient must be told that if baby tests positive in either urine or meconium:**
 - Child Protective Services (CPS) will intervene and may remove baby, and
 - CPS will require treatment program

FRAMES: A Brief Intervention

- **F - Feedback** about the adverse effects of drugs or alcohol
- **R - Responsibility** for a change in behavior: "Only you can decide that you want to stop using. If you do, how would your life be better?"
- **A - Advise** to reduce or stop use: "For the next 2 weeks, stop using, and let's see how you feel." (Do not say "try")
- **M - Menu** of options: "If you find that not using for the next 2 weeks is impossible, then we should consider other options."
- **E - Empathy** is central to the intervention. "This must be real hard to do."
- **S - Self-efficacy**: "I am impressed that you are considering making this change. Your strong determination is going to help you succeed."
- Bien TH, Miller WR, Tonigan JS. Brief interventions for alcohol problems; a review. *Addiction* 1993;88:315-335

Treatment Approaches

What Works, What Doesn't

- Cognitive Behavioral Treatment
- Motivational Empowerment
- They both work.

Cognitive Behavioral Treatment Abstinent Based

- Acceptance of diagnostic label critical for change; “alcoholic,” “addict.”
 - Risk of shaming.
 - Resistance characterized as “denial.”
- Emphasizes addiction is a disease beyond patient’s control
 - Powerlessness is disempowering
 - Women have greatest difficulty with 1st of 12 Steps
- Requires patient to learn specific coping skills

Motivational Empowerment Harm Reduction

- Less emphasis on diagnostic label “alcoholic,” “addict.”
- Reduces risk of “shaming”
- Motivation empowers patient to make choices and take action
- Emphasizes personal accountability to change.
- Ambivalence is a normal response to change
- Most important, motivational empowerment therapy is easy to learn for the clinician and requires no special skill development for the patient.

Motivational Enhancement or Empowerment

Developed by Miller and Rollnick, is the foundation for supporting the addict through her stages of change.^[i]

- As noted, it can be used as an intervention (FRAMES) or as a treatment strategy.^[ii]
- ^[i] Miller WR, Rollnick S. Motivational interviewing: preparing people to change. New York: Guilford Press, 1991.
- ^[ii] Miller WR, Sanchez VC. Motivating young adults for treatment and lifestyle change. In G, Howard (Ed.) Issues in alcohol use and misuse in young adults (pp. 55-82) Notre Dame, IN: Norte Dame University Press, 1994.

Why Call it Empowerment?

- Women are disempowered
- Pregnant women are more disempowered
- Pregnant addicts are the most disempowered.
- Empowerment is the keystone to recovery.

Fundamentals of Motivational Empowerment

- Building Motivation Through Empathy and Empowerment.
- Affirmation.
- Active Listening.
- Feedback and Reframing.
- Roll with the Resistance.
- **And most important – maintain a sense of humor.**

Stage Based Approach

- Is patient ready to change?
 - Will patient accept treatment?
 - Match treatment strategy to stage of awareness/readiness
-
- Prochaska JO, DiClemente CC, & Norcross JC. In search of How people change: Applications to addictive behavior. Am Psychol 1992; 47: 1102-14
 - Prochaska JO, DiClemente CC, & Norcross JC Changing for Good. New York: Avon Books 1996.

Six Stages of Change

- 1. Pre-contemplation
- 2. Contemplation
- 3. Preparation - Decision
- 4. Action
- 5. Maintenance
- 6. Terminal – Cure?
- Relapse can occur anywhere and anytime

Stage Based Approach

Measure Progress Over Time

- Talk about Pros and Cons.
- Pros to move to next stage must go up: Cons must go down.
- Goal is to motivate patient to move from one stage to the next.
- The patient will not take action if the patient is not ready.

Stage Based Approach

1. *Pre-contemplation stage*

- *1st prenatal visit:*
- The patient will most likely present with a positive urine toxicology screen and the best approach is to show her the results of the test.
- Thus, she immediately is confronted with the consequences of her drug use, one of which is to explicitly state that if the baby ultimately tests positive, Child Protective Services (CPS) will intervene.

Precontemplation Stage

Motivational Step

The motivational step in this stage is, "name one way your life will be better if you weren't using drugs?"

Most patients will state they feel better or be better mothers.

It's most important to elicit something very specific and a common response is, "I'll have more money."

This is an excellent answer with which to work because it simultaneously reveals the costs of the behavior and the benefits of change.

In contemplating this answer, the patient moves to the next stage, the Contemplation Stage

2. Contemplation Stage

- *Self Recovery*: If her motivation to change is for the baby, then what is often observed after delivery is **relapse and resentment** and this creates a setting for child abuse.
- The keystone of recovery is that the patient commits to get clean for herself.
- A motivational statement might state, “**when you get clean for yourself, then you don’t have to worry about the baby.**”

Contemplation stage

- Awareness of problem - considering treatment.
- Have the patient make a list of additional ways her life will be better if not using drugs.
- “If you have more money, what will you buy for yourself?” Keep it simple, inexpensive and related to herself – it is imperative that she initially reward herself for her good choices.
- Later, she can be reminded that she can now afford to buy some baby clothes.

3. Preparation or Decision Stage

- Review her urine screens.
- Note that many patients will stop using entirely on their own by this time. **If she has stopped using tell her you are proud of her choice to stop.**
- Look for indicators she is ready to change:
 - she appears less resistant
 - she stops asking questions about the substance use, and
 - she may appear to be more relaxed and peaceful.

Preparation or Decision Stage

Be Specific

- Now is the time to discuss specific preparations to get clean. For example, she may say she “could” go to an N.A. meeting.
- Ask her to pick a specific meeting, e.g. Thursday evening at 8 PM at St. Luke’s on West 86th street, West Entrance.
- Then ask if she will go to that meeting.
- The majority of patients who get to this stage will, in fact, do what they commit to do.

4. *Action Stage*

- Review her urine screens and acknowledge whether she is still using in a matter-of-fact manner or tell her you are proud that she tested “clean.”
- Ask if she did what she said she would do – went to the NA meeting, stopped using or cut down substantially.
- Document the action with, “your last use was on (date). I’m proud of your efforts.”
- Be sure to compliment her on her courage and effort to get clean. Patients are most empowered by the supportive clinician.

Action Stage

Create the Recovery Program

- Encourage her to create a RECOVERY PROGRAM with regular support such as:
 - Therapy,
 - Counseling,
 - Workshops,
 - Family support,
 - Parenting classes and. most importantly,
 - 12 Step groups specific to her addiction.

Action Stage

Abstinence is Action

- Patients will achieve abstinence when they are ready.
- Usually this is in the Action Stage
- Note that 50% of patients will abstain entirely on their own by the Action Stage
- The evidence is clear that 12-Step work enhances abstinence and prevents relapse.

5. *Maintenance Stage*

- Drug screens are negative
- Maintains abstinence
- Has a recovery program
- It is critical to reinforce her conduct and continue to build motivation for change and to strengthen her commitment to change.
- Encourage the patient to continue her support meetings and tell her that you are proud of her

6. Termination Stage

- The hallmark of termination is no longer a temptation to use.
- The patient will often state they no longer dream of using.
- This appears to be most valid for “smoking addictions” including nicotine, marijuana and crack cocaine.
- It is estimated that 20-30% of patients may reach this stage:
 - Abstinence for 5 or more years
 - Completed at least 9 of the 12 Steps
- For all practical purposes, the pregnant addict will never reach this stage.

Relapse

- Fear based: If I act, will I fail?
- **Distress - most common cause of relapse**
- Three choices for distress
 - Talk to peers - 12 Step sponsor
 - Exercise (as effective as antidepressants)
 - Deep Relaxation - prayer and meditation

Relapse – a Part of Recovery?

- Relapse is not failure.
- Ask – “what did the relapse cost?” This recreates the consequences of her actions and gives her the opportunity to be accountable for her conduct.
- Accountability is very foreign to addicts and the ability to “own her part” in the relapse may bring her right back into the action stage and enhance self esteem.
- Follow up with, “Are you willing to recover?”

Wishard Prenatal Recovery Program Demographics and Prevalence

- Wishard Memorial Hospital is the County Hospital for Indianapolis.
- 78% of patients qualify for Medicaid.
- 3000+ deliveries per year
- Culturally diverse; 45% African American; 25% Caucasian; 26% Hispanic
- Estimated prevalence of substance use in pregnancy is 12-18%.

Wishard Prenatal Recovery Program

- Shift in approach in 2001
- Shift from Abstinence Based to Harm Reduction
- Based on **Motivating and Empowering** the Patient to make Choices
- Uses **Stages-of-Change** Approach Endorsed By A.C.O.G.

Wishard Prenatal Recovery Program Analysis of Two Cohorts

- Group 1: Traditional High Risk Obstetrical Treatment
- Group 2: Motivational Empowerment Treatment (MET)

Traditional High Risk Care: Group 1 (HR)

- 145 patients managed 1/00 to 3/01
- **Abstinence Based Treatment**
 - Encouraged to stop at each visit
 - Urine testing each visit
- Cognitive Behavioral Therapy (when available)
- **Dietary; Social support**

Motivational Empowerment Group 2 (ME)

- 221 patients managed/delivered 9/01 to 12/06
- Harm reduction approach
- Motivational Empowerment Based Treatment
- Stages Of Change Approach
- Dietary; Social support
- Mental Health – Project Home
- Spiritual (12 Step) Support

Wishard Prenatal Recovery *Antepartum Drug Testing*

- Group 2 averaged 2.67 ($p < 0.0001$) more tests per pregnancy than Group 1.
 - **Better compliance with scheduled visits**
- Group 2 averaged 3.23 ($p < 0.0001$) more negative tests than Group 1.
 - **Higher rates of abstinence**

Wishard Prenatal Recovery

Intrapartum Drug Testing

- **Group 1 n=145**

- Positive at delivery 43/85 tested (50.5%)
- Complications 25/145 (17.5%)
- Baby positive (urine) 48/101 tested (48%)

- **Group 2 n=220**

- Mom Positive at delivery 30 (13.5%)
- Baby positive (urine) 31 (14.0%)
- Baby positive (meconium)* 42 (19.1%)

*Reflects 6 patients who were “clean” before the drug could be metabolized by the baby

Wishard Prenatal Recovery

Intrapartum Complications

	Group 1 (145)	Group 2 (221)
Abruption	1	1
IUGR	2	2
Pre Eclampsia	11	12
Prematurity	9 (6.2%)	24 (10.8%)
PPROM	2	4
Gastroschisis	0	1
IUFD	0	1
Totals	25 (17.2%)	45 (20.3%)

Prematurity and Addiction

- European study of untreated addicted or alcoholic mothers: n = 59 live births
 - 31 (54%) had late or no prenatal care
 - 20 (34%) were preterm
- US National Average: 12.9 % are preterm
- Wishard (Groups 1&2) 33/366 (9%)

No Prenatal Care Subgroup

- 16 patients tested positive in clinic
 - 10 cocaine
 - 6 opiates
- Failed clinic visits but presented in labor
- 8 mothers positive (50%) (7 cocaine; 1 opiate)
- 8 babies meconium positive (50%)
 - 7 cocaine
 - 1 opiate and benzodiazapine

Lost to Follow up:

18 patients registered - failed to return

■ Cocaine	2
■ Cocaine/Etoh	5
■ Cocaine /THC	3
■ THC	1
■ Etoh	2
■ BZ	2
■ Opiates	3

Prenatal Care Group 2

Testing Positive at Delivery

- Mothers - Urine 30

- Cocaine 21
- Cocaine/THC 5
- THC 2
- Benzo 1
- Opiates 1

- Baby - Meconium 42

- Cocaine 26
- Cocaine/THC 12
- THC 3
- Benzo 1

Cocaine Outcome

33 Deliveries 2002-2005

Meconium Testing; Mean Birth Weight

- 13/33 meconium positive for cocaine: 39.3 %
- 20 neg. mean wt/gm: 3253.55; s.d. 473.99
- 13 pos. mean wt/gm: 2775.85: s.d. 466.68
- Difference of the means wt/gm: 477.71
- Preterm 3/33: 9%
- Tobacco use neg. babies 15/20: 75%
- Tobacco use pos. babies 9/13: 69.2%

Cocaine/THC Group Outcome

44 Deliveries 2002-2005

Meconium Testing; Mean Birth Weight

- 15/44 meconium positive for cocaine: 34.1%
 - 3 of above positive for both Cocaine/THC
- 29 neg. mean wt/gm: 3108.65; s.d. 475.95
- 15 pos. mean wt/gm: 2775.85: s.d. 466.68
- Difference of the means wt/gm: 441.25
- Preterm 7/44: 15.9%
- Tobacco use neg. babies 24/29: 82.75%
- Tobacco use pos. babies 10/15: 66.7%

THC Group Outcome

23 Deliveries 2002-2005

Meconium Testing; Mean Birth Weight

- 3/23 meconium positive for THC: 13%
- 20 neg. mean wt/gm: 2940.2; s.d. 534.68
- 3 pos. mean wt/gm: 2891.66
- Preterm 2/23: 8.69%
- Tobacco use neg. babies 16/20: 80%
- Tobacco use pos. babies 2/3: 66.7%

Methadone Maintenance Group

17 Deliveries 2002-2005

Meconium Testing; Mean Birth Weight

- 17 Deliveries: 1 pos. mec for THC (5.8%)
- 18 Babies: one set of twins at 30 wks 5 d.
- 20 neg. mean wt/gm: 2721; s.d. 667.35
 - compare to “clean” cocaine babies 3253.55
- Preterm 6/17 (35.3%)
- Tobacco use in neg. 12/17 (70.5%)

Wishard Prenatal Recovery *Methadone Maintenance 1998*

- Prior study at Wishard of methadone maintenance patients **27 of 32 (84.3%) were positive for other drugs** of abuse in last screen before or at delivery (High Risk Care)
 - Cocaine 12/32
 - Other Opiates 13/32
 - Marijuana 14/32
- *Brown HL, et al. Methadone maintenance in pregnancy: a reappraisal. Am J Obstet Gynecol **1998**;179:459-463.

Methadone Maintenance Group

n = 35 (Nov. 2002 to Dec 2006)

34 delivered at Wishard – 1 lost to follow up

30 moms tested **negative** at delivery (88.2%)

2 benzodiazapines – only one baby had positive meconium

1 THC - baby positive in meconium

1 Cocaine - positive in meconium

26 smoked cigarettes (76%)

Term 24

Preterm 10 (29.4%)

Type of Delivery

SVD	19
Vacuum	2
VBAC	2
LTCS	8 (3 breech; 3 abnl FHR; 2 FTP)
RCS	3

Methadone Maintenance Length of Stay for Neonatal Abstinence Syndrome (NAS) n-31

- 5 not treated for NAS (16.2%)
 - 1 at 31 weeks
 - 4 > 38 weeks
- 26 treated for NAS (83.8%)
 - 7 < 37 weeks: mean LOS - 26.5 days
 - 19 > 37 weeks: mean LOS - 31.8 days

Data unavailable for 3 babies

Buprenorphine Maintenance

Length of Stay for NAS n=7

- No NAS treated
- RCS - 1 Suboxone
 - Baby home with mom; LOS - 3 days
- SVD - 6
 - 1 Preterm 2180 grams – LOS 12 Days; Moderate RDS; not treated for NAS.
 - 5 Term all home with mother – LOS 10 days (5 babies)
- Total LOS 25 days per 7 babies = 3.57

Wishard Prenatal Recovery

THC Subgroup

- 24 OB patients from a IUMG clinic – June 2005 Through April 2006
- All between ages of 17-22
- All had 1st prenatal visit in first trimester
- 10 (41.6%) tested Positive for THC at 1st prenatal visit
- All stated they used THC for nausea
- All tested negative by 20 weeks
- No special treatment other than routine urine testing for drugs in this group.
- Results of another hospital in Southwestern Indiana where all patients tested at first prenatal visit revealed 30% positive for THC (White, insured)

Wishard Prenatal Recovery Program

Six Month Postpartum Follow Up

- From 1/05 to 6/05, 15 of 19 patients who started **Project Home** Recovery Program were abstinent at 6 mos. postpartum (78.9%).
- Follow-up by **treating physician in Prenatal clinic** with addiction counselors.
- Trial period ended due to unavailability of clinic space, staff and funding.

Conclusions

Wishard Prenatal Recovery Program

- Motivational Empowerment Approach:
 - Increased compliance with care
 - More frequent drug free visits
 - Greater abstinence at delivery –
 - more babies testing negative for drugs
 - Greater birth weight
 - Continued abstinence postpartum.

Comments

- Motivational enhancement requires no skill training for the patient and is thereby easy to learn and implement.
- The recovering addict is not necessarily high risk,
- But she is high maintenance!

Treating Substance Use In Pregnancy: Conclusions

- Addiction Treatment Works
 - Addiction is a chronic relapsing disease of the brain
 - **Successful maintenance greater than rates for hypertension and diabetes.**
- Motivational Empowerment Results in:
 - Better Compliance
 - Greater Abstinence
 - Less Complications for mother and baby.

Treating Addiction in Pregnancy

- What works - just about anything:
 - Addressing the problem - 50% will abstain
 - Motivating the patient - 85% will abstain
- What doesn't - ignoring the problem.

The Doctor's Duty:

If, the prevalence of substance use is at least 12%, including illegal drugs, illicit use of Rx drugs and alcohol abuse.

And, treatment works – 85% will be clean at delivery.

Then, is the failure to screen for substance abuse malpractice?

Problems To Resolve

- Inadequate Screening
 - Private Sector Not Cooperative
 - Little Addiction Awareness vs. Clinical Obfuscation
- Insufficient Providers - minimal training in addiction treatment.
- Poor Integration of Services
 - Fragmented Care – Addiction Perceived to be a “Mental Health” Issue.
 - Clinic space not available.
 - Inadequate Follow Up
- No money

Laughter is Sacred

- When things become so serious and so sacred that we can't laugh about them anymore, it means that we have elevated the profane to the realm of the sacred and misplaced the sacred in the process.
- Anonymous M.D. in a 12 Step Recovery Group for Men, 1997