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Perceived Relevance of Factors for Violence Risk Assessment: A Survey of Clinicians

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Although there has been extensive research on violence risk assessment in the past decade, it has not been examined whether clinicians in actual practice consider violence risk factors that researchers suggest should be utilized. The purpose of this study was to investigate clinicians' perceptions of factors derived from research on violence risk assessment. One hundred thirty-four clinicians from four psychiatric facilities completed surveys in which they rated the relevance of research risk factors as well as additional behavioral variables. The analyses indicated that while clinicians perceived research risk factors to be relevant, they perceived behavioral variables not subjected to empirical scrutiny as significantly more relevant for violence risk assessment. The findings have implications for dissemination of risk assessment research and the development and implementation of risk assessment measures.

Although recent research has devoted considerable attention to establishing empirically validated correlates of violent behavior (Borum, 1996; McNeil, 1998; Melton, Petrila, Poythress, & Slobogin, 1997; Otto, 1992) and developing actuarial instruments to improve risk assessment in practice (Gardner, Lidz, Mulvey, & Shaw, 1996a, 1996b; Harris & Rice, 1997; McNeil & Binder, 1994; Steadman et al., 1998; Webster, Douglas, Eaves, & Hart, 1997), little attention has been given to whether clinicians actually utilize such information when assessing violence risk. Indeed, much research in violence risk assessment has focused on what clinicians *should* consider when assessing violence, while relatively less attention has been devoted to what clinicians *do* when assessing violence risk in practice (Grisso, 1996). Commentators have urged that this "imbalance" needs to be corrected and that more serious efforts should be made to study how violence risk assessment occurs in actual clinical practice (Borum, 1996; Elbogen, in press; Douglas, Cox, & Webster, 1999; Heilbrun, 1997; Mulvey & Lidz, 1995).

Mulvey and Lidz (1985, p. 215), for example, state that, "it is only in knowing 'how' the process occurs that we can determine both the potential and the strategy for improvement in the prediction of dangerousness. Addressing this question requires systematic investigation of the possible facets of the judgment process." In other words, it will not matter if a particular risk factor is discovered in the research to predict future violence if no effort is made to determine *whether or how* those risk factors would be used in practice. As a result, studies focusing on what occurs in clinical practice are important to assess how well risk assessment technology transfers to clinical practice (Elbogen, in press; Elbogen, Mercado, Tomkins, & Scalora, 2001).

To date, there have been only been a few descriptive studies of the process of risk assessment that have specifically paid attention to the risk assessment research literature (e.g., Menzies & Webster, 1995). Most studies on the process of risk assessment have correlated dangerousness judgments with clinical tools such as the Brief Psychiatric Rating Scale (Cooper & Werner, 1990; Werner & Meloy, 1992; Werner, Rose, Yeasavage, & Seeman, 1984; Werner, Rose, & Yeasavage, 1983; Yeasavage, Werner, Becker, & Mills, 1982) or the Three Rating

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Index of Involuntary Admission (Segal, Watson, Goldfinger, & Averbuck, 1988; Watson, Segal, & Newhill, 1993).

As noted above there have been numerous scientific studies of violence risk factors and risk correlates in the past decade (e.g., Steadman et al., 1998). The MacArthur Risk Assessment Study has summarized this research into four specific domains (Steadman et al., 1994). *Dispositional* cues refer to demographic, cognitive, and personality variables, the latter two of which are obtained through testing. *Historical* factors include general social history and specific violence history information. The *contextual* domain connotes aspects of an individual's situation that might either contribute to violence risk (e.g., access to weapons) or buffer against it (e.g., supportive social network). *Clinical* factors considered are those that enhance risk of violence, such as substance abuse or personality disorder. From these risk cues, actuarial formulas would ideally be developed to potentially improve violence risk assessment in practice.

Recent research has aimed to construct actuarial risk measures for psychiatric populations. The HCR-20, which can be used as an actuarial instrument, provides structured guidelines for assessing dangerousness in forensic and psychiatric populations (Webster, Eaves, Douglas, & Winthrup, 1997). The MacArthur Risk Assessment Study has developed an actuarial decision-tree designed to assist clinicians assess risk of violent behavior in acute psychiatric settings (Monahan et al., 2000). The Violence Risk Appraisal Guide (VRAG) has already been shown to provide actuarial measures of dangerousness in correctional and forensic populations (Harris & Rice, 1997). Studies of these risk assessment instruments report improved accuracy in evaluating violent behaviors in various community settings (Douglas, Cox, & Webster, 1999; Monahan et al., 2000; Quinsey, Harris, Rice, & Cormier, 1998).

No studies exist that examine specifically how mental health practitioners perceive the utility of research risk factors employed in these instruments. Although these instruments attempt to reflect both the empirical and professional literatures, no study has yet addressed whether clinicians do find these risk cues relevant. If practitioners see certain research risk factors as irrelevant to practice, or difficult to utilize, they may be resistant to using instruments that employ such risk factors regardless of the instrument's predictive validity (Grisso, 1996). Furthermore, clinicians may consider other factors to be critical to violence risk assessment, such as contextual limitations (Mulvey & Lidz, 1995) and variables reflecting how patients are responding to treatment (Elbogen et al., 2001). If, however, practitioners do perceive risk factors in actuarial instruments as important to assessing violence in a specific context, then the actuarial instrument may be said to show some degree of clinical utility (Borum, 1996).

As Webster et al. (1997, p. 1) note: "The challenge in what remains of the 1990s is to integrate the almost separate worlds of research on the prediction of violence and the clinical practice of assessment. At present, the two domains scarcely intersect." The purpose of this exploratory study is to investigate the extent to which the two domains do (or do not) intersect by exploring the perceived relevance of empirically validated variables from risk assessment research within the context of day-to-day clinical activity. This study addresses two main questions: (1) do mental health professionals generally perceive it is important to consider empirically-validated factors when assessing violence risk, and (2) do clinicians perceive other variables, not examined in the research literature, as relevant for violence risk assessment? Although risk assessment measures are designed to reflect both clinical practice and empirical research, the purpose of our study was provide exploratory investigation concerning to what extent science and practice do and do not overlap.

METHOD

Participants

In total, 134 mental health professionals (out of 210 requested; 64% response rate) from four psychiatric facilities volunteered to participate in this study. Participants included professional staff (n=68)—nurses (43%), psychiatrists (5%), clinical psychologists (19%), and master's level social workers or psychologists (33%)—and paraprofessional staff (n=66). Three of the psychiatric facilities (forensic, acute, and chronic) are located at the 240-

bed state-operated psychiatric hospital that serves most of the severely mentally ill patients in the state as well as surrounding states. The forensic setting serves adults found not responsible by reason of insanity and incompetent to stand trial as well as civilly-committed sexual offenders. The acute unit seeks to stabilize civilly committed patients requiring more intensive care (average length of stay = 30 days). The chronic program treats long-term psychiatric patients in a psychosocial rehabilitation program. The fourth facility, the crisis center, serves as the triage site for mental health services for the county and provides short-term inpatient care. The clinicians in the study (72 female, 62 male) primarily were white (90%). Non-white clinicians were from the following backgrounds: African-American, Asian/Pacific, Hispanic, and Native American. The median age of the clinicians was 39 years. The average clinical experience with psychiatric populations was 11.6 years (*SD* = 8.23). The only exclusion criterion for the study was if a clinician did not participate in patient treatment meetings in which risk of violence is assessed.

Measure

Appendix I shows a survey form consisting of a list of risk cues derived from several sources, including the VRAG (Quinsey et al., 1998), HCR-20 (Webster et al., 1997), and MacArthur Risk Assessment Study (Steadman et al., 1994). A list of risk cues not found in these research programs was also generated from interviews conducted with five mental health professionals (whom were not participants in the study). This list consisted of what we operationalized as "behavioral" variables because they involved observable, on-unit behaviors.

Because of the large number of cues this involved, in order to make the survey more time efficient, broader terms were used to substitute for cues in which two or more instruments used different words to describe approximately the same concept. Thus, instead of rating both 'prior supervision failures' from the HCR-20 and 'failure on prior conditional release' from the VRAG, clinicians rated perceived relevance of 'history of past treatment failures.' Other substitutions included using 'history of violence' for 'previous violence' (HCR-20) and 'history of crime and violence' (MacArthur); 'treatment noncompliant' for 'unresponsive to treatment' (HCR-20) and 'treatment compliance' (MacArthur); 'Axis I diagnosis' for 'schizophrenia' (VRAG), 'major mental illness' (HCR-20), and 'Axis I diagnosis' (MacArthur); and 'mental status information' for 'active symptoms of major mental illness' HCR-20) and *p* symptom severity' (MacArthur). Also, MacArthur personality and cognitive items—personality style, anger, impulsiveness, psychopathy, IQ, and neurological impairment—were operationalized as the relevance of testing reflecting the item (e.g., intelligence testing, psychopathy testing). It was assumed that asking about the relevance of these cues in this broad manner would better allow our assessment of relevance of the information used in practice.

Further, although efforts were made to include as many cues as possible, some cues from these research programs were omitted to cut down on administration time. VRAG items related to index offense were omitted because these were not applicable to civil settings. MacArthur Risk Assessment Study demographic cues were omitted because ethical issues surrounding relevance of race and ethnicity as violence risk factors (see Melton et al., 1997). HCR-20 risk *management* items were omitted as the survey was administered as part of a larger study on violence risk assessment in which 'R' items were not critical and adding them to the survey did not substantially contribute to the purposes of the current study. In this regard, it is important to make a distinction between examining clinicians' perceptions of the relevance of risk instruments versus examining clinicians' perceptions of the relevance of the risk cues items. Our study was not aimed at the former, but at the latter. Consequently, because we were interested in better understanding what clinicians perceived about risk factors that have shown correlations with violent behavior, it was not thought to be necessary to include every single variable in the instruments we generated the risk factors from.

Procedure

Copies of sign-up times were left in clinicians' mailboxes at each of the settings above. Clinicians who volunteered to participate completed the study as part of a broader clinician interview about the

process of violence risk assessment. The ratings reported in this article took approximately 20 minutes to complete. Clinicians gave informed consent and were randomly assigned to either admission or discharge conditions because it is argued that treatment setting may define the task of violence risk assessment (Elbogen & Huss, 2000; Heilbrun, 1997; McNeil & Binder, 1994; Mulvey & Lidz, 1995). Upon receiving the survey, participants received instructions to consider how they assessed patients' violence potential either at the time of hospital admission or at the time of discharge. Clinicians were prompted to how important risk cues were to assess violence risk of patient's in general under their assigned treatment context. Clinicians were *not* asked to consider how they assessed violence risk for any particular patient. The instructions for the survey and the rating scale used are found in Appendix I.

RESULTS

Analyses of variance (ANOVA) showed no significant differences across psychiatric facility (forensic, acute, chronic, crisis), professional training (professional v. paraprofessional), or treatment context (admission v. discharge) on overall ratings of perceived relevance of risk factors from the HCR-20, the MacArthur Risk Assessment, and the VRAG. Pearson correlations were employed to examine whether there was any significant relationship between years of experience and clinicians' perceived relevance of items on the risk factor instruments. No significant correlations were found. Because no significant differences were found on any of these dimensions, the following analyses consider scores of perceived relevance across the entire clinician sample.

Table 1
Clinician's Perceptions of Risk Factors: Most Relevant (Means in Parentheses)

Crisis	Acute	Chronic	Forensic
Physical Aggression While in Care (9.86)[d]	History of Violent Behavior (9.73)[a, b, c]	Physical Aggression While in Care (9.84)[d]	Physical Aggression While in Care (9.57)[d]
History of Violent Behavior (9.76)[a, b, c]	Violent Fantasies (9.63)[b]	History of Violent Behavior (9.69)[a, b, c]	History of Violent Behavior (9.53)[a, b, c]
Impulsive Behavior While in Care (9.43)[d]	Physical Aggression While in Care (9.47)[d]	Impulsive Behavior While in Care (9.50)[d]	Violent Fantasies (9.35)[b]
Restraints/Seclusion While in Care (9.38)[d]	History of Arrests - Crimes to Persons (9.33)[b]	History of Arrests - Crimes to Persons (9.50)[b]	History of Arrests - Crimes to Persons (9.25)[b]
Medication Noncompliance While in Care (9.38)[d]	Impulsive Behavior While in Care (9.33)[d]	Verbal Aggression While in Care (9.34)[d]	Impulsive Behavior While in Care (9.25)[d]

Note. Mean scores on a 0-10 rating scale are in parentheses.

[a] HCR-20 risk factor
[b] MacArthur risk factor
[c] VRAG risk factor
[d] Behavioral variable

Ratings of risk factors were rank-ordered according to psychiatric facility, the most relevant presented in Table1 and the least relevant presented in Table 2. Clinicians ranked behavioral variables among the most relevant, including impulsive behavior, medication noncompliance, being placed in restraints and seclusion, and exhibiting verbal aggression. None of the behavioral factors were seen as the least relevant. As shown in the table, violence history was perceived to be among the most relevant risk factors in all four psychiatric facilities, though early historical variables were generally seen as least relevant.

Tables 3 and 4 highlight findings on participants' perceptions of violence risk factors from different risk assessment measures. Overall, clinicians in our sample perceived items from the HCR-20 as relevant for risk assessment (M = 8.17, SD = 1.27), though HCR-20 historical factors (M = 7.87, SD = 1.43) were perceived as significantly less relevant than HCR-20 clinical factors (M = 8.77, SD = 1.25), t (133) = -9.74, p < .001.

Clinicians viewed items from the VRAG as relevant to risk assessment as well (M = 7.83, SD = 1.36). Corresponding to ratings of HCR-20 items, early historical variables on the VRAG were seen as less relevant, including elementary school maladjustment (M = 5.07, SD = 2.81) and having lived with biological parents until age 16 (M = 6.72, SD=2.57). Marital status was similarly viewed as less relevant (M = 5.87, SD = 3.02) across all four settings.

Among the MacArthur dispositional factors, psychopathy was seen as relevant by most clinicians (M = 7.99, SD = 2.86). Intelligence Testing was rated as one of the least relevant factors (M = 6.52, SD = 3.29). With the exception of Personality Testing, dispositional factors had the lowest ratings of importance at the crisis center. T-tests showed that, in terms of the MacArthur historical risk factors, social history variables (M = 7.65, SD =1.62) were perceived as significantly less relevant than historical violence variables (M = 8.93, SD = 1.06), t (133) = -11.72, p = .001. History of violence toward others

Table 2
Clinician's Perceptions of Risk Factors: Least Relevant

Crisis	Acute	Chronic	Forensic
Early Maladjustment (4.33)[a, c]	Marital Status (5.00)[c]	Early Maladjustment (5.00)[a, c]	Early Maladjustment (5.16)[a, c]
Educational History (5.48)[b]	Early Maladjustment (5.50)[a, c]	Marital Status (6.00)[c]	Marital Status (6.39)[c]
Marital Status (5.67)[c]	Activities of Daily Living (6.27)[b]	Age of Onset of Disorder (6.03)[a]	Educational History (6.67)[b]
Intelligence Test Results (6.38)[b]	Work History (6.30)[a, b]	Educational History (6.16)[b]	Separated from Parents before Age 16 (6.96)[c]
Work History (6.48)[a, b]	Educational History (6.40)[b]	Work History (6.44)[a, b]	Activities of Daily Living (7.00)[b]

Note. Mean scores on a 0-10 rating scale are in parentheses.

[a] HCR-20 risk factor
[b]MacArthur risk factor
[c]VRAG risk factors

Table 3
Clinician Ratings of HCR-20 Items

	Crisis	Acute	Forensic	Chronic	Overall	
	M	*M*	*M*	*M*	*M*	*SD*
Historical Items						
Previous Violence	9.76	9.73	9.53	9.69	9.65	0.77
Young Age at First Violent Incident	7.29	7.80	7.76	7.69	7.68	2.41
Relationship Instability	7.90	7.63	7.37	7.31	7.50	2.23
Employment Problems	6.48	6.30	7.12	6.44	6.67	2.51
Substance Use	8.71	8.53	8.88	8.66	8.72	1.80
Major Mental Illness	8.57	8.50	8.27	8.41	8.40	2.50
Psychopathy	7.29	8.63	7.98	7.84	7.99	2.86
Early Maladjustment	4.33	5.50	5.16	5.00	5.07	2.81
Personality Disorder	8.43	8.60	9.00	8.34	8.66	2.09
Prior Supervision Failure	8.52	8.33	8.67	7.75	8.35	2.10
Clinical Items						
Lack of Insight	8.24	8.23	8.76	8.47	8.49	1.80
Negative Attitudes	8.86	8.37	8.92	8.75	8.75	1.70
Active Symptoms of Major Mental Illness	9.10	8.50	8.93	8.31	8.71	1.84
Impulsivity	8.90	9.30	8.90	8.97	9.01	1.42
Unresponsive to Treatment	8.81	8.30	9.18	9.06	8.90	1.55
HCR-20 Items	8.08	8.15	8.30	8.05	8.17	1.27

Table 4
Clinician Ratings on Other Violence Risk Factors

	Crisis	Acute	Forensic	Chronic	Overall			
Risk Factors	*M*	*M*	*M*	*M*	*M*	*SD*	*min*	*max*
VRAG Items	7.70	7.77	8.04	7.64	7.83	1.36	2.50	10.00
Behavioral Items	9.07	8.32	8.85	9.05	8.81	1.26	3.60	10.00
MacArthur Dispositional	7.35	8.36	7.98	7.80	7.92	2.07	0.00	10.00
MacArthur Historical	8.07	8.07	8.35	8.09	8.18	1.27	3.00	10.00
MacArthur Contextual	8.19	7.49	7.90	8.13	7.91	1.65	3.00	10.00
MacArthur Clinical	8.88	8.57	8.94	8.56	8.76	1.42	3.71	10.00

was ranked very highly (M = 9.65, SD = 0.77). Among MacArthur contextual factors, Activities of Daily Living was ranked the least relevant (M = 6.96, SD = 2.58) and Means for Violence (i.e., access to weapons) was ranked the most relevant (M = 8.57, SD = 2.44). The MacArthur clinical items were also rated as highly relevant (M = 8.76, SD = 1.42). Violent fantasies (M = 9.36, SD = 1.34) was seen as significantly more relevant than the second highest clinical factor, delusions (M = 8.77, SD = 1.81), t (133) = -3.42, p = .001.

Behavioral variables were rated as very relevant for violence risk assessment (M = 8.8, SD = 1.26), with notable differences found on individual behavioral variables across different psychiatric facilities. In particular, medication noncompliance, F (3, 130) = 3.78, p = .012, suicidal threats, F (3, 130) = 2.71, p = .048, and self-injurious behavior while in care, F (3, 130) = 3.18, p = .026, were shown to be significantly different in terms of perceived relevance among psychiatric facilities. Suicidal threats and medication noncompliance while in care were both rated significantly lower at the Acute Unit compared with the Crisis Center. Self-injurious behavior was rated significantly lower at the acute center compared with the chronic unit.

Most importantly, paired samples t tests showed that clinicians perceived HCR-20, MacArthur dispositional, MacArthur historical, MacArthur contextual, and VRAG risk cues to be significantly less relevant than behavioral variables for assessing violence risk. For example, the HCR-20 was found to be significantly different from the behavioral items, t (133) = -7.71, p < .001, as was the VRAG, t (133) = -10.55, p < .001. However, MacArthur clinical factors were not significantly different than behavioral items in terms of perceived relevance for violence risk assessment, t (133) = -.621, *ns*. Descriptive analyses indicate that 93% of clinicians rated behavioral or MacArthur Clinical items as more relevant than the items from the VRAG, HCR-20, MacArthur contextual, historical, and dispositional cues. Eighty percent rated behavioral items above 8 (out of 10) whereas 59% rated items on the HCR-20 above 8 (out of 10). Twenty-five percent of clinicians rated the VRAG items below 7 whereas 7% of clinicians rated behavioral items below 7.

DISCUSSION

Overall, clinicians perceived risk factors from actuarial instruments to be relevant for assessing violence. However, results show that nearly every clinician perceived dynamic, behavioral variables to be *significantly more relevant* than research-based factors. Perhaps the most salient finding was that dynamic clinical and behavioral factors are perceived as the most relevant for violence risk assessment. These results confirm past research showing that clinicians rely on clinical cues when making risk judgments (see Monahan & Steadman, 1994; Segal et al., 1988; Werner & Meloy, 1992). Behavioral risk factors were perceived as more relevant than research risk factors from the HCR-20 and the VRAG, and from three of the four domains of the MacArthur Risk Assessment Study.

There were no significant differences between how clinicians perceived the relevance of items from the HCR-20, the MacArthur Risk Assessment Study, or the VRAG. Despite results showing that some historical variables were rated as less relevant than others, it is important to recognize these were still perceived as at least somewhat relevant for violence risk assessment. Mental health professionals do appear to be communicating that, when surveyed about general perceptions of relevance, they believe research risk factors to provide some degree of clinical utility, though as noted above, the relevance is perceived to be less than that of clinical and behavioral variables.

Results were more mixed when examining the perceived relevance of particular risk factors. History of violence information was perceived to be important but social history variables were generally rated as less relevant. Behavioral variables were perceived as significantly more relevant that included items from the HCR-20, t(133)=-7.71, p<.001, and the VRAG, t(133)=-10.55, p<.001. Additionally, early history variables, such as early maladjustment and educational history, were also perceived as less relevant. Testing results also showed some variability. Clinicians in all four facilities appeared to show the most disagreement on ratings of the relevance of intelligence testing. Although psychopathy has been found to be one of the most predictive

risk factors in the research literature (Hart, Hare, & Forth, 1994), psychopathy was *not* perceived by clinicians to be one the most relevant of risk factors in clinical practice, regardless of profession, psychiatric facility or treatment context. With the exception of personality tests, testing was generally seen as less relevant at the crisis center. As some authors have suggested (Gardner et al., 1996b), time pressures in psychiatric emergency settings may reduce the utility of extensive test batteries. Behavioral variables also showed some variation across different contexts, which might be due to different clientele (suicidal vs. criminally violent patients, acute vs. chronic populations).

The findings have several implications for risk assessment research and practice. First, the findings suggest that efforts are needed to disseminate risk assessment research to clinical practice. Work history, psychopathy, and educational history have been shown to be statistically predictive of violence (Monahan & Steadman, 1994). Results would seem to indicate, though, that clinicians may not be not aware of this research. Finally, it is important to note that professional training and years of clinical experience did not differentiate perceptions of risk factor relevance. As Borum (1996) remarks, training in risk assessment research has not traditionally occurred in formal educational programs. Didactic programs, on psychopathy (or other risk assessment issues), for example, could help instruct practitioners about the risk factors research has found to be most predictive of violence (Douglas et al., 1999). The results suggest that such programs are needed.

Second, the findings have implications for the development and implementation of actuarial instruments. Although research has examined the relationship between dynamic clinical factors and violent behavior, less is known about whether dynamic behavioral variables are statistically predictive of violence. Perhaps behavioral factors can be incorporated into actuarial violence risk assessment tools to improve decision-making. Even if risk prediction was not improved, behavioral cues will still be important to study because these cues might dictate how results from actuarial formulas are used in the first place. For example, what will happen when a clinician combines on-unit treatment noncompliance with violence history? Will the clinician discount fixed actuarial outcomes in face of behavioral factors? At least some clinicians in this sample said they would, so under what circumstances might this occur? In particular, it will ultimately be important to pay attention to how dynamic behavioral factors and static risk factors should be combined (see Hart, 1998; Heilbrun, 1997). Results indicate that clinicians seem to be communicating that they want to use research risk factors, but have difficulty integrating this information with variables that are potentially subject to daily change.

There are some limitations that should be noted. In this study, clinicians rated risk factors in the abstract rather than for specific patients. Further, because we were interested in determining whether clinicians were generally seeing whether risk factors were related to violence, we did not specify inpatient or outpatient violence. As a result, contextual influences may have been lost in the task, as evidenced by the fact there were few differences between the four settings studied and between admission and discharge. The survey-format of the data also puts into question the reliability of ratings given the potential to not be accurate in self-report. In particular, there may have been a tendency to inflate perceptions of relevance, as evidenced by the ceiling effects in the overall ratings. For these reasons, it is less clear whether this study provides a picture of what types of risk factors clinicians actually do use in real practice contexts. It is therefore important to note that any implications about risk factor *utilization* must be made tentatively. For this purpose, our results are somewhat limited. Direct observation of the clinical process may have provided more objective measurements of cue utilization (see generally, Mulvey & Lidz, 1985, 1995). However, the study aimed to elicit clinicians' perceptions to provide a general gauge of risk factor *utility*. In other words, we were not interested in how clinicians use specific factors in specific settings for specific violence, but rather, we aimed to ascertain whether clinicians' perceptions of violence risk factor importance were generally confluent with the scientific literature.

Future research should attempt to replicate the finding that clinicians perceive behavioral cues to have the greatest clinical utility for violence risk assessment. At this point, it appears that behavioral/dynamic cues almost certainly interact with static cues in clinical decision-making of violence risk

assessment. As mentioned above, it will be important to understand how dynamic and static risk factors are utilized in varied decision-making contexts (Heilbrun, 1997). Additionally, more risk assessment research is needed on the predictive value of behavioral variables, not just global clinical factors. Might behavioral factors increase predictive accuracy? If not, what can be done to counteract this?

Finally, more research is needed to determine what clinicians are actually using in real-life practice. As seen in this study, examining how clinicians perceive the risk assessment task can yield important information about potential deficits in risk assessment decision-making (see also Werner & Meloy, 1992). Such research could examine whether actuarial instruments or training programs to improve these decision-making enhance either the process or outcome of violence risk assessment. Webster et al. (1995) noted the domains of research and practice scarcely overlap with respect to violence risk assessment.

The findings from this study indicated that mental health professionals do generally perceive research risk cues to be relevant for assessing violence risk. Further research is needed to clarify whether clinicians use research risk factors in practice. Such empirical studies would provide important information about how effective research efforts have been at changing and improving actual practice of violence risk assessment. Mostly, by understanding the process of risk assessment as well as outcome, risk assessment research can work toward building actuarial measures that have both accuracy and utility.

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Appendix I: Clinician Survey

DIRECTIONS: We are interested in how you perceive the relevance of risk information when assessing a patient's dangerousness.

RELEVANCE –
How relevant is this information is to you when you assess risk of violence?
Please rate from 0 (not relevant) to 10 (extremely relevant).

Information	Information		
SOCIAL HISTORY (HX) DATA			
Family Hx	____	Elementary School Adjustment	____
Educational Hx	____	Hx of Mental Illness in Family	____
Work Hx	____	Hx of Relationship Instability	____
Self-Reported Violence	____	Separated from Parents before 16yr	____
PSYCHIATRIC AND LEGAL HISTORY (HX) DATA			
Mental Hospitalization Hx	____	Hx of Treatment Noncompliance	____
Hx of Substance Abuse	____	Hx of Past Treatment Failures	____
Age of Onset of Criminal Activity	____	Hx of Arrests (Crime to Person)	____
Hx of Self-Injurious Behavior	____	Hx of Arrests (Crime to Property)	____
Hx of Violent Behavior	____	Hx of Arrests (Other Crimes)	____
Age of Onset of Disorder	____	Hx of Incarcerations	____
CONTEXTUAL DATA			
Day/Vocational Program Available	____	Supervised Living Available	____
Supportive Social Network	____	Perceived Stress In Environment	____
Marital Status	____	Perceived Social Support	____
Access to Weapons	____		
ASSESSMENT/TESTING DATA			
Personality Testing Results	____	Anger/Hostility Measure Results	____
Impulsivity Measure Results	____	Psychopathy Scale Results	____
Intelligence Tests Results	____	Neuropsychological Testing Results	____
CLINICAL DATA			
Axis I Diagnosis	____	Hallucinations	____
Delusions	____	Violent Fantasies	____
Personality Disorder Diagnosis	____	Impulsive	____
Mental Status Information	____	Alcohol/Drug Abuse	____
Insight into Mental Disorder	____	Negative Attitude to Treatment	____
BEHAVIORAL DATA			
Restraints/Seclusion In Care	____	Medication Noncompliance In Care	____
Elopement While In Care	____	Treatment Noncompliance In Care	____
Manages Hygiene/Grooming	____	Physical Aggression While in Care	____
Suicidal Threats While in Care	____	Impulsive Behavior While In Care	____
Self Injurious Behavior in Care	____	Verbal Aggression While In Care	____