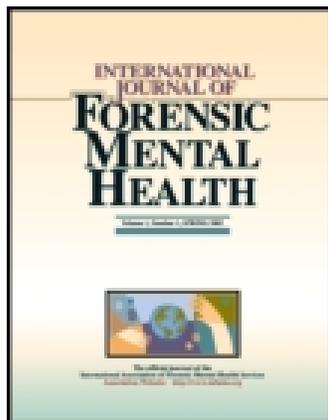


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Violence Risk Assessment Tools: A Systematic Review of Surveys

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Violence Risk Assessment Tools: A Systematic Review of Surveys

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The present study is a systematic review exploring the methodological quality and consistency of findings for surveys on the use of violence risk assessment tools. A systematic search was conducted to identify surveys of violence risk assessment tool use published between January 1, 2000 and January 1, 2013 using PsycINFO, MEDLINE, and EBSCO Criminal Justice Abstracts. Characteristics of survey administration and more findings were extracted, and a checklist of 26 reporting quality markers in survey research was used for coding. Nine surveys were identified, fulfilling on average approximately half of the quality markers ($M = 15.5$, $SD = 1.6$). An average of 104 respondents ($SD = 93$) participated, with a range of 10 to 300 respondents. Most surveys examined the practices of psychologists in the United Kingdom or the United States. The Psychopathy Checklist-Revised and the Historical, Clinical, Risk Management-20 were the most commonly used instruments by practitioners. No surveys investigated differences in assessment practices across professional disciplines or continents, and none examined the use or perceived usefulness of structured instruments in risk management or risk monitoring. There continues to be a need for transparent, high quality clinical surveys on the use and perceived utility of violence risk assessment tools in the forensic mental health field. Given the growing cross-jurisdictional use of risk assessment tools, comparisons of international practice are particularly important.

Keywords: violence, risk assessment, survey, systematic review, forensic assessment

The prevention of violence has generated considerable clinical and research interest. After seminal research found that unstructured judgments of risk were no more valid than

chance several decades ago (Monahan, 1981; Steadman & Cocozza, 1974; Thornberry & Jacoby, 1979), a number of tools have been developed to add structure to the process of assessing future violence risk and, thus, increase its predictive accuracy. According to a recent systematic review (Singh, Serper, Reinharth, & Fazel, 2011), over 150 risk assessment tools have specifically been developed to assess the risk of violence. These instruments include schemes

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such as the Historical, Clinical, Risk Management-20 (HCR-20; Webster, Douglas, Eaves, & Hart, 1997), the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993), and the Sexual Violence Risk-20 (SVR-20; Boer, Hart, Kropp, & Webster, 1997). Such instruments are now used on multiple continents including North America (Bloom, Webster, Hucker, & De Freitas, 2005), South America (Folino & Castillo, 2006), Europe (Risk Management Authority, 2007), Africa (Roffey & Kaliski, 2012), Asia (Chu, Daffern, Thomas, & Lim, 2012), and Australia (Ogloff & Davis, 2005).

Numerous studies have investigated the psychometric properties of risk assessment tools in the context of research, but comparatively few have explored how these instruments are actually used in practice (Elbogen, 2002). Such information is important, as evidence suggests that using risk assessment tools with their intended population to predict their intended outcome of interest can maximize reliability and predictive validity (Harris & Rice, 2007; Singh, Grann, & Fazel, 2011). Hence, examining what tools are used in the field and how is of arguably greater practical importance than their utility in controlled research contexts. One approach to examining the application of violence risk assessment tools in practice is through survey methodology.

Survey Research

A survey is a systematic data collection tool used to gather information from a representative sample of a population which can be generalized to that entire population (Groves et al., 2009). There are four types of surveys generally used: face-to-face interviews, telephone questionnaires, postal mail questionnaires, and Web-based questionnaires. Face-to-face interviews are the most direct and intrusive form of surveying, but they have also been found to yield the highest response rates (Hox & De Leeuw, 1994; Krysan, Schuman, Scott, & Beatty, 1994). However, such interviews are limited in their utility by a high likelihood of researcher reactivity effects, time constraints, and safety issues for interviewers (Babbie, 2012). Telephone questionnaires address this by being less time-consuming and avoiding physical proximity between interviewer and respondent, though they can be more expensive and limit samples to persons who own and actively answer their phone (Holbrook, Green, & Krosnick, 2003). Postal mail questionnaires are relatively inexpensive and allow respondents to complete surveys at their convenience, taking as much time as needed. However, such surveys have been found to have lower response rates compared to telephone and face-to-face methods (Cobanoglu, Warde, & Moreo, 2001). Finally, Web-based questionnaires reduce the time and costs associated with surveying, with the added benefit of avoiding the often error-prone and tedious task of data entry (Medin, Roy, & Ann, 1999). However, electronic approaches to surveying suffer from coverage bias, as they

can only recruit individuals who have access to the internet (Crawford, Couper, & Lamias, 2001). The extent of this bias will depend on the age, socioeconomic status, and geographic location of the population of interest (Kaplowitz, Hadlock, & Levine, 2004).

Present Study

Though a recent metareview identified a number of systematic reviews that have been conducted to investigate the psychometric properties of violence risk assessment tools (Singh & Fazel, 2010), none have reviewed the survey literature on such instruments. Hence, the aim of the present study was to examine the transparency and consistency of published surveys concerning violence risk assessment tool use in practice. Specifically, we wished to explore the quality of these surveys and to identify gaps in knowledge that future survey research could address.

METHOD

Review Protocol

For a consistent and transparent reporting of results, the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) Statement was followed (Moher, Liberati, Tetzlaff, & Altman, 2009). This 26-item checklist ensures accurate reporting of review methodology and findings.

Systematic Search

A systematic literature search was conducted using PsycINFO, MEDLINE, and EBSCO Criminal Justice Abstracts to identify English-language surveys of violence risk assessment tool use and perceived utility. Only studies published between January 1, 2000 and January 1, 2013 were included as we sought to explore contemporary practice. Combinations of the following Boolean keywords were used: *violence**, *risk*, *assessment*, *prediction*, and *survey*. Additional surveys were identified through reference sections, annotated bibliographies, and correspondence with risk assessment researchers. As a quality control measure, only surveys published in peer-reviewed journals were considered for inclusion. Surveys concerning alternative areas of forensic risk assessment such as sex offender risk assessment (e.g., Jackson & Hess, 2007) or general recidivism risk assessment (e.g., Taxman, Cropsey, Young, & Wexler, 2007) were excluded, as were surveys on juvenile risk assessment (e.g., Shook & Sarri, 2007), communication of violence risk (Heilbrun et al., 2004), and risk factors for violence (e.g., Elbogen, Mercado, Scalora, & Tomkins, 2002). The initial

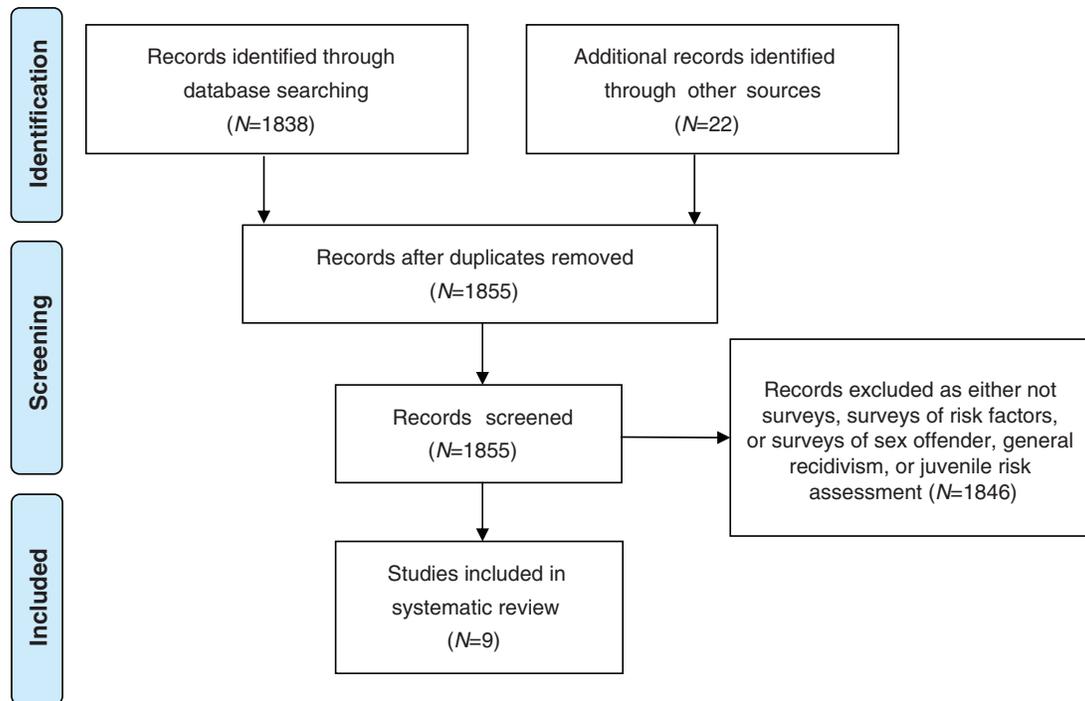


FIGURE 1 Systematic search for surveys investigating violence risk assessment tool use and perceived utility.

search identified 1,855 records (Figure 1). When screened for eligibility, nine studies were found to meet inclusion and exclusion criteria (Archer, Buffington-Vollum, Stredny, Handel, 2006; Bengtson & Pedersen, 2008; Green, Carroll, & Brett, 2010; Hawley, Gale, Sivakumaran, & Littlechild, 2010; Higgins, Watts, Bindman, Slade, & Thornicroft, 2005; Khiroya, Weaver, & Maden, 2009; Lally, 2003; Tolman & Mullendore, 2003; Viljoen, McLachlan, & Vincent, 2010).

Data Extraction

The objectives of the present study were: to assess the quality of the surveys included in the review, to explore how each was administered, and to analyse their findings. Three different data extraction methods were used to achieve these objectives: a quality checklist (Bennet et al., 2011), an administration characteristics coding sheet, and a findings coding sheet.

A 26-item checklist was used to assess the reporting quality of each survey (Table 1). This checklist was developed by Bennett and colleagues (2011) who reviewed recent surveying guidelines (e.g., Burns et al., 2008; Draugalis, Coons, & Plaza, 2008; Kelley, Clark, Brown, & Sitzia, 2003) and identified key reporting domains, all considered equally important to the checklist authors.

A supplementary coding sheet was developed by the authors to assist in the extraction of characteristics on survey administration findings. The eight extracted characteristics included:

1. Language(s) in which the survey was administered
2. Number of professional disciplines sampled
3. Method of survey administration
4. Number of organizations to which the survey was disseminated
5. Number of reminders sent to encourage participation
6. Incentives offered to respondents
7. Inclusion of survey items concerning the use of tools in risk assessment, risk management, and/or risk monitoring
8. Reported survey items concerning the perceived usefulness of tools in risk assessment, management, and/or monitoring

To explore key survey findings, the following 10 respondent characteristics were extracted using a third coding sheet:

1. Number of respondents
2. Response rate
3. Number of countries represented by respondents
4. Mean age of respondents
5. Percentage of respondents that were male
6. Number of risk assessments conducted by respondents over lifetime
7. Percentage of risk assessments conducted over lifetime using a structured tool
8. Number of risk assessments conducted by respondents over past 12 months
9. Percentage of risk assessments conducted over past 12 months using a structured tool

TABLE 1
Methodological Quality Markers in Nine Clinical Surveys of Use of Structured Violence Risk Assessment Instruments

| Methodological Quality Marker | Archer et al. (2006) | Bengtson & Pedersen (2008) | Green et al. (2010) | Hawley et al. (2010) | Higgins et al. (2005) | Khiroya et al. (2009) | Lally (2003) | Tolman & Mullendore (2003) | Viljoen et al. (2010) |
|---|----------------------|----------------------------|---------------------|----------------------|-----------------------|-----------------------|--------------|----------------------------|-----------------------|
| Background | | | | | | | | | |
| Justification of research method | – | – | – | – | – | – | – | – | – |
| Background literature review | • | • | • | • | • | • | • | • | • |
| Explicit research questions | – | • | – | • | – | – | • | • | • |
| Clear study objectives | • | – | • | • | • | • | – | • | • |
| Methods | | | | | | | | | |
| Description of methods used for data analysis | • | • | • | • | • | • | • | – | • |
| Method of questionnaire administration | • | • | • | • | • | • | • | • | • |
| Number and types of contact | – | • | – | – | • | • | • | • | • |
| Sample selection | | | | | | | | | |
| Sample size calculation | • | • | • | – | • | • | • | • | • |
| Representativeness | – | • | – | – | • | – | • | – | – |
| Method of sample selection | • | – | • | • | • | • | • | • | • |
| Research tool | | | | | | | | | |
| Description of the research tool | • | • | – | • | – | • | • | • | • |
| Instrument pretesting | – | – | – | • | – | – | – | – | – |
| Instrument reliability and validity | – | – | – | – | – | – | – | – | – |
| Results | | | | | | | | | |
| Results of research presented | • | • | • | • | • | • | • | • | • |
| Results address objectives | • | – | • | • | • | • | – | • | • |
| Generalizability | • | • | – | • | – | – | – | – | – |
| Response rates | | | | | | | | | |
| Response rate stated | • | • | – | • | • | • | • | • | • |
| How response rate was calculated | • | • | – | – | • | • | • | • | • |
| Discussion of nonresponse bias | – | – | – | • | – | • | – | – | – |
| Interpretation and discussion | | | | | | | | | |
| Interpret and discuss findings | • | • | • | • | • | • | • | • | • |
| Conclusion | • | • | • | • | – | – | – | • | • |
| Recommendations | – | • | • | • | • | • | – | • | • |
| Limitations | • | • | – | • | • | • | • | – | • |
| Ethics and disclosure | | | | | | | | | |
| Consent | – | – | – | – | – | – | – | – | – |
| Sponsorship | – | – | • | – | • | – | – | – | • |
| Research ethics approval | – | – | – | • | – | – | – | – | – |

Note. • = characteristic present in survey; – = characteristic absent from survey.

10. The three structured tools most commonly used by respondents

As a measure of quality control for the data extraction, five (55.5%) of the included studies were randomly selected and coded by the second author. This investigator was provided with the quality checklist, the standardized coding sheets, and the five study manuscripts. Using Cohen's (1960) kappa, a perfect level of inter-rater agreement was established ($\kappa = 1.00$; Landis & Koch, 1977).

Procedure

Descriptive analyses were conducted to examine trends in the distribution of quality markers and differences in survey administration and findings. In addition, a narrative

overview was prepared for each survey to summarize findings related to violence risk assessment.

RESULTS

Survey Reporting Quality

The nine included studies were screened for markers of reporting quality detailed in Table 1. The average survey met just over half of the criteria ($M = 15.5$, $SD = 1.6$, range = 12–18). Of the sections constituting the checklist, the *Methods* section was most completely reported across studies ($M = 2.5$ of 3 criteria met, $SD = 0.5$, range = 2–3) followed by the *Interpretation and Discussion* section ($M = 3.2$ of 4, $SD = 0.6$, range = 2–4), the *Sample Selection* and the *Results* section (both $M = 2.1$ of 3, $SD = 0.6$, range = 1–3), the *Response Rate* section, ($M = 1.8$ of 3, $SD = 0.7$, range =

0–3), and the *Background* section ($M = 2.4$ of 4, $SD = 0.5$, range = 2–3). The *Research Tool* ($M = 0.8$ of 3, $SD = 0.6$, range = 0–2) and *Ethics and Disclosure* ($M = 0.4$ of 3, $SD = 0.5$, range = 0–1) sections had the fewest criteria met.

The most commonly reported items across sections were: the method of questionnaire administration, background literature review, results of survey research, and interpretation and discussion of findings (N surveys meeting criteria = 9, 100%). None of the included studies described the procedure through which informed consent was obtained. In addition, no studies investigated the test-retest reliability or face validity of the survey that was administered, although one study did describe a pilot phase to ensure that all questions were relevant and clear in their phrasing (Hawley et al., 2010). The most complete survey satisfied 18 (69.2%) of the reporting quality markers (Viljoen et al., 2010).

Characteristics of Survey Administration

Eight characteristics concerning surveying administration were extracted from each of the included studies (Table 2). The number of professional disciplines sampled by each study varied from one to five, with psychologists being the most common profession ($N = 5$; 62.5%). Web-based questionnaires were administered in three (33.3%) studies, with the remaining six (66.6%) studies using a paper-and-pencil format. An average of 1.8 sources ($SD = 1.3$; range = 1–5)—most commonly online directories or ListServes of professional organizations—were used by researchers to disseminate surveys. An average of 1.6 reminders ($SD = 0.5$; range = 1–2) were sent to respondents to encourage participation. Only three (33.3%) of the included studies measured perceived usefulness of risk assessment tools (Hawley et al., 2010; Khiroya et al., 2009; Viljoen et al., 2010), and only one (12.5%) surveyed the frequency of risk assessment tool use in risk management (Bengtson & Pedersen, 2008). None of the studies reported whether they offered incentives to participants or not, or ratings of the perceived utility of risk assessment tools for risk management or risk monitoring.

Characteristics of Survey Findings

Ten characteristics concerning the participants who completed the surveys and their responses were extracted. The average number of respondents was 104 ($SD = 93$, range = 10–300). The average response rate was 55.8% ($SD = 13.8\%$, range = 35–83%). Seven of the nine surveys targeted specific countries, most commonly the United Kingdom ($N = 3$; 33.3%) and the United States ($N = 2$; 22.2%). Although the gender composition and average age of samples were only reported in four surveys, there was a trend towards middle-aged men comprising the majority of respondents. None of the surveys reported the average

number of risk assessments conducted by respondents over their lifetime; however, one study reported a median of 55 risk assessments using structured tools conducted in the previous 12 months (Green et al., 2010). The Psychopathy Checklist-Revised (PCL-R; Hare, 2003) and its screening version (PCL:SV; Hart, Cox, & Hare, 1995) and the HCR-20 were the most commonly used tools when frequency of tool use was described.

Descriptions of Surveys

Archer et al. (2006)

Archer and colleagues used a Web-based survey to explore which psychological tests are used in forensic evaluations by 152 doctoral-level members of the American Psychology-Law Society and diplomates of the American Board of Forensic Psychology. The survey explored the use of 10 categories of instruments: measures of psychopathy and risk assessment, sexual offender scales, clinical scales, child-related forensic instruments, malingering tests, measures of competency and insanity, multiscale personality inventories, unstructured personality tests, neuropsychological assessment, and cognitive/school achievement tools. In addition to *whether* they used each category of instrument, respondents also indicated *how often* they used each instrument. The researchers found that the most commonly and frequently used risk assessment tools for evaluating violence were the PCL-R, the HCR-20, and the VRAG. The authors concluded that the use of specialized instruments such as the HCR-20 and the VRAG had increased compared to previous surveys conducted within the field of violence risk assessment.

Bengtson & Pedersen (2008)

Bengtson and Pedersen conducted a survey of 41 psychologists and psychiatrists working in Danish forensic psychiatric units to examine the use of violence risk assessment tools in mental health evaluations. Respondents were found to be most familiar with the PCL-R, PCL:SV, HCR-20, SVR-20, and VRAG, whereas the PCL-R, and PCL:SV were the most commonly used instruments specifically for violence risk assessment. The most commonly reported reason for using risk assessment instruments was the desire for evidence-based practice, and the most commonly reported reasons for not using them were insufficient training and the preference for unstructured clinical judgment. Amongst those clinicians who reported using a risk assessment instrument, an average of 3.8 instruments ($SD = 2.6$, range = 2–8) were used in this process over the course of their careers.

Green et al. (2010)

Green and colleagues surveyed the use of the HCR-20 by community forensic mental health services in Australia.

TABLE 2
 Characteristics Concerning the Administration of Nine Clinical Surveys of Structured Violence Risk Assessment

| Administration Characteristic | Archer et al. (2006) | Bengtson & Pedersen (2008) | Green et al. (2010) | Higgins et al. (2005) | Hawley et al. (2010) | Khroya et al. (2009) | Lally (2003) | Tolman & Mullendore (2003) | Viljoen et al. (2010) |
|--|---|----------------------------------|------------------------|--------------------------------------|---|--------------------------|---------------------------------------|--------------------------------------|---|
| Language of survey | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear |
| No. of professional disciplines sampled | 1 | 2 | 5 | 1 | 3 | 1 | 1 | 1 | 1 |
| Method of administration | Web-based | Mail | Web-based | Mail | Handed out | Mail | Mail | Mail | Web-based |
| No. of sources included | 2 (AP-LS list & ABFP diplomat directory) | Unstated/ Unclear | 1 (CFMHS directory) | 1 (Bindman et al [1999] database) | 1 (Hertfordshire NHS Trust) ¹ | 1 (Internet database) | 2 (ABFP directory, & MBP database) | 2 (ABFP directory & MBP database) | 5 (AP-LS, IAFMHS, ABFP, ACFP & CPA-CJS directories) |
| No. of reminders sent | Unstated/ Unclear | 1 | Unstated/ Unclear | 2 | Unstated/ Unclear | 2 | 1 | Unstated/ Unclear | 2 |
| Incentives offered to respondents | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear |
| Queried use in RA, RMan, and/or RMon | RA | RA + RMan | RA | RA | RA | RA | RA | RA | RA |
| Perceived usefulness measured | No | No | No | No | Yes | Yes | No | No | Yes |

Note. RA = risk assessment; RMan = risk management; RMon = risk monitoring; AP-LS = American Psychology-Law Society; ABFP = American Board of Forensic Psychology; CFMHS = Community Forensic Mental Health Services; MBP = Michigan Board of Psychology; IAFMHS = International Association of Forensic Mental Health Services; ACFP = American College of Forensic Psychology; CPA-CJS = Canadian Psychological Association – Criminal Justice Section.

¹Excluding mental handicap, tertiary services, and secure or forensic services (Hawley et al., 2010).

TABLE 3
 Characteristics Concerning the Findings of Nine Clinical Surveys on Structured Violence Risk Assessment

| Results Characteristic | Archer et al. (2006) | Bengtson & Pedersen (2008) | Green et al. (2010) | Higgins et al. (2005) | Hawley et al. (2010) | Khiroya et al. (2009) | Lally (2003) | Tolman & Mullendore (2003) | Viljoen et al. (2010) |
|---|---|--|---------------------|-----------------------|----------------------|-----------------------|-------------------|---|---|
| No. of respondents | 152 | 41 | 10 | 45 | 300 | 29 | 64 | 164 | 130 |
| Response rate (%) | 56% | 48% | 83% | 68% | 50% | 62% | 35% | 50% | 50% |
| No. of countries surveyed | 1 | 1 | 1 | 1 | 1 | 1 | Unstated/ Unclear | 1 | Unstated/ Unclear |
| Mean age of respondents (<i>SD</i>) | 49.2 (12.0) | 47.7 (10.4) | Unstated/ Unclear | Unstated/ Unclear | 43 (Range = 23–62) | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | 46.3 (12.1) |
| Men (<i>N</i> , %) | 92 (60.5) | 17 (42.5) | Unstated/ Unclear | Unstated/ Unclear | 99 (33.0) | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | 119 (59.8) |
| Mean no. of RA over lifetime (<i>SD</i>) | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | 429.5 (970.8) |
| Mean no. of RA using structured tools over lifetime (<i>SD</i>) | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear |
| Mean no. of RA over last 12 months (<i>SD</i>) | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | 29.3 (39.4) |
| Mean no. of RA using structured tools over last 12 months | Unstated/ Unclear | Unstated/ Unclear | Median = 55 | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear |
| Three most commonly used tools | 1. PCL-R ¹ 2. HCR-20 3. VRAG | 1. PCL-R 2. PCL:SV 3. VRAG/ HCR-20 | Unstated/ Unclear | Unstated/ Unclear | Unstated/ Unclear | 1. PCL-R 2. HCR-20 | Unstated/ Unclear | 1. MMPI-2 2. DSM-IV 3. PCL-R ² | 1. PCL-R ¹ 2. HCR-20 3. MMPI-2 |

Note. *N* = number of respondents; *M* = mean; *SD* = standard deviation; RA = risk assessment; HCR-20 = Historical Clinical Risk – 20 (Webster, Douglas, Eaves, & Hart, 1997); VRAG = Violence Risk Appraisal Guide (Harris, Rice, & Quinsey, 1993); MMPI-2 = Minnesota Multiphasic Personality Inventory – 2 (Butcher et al., 1989); DSM-IV = Diagnostic and Statistical Manual for Mental Disorders (4th edition; APA, 1994). PCL-R = The Psychopathy Checklist-Revised (Hare, 2003); PCL:SV = The Psychopathy Checklist - Screening Version (Hart, Cox, & Hare, 1995).

¹ = Inclusive of PCL:SV.

² = Most frequently used by forensic psychologists, diplomates of ABFP.

Clinical teams within these units included psychologists, psychiatrists, nurses, social workers, and registrars. They sent a mail questionnaire to all 12 such units in Australia to obtain comparative data on the use of the HCR-20. The researchers found that approximately 50 HCR-20 assessments had been completed by each team over the past 12 months. There was considerable variation across services in the number of assessments performed, the amount of time allocated for gathering information and report writing, and the type of training offered in administering the tool. The researchers concluded that SPJ instruments such as the HCR-20 are time-consuming in terms of administration and interpretation and that training is highly important to ensure time-effectiveness, reliability, and rating consistency when implementing such measures.

Hawley et al. (2010)

Hawley and colleagues conducted a survey of 300 practitioners (self-classified as doctors, nurses, or other health professionals) working in the Hertfordshire National Health Service Trust in the United Kingdom. The practitioners were asked to describe the amount of time taken to complete the locally-agreed risk assessment proforma (RAP; a standardized form) and their attitudes about the usefulness of such structured measures. The researchers found that the time allocated to complete RAPs is under 2% of the average working day, but there was considerable variability in estimates. Three-fourths of respondents reported that RAPs were useful in at least half of cases for which they were completed. The survey found that doctors allocated less time to completing RAPs and viewed them as less useful than nurses. However, differences in specific instrument use and perceived usefulness across disciplines were not examined.

Higgins et al. (2005)

Higgins and colleagues conducted a survey of consultants working in 66 randomly selected mental health trusts across England to establish current violence risk assessment practices in general adult psychiatry. The researchers developed a brief semi-structured questionnaire to explore whether structured or unstructured methods were used in each trust. They also requested copies of each trust's risk assessment protocols, when available. The researchers found that the majority of the sampled trusts had developed their own standardized risk assessment protocols rather than adopting available validated schemes. Approximately half of the trusts offered routine training in the use of their self-developed protocols, although attendance at these trainings was not as high as expected. A content analysis of the protocols sent to the researchers revealed wide variation in included risk factors as well as a lack of standardization in how final scores were interpreted or categorical estimates

assigned. Approximately half of the forms incorporated a plan for managing identified risk.

Khiroya et al. (2009)

Khiroya and colleagues conducted a survey of the clinical service directors at 47 adult medium secure forensic units across the United Kingdom to explore the use of violence risk assessment instruments. Respondents reported that a variety of violence risk assessment tools had been implemented and that most units routinely used more than one. The most commonly used instruments were the PCL-R and the HCR-20. The researchers conducted unstructured follow-up interviews with a subset of respondents to ask about perceived tool utility. Respondents reported using structured risk assessment instruments as part of a wider battery of structured assessment tools. The most frequently offered reasons for adopting a specific instrument were research evidence and encouragement by local trusts. The Short-Term Assessment of Risk and Treatability (START; Webster, Martin, Brink, Nicholls, & Desmarais, 2009) was rarely used, with only one unit reporting using it frequently, but the instrument was judged to be the most useful according to interviewed directors. For measuring perceived utility, a global usefulness rating was used, unrelated to any specific task (i.e., risk assessment, risk management, or risk monitoring).

Lally (2003)

Lally surveyed the general acceptability of structured assessment instruments in forensic evaluations as rated by 64 psychologists who were diplomates of the American Board of Forensic Psychology. In the United States, such acceptability is a criterion to establish whether expert court testimony aided by an instrument is scientifically valid under different legal standards, such as *Daubert (Daubert v. Merrell Dow Pharmaceuticals, Inc., 1993)* or *Frye (Frye vs. United States, 1923)*. Thus, respondents were asked to rate the acceptability of the instruments used to address six categories of psycholegal issues: violence risk, sexual violence risk, mental state at the time of the offense, competency to stand trial, competency to waive *Miranda* rights, and malingering. The researchers found that the PCL-R, the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, Kraemmer, 1989), and the PCL:SV were the three instruments perceived to be most acceptable in the violence risk assessment process. They also concluded that although an instrument may be recommended by a majority of forensic psychologists, this alone does not mean that it is commonly used in practice. For example, respondents rarely endorsed as recommended a number of instruments commonly used for assessing violence risk, such as the PCL: SV.

Tolman & Mullendore (2003)

Tolman and Mullendore conducted a postal mail questionnaire with a group of clinical psychologists and a group of forensic psychologists in order to compare their violence risk assessment practices. The first group consisted of 200 randomly selected psychologists licensed to practice in the state of Michigan, and the second was composed of 182 diplomates of the American Board of Forensic Psychology. The researchers found the most commonly used instruments in the risk assessment process by clinical psychologists were the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 1994), the MMPI-2, and the Rorschach Inkblot Method (Exner et al., 2008), whereas the top three most commonly used instruments by forensic psychologists were the MMPI-2, the DSM-IV and the PCL-R. The researchers argued that board-certified forensic psychologists are more capable of providing a relevant and empirically-based foundation to assist triers of fact in making important risk-related decisions, as they are better able to educate legal professionals on the intended use and findings of specialized risk assessment tools.

Viljoen et al. (2010)

Viljoen and colleagues conducted a Web-based survey of 130 psychologists with various training backgrounds (mostly clinical or counselling psychology) to examine the use of violence risk assessment tools in forensic evaluations of juveniles and adults. The survey was disseminated to the members of five organizations: American Board of Forensic Psychology, American Psychology-Law Society, the International Association of Forensic Mental Health Services, the Criminal Justice Section of the Canadian Psychological Association, and the American College of Forensic Psychology. The researchers found that clinical psychologists were more likely to use a structured instrument in adult violence risk assessment than with juveniles. In adult violence risk assessments, the most commonly used tools were the Psychopathy Checklist measures (PCL-R and PCL:SV), the HCR-20, and the MMPI-2. In juvenile violence risk assessments, the most commonly used tools were the Wechsler Intelligence Scales (WAIS-III; Wechsler, 1997; WASI; Wechsler, 1999; WISC-IV; Wechsler, 2003), the MMPI-2, and the Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel, & Forth, 2003). When opinions on SPJ versus actuarial instruments were requested, the majority of clinicians reported both could be useful. However, this was a global rating of usefulness and not related to any specific task (i.e., risk assessment, risk management, or risk monitoring). The survey also included questions regarding perceived challenges when conducting risk assessment. The most commonly reported challenge was the difficulty in obtaining records and collateral information to properly conduct a risk assessment. Further,

when comparing the practices of older and younger clinicians, younger clinicians were found to be more likely to use structured risk assessment tools when evaluating adults.

DISCUSSION

The goal of the present study was to conduct a systematic review of surveys of violence risk assessment tool use and their perceived utility in practice to investigate the transparency of survey methodology and the consistency of findings. We identified nine surveys published in peer-reviewed journals between January 1, 2000 and January 1, 2013. The surveys ranged in focus: from the use of specific risk assessment tools at the unit-level to use of any forensic assessment tools at the level of the individual practitioner. A standardized checklist for survey research was used to assess the reporting quality of each survey, and supplementary coding sheets developed to extract characteristics regarding survey administration and results relevant to violence risk assessment.

There were three main findings of the present review. First, only half of the information needed for a transparent description of survey methodology was reported. This makes it difficult to compare the quality of findings across surveys. For example, only one study offered a clear description of the pretesting process of their survey. This makes it difficult to compare and assess the quality of the research measures used. Second, analysis of survey characteristics revealed considerable variation in response rates, suggesting a need for a more standardized method of dissemination and questionnaire administration. Third, and arguably most importantly, it appears that there is considerable variation in the extent of risk assessment tool use across countries and professional disciplines, ranging from 19% (Bengston & Pedersen, 2008) to 82% (Lally, 2003). This is a promising start, but given consistent findings that structured assessments outperform unstructured clinical judgments (Hilton, Harris, & Rice, 2006), there is a continued need for knowledge dissemination and training in the use of assessment tools.

Implications

The findings of the systematic review may have important implications for both researchers and practitioners. Given our finding that there is a need for greater transparency in the violence risk assessment survey literature, we recommend that future research reports follow a standardized reporting guideline such as the checklist developed by Bennet and colleagues (2011) or the Checklist for Reporting Results of Internet E-Surveys (CHERRIES) Statement (Eysenbach, 2004) and should endeavor to fulfill as many of the checklist criteria as possible to maximize transparency. A second important research implication emerges from the fact that there was a high variability in response

rate between surveys (35% to 83%). This variability could be due to paper-and-pencil surveys disseminated via postal mail having higher response rates than Web-based surveys (Shih & Fan, 2009). To maximize response rates in future surveys, researchers are advised to use accepted “gold standard” approaches to survey design and dissemination, such as the Dillman Total Design Method (Dillman, Smyth, & Christian, 2009). The method consists of following specific steps in disseminating the questionnaire, from sending potential participants a cover letter which describes the purpose of the study, to specific patterns of follow-up. Regarding clinical implications, the findings across surveys suggest that practitioners and administrators interested in implementing widely-used and accepted risk assessment instruments may wish to consider SPJ tools such as the HCR-20 and actuarial tools such as the VRAG. Which approach to risk assessment is preferred is largely dependent upon the intended use of the tool, with SPJ instruments being more useful in the risk formulation and risk management process at the expense of introducing potential human judgment biases, whereas actuarial instruments are simpler to administer but rely upon probabilistic estimates of risk determined at the group- rather than the individual-level (Hart & Cooke, 2013; Singh, 2013). Additional practical considerations include the fixed and variable costs associated with instruments (e.g., costs of manuals and coding sheets) and agency-specific needs and constraints.

Future Directions

Our review found that relatively few surveys have been published on the use of risk assessment tools in practice, despite the growing demand for reliable implementation of these instruments in forensic mental health practice. Hence, future research using qualitative and mixed-method approaches such as surveying is warranted. Large, cross-jurisdictional surveys that target multiple professional disciplines are particularly needed. We found no studies surveying the average number of risk assessments conducted using structured tools by respondents over their lifetime, whether they offered incentives to participants or not, or the perceived utility of risk assessment tools for risk management or risk monitoring. Future research may wish to develop surveys targeting these gaps in the current knowledge about practitioners’ opinions on risk assessment tool use. In addition, future surveys may wish to focus on differences in the perceived utility of instruments for risk assessment, management, and monitoring. Also, the role of clinical judgement in the administration and interpretation of actuarial tools should be examined.

Limitations

There were several limitations to the present review. First, we only included surveys of general violence risk

assessment tools, meaning we excluded alternative areas of forensic risk assessment like sex offender and general recidivism risk assessment (e.g., Jackson & Hess, 2007; Taxman et al., 2007). Second, we did not focus on other aspects of practice relevant to risk assessment such as investigating the perceived importance of individual risk factors for violence (e.g., Elbogen et al., 2002) or examining case law on the role and relevance of the PCL-R in court settings (e.g., DeMatteo & Edens, 2006). Third, only English-based surveys conducted since the year 2000 were included, hence excluding studies written in other languages or published before this period (e.g., Lees-Haley, Smith, Williams, & Dunn, 1996). Fourth and finally, we only included published studies, omitting unpublished surveys (e.g., Foellmi, Rosenfeld, Rotter, Greenspan, Khadivi, 2013).

Conclusion

A number of structured tools have been developed over the past several decades to assess risk for future violence and there now is a large body of literature investigating the predictive validity of such tools and controversies surrounding them (e.g., Hart & Cooke, 2013; Heilbrun, Douglas, & Yasuhara, 2009; Skeem & Monahan, 2011; Troquete, van den Brink, Beintema, Mulder, van Os, & Schoevers, 2013). Our review found that, relative to the large psychometric literature on risk assessment tools, few studies have been published surveying the use of risk assessment tools in practice. This despite the growing demand for reliable implementation of these instruments in forensic mental health practice. Similar to quantitative research in forensic risk assessment (cf. Singh, Desmarais, & Van Dorn, 2013), there is a continued need for high quality surveys into the use and perceived utility of violence risk assessment in practice.

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