

Introduction to Risk Assessment

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OVERVIEW

- General discussion of risk
- History of risk assessment
- Types of risk factors
 - Static
 - Dynamic
 - Stable
 - Acute
- Research on recidivism
- Overview of some instruments
- Presenting results

Learning Objectives

- Understand the general types of risk assessment
- Be able to describe the types of risk factors assessed (static, dynamic, stable and acute)
- Be able to identify some of the factors research has not found to be associated with risk

What Is Risk?

The simplest definition for risk is the likelihood that something bad, harmful or otherwise unwanted will occur.

For this presentation, the main focus will be on assessing risk with those who have sexually offended. For such clients, the main focus of risk assessment is the likelihood of a given client committing a new sexual offense.

Other risk assessments are also conducted, such as for violent assault or suicidality. Many of the general concepts will apply to them as well.

Why Do We Try to Measure Risk?

There are three main reasons for trying to assess risk:

1. Prevention of harm
2. Identifying appropriate targets for treatment
3. Allocation of limited resources

History of Risk Assessment

History of Risk Assessment

In the early days, risk assessments were conducted by a local expert. These assessments were based on the expert's education, training and experience. These types of risk assessments are currently described as **unstructured professional judgment** assessments, and are known as the 1st generation of risk assessments.

History of Risk Assessment

Unstructured professional judgment assessments have several problems:

- Risk estimates can vary widely from one professional to another
- This can make it difficult for referral sources when more than one is presented
- These estimates were often conducted including risk factors that research hasn't supported as associated with risk

History of Risk Assessment

Research has found that unstructured professional judgment assessments do not provide accurate or reliable estimates of risk.

- Meehl (1954), Janus & Prentky (2003); Andrews, Bonta & Wormith (2006); Quinsey, Harris, Rice & Cormier (2006); and Monahan (2007).
- Hanson & Bussiere (1998) found them to be only slightly better than chance.

History of Risk Assessment

Given these poor outcomes, efforts were made to identify factors that research supported as being related to risk for reoffense. This led to the 2nd generation of risk assessment instruments, currently known as **structured clinical judgment** instruments.

They provided the evaluator with a set of risk factors to consider that had been validated by research.

History of Risk Assessment

Limits of **structured clinical judgment** instruments:

- No indication of how each factor should be weighted in coming up with a risk estimate
- No direction for how to combine scores for the various factors to provide an overall risk estimate.

History of Risk Assessment

Structured clinical judgment instruments do still have some utility, such in assessing cases with very unusual or atypical features. For instance, a client who has substantial, fixed erotomanic delusions may well be more likely to offend than standard instruments would suggest.

Some prefer to use such instruments as they still allow for professional judgment to be included in risk assessment, rather than a purely mechanical process.

History of Risk Assessment

3rd generation risk assessments are known as **empirical** instruments. They provide:

- A set of research-validated factors to consider
- Specific weights for each item
- Rules for combining item scores into a final, overall risk estimate

History of Risk Assessment

The main drawback to **empirical** instruments is they do not provide specific predictions of likelihood of reoffense. Instead, results are grouped into nominal categories (low, moderate, high, etc.).

Nominal categories can be misleading (which will be discussed later in this presentation)

History of Risk Assessment

4th generation risk assessment instruments are known as **actuarial** instruments

In addition to the strengths of **empirical** instruments, they also offer specific predictions of likelihood of reoffense. This is most often presented as a specific percent chance of reoffense within an identified time-frame (5 years, 10 years, etc.)

History of Risk Assessment

It is important to understand the limits of accuracy of risk estimates. Hanson & Morton-Bourgon's meta-analysis (2009) found the following effect sizes for each approach:

<u>TYPE</u>	<u>EFFECT SIZE</u>
Actuarial	$d = 0.67$
Empirical	$d = 0.66$
Structured Professional Judgment	$d = 0.46$
Unstructured Professional Judgment	$d = 0.42$

Risk Factors

Risk Factors

A **risk factor** can be simply defined as anything that, when present, elevates the likelihood of some particular negative outcome.

Risk Factors

There are two main groups of risk factors considered in evaluating likelihood for sexual reoffense:

- Static—Do not improve over time
- Dynamic—Can change over time, with varying degrees of effort

Risk Factors

Early instruments tended to focus more on static risk factors, as they were more quickly and easily identified by research.

Examples:

- Number of prior sex offense convictions
- Having offended upon a stranger
- Having offended upon a male victim

Risk Factors

A limitation to static risk factors is they do not reflect any positive change a client makes. For instance, research has shown that successful completion of treatment reduces a client's likelihood of reoffending. This is not accounted for by instruments focusing solely on static factors, such as Static-99R or Static-2002R.

Risk Factors

Dynamic risk factors are those that can change, potentially for the better, over time. Dynamic factors are broken into two sub-groups:

- Stable—Those that take effort over significant time (6 or more months) to change
- Acute—Those that can change very rapidly, in a few minutes to a day or two

Risk Factors

Stable Risk Factor Examples:

- Impulsivity
- Use of sexual arousal/behavior as a primary coping skill
- Negative attitudes/hostility toward women
- Not having ever lived with a lover in a stable relationship for at least two years

Risk Factors

Acute Risk Factor Examples:

- Intoxication/chemical impairment
- Having immediate access to victims
- Emotional collapse/severe distress

Clinical Adjustment of Results

Clinical Adjustment of Results

This is when a professional uses his or her judgment to modify the estimate of risk obtained from a risk instrument.

Clinical Adjustment of Results

Research has shown this generally results in less accurate and reliable results

- Gore (2007)
- Hanson (2007)
- Vrana, Sroga & Guzzo (2008)
- Hanson & Morton-Bourgon (2009)
- Wormith, Hogg & Guzzo (2012)
- Storey, Watt, Jackson & Hart (2012)

Clinical Adjustment of Results

Clinical adjustments of results are still potentially viable, especially in unusual cases.

Accurate adjustments require familiarity with factors researched to know what does and does not relate to risk.

Without this familiarity, the likelihood of degrading the accuracy of a risk estimate increases.

Clinical Adjustment of Results

Some factors are still worth considering, such as physical health and physical capability.

In general, psychotic disorders do not increase risk. However, fixed delusions related to sex and sexuality may well elevate risk in some clients.

Mood disorders in general have not been found to increase risk. A client in a manic state, however, may well be more likely to reoffend due to increased energy, impulsivity and focus on sensation-seeking.

Unsupported Factors

Some factors previously believed related to risk for reoffense have not been supported by research:

- Low self-esteem/depression
- Denial of offense
- Young age of victims
- Initial poor motivation for treatment
- Victim empathy
- History of having been sexually abused

General Research Findings

Base Rate of Sexual Reoffense

One critical element to understand relates to the base, or general overall average, rate of reoffending.

- Hanson & Bussiere (1998)—n=23,393, average reoffense rate of 13.4%
- Hanson & Morton-Bourgon (2005) — n=29,450, average reoffense rate of 13.7%
- Hanson & Morton-Bourgon (2009)—n=28,757, average reoffense rate of 11.5%
- Estimated chance for a male to offend for the first time 1-2%

How Risk Changes Over Time

Increasing age diminishes risk

Static-99 & Static-2002 initially had only two age categories

In 2012, new research in the relationship between age and risk resulted in revisions to both with expanded age categories, which had better accuracy, especially with older offenders

Helmus, Thornton, Hanson & Babchishin (2012)

How Risk Changes Over Time

Time free in the community diminishes risk

Harris, Phenix, Hanson & Thornton (2003) found that the longer an offender is in the community and does not reoffend, the more risk for reoffense decreases.

Risk diminishes by approximately 50% for each period of 5 years in the community without reoffense.

Description of Some Risk Instruments

Description of Some Risk Instruments

Static-99R

- Comprised of 10 items

Age at Release	4+ Prior Sentencing Dates
Ever Lived with a Lover (2+ years)	Non-Contact Sex Offenses
Index Non-Sexual Violence	Unrelated Victim
Prior Non-Sexual Violence	Stranger Victim
Prior Sex Offenses	Male Victim

- Most scored either 1 or 0. 2 items have a 4-point scale

Description of Some Risk Instruments

Static-2002R

- Comprised of 14 items:

Age at Release	Any Unrelated Victim
Prior Sex Offenses	Stranger Victim
Separate Juvenile Arrest for Sex Offense	Prior Legal Charges/Convictions
Rate of Sexual Offending	Prior Sentencing Occasions
Non-Contact Sex Offense	Community Supervision Violation
Male Victim	Years Free Prior to Index Sex Offense
Young, Unrelated Victims	Prior Non-Sexual Violence

- Most scored either 0 or 1. 3 items have a greater range

Description of Some Risk Instruments

Static-2002R

- Items are clustered into 5 areas:
 - Age
 - Persistence of Sexual Offending
 - Deviant Sexual Interests
 - Relationship to Victims
 - General Criminality

Description of Some Risk Instruments

Stable 2007

- Comprised of 13 items

Significant Social Influences	Poor Problem Solving Skills
Capacity for Relationship Stability	Negative Emotionality
Emotional ID with Children	Sex Drive/Sex Preoccupation
Hostility Toward Women	Sex as Coping
General Social Rejection	Deviant Sexual Preference
Lack of Concern for Others	Cooperation with Supervision
Impulsive Acts	

- All items are scored 0, 1 or 2

Description of Some Risk Instruments

Stable 2007

- Designed to be combined with a static risk instrument to provide an overall assessment of a client's risk at a given time
- Stable risk factors are assumed to take significant time and effort to change. Therefore, the Stable 2007 should not be administered more frequently than every six months.

Description of Some Risk Instruments

Acute 2007

- Comprised of 7 items
 - Victim Access
 - Hostility
 - Sexual Pre-occupation
 - Rejection of Supervision
 - Emotional Collapse
 - Collapse of Social Supports
 - Substance Abuse
- Can be administered in just a few minutes

Description of Some Risk Instruments

Acute 2007

- Items are scored on a 4-point scale:

0	No problem
1	May be a problem, not sure
2	Yes, a concern
3/IN	Intervene now

Description of Some Risk Instruments

Acute 2007

- Most useful when multiple scorings are collected over a period of time.
- Can give a better idea if a change in behavior is a single anomaly or the start of a pattern of deterioration

Presenting Results

Presenting Results

There are four general ways in which the results of risk assessments are presented and discussed:

- Nominal Categories
- Percentage Chance
- Percentile Rank
- Risk Ratios

Presenting Results

Nominal Categories

- Verbal descriptors of an individual's likelihood to reoffend
 - Low
 - Medium/Moderate
 - High

Presenting Results

Problems with old nominal categories

- Can easily be misleading about an individual's actual chance of reoffense
 - "Medium" or "Moderate" can be misinterpreted as meaning in the middle or 50%.
 - "High" can easily be assumed to mean 75% (or higher) chance of reoffense.

Presenting Results

New nominal categories

Based off Hanson, et. al. (2016) and their work with the U. S. Council of State Government Justice Center.

- Category I – Very Low Risk
- Category II – Below Average Risk
- Category III – Average Risk
- Category IVa – Above Average Risk
- Category IVb – Well Above Average Risk

Presenting Results

New nominal categories

Categories were based on known reoffense rates

- Category I – roughly the same risk as those who haven't offended to do so spontaneously
- Category III – average risk as identified by research
- Category IVb – those in the highest bracket identified by research (approximately top 8% on Static-99R and Static-2002R)
- Categories II and IVa – meaningfully lower and higher than the categories that bracket them

Presenting Results

Percentage chance of reoffense

- The most common way of numerically representing risk
- Sometimes referred to as absolute risk, as it gives a specific likelihood for a given individual
- Usually presented as a percentage chance of reoffense in a given period of time
 - 11% chance of reoffense in the next 5 years
 - 17% chance of reoffense in the next 10 years

Presenting Results

Percentage chance of reoffense—Strengths

- More easily understood by the average reader
- Can easily be translated to group offenders using cutoffs of percentage chance of reoffense for both treatment and supervision

Presenting Results

Percentage chance of reoffense—Limitations

- Less stable over longer periods of time
- Estimates may be less accurate the more an individual differs from the normative sample

Presenting Results

Percentile Ranks

- Gives a description of how a given offender's risk compares to that of most known offenders.
 - Falls within the 19th percentile of risk for reoffense
 - Falls within the 94th percentile of risk for reoffense

Presenting Results

Percentile Ranks—Strengths

- Gives a quick and easy way to compare an individual's risk for reoffense to those of the known population for making decisions about levels of treatment and supervision
- Percentile ranks are used in many other areas and so may be a familiar descriptive metric
- Tend to be more stable across populations than percentage chance

Presenting Results

Percentile Ranks—Limitations

- Does not provide as clear an idea of how likely a given individual is to reoffend as percentage chance

Presenting Results

Risk Ratios

- Compares the individual's likelihood of reoffense to that of the average offender
 - 2.3 times as likely to reoffend as the average offender
 - 0.7 times as likely to reoffend as the average offender

Presenting Results

Risk Ratios—Strengths

- More stable over time
- More stable across varying populations
- Useful for sorting multiple individuals based on risk for intensity of supervision and treatment services

Presenting Results

Risk Ratios—Limitations

- Can be more difficult for the average reader to understand
- Requires understanding of base rates of reoffense for accurate interpretation
- Also requires understanding of the base group to which they are being compared.

Questions?

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