

Harm Reduction

In the treatment of Substance Use Disorders

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Overview of Presentation

- Defining Harm Reduction
- The Evolution of the Harm Reduction Concept in Addiction Medicine
- Review of Studies utilizing Harm Reduction
- The controversy surrounding Harm Reduction
- What place for Harm Reduction in the current Continuum of Treatment for Substance Use Disorders?

Harm Reduction: Definition

- Two traditional abstinence-based therapeutic models at polar ends of a continuum:
 - moral/criminal, and,
 - disease models
- Harm Reduction is a middle road alternative
 - Marlatt, 1996

The Conceptual Framework of a Harm Reduction Program

- Harm reduction goals may be framed in terms of determinants of *well-being* rather than purely *health*, and may not involve total abstinence.
- Determinants of well-being may include:
 - Work
 - Housing
 - Education
 - Income
 - Equality

Harm Reduction: Historic Roots and Evolution

- Rolleston Committee, British MDs, 1920s:
 - Recommended the regular, prescribed dosing of narcotics and cocaine to addicted individuals, for maintenance purposes
 - Opiate dependent individuals stabilized, engaged in structured activities and were not consumed with their next fix

Harm Reduction: Historic Roots and Evolution

- Harm reduction as a strategy has expanded to other substances, and spans a wide range of strategies at multiple levels of the system:
 - Decriminalizing of marijuana use;
 - Methadone maintenance programs;
 - Illicit drug prescription;
 - Tolerance zones; and,
 - Safe injection sites.

Why Harm Reduction?

- Ineffectiveness of traditional acute episode based approaches:
 - Of all people in treatment in 2005:
 - 64% were re-entering
 - 23% for the second time
 - 22% for the third or fourth time
 - 19% for the fifth or more time
 - Substance dependent individuals need three to four episodes of treatment over several years before they are able to attain one year of sobriety
 - OAS, 2005

Why Harm Reduction?

- Not all patients will endorse an Abstinence-based treatment model:
 - Harm Reduction offers a lower threshold for access to services, i.e. housing, work, etc.

Why Harm Reduction?

- Epitomizes autonomy:
 - It is patient/client-centred, with the patient 'driving the bus'; and,
 - Patients/clients are "empowered" to determine the course of their own treatment.

Why Harm Reduction?

- Exercise of personal choice;
- Right to make decisions and act on them in an independent fashion;
- Right to refuse treatment that is beneficial;
- Right to choose treatments other than those recommended by the clinician;
- Right to place a higher value on some aspects of well-being other than health.

The Harm Reduction Dilemma

- "empowers" the patient;
- "dis-empowers" the caregiver resulting in a 'hands off' approach;
- clinicians are reluctant or unable to take any stand that might be interpreted as prohibitive or punitive.

The Harm Reduction Dilemma

- Harm Reduction

becomes....
- Harm Acceptance

The Harm Reduction Dilemma

- How Much or How little Harm Reduction should be implemented?
 - one may advocate for too much harm reduction, that is, abstinence, in some situations, just as one may, in other circumstances, advocate for too little harm reduction.

The Fatal Flaw of Harm Reduction

- Harm Reduction ignores the biology of Addiction and Addictive Illness

The Fatal Flaw of Harm Reduction

- "The lack of humility before nature that's being displayed here, uh... staggers me"
 - Dr Ian Malcolm, Jurassic Park, 1993

The Brain of the Addicted Individual is Programmed to Use Compulsively: Choice is removed



The Fatal Flaw of Harm Reduction

- The individual who is compelled to use substances despite adverse consequences because of the discomfort of physiological withdrawal symptoms and psychological cravings, is substance dependent
 - DSM-IV-TR, APA, 2005
- Those who meet the criteria for substance dependence cannot use substances moderately because of changes that have taken place at the neuroadaptation level in the brain, which causes their compulsive use
 - West, 2004

The Biology of Addictive Illness

- Autonomy, choice and competence?
- Neuroadaptation =
 - loss of control, powerlessness and unmanageability;
 - Compels substance use despite adverse consequences;
 - Behavioural compulsion.

Neuroimaging Studies

- Cravings
- Cue reactivity
- Tolerance
- Withdrawal
- Interaction with brain development (adolescents)
- Responses to medications, physical and social environment
- Physical changes in the brain impacting brain functioning and emotional states

■ Fowler et al., 2007

Substance Use Disorders: Incidence

- Population survey of individuals age 12 and over in USA. Over the previous year:

- 5% met criteria for Substance Dependence
- 4% met criteria for Substance Abuse

■ Office of Applied Studies, 2001

Is HR a safe message to give youth?

Risk factors for SUDs in youth

- Age of onset
- Untreated comorbid disorders
- Genetic predisposition
- Environmental stressors
- Personality

Age of Onset

- 90% of Substance Dependent individuals had started using before age 18
- 50% had started before the age of 15

■ Dennis et al., 2002

Age of Onset

- 11-12 years old % probability of meeting criteria (DSM-III):
 - Abuse – 13.5%
 - Dependent – 15.9%
- 13-14 years old % probability:
 - Abuse – 13.7%
 - Dependent – 9%
- 19-20
 - Abuse – 2%
 - Dependent – 1%
 - Rapid progression of SUDs with earlier onset and frequency
 - Schuckit, 1998; DeWitt, 2000; Kandel, 1992

Factors Affecting Treatment Outcome

- Length of time to attain at least one year of abstinence is related to
 - age at first use, and,
 - duration of use before starting treatment
- If age of onset of use before 15 years, median time of use was 29 years
- If age of onset of use was after age 20, median time of use was 18 years.
 - Early diagnosis and intervention (within first decade of use) minimizes loss of quality of life
 - Scott et al., 2005
- Early age of onset of substance use may contribute to more severe and chronic addictions
 - Simkin, 2008

Does Harm Reduction Work?

- Australia's Harm Minimization Model Reviewed

Australia's Harm Minimization

- \$ 500 million yearly
 - HM techniques (needles, methadone)
 - Salaries of personnel
- Recent review of the strategy
 - 31 Recommendations

Australia's findings (1)

- Hep C & B
 - highest number of Hep C cases (197 000) amongst drug users in the world
 - Hep C cases are beginning to decompensate in important ways
- HIV
 - New infections (2001-2006) increased 31%
 - 182.5% increase in recent infections in this population
- Years Per Life Lost (1997-2004)
 - Methadone Maintenance Therapy (46.3) and Drugs (41.2) took first and third place
 - MVAs were second (41.9)

Australia's findings (2)

- Health care
 - Increased physical illnesses, mental disorders and increased costs
 - Substance users receive sub-standard care in ERs (intoxication and violence)
- Crime rate
 - 70% of property crime is drug related
 - Decrease in public safety and increase in violence
- Family breakdown and intergenerational transmission of drug use
 - 1000% rise in leukaemia in off-spring of THC smoking mothers
- Lack of evidence based medicine
- Increase of drug dealing in schools


Australia's Conclusions

- Harm Minimization Approach:
 - Ignores research, science and evidence
 - Not 'scientifically correct'
- Community fatigue with HM paradigm
- HM 'too simplistic'
 - Trivialized view of drug taking
 - 'Devastation' and 'damage' instead of 'harm'
- Recommendation: shift from HM to a health promotion model



A Rational Use of Harm Reduction

- Benefits of a Harm Reduction model:
 - less rigid requirements to enter treatment;
 - patients being treated along a continuum of care;
 - treatment that is more patient/client centered;
 - flexibility in treatment programming.



A Rational Use of Harm Reduction

- Harm reduction should be seen as a potential entry point for patients wanting help with their substance use problem(s);
- Careful assessment and admission criteria to determine whether HR program is right for the patient/client;
- The goal however, must always be abstinence
 - Acceptance of any other goal contradicts the biology and behavior of Addictive Illness



Discussion & Recommendations
