| Name of Tool | Risk Matrix 2000 (RM2000) |
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| Category | Sexual Offending (Validated) |
| Author / Publisher | Thornton and Colleagues |
| Year | 2003 |

## Description

- The RM2000 is a statistically-derived risk assessment tool for use with adult (18+) males convicted of sexual offences. At least one of these sexual offences should have been committed after the age of 16 (Wakeling, Howard and Barnett, 2011).
- The instrument is comprised of three subscales: RM-S, RM-V and RM-C. These provide an estimate of the long-term likelihood of reconviction for sexual (RM-S) or non-sexual violent (RM-V) offences. The RM-C is a combination of the scores obtained for RM-S and RM-V subscales. Two steps are involved in scoring the subscales. The first step looks at risk items: the number of occasions sentenced for a sexual offence, the number of occasions sentenced and age on release. The second step looks at four aggravating factors. The presence of 2 aggravating factors increases the risk category by 1 level; four of these raises the category of risk by 2 levels (Smid et al., 2014).
- Each level parallels a statistical likelihood of reconviction: low (score of 1), medium (score of 2 or 3), high (score of 4 or 5) and very high (score of 6+).

## Age Appropriateness

18+

## Assessor Qualifications

Assessors must complete the appropriate training awarded by NOMS in order to use this tool.

Tool is designed for use with those involved in the risk assessment and management: police officers, social workers, probation officers and other practitioners.

## Strengths

- The RM2000 appears to perform in a stable manner across the UK and generalisations can be made in Scotland (Grubin, 2011).
- Easy to score and interpret, yet training should be required for scoring accuracy and quality assurance measures introduced (Grubin, 2011).
- Multi-agency use across Police and Probation, giving the benefits of a common language and understanding to the management of cases particularly in the context of MAPPA (Nicholls and Webster, 2014).
- The RM2000 is financially effective for services to use on a large-scale, given it is light on resources and time (Pryboda, Tully and Browne, 2015).

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| • It could be useful as screening mechanism in further assessments to allow for the allocation of resources. | |

## Empirical Grounding

This tool was developed as a revision and improvement of the SACJ-minimum (Structured Anchored Clinical Judgment Scale-Minimum). Similar to the SACJ-Min, the RM2000 utilizes a stepwise approach and is composed of two main scales (Grubin, 1998; Hanson and Thornton, 2000).

Recent developments have explored the combining of RM2000 with Stable 2007 (Hanson et al., 2007), where the static and dynamic risk scales are joined together in a structured manner. Findings indicated that the STABLE-2007 generally added incremental predictive validity to the RM2000. (Helmus et al., 2015).

## Inter-Rater Reliability

| a) UK Research | • Wakeling, Mann and Milner (2011) found excellent inter-rater reliabilities (ICCs) in two studies ranging from .71 for Study 1 and .93 for Study 2. .<br><br>• Looman and Abracen (2009) found an ICC value for the RM2000 composite score of .81. |
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| b) International Research | • Bengtson (2008) - good inter-rater reliability was found for the sexual offending subscale of the RM2000 (ICC = .72; k =. 85).<br><br>• Knight and Thornton (2007) – the RM2000 achieved an ICC of .82. |

## Validation History

### General Predictive Accuracy

| a) UK Research | • The sexual and non-sexual offence subscales generated moderate to high AUCs of .73 and .76 respectively in a sample of Scottish individuals who had committed sexual offences (Grubin, 2011).<br><br>• Barnett, Wakeling and Howard (2010) found moderate predictive accuracy for the RM-S subscale (.68) and higher predictive accuracy for the RM-V (.80) and RM-C (.73) subscales. |
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| | • Craig et al. (2008) reported high levels of predictive accuracy in relation to non-sexual violent reconvictions with AUCs with the .80 to .87 in a 10-year follow-up study.<br><br>• Wakeling, Howard and Barnett (2011) found that the RM2000 scales had moderate to very good predictive accuracy ranging between .67 and .87. It should be noted, however, that the RM2000 overestimated the risk posed by those who had committed internet offences.<br><br>• Webb et al. (2007) - RM2000 significantly predicted formal failure (e.g. reconviction, breach/recall) for those who had engaged in child molestation offences (AUC = .71) and other sexually risky behaviours (AUC = .69); although in the case of internet offences, the RM2000 was only able to moderately predict drop out from treatment (AUC =.69).<br><br>• Osborn et al. (2010) administered the RM2000 to 73 individuals convicted of internet offences; it was found that the tool overestimated the risk levels posed. |
| b) International Research | • Looman and Abracen (2010) – the RM-S and RM-V subscales generated moderate to high predictive accuracy for sexual re-offending in individuals convicted of rape offences (AUCs = .70 and .65 respectively).<br><br>• Kingston et al. (2008) - the RM2000 attained moderate predictive accuracy with AUC values of .64 and .65 for the RM-V and RM-S subscales respectively.<br><br>• Knight and Thornton (2007) - moderate predictive accuracy with AUCs ranging between .63 and .67 in the follow-up periods.<br><br>• Parent, Guay and Knight (2011) examined the predictive accuracy of sexual recidivism for 590 individuals. The AUCs were .68, .52 and .62 for the RM2000/s, RM2000/v and RM2000/c respectively.<br><br>• Lehmann et al. (2016) found the RM2000 demonstrated moderate accuracy in predicting sexual, non-sexual violent and violent recidivism in an international sample of 3144 individuals from the UK, Germany and Canada. |

## Validation History

| Applicability: Females | | | | | | | | | | |
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No empirical evidence at present.

## Validation History

| Applicability: Ethnic Minorities | | | | | | | | | |
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No empirical evidence at present.

## Validation History

| Applicability: Mental Disorders | ■ | ■ | ■ | | | | | | |
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| a) UK Research | • Langton et al. (2009) - In a sample of personality disordered individuals, only the RM-V subscale predicted damage to property (AUC=.74).<br><br>• Lindsay et al. (2008) - the RM2000 was unable to significantly predict recidivism in a sample of male adults with learning disabilities. Further research using the RM2000 was recommended, however, since it just fell short of significance. |
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| b) International Research | • In their review of literature, Pryboda, Tully and Browne (2015) concluded that the use of the RM2000 was not supported as a measure of static risk for intellectual disabled individuals. It is suggested this may be attributable to the RM2000 failing to consider protective factors or any others related to desistance. |

## Contribution to Risk Practice

• The RM2000 is able to provide a brief scan of some static risk factors pertinent to the risk of sexual and violent recidivism and can highlight the need for further assessment of the individual's risk of recidivism. RM2000 should be one component of a comprehensive and appropriate assessment package (Grubin, 2011).
• The RM2000 is a useful tool to assign resources by predicting reconviction. It is used by the prisons, probation and the police in England and Wales (Smid et al., 2014).

## Other Considerations

• Tully and Browne (2015) argue that adding dynamic risk items would fit better with a rehabilitative approach to risk management and assessment for sexual offending. This would also provide a means by which to effectively plan treatment and evaluate individuals' progress in treatment; however, difficulties remain in identifying and assessing dynamic risk factors of sexual offending.

- Helmus et al. (2015) found that the addition of Stable-2007 added incremental predictive validity to the RM2000. Internet offences are not counted as non-contact offences if they are the only sexual offence.
- The tool may be of limited use with first-time offenders whose current offence may be unusual or contain sadistic elements (Beech et al., 2003; Craig, Browne and Stringer, 2004).
- The instrument itself is normed on adult males with a previous sex offence history and is inappropriate for use with females, juveniles, and mentally disordered individuals.
- An unpublished revision to the RM2000 scoring manual has made several changes that include, but are not limited to, the assessment of risk in older groups (aged 60 and over) and individuals who have committed non-contact sexual offences (Thornton, 2010).
- The RM2000 is static in nature meaning in theory the final risk categories should remain the same over time and items cannot be targeted for change. The completion of the tool should be repeated when an individual moves between age categories, is convicted or cautioned due to a further offence or maintains a two year cohabiting relationship for the first time (Smid et al., 2014).
- Studies have found that it overestimates the risks posed by those who had committed internet offences. A more accurate predictor of risk was found to be a revised version of the tool, RM2000R, which omits two aggravating factors: stranger victim and non-contact offences (Osborn et al., 2010; Wakeling, Howard and Barnett, 2011).
- In 2014, National Offender Management Services advised of a revision to scoring. Data indicated that risk halves for five years in the community free of sexual offences (Thornton and Helmus, 2015). It is, therefore, recommended that those convicted of sexual offences who remain offence free in the community for five years or more should have their risk level reduced by one category. The term 'offence free' refers to no known criminal activity taking place, no convictions, no warnings or reprimands or breaches. It was also recommended that those age 60 and over should be put one level of risk on the RM2000 due to a decreased level of risk (Thornton and Helmus, 2015).
- An unpublished report by Howard and Wakeling (2019) examined whether the length of time without offending in the community affected contact sexual reoffending rates. Findings gave tentative support to reducing the risk by one category for every five years that an individual has been offence-free in the community: for instance, if an individual was assessed as medium risk and upon release from prison into the community remained offence-free for the next five years, it would be reasonable to reduce him to low risk.
- It is recommended by Bryboda, Tully and Browne (2015) that the RM2000 should be used on conjunction with other validated assessment methods/ The authors also highlighted the importance of considering protective factors in relation to intellectual disabled individuals who commit sexual offences, something which the RM2000 does not currently do.
- For access to the manual, please visit the following website:
www.birmingham.ac.uk/Documents/college-les/psych/RM2000scoringinstructions.pdf