

[Click for updates](#)

International Journal of Forensic Mental Health

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/ufmh20>

International Perspectives on the Practical Application of Violence Risk Assessment: A Global Survey of 44 Countries

Jay P. Singh^{abc}, Sarah L. Desmarais^d, Cristina Hurducas^e, Karin Arbach-Lucioni^{fg}, Carolina Condemarin^h, Kimberlie Dean^{ij}, Michael Doyle^k, Jorge O. Folino^l, Verónica Godoy-Cervera^m, Martin Grannⁿ, Robyn Mei Yee Ho^o, Matthew M. Largeⁱ, Louise Hjort Nielsen^p, Thierry H. Pham^{qr}, Maria Francisca Rebocho^s, Kim A. Reeves^t, Martin Rettenberger^u, Corine de Ruiter^v, Katharina Seewald^b & Randy K. Otto^e

^a Global Institute of Forensic Research, Reston, Virginia, USA

^b Department of Psychology, University of Konstanz, Konstanz, Germany

^c Faculty of Health Sciences, Molde University College, Molde, Norway

^d Department of Psychology, North Carolina State University, Raleigh, North Carolina, USA

^e Department of Mental Health Law and Policy, University of South Florida, Tampa, Florida, USA

^f Group of Advanced Violence Studies, University of Barcelona, Barcelona, Spain

^g National Council of Scientific and Technical Research, Buenos Aires, Argentina

^h Ministerio de Justicia, Santiago, Chile

ⁱ School of Psychiatry, University of New South Wales, Australia

^j Justice Health & Forensic Mental Health Network, New South Wales, Australia

^k Centre for Mental Health and Risk, University of Manchester, Manchester, United Kingdom

^l Department of Psychiatry, National University of La Plata, La Plata, Argentina

^m Facultad de Psicología, Universidad Autónoma de Yucatán, Yucatán, Mexico

ⁿ Department of Medical Epidemiology and Biostatistics, Karolinska Institute, Stockholm, Sweden

^o Castle Peak Hospital, Tuen Mun, Hong Kong

^p Department of Psychology, University of Southern Denmark, Odense, Denmark

^q Centre de Recherche en Défense Sociale, Tournai, Belgium

^r UMONS, Mons, Belgium

^s Department of Human and Social Sciences, University Fernando Pessoa, Porto, Portugal

^t Department of Psychology, Simon Fraser University, Burnaby, British Columbia, Canada

^u Johannes Gutenberg Institute of Psychology, University of Mainz, Mainz, Germany

^v Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, The Netherlands

Published online: 30 Aug 2014.

To cite this article: Jay P. Singh, Sarah L. Desmarais, Cristina Hurducas, Karin Arbach-Lucioni, Carolina Condemarin, Kimberlie Dean, Michael Doyle, Jorge O. Folino, Verónica Godoy-Cervera, Martin Grann, Robyn Mei Yee Ho, Matthew M. Large, Louise Hjort Nielsen, Thierry H. Pham, Maria Francisca Rebocho, Kim A. Reeves, Martin Rettenberger, Corine de Ruiter, Katharina Seewald & Randy K. Otto (2014) International Perspectives on the Practical Application of Violence Risk Assessment: A Global Survey of 44 Countries, *International Journal of Forensic Mental Health*, 13:3, 193-206, DOI: [10.1080/14999013.2014.922141](https://doi.org/10.1080/14999013.2014.922141)

To link to this article: <http://dx.doi.org/10.1080/14999013.2014.922141>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

International Perspectives on the Practical Application of Violence Risk Assessment: A Global Survey of 44 Countries

Jay P. Singh

*Global Institute of Forensic Research, Reston, Virginia, USA; Department of Psychology,
University of Konstanz, Konstanz, Germany; Faculty of Health Sciences, Molde University
College, Molde, Norway*

Sarah L. Desmarais

Department of Psychology, North Carolina State University, Raleigh, North Carolina, USA

Cristina Hurducas

Department of Mental Health Law and Policy, University of South Florida, Tampa, Florida, USA

Karin Arbach-Lucioni

*Group of Advanced Violence Studies, University of Barcelona, Barcelona, Spain; National
Council of Scientific and Technical Research, Buenos Aires, Argentina*

Carolina Condemarin

Ministerio de Justicia, Santiago, Chile

Kimberlie Dean

*School of Psychiatry, University of New South Wales, Australia; Justice Health & Forensic
Mental Health Network, New South Wales, Australia*

Michael Doyle

Centre for Mental Health and Risk, University of Manchester, Manchester, United Kingdom

Jorge O. Folino

Department of Psychiatry, National University of La Plata, La Plata, Argentina

Verónica Godoy-Cervera

Facultad de Psicología, Universidad Autónoma de Yucatán, Yucatán, Mexico

Martin Grann

*Department of Medical Epidemiology and Biostatistics, Karolinska Institute,
Stockholm, Sweden*

Robyn Mei Yee Ho

Castle Peak Hospital, Tuen Mun, Hong Kong

Matthew M. Large

School of Psychiatry, University of New South Wales, Australia

Louise Hjort Nielsen

Department of Psychology, University of Southern Denmark, Odense, Denmark

Thierry H. Pham

Centre de Recherche en Défense Sociale, Tournai, Belgium; UMon, Mons, Belgium

Maria Francisca Rebocho

Department of Human and Social Sciences, University Fernando Pessoa, Porto, Portugal

Kim A. Reeves

Department of Psychology, Simon Fraser University, Burnaby, British Columbia, Canada

Martin Rettenberger

Johannes Gutenberg Institute of Psychology, University of Mainz, Mainz, Germany

Corine de Ruiter

Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, The Netherlands

Katharina Seewald

Department of Psychology, University of Konstanz, Konstanz, Germany

Randy K. Otto

Department of Mental Health Law and Policy, University of South Florida, Tampa, Florida, USA

Mental health professionals are routinely called upon to assess the risk of violence presented by their patients. Prior surveys of risk assessment methods have been largely circumscribed to individual countries and have not compared the practices of different professional disciplines. Therefore, a Web-based survey was developed to examine methods of violence risk assessment across six continents, and to compare the perceived utility of these methods by psychologists, psychiatrists, and nurses. The survey was translated into nine languages and distributed to members of 59 national and international organizations. Surveys were completed by 2135 respondents from 44 countries. Respondents in all six continents reported using instruments to assess, manage, and monitor violence risk, with over half of risk assessments in the past 12 months conducted using such an instrument. Respondents in Asia and South America reported conducting fewer structured assessments, and psychologists reported using instruments more than psychiatrists or nurses. Feedback regarding outcomes was not common: respondents who conducted structured risk assessments reported receiving feedback on accuracy in under 40% of cases, and those who used instruments to develop management plans reported feedback on whether plans were implemented in under 50% of cases. When information on the latter was obtained, risk management plans were not implemented in over a third of cases. Results suggest that violence risk assessment is a global phenomenon, as is the use of instruments to assist in this task. Improved feedback following risk assessments and the development of risk management plans could improve the efficacy of health services.

Keywords: violence, risk assessment, survey, international, mental health

Address correspondence to Jay P. Singh, PhD, Global Institute of Forensic Research, 11700 Plaza America Drive, Suite 810, Reston, VA 20190, USA. E-mail: jaysingh@gifrinc.com

Color versions of one or more of the figures in the article can be found online at <http://www.tandfonline.com/ufmh>.

INTRODUCTION

In light of heightened media attention on the link between violence and mental illness, there has been an increased demand for accurate and reliable methods of assessing

violence risk (Brown, 2013). This focus on prevention is not new, however. The World Health Organization named violence prevention as one of its priorities over a decade ago (WHO, 2002). Moreover, current clinical guidelines for psychologists (American Psychological Association, 2006), psychiatrists (American Psychiatric Association, 2004; National Institute for Health and Clinical Excellence, 2009), and nurses (Nursing and Midwifery Council, 2004) recommend the routine assessment of violence risk for patients diagnosed with major mental illnesses. In recent decades, numerous violence risk assessment instruments have been developed to aid in this task. These instruments combine known risk and protective factors for violence either mechanically (the “actuarial approach”) or based on clinical discretion (the “structured professional judgment”, or SPJ, approach). They have been widely implemented in mental health and criminal justice settings, where they are used by psychologists, psychiatrists, and nurses to inform medico-legal decisions including commitment, classification, service plan development, and release (Conroy & Murrie, 2007).

As there are a large number of risk assessment tools available, practitioners are faced with the challenge of selecting the instrument that they feel to be the best fit for their population and that will best guide treatment planning. Indeed, recent meta-analyses suggest that risk assessment instruments may discriminate between violent and non-violent individuals with comparable accuracy (Yang, Wong, & Coid, 2010), implying that it may not be possible to base tool choice solely on predictive validity. In light of such findings, experts have recommended a shift in focus during the tool selection process (Skeem & Monahan, 2011), concentrating on the assessment needs of the practitioner in terms of the purpose of the evaluation, the population being assessed, and the outcome of interest (Singh, Grann, & Fazel, 2011). Thus, knowledge of which tools are currently being used in practice and which of them colleagues working in similar settings believe to be most useful may be informative. Surveys represent one approach to obtaining such information.

According to a search of PsycINFO, EMBASE, and MEDLINE, nine surveys have been published between January 1, 2000 to January 1, 2013 investigating violence risk assessment practices (Archer, Buffington-Vollum, Stredny, & Handel, 2006; Bengtson & Pedersen, 2008; Green, Carroll, & Brett, 2010; Hawley, Gale, Sivakumaran, & Littlechild, 2010; Higgins, Watts, Bindman, Slade, & Thornicroft, 2005; Khuroya, Weaver, & Maden, 2009; Lally, 2003; Tolman & Mullendore, 2003; Viljoen, McLachlan, & Vincent, 2010). The studies have provided evidence that risk assessment tools are commonly used in practice by psychologists in the United States, the United Kingdom, Denmark, and Australia. Though the quality of these surveys vary (Hurducas, Singh, de Ruiter, & Petrila, in this issue), they have consistently found that actuarial

instruments and personality scales are used more commonly in the violence risk assessment process than SPJ instruments.

These surveys have advanced our understanding of the use of violence risk assessment tools, but also share important limitations. First, no surveys have been published comparing what instruments are used in routine practice on different continents. Second, previous surveys have not compared patterns of tool use and perceived utility across professional disciplines. Third, previous surveys have not attempted to disentangle risk assessment, management, and monitoring practices. Consequently, many questions remain regarding the application of risk assessment tools in practice. Specifically, what instruments are currently being used, how frequently, in what context, by whom, and where? The answers to such questions may help guide individual clinicians working with mental health and criminal justice populations to identify and implement the risk assessment tools with the greatest acceptability, efficacy, and fidelity (Andrews & Bonta, 2010). Hence, the present study aimed to investigate violence risk assessment practices in psychologists, psychiatrists, and nurses on six continents using a multilingual Web-based survey.

METHODS

Respondents

Mental health professionals were eligible to participate if they were between the ages of 18 to 65 years and had assessed the violence risk of at least one adult in their lifetime ($N = 2135$). Respondents included psychologists ($n = 889$, 41.6%), psychiatrists ($n = 368$, 17.2%), nurses ($n = 622$, 29.1%), and other professionals ($n = 256$, 12.0%) in 44 countries (Figure 1). The majority of respondents were from Europe ($n = 1062$, 49.7%) followed by North America ($n = 444$, 20.8%), Australasia ($n = 112$, 5.3%), Asia ($n = 60$, 2.8%), South America ($n = 57$, 2.7%), and Africa ($n = 4$, 0.2%). Demographic and clinical characteristics by professional discipline and continent are provided in Tables 1 and 2, respectively, and for the overall sample in Appendix 1.

Survey

The survey included closed-ended questions developed through a review of the violence risk literature and drawn from previous surveys of clinicians concerning forensic assessment practices. Questions were organized into three blocks: (1) demographic and clinical characteristics, (2) prevalence and frequency of risk assessment instrument use, and (3) use and perceived utility of instruments in risk assessment, management, and monitoring.

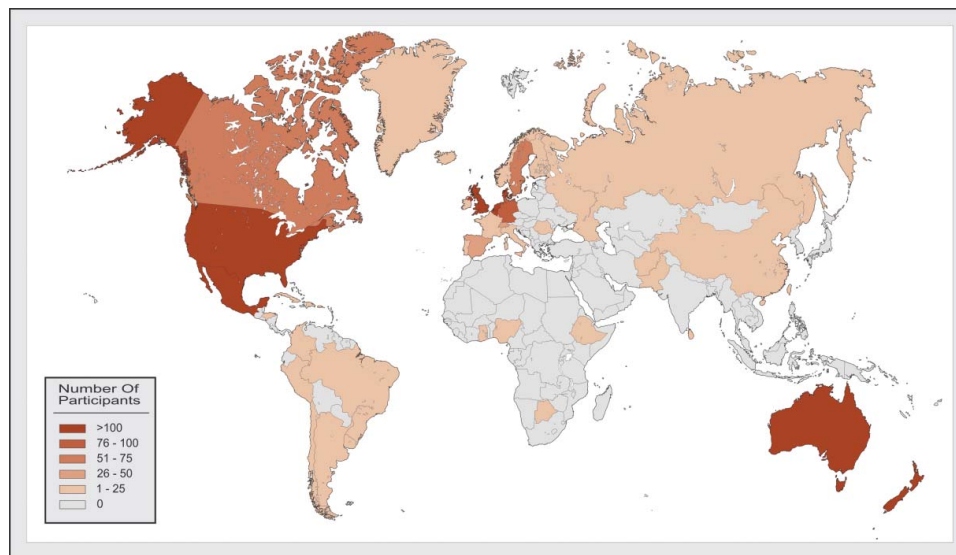


FIGURE 1 Countries participating in an international survey on violence risk assessment practices.

In the first block, respondents were asked about their demographic backgrounds and clinical activities over the past 12 months. Specifically, respondents were asked to approximate the total number of violence risk assessments conducted over their lifetime as well as in the past 12 months, estimating the percentage of those assessments conducted with the aid of an instrument. Respondents also reported how often they received feedback concerning the accuracy of their risk assessments, as well as how often they learned whether the risk management plans they developed were implemented. In the second block, respondents reported the prevalence and frequency with which they used specific instruments in the risk assessment process over the past 12 months. (A list of instruments was constructed using recent reviews of the risk assessment literature, and respondents could identify up to three additional measures.) Frequency of use was rated on a 6-point Likert-type scale (0 = *Almost never*; 5 = *Always*). In the third block, respondents reported the tasks for which they used the specific tools identified in the second block (i.e., to inform judgments of violence risk, to develop violence risk management plans, and/or to monitor such plans). Perceived utility of instruments in the identified task(s) was rated on a 7-point Likert-type scale (0 = *Very useless*; 6 = *Very useful*).

Procedure

The study was conducted in four phases between January to December 2012: (1) material development, (2) translation, (3) distribution, and (4) data analysis. The institutional review board at the University of South Florida approved all study procedures and waived the need for written informed consent (IRB Approval Number: Pro00007104).

In Phase 1 (January 2012–February 2012), the Web-based survey was constructed using Qualtrics electronic survey software (www.Qualtrics.com). The list of survey questions were compiled in English and piloted by members of the Florida Mental Health Institute as well as 16 international experts representing the countries of Argentina, Australia and New Zealand, Belgium, Canada, Chile, Denmark, Germany, Hong Kong, Mexico, The Netherlands, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. These collaborators provided feedback that was used to make further refinements prior to translation and distribution.

In Phase 2 (March 2012–August 2012), the survey and participation letter were professionally translated from English into eight additional languages: Danish, Dutch, French, German, Portuguese, Spanish (Latin American), Spanish (European), and Swedish. Translation services were provided by Software and Documentation Localization International (www.SDL.com). Translated materials were then sent to the international collaborators for back-translation. Identified discrepancies were corrected by the first author.

In Phase 3 (September 2012–November 2012), participation letters were distributed electronically via ListServes, membership directories, or bulletins of 59 national and international professional organizations (see Appendix 2 for a full list). The letters were distributed by each expert collaborator in their resident country's native language. Where available, the membership of at least three national organizations was targeted: (1) a national organization of psychologists (e.g., American Psychology-Law Society), (2) a national organization of psychiatrists (e.g., American Academy of Psychiatry and the Law), and (3) a national organization of nurses (e.g., Forensic Psychiatric Nurses Council). Where available, organizations of forensic specialists were identified. The membership of international

TABLE 1
Demographic and Clinical Characteristics of Survey Respondents by Continent

Characteristic	Continent of Practice Over the Past 12 Months ^a									
	North America (<i>n</i> = 444)		South America (<i>n</i> = 57)		Europe (<i>n</i> = 1062)		Asia (<i>n</i> = 60)		Australasia (<i>n</i> = 112)	
Demographic										
Men (<i>n</i> , %)	164	(36.94)	30	(52.63)	431	(40.58)	22	(36.67)	43	(38.39)
Age in years (<i>M</i> , <i>SD</i>)	46.13	(11.91)	43.03	(9.36)	43.12	(10.55)	37.56	(10.14)	45.29	(10.35)
Years in practice (<i>M</i> , <i>SD</i>)	17.59	(11.62)	16.05	(10.55)	14.92	(10.20)	11.94	(9.45)	19.26	(11.54)
Clinical setting over past 12 months										
General hospital (<i>M</i> _{% Time} , <i>SD</i>)	18.09	(34.09)	10.83	(22.07)	2.67	(12.50)	10.61	(26.10)	10.92	(25.96)
Private practice (<i>M</i> _{% Time} , <i>SD</i>)	27.80	(38.19)	24.52	(29.29)	7.51	(21.45)	6.33	(24.00)	19.61	(33.22)
Non-forensic psych hospital (<i>M</i> _{% Time} , <i>SD</i>)	6.97	(21.81)	5.65	(15.55)	16.14	(32.69)	28.40	(39.30)	9.18	(23.17)
Non-forensic psych clinic (<i>M</i> _{% Time} , <i>SD</i>)	7.71	(23.08)	1.87	(9.82)	12.93	(29.55)	15.53	(30.91)	15.86	(31.69)
Forensic psych hospital (<i>M</i> _{% Time} , <i>SD</i>)	9.08	(25.82)	4.74	(14.97)	24.52	(39.31)	19.58	(34.97)	6.74	(21.72)
Forensic psych clinic (<i>M</i> _{% Time} , <i>SD</i>)	5.09	(18.21)	6.12	(19.76)	9.91	(25.39)	2.76	(10.86)	6.52	(19.71)
Correctional institute (<i>M</i> _{% Time} , <i>SD</i>)	8.29	(24.09)	20.25	(36.12)	15.31	(32.39)	13.85	(32.09)	18.03	(35.29)
Other (<i>M</i> _{% Time} , <i>SD</i>)	1.50	(9.51)	11.83	(26.68)	2.12	(11.45)	0.16	(1.29)	4.73	(17.40)
Professional responsibilities over past 12 months										
Practice (<i>M</i> _% , <i>SD</i>)	57.08	(30.88)	54.38	(23.62)	48.63	(25.30)	68.36	(19.09)	59.09	(24.80)
Administrative duties (<i>M</i> _% , <i>SD</i>)	16.57	(18.82)	15.73	(17.02)	24.89	(17.00)	12.31	(11.68)	18.38	(16.82)
Teaching or supervision (<i>M</i> _% , <i>SD</i>)	14.14	(16.56)	13.05	(11.74)	11.85	(12.02)	9.56	(8.43)	14.38	(17.43)
Research (<i>M</i> _% , <i>SD</i>)	8.47	(15.35)	6.40	(8.90)	6.23	(13.21)	7.71	(10.49)	6.33	(10.14)
Other (<i>M</i> _% , <i>SD</i>)	3.71	(13.65)	10.42	(21.89)	8.41	(19.39)	2.03	(9.03)	1.82	(6.64)
Risk assessment history										
RA over lifetime (<i>M</i> , <i>SD</i>)	573.47	(1495.54)	701.98	(1655.74)	413.28	(1914.41)	364.40	(665.50)	841.23	(2735.87)
RA with SRAI over lifetime (<i>M</i> _% , <i>SD</i>)	52.13	(38.71)	40.22	(34.50)	58.88	(37.85)	33.20	(36.04)	62.08	(35.93)
RA over past 12 months (<i>M</i> , <i>SD</i>)	42.44	(95.01)	50.39	(77.02)	36.12	(82.29)	78.35	(175.55)	51.95	(120.45)
RA with SRAI in past 12 months (<i>M</i> _% , <i>SD</i>)	51.24	(42.92)	41.66	(37.02)	63.04	(40.75)	30.20	(37.91)	62.80	(42.17)
Characteristics of examinees over past 12 months										
Men (<i>M</i> _% , <i>SD</i>)	63.14	(37.07)	72.89	(31.61)	80.13	(27.74)	69.40	(31.27)	80.27	(27.60)
Psychotic disorder (<i>M</i> _% , <i>SD</i>)	24.27	(30.48)	16.52	(23.47)	31.60	(32.33)	50.26	(30.79)	36.17	(34.68)
Mood disorder (<i>M</i> _% , <i>SD</i>)	28.34	(28.22)	14.33	(17.11)	10.02	(16.67)	20.73	(26.91)	22.26	(25.20)
Anxiety disorder (<i>M</i> _% , <i>SD</i>)	17.20	(24.35)	7.96	(14.50)	6.19	(14.61)	7.26	(18.45)	10.56	(17.43)
SU disorder (<i>M</i> _% , <i>SD</i>)	35.37	(33.33)	43.82	(30.88)	27.39	(30.50)	25.15	(28.87)	43.88	(35.50)
Personality disorder (<i>M</i> _% , <i>SD</i>)	28.91	(33.02)	35.01	(32.26)	41.19	(31.77)	24.08	(27.77)	37.02	(28.93)
Other disorder (<i>M</i> _% , <i>SD</i>)	9.58	(22.13)	11.22	(21.52)	11.56	(23.75)	6.78	(15.43)	6.84	(19.68)

Note. *n* = number of respondents; *M* = mean; *SD* = standard deviation; Psych = psychiatric; SU = substance use; SRAI = structured risk assessment instrument.

^aExcluding respondents from Africa (*n* = 4).

forensic mental health organizations (e.g., International Association of Forensic Mental Health) was also targeted.

To the extent possible, survey distribution followed the Dillman Total Design Survey Method (Dillman, Smyth, & Christian, 2009). Specifically, participation letters were sent via e-mail on a Friday and contained direct and active links to the survey. Two reminder e-mails were sent in seven day increments after the initial distribution to remind potential respondents about the study. A fourth e-mail was also sent indicating a final opportunity to participate. Respondents who completed the survey and volunteered their e-mail addresses were entered into a raffle for eight cash prizes, each valued at \$50 USD. At the end of the data collection period, winners were randomly selected from the pool of respondents.

In Phase 4 (December 2012 to August 2013), respondent data was exported from Qualtrics to STATA/IC 10.1 and SPSS 17.01 for analysis. Descriptive and statistical analyses

were conducted on the 12 most commonly used instruments in the violence risk assessment process. However, over 200 commercially available instruments and a further 200 institutionally- or individually-developed instruments were reported as being used. Frequency distributions were examined and measures of central tendency and dispersion were calculated for all variables. Differences between continents (North American, South America, Europe, Asia, Australia)¹ and professional disciplines (psychologists, psychiatrists, nurses)² regarding the percentage of assessments conducted using an instrument and the regularity with which risk assessment and management feedback is given were

¹Given the small sample size from Africa, it was excluded from continental analyses.

²Professionals who did not self-report as being psychologists, psychiatrists, or nurses (e.g., social workers, counsellors, probation officer, law enforcement officer) were excluded from these analyses.

TABLE 2
Demographic and Clinical Characteristics of Survey Respondents by Professional Discipline

Characteristic	Professional Discipline ^a					
	Psychology (<i>n</i> = 889)		Psychiatry (<i>n</i> = 368)		Nursing (<i>n</i> = 622)	
Demographic						
Men (<i>n</i> ,%)	321	(36.11)	208	(56.52)	225	(36.17)
Age in years (<i>M</i> , <i>SD</i>)	41.70	(11.32)	46.96	(10.30)	46.00	(9.94)
Years in practice (<i>M</i> , <i>SD</i>)	13.20	(9.78)	16.83	(9.72)	20.28	(11.30)
Clinical setting over past 12 months						
General hospital (<i>M</i> _{% Time} , <i>SD</i>)	3.03	(14.65)	10.50	(23.42)	13.57	(31.16)
Private practice (<i>M</i> _{% Time} , <i>SD</i>)	19.60	(33.94)	16.35	(29.52)	6.32	(21.84)
Non-forensic psych hospital (<i>M</i> _{% Time} , <i>SD</i>)	5.47	(19.63)	22.65	(34.25)	21.10	(36.69)
Non-forensic psych clinic (<i>M</i> _{% Time} , <i>SD</i>)	6.17	(21.06)	13.94	(28.03)	20.93	(36.69)
Forensic psych hospital (<i>M</i> _{% Time} , <i>SD</i>)	17.94	(35.18)	20.03	(34.20)	18.22	(36.18)
Forensic psych clinic (<i>M</i> _{% Time} , <i>SD</i>)	9.10	(24.72)	7.41	(18.96)	4.70	(18.45)
Correctional institute (<i>M</i> _{% Time} , <i>SD</i>)	23.44	(38.62)	4.96	(14.78)	2.46	(13.30)
Other (<i>M</i> _{% Time} , <i>SD</i>)	3.22	(14.70)	0.87	(6.32)	0.67	(5.02)
Professional responsibilities over past 12 months						
Practice (<i>M</i> _% , <i>SD</i>)	51.22	(26.83)	61.76	(22.23)	45.66	(29.39)
Administrative duties (<i>M</i> _% , <i>SD</i>)	19.82	(16.14)	17.49	(17.13)	27.53	(19.90)
Teaching or supervision (<i>M</i> _% , <i>SD</i>)	13.90	(15.08)	11.06	(8.94)	13.07	(15.28)
Research (<i>M</i> _% , <i>SD</i>)	8.87	(15.90)	6.01	(9.75)	4.28	(10.54)
Other (<i>M</i> _% , <i>SD</i>)	6.20	(16.38)	3.66	(12.39)	9.45	(21.12)
Risk assessment history						
RA over lifetime (<i>M</i> , <i>SD</i>)	207.90	(690.72)	624.37	(1791.65)	650.05	(2401.35)
RA with SRAI over lifetime (<i>M</i> , <i>SD</i>)	67.35	(36.61)	36.49	(35.31)	48.88	(37.56)
RA over past 12 months (<i>M</i> , <i>SD</i>)	21.99	(52.77)	45.62	(95.22)	47.75	(119.58)
RA with SRAI in past 12 months (<i>M</i> , <i>SD</i>)	72.62	(37.56)	43.84	(40.65)	48.35	(42.26)
Characteristics of examinees over past 12 months						
Men (<i>M</i> _% , <i>SD</i>)	84.33	(27.99)	76.76	(27.89)	65.64	(31.75)
Psychotic disorder (<i>M</i> _% , <i>SD</i>)	20.56	(29.46)	45.83	(30.92)	38.07	(32.13)
Mood disorder (<i>M</i> _% , <i>SD</i>)	14.92	(22.37)	13.84	(20.14)	17.15	(22.14)
Anxiety disorder (<i>M</i> _% , <i>SD</i>)	8.67	(17.51)	5.73	(14.71)	9.87	(18.21)
SU disorder (<i>M</i> _% , <i>SD</i>)	32.48	(32.80)	33.81	(31.70)	23.67	(28.64)
Personality disorder (<i>M</i> _% , <i>SD</i>)	45.03	(33.21)	38.51	(30.60)	29.09	(28.89)
Other disorder (<i>M</i> _% , <i>SD</i>)	12.31	(25.15)	8.72	(19.52)	8.28	(20.09)

Note. *n* = number of respondents; *M* = mean; *SD* = standard deviation; Psych = psychiatric; SU = substance use; SRAI = structured risk assessment instrument.

^aExcluding respondents who self-identified as being members of other professional disciplines (*n* = 256).

explored via omnibus one-way ANOVAs. Statistical tests were two-tailed, and a Bonferroni-adjusted significance threshold of $\alpha = 0.004$ was used to address family-wise error due to multiple testing.

RESULTS

Demographic and Clinical Characteristics

The sample was composed of 2135 mental health professionals, the majority women (*n* = 1288, 60.3%). The average age of respondents was 43.9 years (*SD* = 11.0), with an average of 15.9 years (*SD* = 10.7) spent in practice. Approximately half of their time in the past 12 months was spent on clinical activities (*M* = 50.9%, *SD* = 28.2%), most often in forensic psychiatric hospitals (*M* = 17.5%,

SD = 34.6%) followed by private practice (*M* = 15.0%, *SD* = 30.5%) and correctional institutions (*M* = 12.7%, *SD* = 29.9%). Additional professional responsibilities over the past 12 months included administrative duties (*M* = 22.0%, *SD* = 18.7%) and teaching (*M* = 13.2%, *SD* = 14.9%), with comparatively less time spent on research activities (*M* = 7.2%, *SD* = 14.4%).

Risk Assessment Practices

Respondents reported conducting an average of 435.5 (*SD* = 1706.0) violence risk assessments in their lifetime, over half of which (*M* = 54.3%, *SD* = 38.9%) were conducted using a structured instrument. They conducted an average of 34.5 (*SD* = 86.9) violence risk assessments over the past 12 months, again over half of which (*M* = 58.3%,

$SD = 41.9\%$) were conducted using an instrument. Taking into consideration time spent conducting interviews, obtaining and reviewing records, and writing reports, structured violence risk assessments over the past 12 months took an average of 7.8 hours ($SD = 7.9$) to conduct, whereas unstructured assessments took an average of 2.8 hours ($SD = 2.7$).³

Of those respondents who used instruments over the past 12 months, the majority used them for the purposes of risk assessment ($n = 1134$ of 1266 respondents who specified the purpose of their instrument use, 89.6%) followed by developing risk management plans ($n = 869$, 68.6%) and monitoring those plans ($n = 499$, 39.4%). Respondents who used instruments to structure their violence risk assessments reported receiving feedback on the accuracy of their assessments in an average of 36.5% ($SD = 34.7\%$) of cases. Those who used instruments to develop risk management plans were made aware of whether those plans had been implemented in an average of 44.6% ($SD = 34.7\%$) of cases. Where such information was available, respondents reported that their proposed management plans were implemented in an average of 65.4% ($SD = 27.5\%$) of cases.

Comparisons by Geographic Location and Professional Discipline

Analyses showed differences in the prevalence of instrument use as a function of geographic location and professional discipline. Compared to North America, Europe, and Australasia, respondents in Asia and South America reported completing a smaller proportion of risk assessments with the aid of an instrument both over the lifetime, $F(4, 1706) = 11.06, p < .001, \eta^2 = 0.03, 95\% \text{ CI } [0.02, 0.05]$, as well as over the past 12 months, $F(4, 1682) = 16.09, p < .001, \eta^2 = 0.04, 95\% \text{ CI } [0.02, 0.06]$. In terms of professional discipline, psychologists reported using instruments to structure their violence risk assessments more often than did psychiatrists or nurses both over their lifetime, $F(2, 1876) = 105.85, p < .001, \eta^2 = 0.10, 95\% \text{ CI } [0.07, 0.11]$ and in the past 12 months, $F(2, 1503) = 82.35, p < .001, \eta^2 = 0.10, 95\% \text{ CI } [0.07, 0.11]$. Nurses reported more often obtaining feedback on whether their risk management plans had been implemented, $F(2, 770) = 10.04, p < .001, \eta^2 = 0.03, 95\% \text{ CI } [0.01, 0.05]$, and that their risk management plans were implemented more often than psychologists or psychiatrists, $F(2, 660) = 10.19, p < .001, \eta^2 = 0.03, 95\% \text{ CI } [0.01, 0.06]$. Finally, psychologists reported taking significantly longer to conduct both unstructured violence risk assessments, $F(2, 202) = 10.06, p < .001, \eta^2 = 0.09, 95\% \text{ CI } [0.02, 0.12]$, and structured violence risk assessments, $F(2, 896) = 57.33, p < .001, \eta^2 = 0.11, 95\% \text{ CI } [0.10, 0.16]$.

³Findings concerning specific professional disciplines and continents are available upon request.

Specific Risk Assessment Instrument Use

More than 200 different instruments were reported as being used in the violence risk assessment process, not including over 200 additional instruments developed for personal or institutional use only. In the present study, we describe the prevalence and perceived utility of those 12 instruments used most commonly by respondents over the past year. Six of these were actuarial instruments and six were SPJ instruments.

The prevalence and frequency of risk assessment instrument use over the past 12 months is reported by professional discipline and continent in Tables 3 and 4, respectively, and for the overall sample in Appendix 3. Over both their lifetime and in the past 12 months, respondents reported that the instruments most commonly used in the violence risk assessment process were the Historical, Clinical, Risk Management-20 (HCR-20; $n_{\text{Lifetime}} = 1032$ of 2135 respondents, 48.34%; $n_{\text{Year}} = 669$ of 2135, 31.33%) (Webster, Douglas, Eaves, & Hart, 1997), Psychopathy Checklist-Revised (PCL-R; $n_{\text{Lifetime}} = 836$, 39.16%; $n_{\text{Year}} = 513$, 24.03%)⁴ (Hare, 2003), and Psychopathy Checklist: Screening Version (PCL:SV; $n_{\text{Lifetime}} = 409$, 19.16%; $n_{\text{Year}} = 195$, 9.13%) (Hart, Cox, & Hare, 1995). Those who used specific instruments were also asked how frequently they used them. Respondents who used the HCR-20 ($M = 3.71, SD = 1.65$), PCL-R ($M = 3.32, SD = 1.58$), and the Historische, Klinische, Toekomstige-30 (HKT-30; $M = 3.16, SD = 1.73$) (Werkgroep Pilotstudie Risicotaxatie Forensische Psychiatrie, 2002) at some point in their lifetime reported using these most frequently. Over the past 12 months, the HCR-20 ($M = 4.40, SD = 1.58$), HKT-30 ($M = 4.33, SD = 1.71$), and the Forensisches Operationalisiertes Therapie-Risiko-Evaluations-System (FOTRES; $M = 4.33, SD = 1.71$) (Urbaniook, 2007) were the most frequently administered instruments by their users.

The HCR-20 was the instrument most commonly used for conducting violence risk assessments, developing risk management plans, and monitoring risk management plans (Table 5). Those who used SPJ instruments including the HCR-20, HKT-30, FOTRES, the Short-Term Assessment of Risk and Treatability (Webster, Martin, Brink, Nicholls, & Desmarais, 2009), and the Structured Assessment of PROtective Factors (de Vogel, de Ruiters, Bouman, & de Vries Robbé, 2007) rated these tools, on average, as being very useful for these tasks. Notably, the HKT-30 and FOTRES were virtually only used by professionals practicing in Europe.

⁴Consistent with previous surveys on forensic risk assessment, we did not assume that the use of instruments that incorporate the PCL-R as an item necessarily meant that the PCL-R was used. For example, the HCR-20 authors have found that the scheme performs better without the PCL-R (Guy, Douglas, & Hendry, 2010) and the VRAG manual allows for prorating should this information be missing (Quinsey et al., 2006).

TABLE 3
Risk Assessment Instrument Prevalence and Frequency of Use Over the Past 12 Months by Continent

Instrument	Continent of Practice Over Past 12 Months ^a									
	North America (n = 286)		South America (n = 35)		Europe (n = 782)		Asia (n = 39)		Australasia (n = 112)	
	Number of Users (n, %)	Frequency of Use (M, SD)	Number of Users (n, %)	Frequency of Use (M, SD)	Number of Users (n, %)	Frequency of Use (M, SD)	Number of Users (n, %)	Frequency of Use (M, SD)	Number of Users (n, %)	Frequency of Use (M, SD)
COVR	44 (15.38)	3.27 (1.22)	4 (11.43)	2.66 (1.52)	11 (1.41)	3.11 (1.26)	3 (7.69)	4.00 (1.00)	1 (0.89)	3.00 (—)
FOTRES	9 (3.15)	4.11 (1.76)	0 (0.00)	— (—)	52 (6.65)	4.30 (1.76)	1 (2.56)	3.00 (—)	0 (0.00)	— (—)
HCR-20	102 (35.66)	4.58 (1.56)	14 (40.00)	4.21 (1.57)	499 (63.81)	4.43 (1.54)	18 (46.15)	3.16 (1.61)	44 (39.29)	4.14 (1.74)
HKT-30	1 (0.35)	6.00 (—)	0 (0.00)	— (—)	51 (6.52)	4.29 (1.71)	0 (0.00)	— (—)	0 (0.00)	— (—)
LSI-R	22 (7.69)	4.31 (1.78)	0 (0.00)	— (—)	37 (4.73)	3.64 (1.93)	1 (2.56)	4.00 (—)	18 (16.07)	4.17 (1.92)
PCL-R	101 (35.31)	4.21 (1.66)	18 (51.43)	3.83 (1.46)	366 (46.80)	3.77 (1.63)	10 (25.64)	2.90 (1.19)	30 (26.79)	2.52 (1.40)
PCL:SV	26 (9.09)	2.84 (1.43)	4 (11.43)	4.50 (1.29)	144 (18.41)	3.71 (1.67)	7 (17.95)	2.71 (1.70)	19 (16.96)	3.39 (1.72)
SAPROF	14 (4.90)	3.85 (1.79)	0 (0.00)	— (—)	125 (15.98)	3.68 (1.65)	1 (2.56)	2.00 (—)	5 (4.46)	3.20 (1.92)
START	29 (10.14)	3.50 (1.45)	0 (0.00)	— (—)	113 (14.45)	3.53 (1.78)	13 (33.33)	2.84 (1.95)	7 (6.25)	4.00 (1.26)
V-RISK-10	26 (9.09)	2.95 (1.16)	2 (5.71)	2.50 (0.70)	26 (3.32)	3.62 (1.68)	2 (5.13)	3.00 (1.41)	2 (1.79)	4.00 (—)
VRAG	47 (16.43)	4.23 (1.59)	2 (5.71)	3.00 (1.41)	123 (15.73)	3.79 (1.53)	2 (5.13)	4.00 (1.41)	6 (5.36)	1.75 (0.96)
VRS	50 (17.48)	3.16 (1.47)	5 (14.29)	3.20 (1.78)	29 (3.71)	2.76 (1.55)	4 (10.26)	4.50 (1.00)	20 (17.86)	4.80 (1.58)

Note. n = number of respondents; M = mean; SD = standard deviation; Users = number of respondents using instrument over past 12 months; Frequency = mean frequency of use rating over past 12 months; — = not applicable; COVR = Classification of Violence Risk (Monahan et al., 2005); FOTRES = Forensisch Operationalisiertes Therapie- und Risiko-Evaluations-System (Urbaniok, 2007); HCR-20 = Historical, Clinical, Risk Management-20 (Webster et al., 1997); HKT-30 = Historische, Klinische, Toekomstige-30 (Werkgroep Pilotstudy Risicotaxatie, 2002); LSI-R = Level of Service Inventory-Revised (Andrews & Bonta, 1995); PCL-R = Psychopathy Checklist-Revised (Hare, 2003); PCL:SV = Psychopathy Checklist: Screening Version (Hart et al., 1995); SAPROF = Structured Assessment of Protective Factors (de Vogel et al., 2007); START = Short-Term Assessment of Risk and Treatability (Webster et al., 2009); V-RISK-10 = Violence Risk Screening-10 (Hartvig et al., 2007); VRAG = Violence Risk Appraisal Guide (Quinsey et al., 2006); VRS = Violence Risk Scale (Wong & Gordon, 2009). Frequency use was measured using a six-point Likert scale (0 = *Almost never*; 5 = *Always*).

^aExcluding respondents from Africa (n = 4).

Sensitivity Analysis

As a sensitivity analysis, univariate linear regression analyses were performed to investigate whether sex, age, or number of years in practice was associated with the percentage of risk assessments conducted using a structured instrument over respondents' lifetime and in the past 12 months. Respondent sex was not found to be associated with instrument use. Younger respondents were found to have conducted a higher percentage of their assessments using structured instruments over their lifetime, $t(2115) = 7.22$, $p < .001$, $\beta = 0.04$, 95% CI [0.03, 0.06], as well as in the past 12 months, $t(1676) = 3.94$, $p < .001$, $\beta = 0.03$, 95% CI [0.01, 0.04]. Similarly, respondents earlier in their practice careers conducted a higher percentage of their

assessments using structured instruments over their lifetime, $t(2133) = 9.00$, $p < .001$, $\beta = 0.05$, 95% CI [0.04, 0.06], as well as in the past 12 months, $t(1687) = 5.74$, $p < .001$, $\beta = 0.04$, 95% CI [0.02, 0.05].

DISCUSSION

Despite the proliferation of violence risk assessment methods in mental health and criminal justice settings, research on what instruments are used in practice and their perceived utility is rare (Elbogen, Huss, Tomkins, & Scalora, 2005). Work comparing risk assessment procedures on different continents and professional disciplines is particularly

TABLE 4
Risk Assessment Instrument Prevalence and Frequency of Use Over the Past 12 Months by Professional Discipline

Instrument	Professional Discipline ^a					
	Psychology (<i>n</i> = 737)		Psychiatry (<i>n</i> = 255)		Nursing (<i>n</i> = 345)	
	Number of Users (<i>n</i> , %)	Frequency of Use (<i>M</i> , <i>SD</i>)	Number of Users (<i>n</i> , %)	Frequency of Use (<i>M</i> , <i>SD</i>)	Number of Users (<i>n</i> , %)	Frequency of Use (<i>M</i> , <i>SD</i>)
COVR	18 (2.44)	3.06 (1.28)	10 (3.92)	2.40 (1.34)	19 (5.51)	3.78 (1.13)
FOTRES	27 (3.66)	4.44 (1.88)	16 (6.27)	4.18 (1.51)	13 (3.77)	4.23 (1.69)
HCR-20	379 (51.42)	4.64 (1.47)	141 (55.29)	4.06 (1.58)	112 (32.46)	4.08 (1.74)
HKT-30	46 (6.24)	4.21 (1.77)	2 (0.78)	5.50 (0.70)	2 (0.58)	5.00 (—)
LSI-R	54 (7.33)	4.01 (1.88)	7 (2.75)	2.00 (1.52)	1 (0.29)	6.00 (—)
PCL-R	363 (49.25)	3.90 (1.66)	99 (38.82)	3.58 (1.59)	23 (6.67)	2.60 (1.37)
PCL:SV	124 (16.82)	3.73 (1.60)	45 (17.65)	2.91 (1.66)	14 (4.06)	4.07 (1.77)
SAPROF	115 (15.60)	3.71 (1.63)	13 (5.10)	3.23 (1.64)	6 (1.74)	4.00 (2.28)
START	66 (8.96)	3.65 (1.70)	35 (13.33)	2.74 (1.44)	47 (13.62)	3.80 (1.87)
V-RISK-10	18 (2.44)	3.76 (1.52)	14 (5.49)	3.46 (1.45)	13 (3.77)	3.16 (1.40)
VRAG	122 (16.55)	3.85 (1.62)	34 (13.33)	3.97 (1.35)	9 (2.61)	3.37 (1.50)
VRS	44 (5.97)	3.83 (1.83)	13 (5.10)	2.84 (1.67)	36 (10.43)	3.27 (1.46)

Note. *n* = number of respondents; *M* = mean; *SD* = standard deviation; Users = number of respondents using instrument over past 12 months; Frequency = mean frequency of use rating over past 12 months; — = not applicable; COVR = Classification of Violence Risk (Monahan et al., 2005); FOTRES = Forensisch Operationalisiertes Therapie- und Risiko-Evaluations-System (Urbaniok, 2007); HCR-20 = Historical, Clinical, Risk Management-20 (Webster et al., 1997); HKT-30 = Historische, Klinische, Toekomstige-30 (Werkgroep Pilotstudy Risicotaxatie, 2002); LSI-R = Level of Service Inventory-Revised (Andrews & Bonta, 1995); PCL-R = Psychopathy Checklist-Revised (Hare, 2003); PCL:SV = Psychopathy Checklist: Screening Version (Hart et al., 1995); SAPROF = Structured Assessment of Protective Factors (de Vogel et al., 2007); START = Short-Term Assessment of Risk and Treatability (Webster et al., 2009); V-RISK-10 = Violence Risk Screening-10 (Hartvig et al., 2007); VRAG = Violence Risk Appraisal Guide (Quinsey et al., 2006); VRS = Violence Risk Scale (Wong & Gordon, 2009). Frequency use was measured using a six-point Likert scale (0 = *Almost never*; 5 = *Always*).

^aExcluding respondents who self-identified as being members of other professional disciplines (*n* = 256).

scarce, making it unclear whether clinicians working in different contexts should assume the generalizability of previous survey findings. Therefore, the present study aimed to survey the use and perceived utility of violence risk assessment methods in practice by 2135 psychologists, psychiatrists, and nurses on six continents. Respondents reported using over 400 instruments to assess, manage, and monitor violence risk, with over half of risk assessments in the past 12 months conducted using such an instrument. Due to the emphasis on assessment as part of their training and practice, the majority of respondents as well as the majority of tool users were psychologists.

The survey findings may have important implications for practice and research. First, the results identify which

structured instruments are being used by mental health professionals to conduct violence risk assessments, to inform the development of risk management plans and to assist in their monitoring. The findings also speak to the perceived utility of instruments in these tasks. This information may assist practitioners' selection of which risk assessment tools to implement. With the two leading approaches to structured risk assessment (actuarial and SPJ) demonstrating similar popularity and with mechanical and clinically-based tools having similar reliability and accuracy (Fazel, Singh, Doll, & Grann, 2012), the focus of instrument selection should be on the goodness-of-fit between the population and setting in which a professional is working and those for which tools were designed. Additional practical considerations include administration time, cost, training needs, and

TABLE 5
Instrument Use in Violence Risk Assessment, Management, and Monitoring Over the Past 12 Months

Instrument	All respondents (<i>N</i> = 976)					
	Number of RA Users (<i>n</i> ,%)	Usefulness in RA (<i>M</i> , <i>SD</i>)	Number of RMx Users (<i>n</i> ,%)	Usefulness in RMx (<i>M</i> , <i>SD</i>)	Number of RMon Users (<i>n</i> ,%)	Usefulness in RMon (<i>M</i> , <i>SD</i>)
COVR	37 (3.79)	3.81 (0.78)	33 (3.38)	3.73 (1.15)	28 (2.87)	3.96 (1.32)
FOTRES	50 (5.12)	4.14 (1.05)	35 (3.59)	4.49 (0.89)	28 (2.87)	4.36 (1.06)
HCR-20	588 (60.25)	4.44 (0.78)	453 (46.41)	4.40 (0.80)	237 (24.28)	4.13 (0.92)
HKT-30	46 (4.71)	4.52 (0.69)	31 (3.18)	4.48 (0.72)	20 (2.05)	4.00 (0.86)
LSI-R	66 (6.76)	4.09 (1.05)	51 (5.23)	3.90 (1.20)	22 (2.25)	3.59 (1.30)
PCL-R	461 (47.23)	4.26 (0.84)	326 (33.40)	3.75 (1.06)	162 (16.60)	3.09 (1.31)
PCL:SV	164 (16.80)	4.05 (0.89)	137 (14.04)	3.61 (0.99)	73 (7.48)	3.12 (1.29)
SAPROF	127 (13.01)	4.35 (0.83)	100 (10.25)	4.44 (0.73)	52 (5.33)	4.02 (0.98)
START	132 (13.52)	4.19 (0.97)	117 (11.99)	4.32 (0.88)	92 (9.43)	4.26 (0.85)
V-RISK-10	34 (3.48)	3.88 (0.77)	29 (2.97)	3.97 (1.09)	18 (1.84)	4.11 (1.08)
VRAG	151 (15.47)	4.03 (0.92)	97 (9.94)	3.21 (1.22)	55 (5.64)	2.93 (1.43)
VRS	72 (7.38)	4.14 (1.03)	69 (7.07)	4.10 (0.96)	42 (4.3)	4.10 (0.88)

Note. *n* = number of respondents; RA = risk assessment; RMx = risk management; RMon = risk monitoring; *M* = mean; *SD* = standard deviation. COVR = Classification of Violence Risk (Monahan et al., 2005); FOTRES = Forensisch Operationalisiertes Therapie- und Risiko-Evaluations-System (Urbaniok, 2007); HCR-20 = Historical, Clinical, Risk Management-20 (Webster et al., 1997); HKT-30 = Historische, Klinische, Toekomstige-30 (Werkgroep Pilotstudy Risicotaxatie, 2002); LSI-R = Level of Service Inventory-Revised (Andrews & Bonta, 1995); PCL-R = Psychopathy Checklist-Revised (Hare, 2003); PCL:SV = Psychopathy Checklist: Screening Version (Hart et al., 1995); SAPROF = Structured Assessment of Protective Factors (de Vogel et al., 2007); START = Short-Term Assessment of Risk and Treatability (Webster et al., 2009); V-RISK-10 = Violence Risk Screening-10 (Hartvig et al., 2007); VRAG = Violence Risk Appraisal Guide (Quinsey et al., 2006); VRS = Violence Risk Scale (Wong & Gordon, 2009). Perceived utility was measured using a 7-point Likert scale (0 = *Very useless*; 6 = *Very useful*).

personal preference for a tool's approach to assessment (Desmarais & Singh, 2013). Given that the users of SPJ instruments rated them as very useful in the development and monitoring of risk management plans, assessors working in rehabilitation and recovery-focused settings may wish to consider adopting such tools (e.g., HCR-20, HKT-30, FOTRES, SAPROF, START). Instruments following this approach may be particularly useful internationally, as recent meta-analytic evidence suggests that probabilistic estimates of violence risk produced by actuarial risk assessment instruments may vary considerably depending on local factors (Singh, Fazel, Gueorgieva, & Buchanan, 2013, 2014). Findings also suggest that personality scales such as the Psychopathy Checklist measures continue to be used as part of the risk assessment process. Albeit such instruments may have an important role to play in developing responsive risk management plans, they have not been found to predict violence as accurately as tools explicitly

designed for the purposes of violence risk assessment (Singh et al., 2011).

Second, findings suggest a need for increased communication about violence risk assessments. Respondents who used instruments to inform their assessments reported receiving any kind of feedback on their accuracy in only a third of cases (36.5%). However, social psychology research demonstrates that judgment accuracy increases when decision-makers receive feedback about their performance (Arkes, 1991). Therefore, violence risk assessors should be provided with follow-up information on their examinees whenever possible. This may be particularly helpful in the avoidance of false negative decisions, because individuals judged to be at higher risk will, in practice, be less likely to have access to potential victims. We also found that respondents who used instruments to develop management plans frequently did not know whether their plans had been implemented (44.6%) and,

amongst those who did, proposed plans were not implemented in over a third of cases (34.6%). The latter is of principal importance: what is the use of developing risk management plans if they are not implemented into practice? Risk assessments will not reduce violence unless their findings are communicated transparently and suggestions for risk management are executed (Heilbrun, Dvoskin, Hart, & McNiel, 1999). These findings require further research to clarify what feedback on risk assessments constituted and to what extent risk management plans were implemented. Which form of feedback (e.g., obtaining court records to view judges decisions, obtaining information from criminal registers, interviewing family members) is most effective in improving accuracy could be a promising area of future research.

Third, the results may inform the research agendas of several geographic regions. Fewer than half of risk assessments in South America and Asia over the past year were conducted with the use of a risk assessment tool, despite the large evidence base demonstrating the superiority of structured methods over unstructured clinical judgment. Though it may be that this continuing trend is due to cultural differences, it is also possible that more evidence of such superiority is needed using non-Western samples to be influential in practice. Additionally, despite an existent literature on the predictive validity of risk assessment tools in these regions (Folino, Marengo, Marchiano, & Ascazibar, 2004; Ho et al., 2013), the rarity of their use may also be due to a lack of familiarity with commercially available instruments or the unavailability of authorized translations (e.g., Telles, Day, Folino, & Taborda, 2009; Zhang, Chan, Cai, & Hu, 2012). Moving forward, clinical training programs in these areas may wish to incorporate modules on violence risk assessment tools, funding agencies may wish to issue grants to encourage the development of novel instruments in native languages or the authorized translations of available tools, and there needs to be increased discussion in the field about the strengths and limitations of the contemporary literature and best-practice recommendations in international settings.

Limitations

Limitations of the present study include coverage, sampling, and nonresponse errors characteristic of probability-based surveying methods (Couper, 2000), as well as both respondent- (e.g., lack of motivation, comprehension problems, reactivity) and software-related measurement error (e.g., technical difficulties). Specifically, a response rate was unable to be established for the present survey, impeding our ability to make a statement of the generalizability of our findings. Many of our respondents were members of more than one of the organizations that assisted in the dissemination process. Also, it is likely that some respondents

heard about the survey through colleagues or friends, but may not necessarily have been members of the organizations sampled. These are limitations shared by previous Web-based surveys that have been disseminated using multiple ListServes (Archer et al., 2006; Viljoen et al., 2010). Future surveys should include as an item a list of the organizations through which they disseminated calls for participation. Respondents should be allowed to identify all those organizations of which they are members. Researchers can then request information from each organization as to its membership count for the date on which the calls for participation were made. This would allow statistical correction for overlap in organizational membership, and for the calculation of a response rate. It is also difficult to assess generalizability as information is not available regarding characteristics of nonrespondents, who may have differed systematically from respondents. For example, nonrespondents who employ violence risk assessment instruments may do so less often or have significantly poorer perceptions of their utility. Another issue of generalizability is evidence that men may be less likely than women to respond to surveys (Kwak & Radler, 2002; Underwood, Kim, & Matier, 2000). Hence, the current study findings should be treated as tentative until replication attempts are made in future research.

Conclusion

The routine assessment of violence risk has become a global phenomenon, as has the use of instruments to assist in this task. Across continents, providing practitioners with feedback on the accuracy of their predictions and whether their management plans were implemented could improve the predictive validity of assessments as well as risk communication. Given the substantial evidence base supporting the benefits in reliability and validity of structured over unstructured assessment (Ægisdóttir et al., 2006), the study of violence risk assessment methods in South America and Asia should be a public health research priority. And, as the prevalence of tool use grows in additional regions such as Africa (Roffey & Kaliski, 2012) and Eastern Europe (Jovanović et al., 2009), the importance of high-quality research into psychometric properties and fidelity in implementation will become ever more important.

FUNDING

The research was funded by an American Psychology-Law Society Early Career Professional Grant. This sponsor had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; or in the preparation, review, or approval of the manuscript.

REFERENCES

- Ægisdóttir, S., White, M. J., Spengler, P. M., Maugherman, A. S., Anderson, L. A., Cook, R. S., et al. (2006). The meta-analysis of clinical judgement project: Fifty-six years of accumulated research on clinical versus statistical prediction. *Counseling Psychologist, 34*, 341–382. doi:10.1177/0011000005285875
- American Psychiatric Association. (2004). *Practice guidelines for the treatment of patients with schizophrenia*. Arlington, VA: American Psychiatric Association.
- American Psychological Association Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based practice in psychology. *American Psychologist, 61*, 271–285. doi:10.1037/0003-066X.61.4.271
- Andrews, D. A., & Bonta, J. (1995). *LSI-R: The Level of Service Inventory-Revised*. Toronto, ON: Multi-Health Systems.
- Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy & Law, 16*, 39–55. doi:10.1037/a0018362
- Archer, R. P., Buffington-Vollum, J. K., Stredny, R. V., & Handel, R. W. (2006). A survey of psychological test use patterns among forensic psychologists. *Journal of Personality Assessment, 87*, 84–94. doi:10.1207/s15327752jpa8701_07
- Arkes, H. R. (1991). Costs and benefits of judgment errors: Implications for debiasing. *Psychological Bulletin, 110*, 486–498. doi:10.1037/0033-2909.110.3.486
- Bengtson, S., & Pedersen, L. (2008). Implementation of evidence-based practices in forensic psychiatric clinical practice in Denmark: Are we there? *Scandinavian Journal of Forensic Science, 2*, 37–72.
- Brown, D. (2013, January 3). Predicting violence is a work in progress. *The Washington Post*. Retrieved from <http://www.washingtonpost.com>
- Conroy, M. A., & Murrie, D. C. (2007). *Forensic evaluation of violence risk: A guide to risk assessment and risk management*. New York: Oxford University Press.
- Couper, M. P. (2000). Web surveys: A review of issues and approaches. *Public Opinion Quarterly, 64*, 464–494. doi:10.1086/318641
- de Vogel, V., de Ruiter, C., Bouman, Y., & de Vries Robbé, M. (2007). *Guide to the SAPROF. Structured Assessment of Protective Factors for Violence Risk. Version 1*. Utrecht: Forum Educatief.
- Desmarais, S. L., & Singh, J. P. (2013). *Instruments for assessing recidivism risk: A review of validation studies conducted in the U.S.* Lexington, KY: Council of State Governments.
- Dillman, D., Smyth, J., & Christian, L. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method* (3rd ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Elbogen, E. B., Huss, M. T., Tomkins, A. J., & Scalora, M. J. (2005). Clinical decision-making about psychopathy and violence risk assessment in public sector mental health settings. *Psychological Services, 2*, 133–141. doi:10.1037/1541-1559.2.2.133
- Fazel, S., Singh, J. P., Doll, H., & Grann, M. (2012). The prediction of violence and antisocial behaviour: A systematic review and meta-analysis of the utility of risk assessment instruments in 73 samples involving 24,827 individuals. *British Medical Journal, 345*, e4692. doi:10.1136/bmj.e4692
- Folino, J. O., Marengo, C. M., Marchiano, S. E., & Ascázar, M. (2004). The risk assessment program and the court of penal execution in the province of Buenos Aires, Argentina. *International Journal of Offender Therapy & Comparative Criminology, 48*, 49–58. doi:10.1177/0306624x03257526
- Green, B., Carroll, A., & Brett, A. (2010). Structured risk assessment in community forensic mental health practice. *Australas Psychiatry, 18*, 538–541. doi:10.3109/10398562.2010.498513
- Guy, L. S., Douglas, K. S., & Hendry, M. C. (2010). The role of psychopathic personality disorder in violence risk assessments using the HCR-20. *Journal of Personality Disorders, 24*, 551–580. doi:10.1521/pedi.2010.24.5.551
- Hare, R. D. (2003). *The Hare Psychopathy Checklist-Revised*. Toronto, ON: Multi-Health Systems.
- Hart, S. D., Cox, D., & Hare, R. D. (1995). *Psychopathy Checklist: Screening Version*. Toronto, ON: Multi-Health Systems.
- Hartvig, P., Østberg, B., Alfarnes, S., Moger, T. A., Skjønberg, M., & Bjørkly, S. (2007). *Violence Risk Screening-10 (V-RISK-10)*. Oslo, Norway: Centre for Research and Education in Forensic Psychiatry.
- Hawley, C. J., Gale, T. M., Sivakumaran, T., & Littlechild, B. (2010). Risk assessment in mental health: Staff attitudes and an estimate of time cost. *Journal of Mental Health, 19*, 88–98. doi:10.3109/09638230802523005
- Heilbrun, K., Dvoskin, J., Hart, S., & McNeil, D. (1999). Violence risk communication: Implications for research, policy, and practice. *Health, Risk & Society, 1*, 91–106. doi:10.1080/13698579908407009
- Higgins, N., Watts, D., Bindman, J., Slade, M., & Thornicroft, G. (2005). Assessing violence risk in general adult psychiatry. *Psychiatric Bulletin, 29*, 131–133. doi:10.1192/pb.29.4.131
- Ho, R. M. Y., Lau, J. S. F., Cheung, H. H. K., Lai, T. T. S., Tam, V. F. L., Chan, W. L., et al. (2013). Evaluation of a model of violence risk assessment (HCR-20) among adult patients discharged from a gazetted psychiatric hospital in Hong Kong. *Journal of Forensic Psychiatry & Psychology, 24*, 479–495. doi:10.1080/14789949.2013.809467
- Hurducas, C., Singh, J. P., de Ruiter, C., & Petrila, J. (in this issue). Violence risk assessment tools: A systematic review of surveys. *International Journal of Forensic Mental Health*.
- Jovanović, A. A., Toševski, D. L., Ivković, M., Damjanović, A., & Gašić, J. (2009). Predicting violence in veterans with posttraumatic stress disorder. *Vojnosanitetski Pregled, 66*, 13–21. doi:10.2298/VSP0901013J
- Khiroya, R., Weaver, T., & Maden, T. (2009). Use and perceived utility of structured violence risk assessments in English medium secure forensic units. *Psychiatrist, 33*, 129–132. doi:10.1192/pb.bp.108.019810
- Kwak, N., & Radler, B. (2002). A comparison between mail and web surveys: response pattern, respondent profile, and data quality. *Journal of Official Statistics, 18*, 257–273.
- Lally, S. (2003). What tests are acceptable for use in forensic evaluations? A survey of experts. *Professional Psychology: Research and Practice, 34*, 491–498. doi:10.1037/0735-7028.34.5.491
- Monahan, J., Steadman, H., Appelbaum, P., Grisso, T., Mulvey, E., Roth, L., et al. (2005). *The Classification of Violence Risk*. Lutz, FL: Psychological Assessment Resources.
- National Institute for Health and Clinical Excellence. (2009). *Core interventions in the treatment and management of schizophrenia in primary and secondary care*. London: National Institute for Health and Clinical Excellence.
- Nursing and Midwifery Council. (2004). *Standards of proficiency for specialist community public health nurses*. London: Nursing and Midwifery Council.
- Quinsey, V. L., Harris, G. T., Rice, M. E., & Cormier, C. A. (2006). *Violent offenders: Appraising and managing risk*. Washington, DC: American Psychological Association.
- Roffey, M., & Kaliski, S. Z. (2012). “To predict or not to predict – that is the question”: An exploration of risk assessment in the context of South African forensic psychiatry. *African Journal of Psychiatry, 15*, 227–233. doi:10.4314/ajpsy.v15i4.29
- Singh, J. P., Fazel, S., Gueorguieva, R., & Buchanan, A. (2013). Rates of sexual recidivism in high risk sex offenders: A meta-analysis of 10,422 participants. *Sexual Offender Treatment, 7*, 44–57.
- Singh, J. P., Fazel, S., Gueorguieva, R., & Buchanan, A. (2014). Rates of violence in patients classified as “high risk” by risk assessment instruments. *British Journal of Psychiatry, 204*, 180–187. doi:10.1192/bjp.bp.113.131938
- Singh, J. P., Grann, M., & Fazel, S. (2011). A comparative study of risk assessment tools: A systematic review and metaregression analysis of

68 studies involving 25,980 participants. *Clinical Psychology Review*, 31, 499–513. doi:10.1016/j.cpr.2010.11.009

Skeem, J. L., & Monahan, J. (2011). Current directions in violence risk assessment. *Current Directions in Psychological Science*, 20, 38–42. doi:10.1177/0963721410397271

Telles, L. E., Day, V. P., Folino, J. O., & Taborda, J. G. (2009). Reliability of the Brazilian version of HCR-20 Assessing Risk for Violence. *Revista Brasileira de Psiquiatria*, 31, 253–256.

Tolman, A., & Mullendore, K. (2003). Risk evaluations for the courts: Is service quality a function of specialization? *Professional Psychology: Research & Practice*, 34, 225–232. doi:10.1037/0735-7028.34.3.225

Underwood, D., Kim, H., & Matier, M. (2000, May). *To mail or to Web: Comparisons of survey response rates and respondent characteristics*. Paper presented at the 40th Annual Forum of the Association for Institutional Research, Cincinnati, OH.

Urbanik, F. (2007). *FOTRES: Forensisches Operationalisiertes Therapie-Risiko-Evaluations System*. Bern: Zytglogge.

Viljoen, J. L., McLachlan, K., & Vincent, G. M. (2010). Assessing violence risk and psychopathy in juvenile and adult offenders: A survey of clinical practices. *Assessment*, 17, 377–395. doi:10.1177/1073191109359587

Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). *HCR- 20: Assessing Risk for Violence. Version 2*. Burnaby, BC: Simon Fraser University, Mental Health, Law, and Policy Institute.

Webster, C. D., Martin, M. L., Brink, J., Nicholls, T. L., & Desmarais, S. (2009). *Manual for the Short-Term Assessment of Risk and Treatability (START). Version 1.1*. Hamilton, ON: Forensic Psychiatric Services Commission, 2009.

Werkgroep Pilotstudy Risicotaxatie. (2002). *Findings of a nationwide pilot study on the HKT-30*. The Hague: Ministerie van Justitie.

Wong, S., & Gordon, A. (2009). *Manual for the Violence Risk Scale*. Saskatoon, SK: University of Saskatchewan.

World Health Organization. (2002). *World report on violence and health*. Geneva: Author.

Yang, M., Wong, S. C. P., & Coid, J. (2010). The efficacy of violent prediction: A meta-analytic comparison of nine risk assessment tools. *Psychological Bulletin*, 136, 740–76. doi:10.1037/a0020473

Zhang, X. L., Chen, X. C., Cai, W. X., Hu, J. M. (2012). Reliability of the Violence Risk Scale Chinese version. *Fai Yi Xue Za Zhi*, 28, 32–35.

APPENDIX 1

Demographic and Clinical Characteristics of All Survey Respondents

Characteristic	All respondents (n = 2135)	
Demographic		
Men (n,%)	847	(39.67)
Age in years (M, SD)	43.93	(10.97)
Years in practice (M, SD)	15.91	(10.71)
Clinical setting over past 12 months		
General hospital (M% Time, SD)	8.66	(24.46)
Private practice (M% Time, SD)	15.03	(30.46)
Non-forensic psych hospital (M% Time, SD)	13.27	(29.62)
Non-forensic psych clinic (M% Time, SD)	12.08	(28.59)
Forensic psych hospital (M% Time, SD)	17.48	(34.59)
Forensic psych clinic (M% Time, SD)	7.02	(21.35)
Correctional institute (M% Time, SD)	12.68	(29.87)
Other (M% Time, SD)	2.58	(13.07)

(Continued)

(Continued)

Characteristic	All respondents (n = 2135)	
Professional responsibilities over past 12 months		
Practice (M%, SD)	50.91	(28.23)
Administrative duties (M%, SD)	21.95	(18.66)
Teaching or supervision (M%, SD)	13.17	(14.86)
Research (M%, SD)	7.18	(14.36)
Other (M%, SD)	6.80	(17.79)
Risk assessment history		
RA over lifetime (M, SD)	435.46	(1705.99)
RA with SRAI over lifetime (M%, SD)	54.32	(38.93)
RA over past 12 months (M, SD)	34.53	(86.87)
RA with SRAI in past 12 months (M%, SD)	58.25	(41.94)
Characteristics of examinees over past 12 months		
Men (M%, SD)	75.55	(31.87)
Psychotic disorder (M%, SD)	32.29	(33.04)
Mood disorder (M%, SD)	17.55	(23.54)
Anxiety disorder (M%, SD)	10.22	(19.16)
SU disorder (M%, SD)	31.14	(32.19)
Personality disorder (M%, SD)	36.34	(32.26)
Other disorder (M%, SD)	9.74	(22.27)

Note. n = number of respondents; M = mean; SD = standard deviation; Psych = psychiatric; SU = substance use; SRAI = structured risk assessment instrument.

APPENDIX 2

International and Intranational Organizations Involved in the Dissemination of Survey Materials

1. Red Iberolatinoamericana de investigación y Docencia en Salud Mental Aplicada a lo Forense
2. Royal Australian and New Zealand College of Psychiatrists
3. Societe Royale de Medecine Mentale de Belgique
4. Canadian Psychological Association - Criminal Justice Psychology Section
5. Gendarmería de Chile
6. Dansk Psykologforening, Hospitals-Sektioner
7. Bundesfachvereinigung Leitender Krankenpflegepersonen der Psychiatrie e.V., Netzwerk Forensik
8. Hong Kong College of Psychiatrists
9. Colegio Nacional de Enfermeras
10. Nederlands Instituut van Psychologen - Forensic Psychology Section
11. Instituto Nacional de Medicina Legal
12. PSI-FORENSE ListServ
13. Swedish Medical Association
14. Schweizer Gesellschaft für Forensische Psychiatrie
15. Royal College of Nursing
16. American Academy of Psychiatry and the Law
17. International Association for Forensic Mental Health Services
18. Maestría en Salud Mental aplicada a lo Forense, Departamento de Postgrado, Facultad de Ciencias Médicas, Universidad Nacional de La Plata
19. Australian Psychological Society

20. Belgian College of Neuropsychopharmacology and Biological Psychiatry
21. Canadian Psychiatric Association
22. Dansk Retspsykologisk Selskab
23. Berufsverband Deutscher Psychologinnen und Psychologen e.V. (BDP), Sektion Rechtspsychologie
24. Hong Kong Psychological Society
25. Asociación Psiquiátrica Mexicana A.C.
26. Verpleegkundigen & Verzorgenden Nederland - Social Psychiatric Nurses Section
27. Guarda Nacional Republicana
28. Societat Catalana de Medicina Legal i Toxicologia Centre d'Estudis
29. Swedish Psychiatric Association
30. Schweizer Gesellschaft für Rechtspsychologie
31. Royal College of Psychiatrists
32. American Psychology-Law Society
33. American Institute for the Advancement of Forensic Studies
34. Australian College of Mental Health Nurses
35. Belgian Association for Psychological Sciences
36. Canadian Academy of Psychiatry and the Law
37. Psykologfagligt Forum, Øst
38. Deutsche Gesellschaft für Psychologie (DGPs), Fachgruppe Rechtspsychologie
39. Academy of Mental Health
40. Sociedad Mexicana de Psicología A.C.
41. Nederlandse Vereniging voor Psychiatrie
42. Direção-Geral dos Serviços Prisionais e Reinserção Social
43. Jurídics i Formacio Especialitzada
44. Swedish Forensic Psychiatric Association
45. Schweizer Amt für Justiz
46. British Psychological Society
47. PSYLAW ListServ
48. Association Francophone des Infirmières spécialisées en santé mentale et Psychiatrie
49. Dansk Psykiatrisk Selskab
50. Deutsche Gesellschaft für Psychiatrie, Psychotherapie und Nervenheilkunde (DGPPN), Referat Forensische Psychiatrie
51. Policia Judiciária
52. Swedish Psychologists' Association
53. American Board of Forensic Psychology
54. Nationale Federatie van Belgische Verpleegkundigen
Fédération National des Infirmières de Belgique
55. Fagligt Selskab for Psykiatriske Sygeplejersker
56. Niedersächsisches Justizministerium, Abteilung Justizvollzug und Kriminologischer Dienst
57. American Academy of Forensic Psychology
58. American Psychiatric Nurses Association
59. Forensic Behavioral Services, Inc.

APPENDIX 3
Risk Assessment Instrument Prevalence and
Frequency of Use Over the Past 12 Months by All
Survey Respondents

Instrument	All respondents (n = 2135)	
	Number of Users (n,%)	Frequency of Use (M, SD)
COVR	63 (2.95)	3.23 (1.21)
FOTRES	60 (2.81)	4.33 (1.71)
HCR-20	669 (31.33)	4.40 (1.58)
HKT-30	52 (2.44)	4.33 (1.71)
LSI-R	77 (3.61)	3.95 (1.88)
PCL-R	513 (24.03)	3.77 (1.66)
PCL:SV	195 (9.13)	3.56 (1.68)
SAPROF	144 (6.74)	3.66 (1.67)
START	160 (7.49)	3.50 (1.73)
V-RISK-10	54 (2.53)	3.29 (1.45)
VRAG	176 (8.24)	3.84 (1.57)
VRS	106 (4.96)	3.44 (1.68)

Note. n = number of respondents; M = mean; SD = standard deviation; Users = number of respondents using instrument over past 12 months; Frequency = mean frequency of use rating over past 12 months; — = not applicable; COVR = Classification of Violence Risk (Monahan et al., 2005); FOTRES = Forensisch Operationalisiertes Therapie- und Risiko-Evaluations-System (Urbaniok, 2007); HCR-20 = Historical, Clinical, Risk Management-20 (Webster et al., 1997); HKT-30 = Historische, Klinische, Toekomstige-30 (Werkgroep Pilotstudy Risicotaxatie, 2002); LSI-R = Level of Service Inventory-Revised (Andrews & Bonta, 1995); PCL-R = Psychopathy Checklist-Revised (Hare, 2003); PCL:SV = Psychopathy Checklist: Screening Version (Hart et al., 1995); SAPROF = Structured Assessment of Protective Factors (de Vogel et al., 2007); START = Short-Term Assessment of Risk and Treatability (Webster et al., 2009); V-RISK-10 = Violence Risk Screening-10 (Hartvig et al., 2007); VRAG = Violence Risk Appraisal Guide (Quinsey et al., 2006); VRS = Violence Risk Scale (Wong & Gordon, 2009). Frequency use was measured using a six-point Likert scale (0 = *Almost never*; 5 = *Always*).