Name of Tool	Structured Assessment of Protective Factors for Violence Risk (SAPROF)
Category	Violence Risk (Awaiting Validation)
Author / Publisher	de Vogel and colleagues
Year	2009, 2012

Description

• The SAPROF is a 17-item checklist based on the structured professional judgement methodology. It was developed to be used in a variety of settings: forensic and general psychiatry (both inpatient and outpatient); prisons and probation supervision.
• The items are categorised into 3 subscales: (1) internal items, characteristics that could offer protection against future violence; (2) motivational items, which encourage the individual to be a positive member of society; (3) external items, those environmental factors that could be of benefit. The most important items can be highlighted by marking factors as 'keys' most likely to offer protection or 'goals' that should focus on improvement for individuals.
• The SAPROF was designed to complement other SPJ risk assessment tools such as the HCR-20 or the HCR^{V3} by considering both protective and risk factors in evaluating risk assessment for future violence.
• The tool considers the importance of dynamic factors and their role in achieving effective treatment programmes (de Vogel et al., 2009).
• The English version of the SAPROF was made available in April 2009; the second edition of the tool was published in 2012.
• Considering risk levels and protective factors may fluctuate over time The developers of SAPROF recommend that repeated assessments are carried out if there are changes in an individual's circumstances (de Vogel et al., 2011).

Age Appropriateness

No age range specified.

Assessor Qualifications

Experience and training in conducting individual assessments.
Experience and training in the administration and interpretation of tests and semi-structured interviews.
Assessors should also be familiar with the most recent professional and research literature on the causes and prediction of violence.

Tool Development

• The SAPROF was initially developed for the forensic psychiatric population in 2007.

- de Vries Robbé, de Vogel and de Spa (2011) - SAPROF obtained an excellent ICC value of .85 for the composite score. SAPROF demonstrated high predictive accuracy in relation to post-discharge recidivism in a sample of forensic patients (AUCs .74 - .85).
- Yoon, Spehr and Briken (2011) - in a pilot study conducted with a German sample of individuals with sexual offences, the SAPROF had a significant negative correlation with other risk assessments such as the STATIC-99.
- de Vries Robbé and de Vogel (2012) - the authors cite the findings of studies in preparation for publication, which investigated the predictive accuracy of the SAPROF with those convicted of both violent and sexual offences. The investigations found high AUC values ranging from .71 to .85 in three follow-up periods (1-, 3- and 11-year follow-ups) for the composite score. These trends were observed across reconvictions for violent and sexual offences.
- Research carried out on 83 individuals convicted of sexual offences found that the SAPROF had good predictive validity for sexual violence (de Vries Robbé et al., 2015).
- Yoon et al. (2016) retrospectively rated 450 individuals convicted of sexual offences in Austria. The inter-rater reliability was shown to range from good to excellent for all SAPROF items; whilst the predictive accuracy was found to be low to moderate for various types of recidivism.
- A comparison of various risk assessment tools found that the SAPROF has good 'construct validity' with the START tool, showing that both instruments measure the same thing (Abidin et al., 2013).
- de Vries Robbé, de Vogel and Douglas (2013) coded the HCR-20 alongside the SAPROF on a sample of 188 patients who had been discharged from forensic psychiatric treatment. It was found that combining the risk factors of the HCR-20 with the protective factors of the SAPROF resulted in good predictive validity for violent recidivism after treatment.
- In a study of 52 individuals convicted of violent offences in a Swiss prison, SAPROF total scores showed good predictive validity for physically violent misconduct with an AUC of 0.84. Poor predictive validity was found for any misconduct and other misconduct, yielding AUCs of 0.64 and 0.61 respectively (Abbiati et al., 2014).
- A mixed-sex sample of 409 patients discharged from medium secure services in England and Wales utilised both the HCR-20 V3 and the SAPROF at six monthly intervals to test their predictive accuracy in determining which patients would carry out violence within the first year of release. It was found that only a few items in the SAPROF demonstrated any discriminative value in identifying which patients would not engage in violent behaviour (Coid et al., 2015).
- Kashiwagi et al. (2018) examined the inter-rater reliability and predictive accuracy of the SAPROF in 96 patients located in forensic mental health units in Japan. Since there are no widely used structured risk assessment tools for violence in Japan, the SAPROF was translated into Japanese. Moderate-to-good inter-rater reliability was evident, with an ICC of 0.70 for 30 randomly selected cases. The predictive accuracy was an AUC of 0.87 and 0.85 for 6 and 12 months respectively.

General Notes

- The SAPROF is to be used alongside SPJs like the HCR-20 and may also be used with actuarial tools. It is highlighted that it is imperative to consider the circumstances of every individual, for every item on the SAPROF may also be a risk factor as well as a protective one (de Vogel et al., 2011).
- The authors maintain that whilst clinical use of the SAPROF is possible, results should be interpreted with caution. An update to caution statement was provided in January 2016: "Given the strong empirical findings regarding the psychometric properties of the SAPROF, in particular its inter-rater reliability, predictive validity for desistance in those with violent as well as those with sexual offending histories and the demonstrated relation between improvements in protective

factors and recidivism reduction, this tool may be used as a risk assessment and treatment guidance tool in clinical practice as well as research."

• Fifteen translations of the tool are now available. Other validation research is currently underway in Canada, New Zealand, Germany, Italy, Switzerland, Portugal, Ireland and the UK (de Vries Robbé and de Vogel 2012).

• The authors have published an online article detailing the differences between the first and second versions of the SAPROF manual. This includes (but is not limited to) further notes regarding the time frames for the coding of SAPROF items, updates in SAPROF validation research and its application to practice and risk formulations.

• A number of other variations of the SAPROF are currently being developed (interested readers are directed to de Vries Robbé and Willis, 2017):

-A SAPROF Youth Version (SAPROF-YV) has been developed for use with youths with violence related problems. The intention is for the SAPROF-YV to be used in conjunction with risk-focused youth tools such as the YLS/CMI or the SAVRY. This was implemented nationally across juvenile justice institutions in the Netherlands; it is be used in addition to the SAVRY tool (de Vries Robbé and Willis, 2017). The SAPROF-Sexual Offending (SAPROF-SO) is to be used to assess protective factors specific to sexual offending.

-For those with intellectual deficits, the SAPROF-Intellectual Disabilities (SAPROF-ID) is in progress of being designed.

-The SAPROF-Intensive Care highlights additional factors that are particularly relevant in an inpatient or forensic psychiatric care setting.

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• Research and training enquiries can be made by contacting the authors using the following email address: mdevriesrobbe@hoevenkliniek.nl

• For more information about the tool please visit: www.saprof.com.