Child Abuse & Neglect 61 (2016) 1–12

Contents lists available at ScienceDirect

Child Abuse & Neglect

Risk assessment with actuarial and clinical methods: Measurement and evidence-based practice☆

Natasha S. Mendoza (PhD)[a,*], Roderick A. Rose (PhD)[b], Jennifer M. Geiger (PhD)[c], Scottye J. Cash (MSSW, PhD)[d]

[a] Arizona State University, College of Public Service & Community Solutions, School of Social Work, 411 N. Central Ave., Phoenix, AZ 85004, United States
[b] The University of North Carolina at Chapel Hill, School of Social Work, 325 Pittsboro St., CB 3550 Chapel Hill, NC 27599, United States
[c] University of Illinois at Chicago, Jane Addams College of Social Work, 1040 W. Harrison St., Chicago, IL 60607, United States
[d] College of Social Work, 1947 College Rd., Columbus, OH 43210, United States

ARTICLE INFO

Article history:
Received 8 April 2016
Received in revised form 19 August 2016
Accepted 15 September 2016

Keywords:
Child welfare
Risk assessment
Actuarial assessment
Consensus-based assessment

ABSTRACT

Child welfare agencies have adopted assessment tools and instruments to inform the level of risk and guide the agency's level of intervention with the family. Actuarial assessments may be more uniform but inflexible with respect to practice wisdom whereas clinical or consensus-based assessments are more comprehensive and intuitive but lack objectivity. The purpose of the current study is to compare clinical and actuarial methods of risk assessment used by child welfare workers to make decisions about substantiation and services. The current study examined the (1) association between clinical and actuarial dimensions, (2) association between actuarial dimensions and outcomes, (3) association between clinical dimensions and outcomes, (4) caseworker primary use of actuarial dimensions, and (5) caseworker supplementary use of actuarial dimensions. Findings indicated that the actuarial may not be solely predictive of agency intensity with respect to case decision and service provision. Our findings suggest that dual-measurement does inform intensity, and we speculate from these findings that the measures may be involved with decision-making in a complex way. This study may be best viewed as a means by which researchers begin to parse how decisions are made; with this information, instruments may be better tailored to facilitate clinical, critical thought.

1. Introduction

With over three and a half million reports of child abuse and neglect each year, child welfare agencies are charged with making critical decisions related to whether a safety risk exists and child maltreatment occurred (substantiation), when to provide services, and which services to provide (U.S. Department of Health and Human Services, 2016). In order to make decisions, child welfare agencies have adopted assessment tools to inform the level of risk and subsequently to guide the agency's level of intervention with the family. With clinical or consensus-based approaches, conditions that lead to maltreatment or concerns and family strengths are identified (Baird & Wagner, 2000; Barber et al., 2007; Cash, 2001).

☆ This research was supported by the Ohio Department of Job and Family Services.
* Corresponding author.
E-mail addresses: Tadoza@asu.edu (N.S. Mendoza), rarose@email.unc.edu (R.A. Rose), geigerj@uic.edu (J.M. Geiger), cash.33@osu.edu (S.J. Cash).

http://dx.doi.org/10.1016/j.chiabu.2016.09.004
0145-2134/

Alternatively, actuarial approaches indicate likelihood of future harm (Brown & Packard, 2012) or relapse (Van der Put, Assink, & Stams, 2016). Proponents and critics point to strengths and weaknesses in each model; actuarial models may be more uniform but inflexible with respect to practice wisdom whereas clinical or consensus-based models are more comprehensive and intuitive but lack objectivity (e.g., Baumann, Law, Sheets, Reid, & Graham, 2005; Cash, 2001; Dawes, Faust, & Meehl, 1989; Johnson, 2011; Shlonsky & Wagner, 2005). While many studies have evaluated individual risk assessment instruments (e.g., Hanson & Morton-Bourgon, 2009; Singh, Grann, & Fazel, 2013), few have empirically compared the clinical and actuarial risk assessments and the use of these tools to influence decision-making. The purpose of the current study is to compare clinical and actuarial methods of risk assessment used to make decisions about substantiation and services; specifically, we examine the extent to which social workers make decisions that conform to the findings of one or both instruments.

2. Evidenced-based practice

Evidence-based practice (EBP) proposes to integrate the results of systematic research into social work practice by combining individual practitioners' experience with practices that have been subjected to rigorous statistical testing and that address individual clients' needs and values (Gambrill, 1999). In order for risk assessment instruments to be used effectively, practitioners should understand the conceptual and practical differences among measures of risk, and the respective roles that measurement processes and clinical expertise play in informing the decisions (Casey Family Programs, 2009). Risk assessment instruments that have been subjected to rigorous testing promote this understanding and are consonant with a child welfare system that is informed and guided by evidence-based practice. EBP can be applied to any aspect of CPS involvement; it may involve scrutinizing every aspect of the client's experience with social services (i.e., assessment, substantiation, services and placement, and monitoring), and subjecting these aspects to rigorous scientific testing (Forgey, Badger, & Krase, 2011). Viewing EBP as a process addresses many of the concerns expressed about the limitations of EBP, such as inflexibility. In this study, we adopt the perspective that it is important to use evidence-based tools to assess the contributors of risk and the potential for future harm.

3. Evidence-based risk assessment: clinical vs. actuarial

There are two major approaches to risk assessment in child welfare: an actuarial approach and a consensus-based approach (Barber et al., 2007; Cash, 2001; Rycus & Hughes, 2003). The actuarial risk assessment can be described as an objective classification tool that estimates the likelihood of future harm. Consensus-based risk assessments are theory-based, developed by consensus among experts, and may identify conditions that underlie and perpetuate maltreatment while also identifying family strengths that support the caregiver's protective capacities that reduce the risk to a child (Baird & Wagner, 2000; Barber et al., 2007; Cash, 2001). Consensus-based assessments have also been developed to assist the caseworker in organizing her or his process of gathering information and documentation to aid in decision making (Barber et al., 2007; Doueck, English, DePanfalis, & Moote, 1993).

3.1. Clinical

Some argue clinical assessments are more comprehensive in informing decisions about risk (Nasuti & Pecora, 1993); these types of instruments may lead workers to use their practice wisdom, experience, and intuition and may also have more flexibility in decision making. Clinical models have been criticized for inconsistency in the type and number of variables used, lack of distinction in the type of maltreatment predicted, and a lack of empirical support (Rycus & Hughes, 2003). Practice wisdom varies by the worker and her or his ideology, experience, and training. Research in the area notes disagreement in workers' decision making when presented with similar cases creating more uncertainty and less consistency among subjective assessments (Arad-Davidzon & Benbenishty, 2008; Barber et al., 2007; Lindsey, 1992).

3.1.1. Examples of evidence-based clinical instruments. Several clinical instruments have been developed to guide practice related to risk assessment: 1) the Washington Risk Assessment Matrix (WRAM); 2) the California Family Assessment Factor Analysis (CFAFA, or Fresno model); 3) the Child at Risk Field System (CARF); and 4) the Child Emergency Response Assessment Protocol (CERAP).

The WRAM is a consensus-based instrument developed in Washington State in 1986. It is a 27-item instrument used at the initial investigation to determine the level of risk. The WRAM did not perform well in predictive validity tests (Baird & Wagner, 2000; Camasso & Jagannathan, 2000) and not all of the items on the WRAM have been tested for convergent validity (English & Graham, 2000). The WRAM also did not perform well on interrater reliability tests, with a kappa of 0.18 (where 0 indicates the performance of the tool is no better than chance) (Baird, Wagner, Healy, & Johnson, 1999).

The CFAFA or "Fresno Model" is a 23-item instrument based on the Child Abuse and Neglect Tracking System originally used in Illinois that is used throughout a case to assess the child, caregiver, family, the precipitating incident, and family-agency interaction. The CFAFA also did not perform well on predictive validity tests (Baird & Wagner, 2000; Camasso & Jagannathan, 2000). The CFAFA performed poorly on inter-rater reliability tests, with a kappa of 0.18 (Baird, Wagner, Healy, & Johnson, 1999).