



# Research at a Glance

## Reliability and Validity of the Dynamic Factors Identification and Analysis - Revised

*The DFIA-R is reliable and valid; the domain and overall ratings predict outcome for men, women, and Indigenous offenders.*

### Why we did this study

The Dynamic Factors Identification and Analysis-Revised (DFIA-R) is a revised version of the DFIA, a well-researched tool that has been a key component of the offender intake assessment used by the Correctional Service of Canada (CSC) since 1994. The DFIA-R has been in use since 2009. This research brief summarizes the major findings of a large-scale research project to validate the revised tool.

### What we did

A large group of offenders with at least one DFIA-R assessment was obtained through the Offender Management System. This resulted in 24,798 men (23% Indigenous) and 1,368 women (37% Indigenous) with DFIA-R data available. Of this group, 16,743 men and 992 women were released and had follow-up data allowing examination of the relationship of the ratings with community outcomes.

Analyses of the overall DFIA-R need rating included the examination of 1) the measure's reliability, (2) the validity of the overall DFIA-R need rating, and (3) the validity of the individual DFIA-R domains. Specifically, we looked at the internal consistency of the items in the measure, the prevalence of the ratings, and which indicators and which domains were most strongly related to the overall ratings. We also examined the relationship between the overall static risk rating, the overall need rating, and community outcomes. Domain-specific analyses assessed the prevalence of the ratings and indicator endorsement, each indicator's contribution to the domain rating, the extent to which the domain ratings changed over time, and the relationship of domain ratings and indicators to revocations. Analyses were disaggregated by gender and Indigenous ancestry when possible.

### What we found

Few men (4%) or women (6%) were rated low overall need. The majority were assessed as having high overall needs (64% of men and 59% of women). Indigenous men and women were assessed as high needs more often than non-Indigenous offenders.

The need domains with the highest ratings across groups were Substance Abuse and Personal/Emotional, and, for non-Indigenous men, the Attitudes domain.

Other key results:

- 1) The internal consistency of all the DFIA-R indicators was high on all seven domains demonstrating that the tool has excellent reliability.
- 2) Many of individual DFIA-R indicators had moderate to strong associations with the overall DFIA-R need rating for all offender groups. In particular, indicators relating to anger, aggression, and frustration were strongly related to the overall need rating.
- 3) The Attitude, Personal/Emotional, and Substance Abuse domains were most influential in producing a high overall need rating for all groups. In addition, the Employment/Education domain was influential for women.
- 4) Increases in the overall DFIA-R need rating were associated higher rates of revocations and, for men, with revocations with an offence.<sup>1</sup>
- 5) When comparing the predictive ability of the overall DFIA-R need rating to the overall static risk rating, the DFIA-R proved to be a stronger predictor of revocations and revocations with an offence.
- 6) Examining results at the domain level: individual domain ratings were related to revocation for all groups.
- 7) Some domains were more dynamic than others; for example, domain ratings for Substance Abuse and Associates changed over the period of incarceration with most offenders whose ratings changed being reassessed at a lower level of need.

The following is of note for each domain:

#### ➤ *Employment domain*

All the indicators in the domain, individually, predicted revocations for men and women except 'Belief in

<sup>1</sup> Due to infrequent revocations with an offence, only the relationship between overall need and revocations was assessed for women.

oneself to improve employability is low'. When all indicators were considered together, the indicator with the strongest association with outcome across all groups was 'Job history unstable'. For women, the education indicators were stronger than for the men.

➤ *Marital/Family domain*

Most indicators were individually associated with an increased risk of revocations for men and women. The stronger indicators were those assessing early history such as 'Abused during childhood' or 'Witnessed family violence'. Of those indicators related to adult status, 'Inability to maintain enduring intimate relationships', 'Attitudes support spousal violence', 'Perpetuated spousal violence', and 'Parental knowledge or skill is limited' were most strongly related to returns to custody for men. For women, the strongest association with outcome was for 'Intimate relationships have been problematic'.

➤ *Associates domain*

Most indicators were individually associated with an increased risk of revocations for men and women. When all indicators were considered as a group, the most influential were 'Associates with substance abusers' and 'Prosocial support from friends is limited'. The indicator 'Has many criminal friends' was also important for women.

➤ *Substance Abuse domain:*

Individually, all indicators on the domain were associated with revocations for all groups. When accounting for the effect of all indicators, 'Early age of drug use', 'Becomes violent when drinking or using drugs', 'Alcohol or drug use has resulted in law violations', and 'Has previously been referred to programs addressing deficit(s)' were most influential for men. The indicators 'Alcohol or drug use has resulted in law violations', 'Drug use interferes with physical or emotional well-being' and 'Early age of drug use' were most important for women.

➤ *Community Function domain:*

Almost all indicators on the domain were associated with a greater risk of revocation. When accounting for the effect of all indicators, 'Unstable accommodation' and 'Financial instability' were the most influential in predicting revocations. The indicator 'Has used social assistance' was also important for women.

➤ *Personal/Emotional domain:*

All but one indicator was associated with increased risk of revocations for men. Most of the indicators were individually associated with an increased risk for women. When all indicators were considered as a group, the most influential in predicting revocation were 'Impulsive', 'Has difficulty setting long-term goals' and 'Frequently acts in an aggressive manner'. The indicator 'Engages in thrill seeking behaviour' was also important for women.

➤ *Attitudes domain*

When all indicators were considered together 'Disrespects personal belongings', 'Disrespects public or commercial property', 'Displays negative attitudes towards the correctional system', and 'Values a substance abusing lifestyle' were particularly strong indicators predicting revocations for men. 'Disrespects public or commercial property', 'Takes pride in criminal exploits', and 'Values a substance abusing lifestyle' were strong indicators for women. 'Denies crime or uses excuses to justify or minimize crime' was either not related to offender outcome or related to a reduction in revocations.

**What it means**

In summary, the overall ratings on the DFIA-R and each individual domain rating are significantly associated with outcomes for all offender groups; most indicators within the domains were individually associated with outcomes. The results indicate the DFIA-R is useful both as a case management tool that profiles the needs of individual offenders and federal offenders as a whole and as a risk prediction tool.

**For more information**

Stewart, L., Wardrop, K., Wilton, G., Thompson, J., Derkzen, D., & Motiuk, L. (2017). *Reliability and validity of the Dynamic Factors Identification and Analysis – Revised* (Research Report R-395). Ottawa, Ontario: Correctional Service of Canada.

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