Name of Tool	Historical Clinical Risk-20 (HCR-20) – developed into HCR-20^{V3}
Category	Violence Risk (Validated)
Author / Publisher	Webster and colleagues
Year	2013

Description

- The HCR-20 is a 20-item structured clinical guide for the assessment of violence risk intended for use with civil psychiatric, community, forensic, and criminal justice populations.
- The instrument has a tripartite temporal focus, comprising the following: ten historical variables ('H' Scale), looking at a history of problems with violent behaviours and attitudes, employment, relationships, mental and personality disorders and antisocial behaviours; five clinical variables ('C' Scale), highlighting recent or current problems with psychosocial, mental health and behavioural functioning; five risk management factors ('R' Scale), encompassing relevant past, present, and future considerations with regards to living conditions, services, personal support and stress. All of these scales should be reviewed regularly (Douglas et al., 2014).
- The third version of HCR-20 (HCR-20^{V3}) was published in 2013 and the encompassing factor on personality now considers all disorder symptoms. The 'relevance rating' allows for the rating of the presence and relevance of each risk factor to be evaluated, allowing for assessments to be individualised (Logan, 2014).
- The HCR-20 prioritises cases as low/routine, moderate/elevated or high/urgent. A low/routine rating suggests the person is not in need or any special interventions or monitoring. Moderate/elevated risk indicates special management and increased monitoring is needed. The high/urgent prioritisation requires immediate action, which could include hospitalisation or suspending a conditional release (Brunt, 2013).

Age Appropriateness

18-65

Assessor Qualifications

Assessors must possess a degree, certificate or licence to practice within health care settings.

Assessors must also possess the necessary training and experience in the administration, scoring and interpretation of clinical behavioural assessment instruments and be familiar with professional and research literature in the study of violence. It is possible for a team of professionals to complete the tool: a psychiatrist could complete the items relating to mental illness; a psychologist could look at the personality disorder and psychopathy items; a social worker may complete items pertaining to social history and future plans (Douglas and Reeves, 2010).

Strengths

- Large research base.
- The HCR-20 has the capacity to guide clinical judgement about intervention and risk management (Gray et al., 2008).
- The inclusion of a clinical formulation in the HCR-20 exploring the motivating factors for violence and potential future risk scenarios affords the evaluator the opportunity to think about violence in real-world scenarios (Brunt, 2013).

Empirical Grounding

- Research has shown the HCR-20 includes static and dynamic factors that have sound empirical grounding (Douglas et al., 2005).

- The HCR-20 has been subject to more than 200 empirical validations (Douglas et al., 2014).

Inter-Rater Reliability

a) UK Research	• Doyle et al. (2014) found that "the HCR-20V3 demonstrated very good inter-rater reliability and significantly predicted community violence at six and twelve months post-discharge, with ROC AUCs of .73 and .70 respectively." • Gray et al. (2008) - ICC of .80 found for the HCR-20^{V2}. • Doyle and Dolan (2006) found ICC values of .85 and .83 for the clinical and risk management items of the HCR-20.
b) International Research	• Mills et al. (2007) - the original HCR-20 achieved an ICC value of .85 in a Canadian sample of incarcerated males. • Douglas et al.'s (2002-2008) review of previous research containing showed ICC value of .73 and above for the HCR-20 across different sample populations. • Douglas and Belfrage (2014) found inter-rater reliability was evident for the version 3 of HCR-20. • Green et al. (2016): "Results indicated higher inter-rater reliability on scoring risk factors among males as compared to females, calling for future research into the role of item indicators across genders and possible differences in interpretations of scoring guidelines." • Cawood (2017) found the inter-rater reliability of the HCR-20 V3 was significant with an ICC of .72.

Validation History

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General Predictive Accuracy	
•The HCR-20 was developed from consideration of the empirical literature concerning factors that relate to violence. •There are 16 new sub-items in the Historical scale in version 3, which prompt the rater to look in more detail at a wider range of historical information (Doyle et al., 2014).	
a) UK Research	None available at present.
b) International Research	•Abbiati and colleagues (2014) applied risk assessment instruments to 52 violent offenders in a Swiss prison to evaluate predictions for physical, any and other misconduct. Total scores were good for physically violent misconduct (AUC=0.80), fair for any misconduct (AUC=0.72) and poor for other misconduct (AUC=0.67).

Validation History

Applicability: Females	
a) UK Research	•Coid et al. (2009) - the 'H' scale generated AUC values of .70 to .73 for female offenders.
b) International Research	•Garcia-Mansilla, Rosenfeld and Cruise (2011) - the total score for the 'H' and 'C' scales had moderate predictive accuracy for community violence (AUC= .60); although when separating the AUC value for the 'C' scale alone did not have significant predictive accuracy. •Schapp et al. (2009) - the HCR-20 score did not predict general and violent recidivism in female psychiatric patients. •Strub, Douglas and Nicholls (2016) study used a sample of 52 men and 48 women – "Results indicated that the HCR-20 as well as its components predicted both the occurrence and imminence of violent outcomes and gender did not moderate those relationships." •The HCR-20^{V3} was coded alongside other risk assessment tools to check predictive accuracy for 78 female forensic psychiatric patients over a period of 11.8 years. Findings suggest that the HCR-20^{V3} showed significant predictive accuracy. The clinical scale of the tool was significant for predicting violent recidivism (de Vogel, Bruggeman and Lancel, 2019).

Validation History

Applicability: Ethnic Minorities	■ ■ ■
a) UK Research	•Snowden, Gray and Taylor (2010) - the HCR-20 generated moderate to high AUCs of .72 and .66 for White and Black mentally disordered offenders respectively.
b) International Research	•Fujii et al. (2005) - composite HCR-20 score achieved moderate to high AUC values for native Hawaiian and Euro-American groups (.73 and .64 respectively); although for Asian Americans the value was lower (.58). There were no significant differences between AUC values for these ethnic groups.

Validation History

Applicability: Mental Disorders	■ ■ ■ ■ ■ ■ ■ ■ ■
a) UK Research	•O'Shea et al. (2015) maintained that their study demonstrated that "after controlling for a range of potential covariates, the HCR-20 is a significant predictor of inpatient aggression in people with an ID (intellectual disability) 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." •Coid et al. (2009) – the HCR-20 obtained moderate AUC values for violent recidivism and acquisitive reconviction in male offenders (.67 and .69 respectively). The HCR-20 also generated moderate to high predictive accuracy for female offenders. •Ho et al. (2009) - ROC analyses revealed that the 'H' scale had moderate to high predictive accuracy for predicting minor violence (AUC = .619), serious violence (AUC = .74), and any violent incidents (AUC = .61) in a psychiatric sample. •Lindsay et al. (2008) - the HCR-20 obtained a relatively high AUC of .72 in a sample of offenders with learning disabilities. •A survey of 43 mental health clinicians in a secure hospital found the historical and clinical subscales of the

	HCR-20 were perceived to be the most relevant to violence prediction (Dickens and O'Shea, 2017).
b) International Research	• Campbell, French and Gendreau (2009) - meta-analysis highlighted the predictive reliability of the HCR-20 in regard to institutional violent recidivism (K = 11, (n = 758) Z+ = .28). • Mills et al. (2007) found an AUC value of .73 in their pseudo-prospective study of 83 incarcerated males. • A study by Arai et al. (2016) examined the records of forensic psychiatric patients from 2008-2015 to test the predictive accuracy of the HCR-20. Results from ROC analyses indicate that the clinical and risk subscales of the HCR-20 showed good predictive accuracy, although the historical one failed to do so. • Sada and colleagues (2016) utilised the HCR-20 on 225 patients within a Mexican psychiatric facility. It was found that violent behaviour was more severe in the patients within the high-risk category, thus suggesting the HCR-20 is a suitable instrument to predict risk of violence. • Vitacco et al. (2016) assessed data from 116 forensic inpatients and found that higher scores in the risk scale of the HCR-20 had a link to a greater likelihood of not being released from or having to return to a forensic facility after release. The authors conclude that clinicians should perhaps consider community-based variables when evaluating forensic patients due to be released back into the community. • The predictive validity of the HCR-20 was examined in a sample of 136 forensic psychiatric patients in Australia. Findings showed that the total score, historical and risk management scales all had moderate to large positive correlations with reconvictions (Shepherd, Campbell and Ogloff, 2018). • Jeandarme et al. (2017) carried out a study in 3 forensic medium security units in Belgium. The results indicated that the HCR-20 only shown predictive accuracy for low risk individuals, whilst it was not accurate for high-risk patients.

Contribution to Risk Practice

- The HCR-20 has been translated into sixteen languages and is used across various continents: North and South America, Asia, Europe and Australia (Douglas and Reeves, 2010).
- The HCR-20 can identify a number of risk and responsivity factors relevant to the individual's risk of violent recidivism.
- Many of the factors identified by the tool can act as targets for treatment/change (e.g. insight, relationship factors) and the instrument can aid decisions regarding the level of monitoring and supervisory strategies, in relation to individuals who pose minimal to high levels of risk for recidivism.
- The HCR-20 can aid assessors in developing risk formulations and risk management strategies.
- Doyle et al. (2014) reports in a study of the third version: "Findings support the hypotheses that (1) the HCR-20 V3 and sub-scales can be coded with satisfactory agreement across different raters, and (2) patients with high scores at discharge on HCR-20 V3 were significantly more likely to be violent than service users with low baseline scores at six and 12 months post discharge in the community."
- The definition of violence provided with the HCR-20 extends to threatened and attempted violence. This means it could be useful to assess risk in cases of violence that do not involve physical harm such as stalking or causing psychological damage (Douglas and Reeves, 2010).

Other Considerations

- The time period for which an assessment is produced needs to be considered. Snowden and colleagues (2007) state that the 'C' scale of HCR-20 is found to be a good predictor of institutional violence over the next 3 months but a poor predictor of reconviction over a period of several years.
- The authors advise that the dynamic items (i.e. the clinical and risk management) are capable of indexing change. In addition, some of the Historical items may not necessarily be 'static' (e.g. changes in the offender's relationship or employment status) (Douglas et al., 2001).
- The HCR-20 does not provide numerical estimates of risk for violence. It is advised that assessors keep abreast of research about the impact of social factors on violence risk and to consider this when applying HCR-20 assessments across various social groups (Douglas and Reeves, 2010).
- Dr. Vogel has developed the Female Additional Manual (FAM) which forms an additional supplement to the HCR-20 in relation to assessing violence in women (Vogel et al., 2012; see the 'Responsivity Section').
- Few studies have used the categorical risk ratings to determine the predictive utility of the HCR-20 (de Vogel and de Ruiter, 2005).
- The HCR-20 should be completed using information obtained from interviews with the individual and other collateral information.
- The focus on mental health and the requirement that the assessor is well-versed in mental health interviews is a limitation of the HCR-20 instrument, making it best suited for use with those being managed or moving out of inpatient treatment facilities (Brunt, 2013).
- For more information on HCR-20 (Version 3) please visit: http://kdouglas.wordpress.com/hcr-20/hcr-20/