

# RISK ASSESSMENTS: HCR-20, DASA-4 AND OTHER INSTRUMENTS

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# AIMS

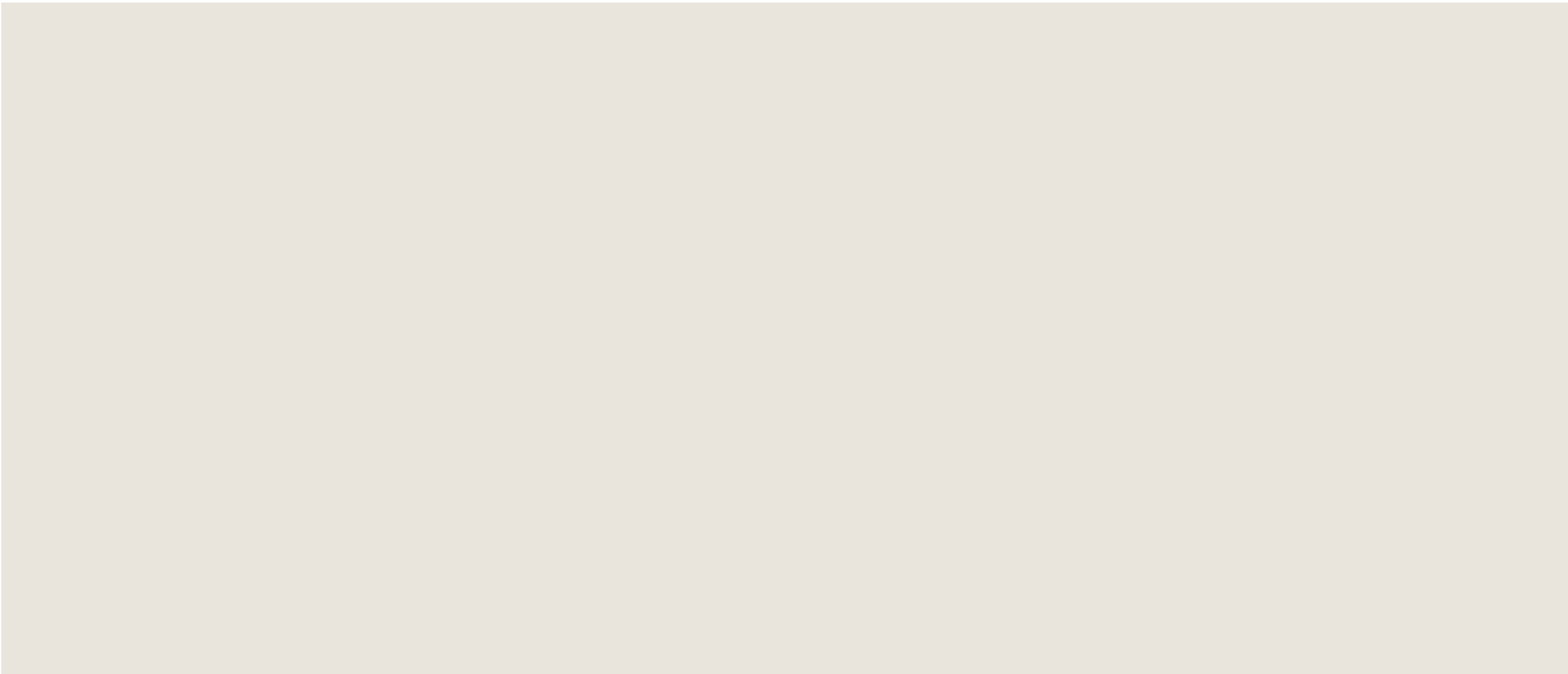
- Rationale for risk assessment
- The value of a structured approach
- Three specific instruments – the VRAG, HCR-20 and DASA-VI
- The evidence of validity for these tools

# 10 POINT TREATMENT PROGRAMME

1. a multi-axial diagnostic assessment
2. a collaboratively developed psychological formulation
3. risk assessments and management plans
4. a behaviour support plan
5. pharmacotherapy
6. individual and group psychotherapy, guided by the psychological formulation
7. offence-specific therapies
8. education, skills acquisition and occupational / vocational rehabilitation
9. community participation through a system of graded leave periods
10. preparation for transition

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# PREDICTING OFFENDING

- Evidence now suggests a non-linear relationship between intelligence and offending behaviour.
- The rate of recorded offending appears to increase as the recorded IQ score decreases.
- However, when the IQ score goes below 80-85, that linear relationship is no longer evident.

# PREDICTING OFFENDING

- As a group, people with learning disability are more likely to be victims of crime than perpetrators, but a significant number do have other mental health problems and behaviour that is described as challenging.
- The dividing line between this challenging behaviour and offending behaviour can be thin and depend on a number of factors including:
  - the seriousness of the act
  - the visibility of the act
  - the visibility of disability
  - the availability of advocacy
  - the availability of professional resources
  - the values and attitudes of professionals who are involved

# ASSESSING RISK

- Professionals and carers will need not only to accurately assess the risk of future offending, but also identify those factors and contexts in which such offending may occur.
- While there is an extensive body of knowledge available in this field regarding general offender populations and those in contact with mainstream mental health services, it is relatively less well developed for people with learning disability and ‘offending behaviours’



# CLINICAL RISK ASSESSMENT - UNSTRUCTURED

- Clinical approaches are generally categorised as unstructured or structured.
- The basis for an unstructured assessment is the clinician's own subjective judgement based on their own experience and knowledge of offending behaviour
- Research data suggest that unstructured clinical judgements result in biased, inaccurate and unreliable predictions of risk
- They have largely been replaced by more structured methods

# CLINICAL RISK ASSESSMENT - STRUCTURED

- Structured clinical judgement integrates and guides the assessment, prediction, management, prevention and communication of risk using a standardised checklist
- Clinicians assess the presence or absence of identified risk and protective factors to develop a risk formulation and assign individuals to a risk category (e.g. low, moderate, high)
- With this approach, professionals may choose to use static or dynamic instruments; or a combination of the two.

# THE VALUE OF AN ESTABLISHED RISK ASSESSMENT TOOL

- Using in-house tools results in inconsistent definitions of high-risk individuals
- It may also compromise communication between service providers
- This can have a negative impact for the individual; but may also impact on service planning nationally and regionally

# STATIC RISK FACTORS

- Static risk factors are those that are historical or unchanging.
- These risk factors are used in actuarial risk assessment instruments that are described in the next section.
- Though not as robust as that in general offender and mental health groups, there is evidence that some static risk factors are predictive of recidivism in this group. Of particular relevance are:
  - (1) being younger and male,
  - (2) having a history of substance misuse,
  - (3) a diagnosis of personality disorder
  - (4) a history of violence and offending.
- These factors do not significantly differ from those for mentally disordered offences and hence those risk assessment instruments developed for that group should be valid for use here too

# ACTUARIAL RISK ASSESSMENT INSTRUMENTS

- Risk assessment of violence towards others based purely on clinical opinions have been shown to be poor and inaccurate - hence the drive to develop actuarial risk assessment instruments based on static risk factors.
- Actuarial = *“a statistically calculated prediction of the likelihood that an individual will pose a threat to others or engage in a certain behaviour (e.g., violence) within a given period.”* (Dictionary of Psychology, American Psychological Association)
- These instruments relied on a smaller and more relevant set of factors that predicted future violence in populations and combined them using a statistical model that was highly reliable and free from personal bias.
- This has been shown to be superior to clinical judgement when predicting violence.

# ACTUARIAL RISK ASSESSMENT INSTRUMENTS

- The applicability of these tools for offenders with learning disability is affected by the fact that many people with learning disability do not get formal convictions
- e.g. a long term follow-up of discharges from a forensic unit showed that while the reconviction rate was only around **11%**, **59%** reportedly had offending behaviour that did not attract a formal conviction
- Notwithstanding these limitations, the actuarial risk assessment instruments recommended for this group, have reasonable predictive validity

# VIOLENCE RISK APPRAISAL GUIDE (VRAG)

- Well validated 12 item tool that has been consistently shown to predict future violent offences in mentally disordered offenders.
- Predictive efficacy in patients within forensic learning disability units has been demonstrated in a series of studies to be comparable to that in mentally disordered offenders.
- Preliminary evidence to suggest the same in community settings.

# VIOLENCE RISK APPRAISAL GUIDE (VRAG)

- The 12 items of the VRAG are:
  - (1) lived with biological parents till the age of 16
  - (2) elementary school maladjustment
  - (3) history of alcohol problems
  - (4) marital status
  - (5) total Cormier- Lang score for non-violent offences
  - (6) failure of conditional discharge
  - (7) age at index offence
  - (8) victim injury
  - (9) any female victim
  - (10) diagnosis of personality disorder
  - (11) diagnosis of schizophrenia- inversely scored
  - (12) psychopathy as measured by PCL-R or PCL-SV\*



# DYNAMIC RISK FACTORS

- Dynamic factors reflect changeable environmental variables and internal states that are temporary such as attitudes, cognitions or
- Research shows there are nine issues commonly associated with offending behaviour:
  - unstable accommodation
  - a lack of employment
  - no positive recreation activities
  - poor personal relationships
  - alcohol misuse
  - drug misuse
  - impulsivity and poor emotional control
  - anti-social peers
  - attitudes that support crime.
- These dynamic risk factors are also sometimes called criminogenic needs.

# STRUCTURED PROFESSIONAL (CLINICAL) JUDGEMENT INSTRUMENTS

- The structured professional judgement approach covers both static and dynamic factors, and attempts to bridge the gap between unstructured clinical judgement and actuarial approach
- Widely used in general offender populations and in the field of offenders with mental health problems, they are also relevant in people with learning disability and offending behaviours.

- In line with the risk-needs-responsivity model of understanding risk...
  - static risk factors may be seen as determining ‘who’ should be treated (i.e. by identifying the higher risk offender),
  - dynamic measures as determining ‘what’ should be treated (i.e. by identifying the criminogenic needs to be targeted)
  - and the responsivity principle as determining ‘how’ to deliver that treatment (i.e. by targeting the individual’s unique characteristics).

# HCR-20

- HCR-20 is a structured clinical guide which looks at the risk of future violence.
- It contains extensive guidelines for the evaluation of not only the presence of 10 historical, 5 clinical and 5 risk management variables, but also their relevance to the patient being assessed.
- It also helps to construct meaningful formulations of violence risk, future risk scenarios, appropriate risk management plans, and informative communication of risk.

# HCR-20 – HISTORICAL FACTORS

- H1 Violence
- H2 Other antisocial behaviour
- H3 Relationships
  - Intimate/Non-Intimate
- H4 Employment
- H5 Substance use
- H6 Major mental disorder
  - Psychotic Disorders/Major Mood Disorders/Other
- H7 Personality disorder
  - Antisocial/Other
- H8 Traumatic experiences
  - Victimization/Adverse Childrearing Experiences
- H9 Violent attitudes
- H10 Treatment or supervision response

# HCR-20 – CLINICAL

## Clinical Items

- **C1 Insight**
  - Mental Disorder/Violent Risk/Need For Treatment
- **C2 Violent ideation or intent**
- **C3 Symptoms of major mental disorder**
  - Psychotic/Major Mood/Other
- **C4 Instability**
  - Affective/Behavioural/Cognitive
- **C5 Treatment or supervision response**
  - Compliance/Responsiveness

# HCR-20 - RISK

## Risk Management

- R1 Professional services and plans
- R2 Living situation
- R3 Personal support
- R4 Treatment or supervision response
  - Compliance/Responsiveness/
- R5 Stress or coping

## HCR-20 - VALIDITY

- ***Predicting future reconviction in offenders with intellectual disabilities: The predictive efficacy of VRAG, PCL-SV, and the HCR-20.* - Gray, N. S., Fitzgerald, S., Taylor, J., MacCulloch, M. J., & Snowden, R. J. (2007)**
- **Showed that the VRAG, HCR-20 (and PCL-SV) were all significant predictors of violent and general reconviction, and in many cases, their efficacy was greater than in a control sample of mentally disordered offenders without an intellectual disability.**

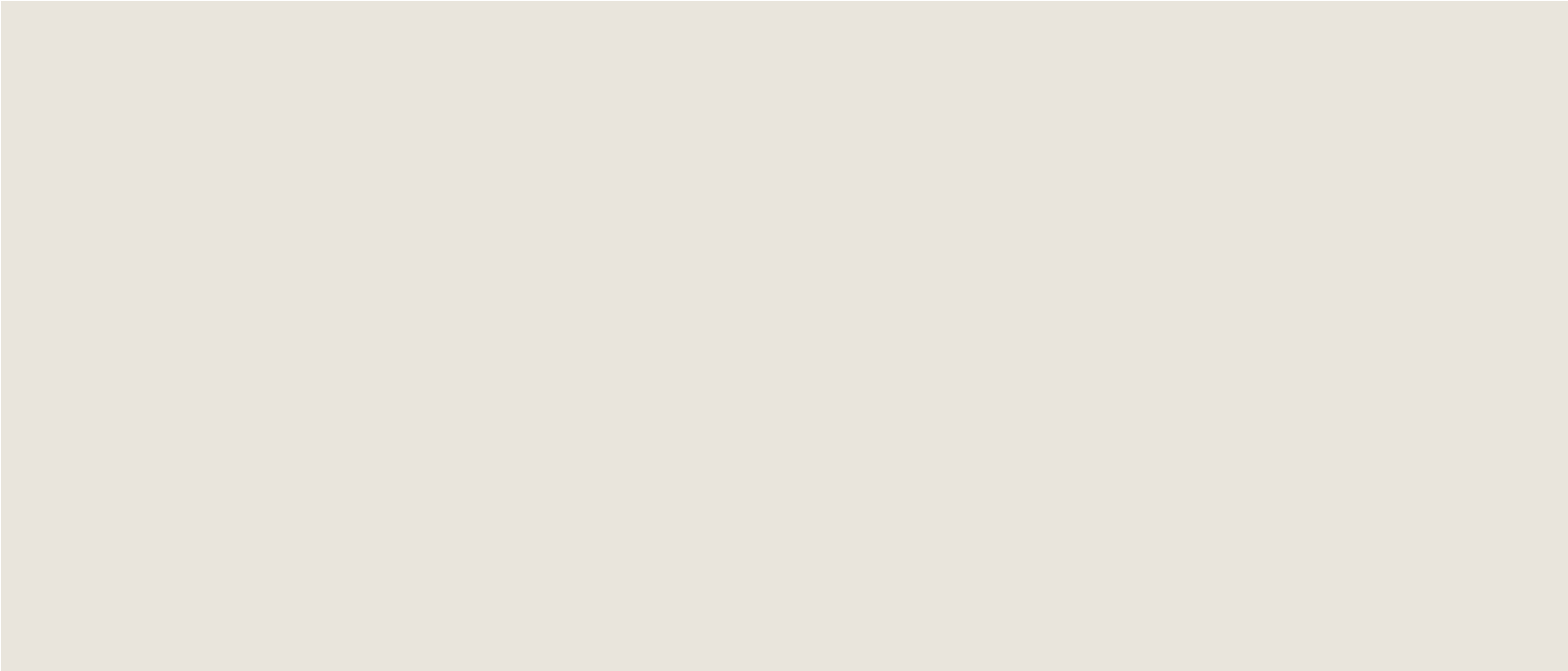


# HCR-20 - VALIDITY

- ***Predictive validity of the HCR-20 for inpatient aggression: the effect of intellectual disability on accuracy: HCR-20 prediction of aggression in ID – O’Shea, L, Picchioni, M., McCarthy, J., Mason, F., Dickens, G.***
- The total score was a significant predictor of any aggression and of physical aggression.
- The clinical subscale performed significantly better in those without an ID compared with those with.
- The ID group had a greater number of relevant historical and risk management items.
- The clinicians' summary judgment significantly predicted both types of aggressive outcomes in the ID group, but did not predict either in those without an ID.
- The HCR-20 is a significant predictor of inpatient aggression in people with an ID and performs as well as for a comparison group of mentally disordered individuals without ID.
- The potency of HCR-20 subscales and items varied between the ID and comparison groups suggesting important target areas for improved prediction and risk management interventions in those with ID.

# THE CYCLE

- The approach to risk assessment of violence in psychiatric or mental health settings has been well summarised elsewhere as a cycle of:
  - assessing risk
  - drawing up a risk management plan
  - communicating that plan to all concerned, ensuring that the plan is carried out
  - evaluating the outcome of the plan
  - undertaking a clinical review
  - and then reassessing the risk.



**THE DYNAMIC APPRAISAL OF  
SITUATIONAL AGGRESSION (DASA)**

**1. The Dynamic Appraisal of Situational Aggression (DASA) is a tool developed by Ogloff & Daffern (2006) to assess the likelihood that A Service User will become aggressive within a psychiatric inpatient environment. The DASA is based on the Norwegian Brøset-Violence-Checklist (BVC):**

### **DASA Items**

- Irritability
- Impulsivity
- Unwillingness to follow instructions
- Sensitive to perceived provocation
- Easily angered when requests are denied
- Negative attitudes
- Verbal threats

## SCORING

- Each of the items are scored 0 if absent or 1 if is present now or has been present in the last 24 hours. This means that if someone is not currently displaying easy anger upon denied requests, but was earlier, that item should be scored 1
  - There is no typical cut-off score for the DASA, although Barry-Walsh et. al. (2009) note in their research that “for each increase in DASA total score, there was a 1.77 times increased likelihood that the patient would behave aggressively in the following 24 hours”
  - In Ogloff & Daffern’s original 2006 study:
    - 18% of aggressive patients scored 1 to 3
    - 15% of aggressive patients scored 4 or 5
    - 55% of aggressive patients scored 6 or 7
- Kaunomäki (2013) used a cut-off score of 4 to identify high-risk individuals

**Scoring the DASA-IV requires two steps:**

**1. Assessing Risk or Aggression**

**2. Recording Aggression**

# STEP 1 – ASSESSING THE RISK OF AGGRESSION

- The scoring guidelines for DASA-IV are based on the Brøset Violence Checklist, in that each of the items is scored for its presence (1) or absence (0) in the last 24 hours. Importantly, for well-known patients an increase in the behaviour is scored as 1, whereas the habitual behaviour while being non-violent is scored as 0
- For example, a well-known patient who is always irritable or unwilling to follow directions but is never aggressive would score a 0 on these two characteristics. Conversely, if the patient is not generally irritable and unwilling to follow directions but has behaved this way over the past 24 hours then they would be scored as 1. For patients who are not well known the items are scored as present (1) or absent (0). The sum of scores is then totalled



## **STEP 2 – RECORDING AGGRESSION**

- **To record acts of aggression on the DASA-IV, the person completing the current days risk assessment should record whether the patient has been aggressive during the previous 24 hours**
- **They should mark with an X in the appropriate box if the person has been physically aggressive towards objects (slamming doors, throwing objects, kicking furniture, smashing windows, setting fires). If the person has been verbally aggressive (shouting angrily, insulting or cursing, using foul language in anger or making threats to others) towards either patients or staff then similarly place an X in the appropriate box**
- **The same column should be completed on each day. That is, on Monday, when the patient's risk is being assessed their aggressive behaviour in the past 24 hours is recorded in Monday's column**

# **A - IRRITABILITY** (TAKEN FROM THE BVC WITH PERMISSION)

- **The patient is scored 1 if they have been considered easily annoyed or angered and unable to tolerate the presence of others within the previous 24 hours**
- **Scoring key:**
  - **0 – the patient has been calm, patient and relaxed during the previous 24 hours. They are comfortable and relaxed in the company of other patients and staff**
  - **1 – the patient is considered easily annoyed or angered and unable to tolerate the presence of others**
  - **Or – a score of 0 is assigned if the patient has been irritable over seven days with no incidents of aggression**
  - **Thereafter, a score of 1 will be assigned again if there is an appreciable increase in irritability**



DASA SCORING GUIDE	
<b>Irritability</b>	<b>Sensitive to perceived provocation</b>
<p>The patient is scored 1 if they have been considered easily annoyed or angered and unable to tolerate the presence of others within the previous 24 hours.</p> <p>Scoring key:</p> <ul style="list-style-type: none"> <li>0 – the patient has been calm, patient and relaxed during the previous 24 hours. They are comfortable and relaxed in the company of other patients and staff.</li> <li>1 – The patient is considered easily annoyed or angered and unable to tolerate the presence of others.</li> <li>Or – a score of 0 is assigned if the patient has been irritable over seven days with no incidents of aggression.</li> <li>Thereafter, a score of 1 will be assigned again if there is an appreciable increase in irritability.</li> </ul>	<p>Scoring key:</p> <ul style="list-style-type: none"> <li>0 -The patient does not tend to get angry or see everything that occurs around them as provocative. They are not 'overly sensitive' or 'provocative'.</li> <li>1 – Within the previous 24 hours, the patient has tended to see others' actions as deliberate and harmful. They may misinterpret other people's behaviour or respond with anger in a disproportionate manner to the extent of provocation. They are prickly, overly sensitive and quick to anger.</li> <li>Or – a score of 0 is assigned if the patient has been sensitive to perceived provocation over seven days with no incidents of aggression. Thereafter, a score of 1 will be assigned again if there is an appreciable increase in the extent to which the patient is sensitive to perceived provocation.</li> </ul>
<b>Impulsivity</b>	<b>Easily angered when requests are denied</b>
<p>Scoring Key:</p> <ul style="list-style-type: none"> <li>0 – the patient has been affectively and behaviourally stable over the previous 24 hours.</li> <li>1 – The patient has been sudden, impulsive and unpredictable in their affect or behaviour during the previous 24 hours.</li> <li>Or a score of 0 is assigned if the patient has been impulsive over seven days with no incidents or aggression.</li> <li>Thereafter, a score of 1 will be assigned again if there is an appreciable increase in impulsivity.</li> </ul>	<p>Scoring key:</p> <ul style="list-style-type: none"> <li>0 – the patient is calm and accepting when they are asked to wait whilst their request is attended to. They understand and accept that their request is unable to be fulfilled at that time.</li> <li>1 – Within the past 24 hours the patient has tended to become angry when their requests have not been granted immediately. They do not accept the delay in gratification of their requests, may become angry, surly or aggressive.</li> <li>Or – a score of 0 is assigned if the patient has been easily angered when requests are denied over seven days with no incidents of aggression.</li> <li>Thereafter, a score of 1 will be assigned again if there is an appreciable increase in the extent to which the patient is easily angered when requests are denied.</li> </ul>
<b>Unwillingness to follow directions</b>	<b>Negative attitudes</b>
<p>Scoring Key:</p> <ul style="list-style-type: none"> <li>0 – the patient is generally compliant with any requests and directions</li> <li>1 – The patient has become angry and/or aggressive with the previous 24 hours when they were asked to adhere to some aspect of their treatment or to the wards routine.</li> <li>Or – a score of 0 is assigned if the patient has been unwilling to follow directions over seven days with no incidents of aggression.</li> <li>Thereafter, a score of 1 will be assigned again if there is an appreciable increase in irritability.</li> </ul>	<p>Scoring key:</p> <ul style="list-style-type: none"> <li>0 – no negative attitudes</li> <li>1 – definite serious negative attitudes exhibited with the previous 24 hours</li> <li>Or – a score of 0 is assigned if the patient has had negative attitudes when requests are denied over seven days with no incidents of aggression.</li> <li>Thereafter, a score of 1 will be assigned again if there is an appreciable increase in the extent to which the patient exhibits negative attitudes.</li> </ul>

## Dynamic Appraisal Situational Aggression: Inpatient Version

**The DASA-IV is to be used as a guide for assessing the likelihood of inpatient aggression amongst psychiatric patients. It should not be prescriptive in terms of dictating interventions, nor should it be used in a manner that is isolated from clinical judgement**

# INTERPRETING THE DASA-IV – THE LEVEL OF RISK FOR INPATIENT AGGRESSION

DASA-IV Score	Level of Risk	Action Required
0-1	Low	<p>No Interventions:</p> <ul style="list-style-type: none"> <li>• Assess &amp; Intervene</li> <li>• Measure is better the more ‘eyes &amp; ears feedback’</li> <li>• Share / discuss / test / / huddle</li> </ul>
2-3 (Huddle)	Moderate	<p>Moderate Risk – communicate risk / alert staff members to monitor the Service User – ‘pass the word along’ as an element of presentation maybe changing / impacting on how we practice.</p>
>3 (Huddle)	High	<p>Nursing / MDT - intervention required – which needs to have been discussed in advance – ‘what you do if the risk is high’: Basically what you will do and how this will be communicated.</p> <p>Crisis should not be the time to develop a plan, this needs to be planned in advance, meaning interventions that have previously been agreed upon (PRN / 121 etc.) are put into place. Resulting in a clear safety plan is communicated to staff.</p>

## **INTERPRETING THE DASA-IV – THE LEVEL OF RISK FOR INPATIENT AGGRESSION**

- **Scores of 0 and 1 suggest that risk of violence is low and generally no remediation is required**
- **Nonetheless, even with a score of 1 the patient should be monitored in case additional factors arise**
- **Scores of 2 or 3 represent a moderate risk and preventative measures should be taken to reduce the likelihood that patients will engage in aggressive behaviour within 24 hours**
- **Scores greater than 3 indicate a high level of risk. This represents a serious risk that the patient will be physically aggressive within 24 hours. Preventive measures are required**
- **In the study of aggression during 2002 every patient who scored 4 was aggressive. The risk level of patients who score 4 or more should therefore be considered very high, suggesting that aggression is imminent**

## Interpreting the DASA-IV – The Level of Risk for Inpatient Aggression

- **As the DASA-IV is based upon the structured professional judgement model of violence risk assessment, it must be emphasised that clinicians are encouraged to supplement the information from the DASA-IV results with informed clinical judgement**
- **For example, some patients may exhibit characteristics of the DASA-IV as a part of their general demeanour. It would be senseless to consider such patients as posing an ongoing risk for inpatient aggression**
- **Conversely, some patients may exhibit only one or two items routinely before becoming aggressive. In such cases, even though the DASA-IV scores fall in the moderate range, the actual level of risk may be higher and preventive or remedial action may be required.**



## Interpreting the DASA-IV – The Level of Risk for Inpatient Aggression

- **Finally, clinicians are cautioned about employing strategies to prevent violence among patients with high scores in a manner that is too routine or restrictive**
- **For example, rather than selecting a restrictive measure such as seclusion on the basis of an identified high risk for aggression, attention should be paid to the patient to determine which risk/aggression reduction strategies may be most effective for the patient**

# THE CYCLE

- The approach to risk assessment of violence in psychiatric or mental health settings has been well summarised elsewhere as a cycle of:
  - assessing risk
  - drawing up a risk management plan
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# 10 POINT TREATMENT PROGRAMME

1. a multi-axial diagnostic assessment
2. a collaboratively developed psychological formulation
3. **risk assessments and management plans**
  - **Clinical Risk Assessment (Unstructured)**
  - **Structured Approach: Actuarial or Structured Professional Judgement – e.g HCR-20, START**
  - **Important to ensure that notable factors from risk assessment are translated into care plans**
4. a behaviour support plan

**THANK YOU**