Decision-Making in Child Welfare for Improved Safety Outcomes

Child welfare agencies have the responsibility to ensure the safety of all children who come to their attention. Child welfare decision-making practices directly affect the ability of agencies to achieve safety outcomes. Staff at all levels in the child welfare agency are responsible for strengthening decision-making, including administrators who establish systems, set policies, and review quality; midlevel managers and supervisors who make sure agency policies and programs are implemented and adequately supported; and frontline workers who conduct assessments and make decisions at the individual and family level (Shlonsky & Gambrill, 2014).

To help child welfare decision-makers and leaders with these responsibilities, the information in this brief will:

▶ Describe current safety decision-making practices and the need to continue to explore evidence-based approaches in this area
▶ Illustrate some of the factors and influences involved in child welfare decision-making
▶ Describe the relationship between decision-making factors and decision-making tools commonly used to support agencies in improving safety outcomes
▶ Explain factors and other considerations that influence child welfare decision-making so that agencies can explore ways to use decision-making and assessment tools more effectively

Challenges in Child Welfare Decision-Making

Child welfare workers, supervisors, and managers are charged with making important decisions that affect outcomes for children and families. A growing body of evidence suggests that child safety decisions are not always made consistently among workers in the same jurisdiction. Well-established and consistently implemented standards for child safety decisions can protect children from abuse and neglect across child welfare workers and jurisdictions.

Child safety decisions are made in complex environments with inherent uncertainty. Child welfare workers must conduct assessments and make decisions in the midst of strong family emotions and with high expectations for accountability. Additionally, child welfare workers operate with limited time, resources, information, and available services for families. This environment, along with the highly visible nature of

child welfare decisions, can make consistent and effective decision-making challenging. High caseloads and pressure to come to safety decisions quickly may limit a caseworker's ability to collect sufficient and important information. In the absence of adequate time to collect information, workers may be more likely to rely on imperfect decision-making strategies—cognitive processes to assist in decision-making—that may increase the likelihood of errors. Other factors, such as accessibility of services, also present a challenge to child welfare decision-making. Choices in some cases are constrained by the services available, even when the decision may not be ideal (Stein & Rzepnicki, 1984).

Decision-Making Science

Decision-making science is a process of selecting the best option among a number of competing choices. Traditional decision-making science assumes that humans make rational decisions: they weigh the costs and benefits of available choices before arriving at a decision (Homans, 1958). However, recent evidence suggests that people may not make decisions in a completely rational way. Decision science calls this "bounded rationality." Because decision-making is affected by factors such as available information, time constraints, and individual cognitive perceptions, decision-makers may rely on strategies—cognitive processes—to help them make choices. For example, people may rely on heuristics and biases (Keddell, 2014; Kahneman, 1991; Kemshall, 2010). Heuristics are types of decision-making strategies that involve cognitive shortcuts, which may lead to bias and error.

Persistent patterns of decision-making error can contribute to disproportionality within the child welfare system based on factors such as race, ethnicity, or socioeconomic status.

Models of bounded rationality take human constraints into account in the process of decision-making and are particularly helpful in understanding child welfare decision-making. Child welfare workers make decisions in an environment with constraints at multiple levels, and the solutions they seek to address with their decisions cannot be precisely measured (Hoffrage & Hertwig, 2012).

Some common types of biases resulting from heuristics used in child welfare decision-making include (Platt & Turney, 2014):

- ▶ *Confirmation bias:* A type of processing in which information is selectively gathered to confirm the worker's previously held notion about the case or family.
- ▶ *Recency effect:* Patterns identified from more recent cases are used at the expense of relevant knowledge gained from older cases.
- ▶ *Order effect:* Information obtained later in the investigation is weighed more heavily than information obtained at the beginning of the investigation.

Key Decision-Making Points in Child Safety Assessment

The Decision-Making Continuum

Safety is a condition in which the threat of serious harm is not present or imminent or the protective capacities of the family are sufficient to protect the child (National Association of Public Child Welfare Administrators, 2009; Keating, Buckless, & Ahonen, 2016). Child safety decisions can be thought of as a sequence of distinct decision points to alleviate the threat of serious harm or increase protective capacities of the family. The sequence and structure of various decision points may differ across jurisdictions, but there is general consensus on the following decision points (Barnett, Lund, Mattern, & Meyer, 2009):

- ▶ *Screening Decision:* A screening decision is made regarding whether or not a child welfare referral alleging child abuse or neglect warrants further response.

- ▶ *Pathway Assignment Decision:* In some jurisdictions, families are assigned to:
  - a traditional forensic child welfare investigation in higher risk cases or
  - a service provision assessment track or alternative response in lower/moderate risk cases

- ▶ *Safety Decision:* A safety decision is a determination of whether the child is safe or unsafe (some states allow for conditionally safe responses—which indicate that the child can remain safely at home if certain conditions are in place, such as intensive home services or removal of a danger). A decision of unsafe means that the threat of serious harm is present or imminent and the protective capacities of the family are not sufficient to protect the child (NAPCWA, 2009). Intervention (e.g., safety plan, out-of-home placement) is required when a decision of unsafe is made.

- ▶ *Substantiation Decision:* The substantiation decision is a determination of whether sufficient evidence exists to conclude that the child has been abused or neglected (Child Welfare Information Gateway, 2003). This decision may lead to required services for certain families. Some jurisdictions also allow for a legal finding of indicated child abuse (generally for less severe cases) or inconclusive.

- ▶ *Intervention Decision:* The intervention decision refers to action taken to address the presence of harm or risk of future harm. This could include steps by the family to alleviate the harm or risk, natural or community supports, in-home services, or out-of-home placement. Related decisions include:
  - Supports and services decision: A decision regarding supports or services that are needed to facilitate behavioral changes that address the harm and/or risk of future harm to the child(ren)
  - Removal decision: A decision made regarding the need to remove the child from the family to ensure safety
  - Placement decision: If a decision is made to remove the child, a placement decision must be made regarding the most appropriate out-of-home placement setting

- ▶ *Permanency Decision:* The permanency decision refers to the plan to ensure the child has safe, stable, and permanent care. Permanent plans include reunification, adoption, guardianship, relative placement, or another planned permanent living arrangement aimed at fostering permanent, healthy adult connections.

- ▶ *Case Closure Decision:* The case closure decision is the determination that the family can manage safety of the child on its own (i.e., there are no threats or there is sufficient protective capacity that can be sustained without agency or court involvement) or when an appropriate alternate permanent plan for the child has been finalized.

Types of Decisions and How They Impact Safety Outcomes

A four-way contingency table can be applied to any decision at each point along the decision continuum. For example, at the removal decision point, four types of decisions and the resulting outcomes are possible. The worker decision can lead to a correct result or an error (see chart below).

Removal Decision 4-Way Contingency Table (Dalgleish, 1988):

	CORRECT DECISION	
	REMOVAL	**NO REMOVAL**
REMOVAL	TRUE POSITIVE (HIT)	FALSE POSITIVE (FALSE ALARM)
NO REMOVAL	FALSE NEGATIVE (MISS)	TRUE NEGATIVE (CORRECT REJECTION)

(WORKER DECISION shown along the vertical axis for the REMOVAL / NO REMOVAL rows)

True Positive/Correct Positive Decision: A true positive decision occurs when an action is taken that correctly matches the circumstances. For example, in the case of a removal decision, if the agency removes the child from the home and the child was in fact unsafe, a true positive decision occurred, thus achieving the correct or best safety outcome for that decision point.

True Negative: A true negative decision occurs when no action is taken and that lack of action correctly matches the circumstances. Using the same example, if the agency decides not to remove the child from home after making an accurate determination that the child is safe, then the correct or best safety outcome was achieved at the decision point.

False Positive/False Alarm: A false positive is an error in a safety decision that occurs when an action is taken that does not correctly match the circumstances. Using the removal example, if the agency removes a child from the home due to an inaccurate assessment that the child is "unsafe," an unnecessary out-of-home placement occurs. In this case, there is a failure to achieve safety outcomes. Some false alarms may never be identified as errors in the child welfare context (Dalgleish, 1988).

False Negative: A false negative is also an error in a safety decision; it occurs when action is not taken in circumstances that warrant it. In the removal example, if the agency determines that the child is safe in the home when an imminent threat of harm actually exists, this may result in the child not being protected from abuse or neglect and a failure to achieve safety outcomes. This type of error often drives policy development in child welfare, as the error may have serious consequences, most importantly for the child, but also for the agency and agency staff.

Correct child welfare decisions are often difficult to make at the time of the decision point, and errors can be detrimental to achieving safety and other outcomes. The challenge for child welfare agencies is to work through the unpredictable nature of child welfare decision-making in order to minimize decision-making errors. The following information identifies common tools used to improve child welfare decision-making.

Tools and Frameworks Used to Describe and Improve Child Welfare Decision-Making

Decision-making research in child welfare tends to focus on two approaches:

▶ One approach includes the use of tools designed to assist workers in making consistent decisions and reducing uncertainty based on predefined criteria related to case-level factors (i.e., safety and risk assessments).

▶ Another approach considers case-level factors as well as the broader context in which the family and the worker are situated as important factors in making decisions. For example, worker/agency level variables, such as how long the worker has been in the job or what services are available for the worker to access, may have an impact on the decision-making process.

Safety and Risk Assessment

Historically, safety and risk assessments were conducted based on the professional judgment of a child welfare worker. In the past 30 years, however, assessment tools have been introduced to assist the child welfare worker in the decision-making process.

Safety assessments are used to determine whether the child is safe or unsafe (or conditionally safe in some jurisdictions) and generally consist of a checklist of abuse or neglect indicators, including indicators that require some form of intervention. According to the Framework for Safety in Child Welfare (NAPCWA, 2009), safety assessment and decision-making occur within three domains: imminent threat or harm, protective capacities, and child vulnerability.

Imminent Threat or Harm Domain	Protective Capacities Domain	Child Vulnerability Domain
Serious harm or danger results from serious physical injury, sexual abuse, significant mental suffering, extreme fear, extreme impairment or disability, death, or substantial impairment (or risk of substantial impairment) to the child's mental or physical health or development. ▶ *Present serious harm: Harm that can be observed or readily described and has already occurred or is presently occurring* ▶ *Imminent threat of serious harm: Safety threats that are present and highly likely to cause serious harm to a child if not immediately controlled*	*Individual and family strengths, resources, or characteristics that directly affect the safety of the child by mitigating threats of serious harm or demonstrating that the child is being adequately protected by his or her caregiver(s)*	*The degree to which a child can avoid, negate, or modify safety threats or compensate for the caregiver's insufficient protective capacities; the child's capacity for self-protection*

Risk assessments attempt to predict the probability of maltreatment recurrence. Traditionally they are divided into actuarial or consensus-based tools:

- ▶ Consensus-based risk assessments determine risk based on clinical judgment and knowledge of research and theory regarding risk and protective factors. Such tools have gradually been replaced by assessments that have been through a validation process.
- ▶ Actuarial risk assessments use statistical models that correlate family and environmental factors with the probability of child maltreatment. Structured Decision-Making (SDM), described below, is the most widely used actuarial risk assessment method (Beecroft & Jones, 2008).

Other types of classifications, including research-based assessments and hybrid tools, which incorporate validated items with items that are based on clinical judgments or on policy, are being considered over actuarial and consensus-based assessments alone. It is important to note that, regardless of the type of assessment tool used, the quality of the validation process is among the most critical considerations.

Predictive Risk Modeling

Predictive risk modeling (PRM) is an emerging strategy in child welfare similar to actuarial risk assessment but with key differences that may increase the ability to predict the probability of child maltreatment. PRM can be defined as "a specific type of predictive analytics focused on using data patterns to identify risk predictors and assign risk categories based on these patterns to individuals or families" (Casey Family Programs, 2015). Actuarial risk assessment tools are operator driven—staff are required to input data using checklists, provide imprecise risk classifications, and are validated in settings outside of the jurisdiction in which the tools are being used. PRM, on the other hand, uses previously collected administrative data to understand and measure historical correlations and patterns. PRM, therefore, assigns a more precise probability of child welfare involvement based on a large number of variables observed in patterns (Vaithianathan, Maloney, Putnam-Hornstein, Jiang, et al., 2012).

One concern with PRM is that it may lead to false positive decision outcomes, mistakenly targeting families as potential child abusers (De Haan & Connolly, 2014). Therefore, until a better understanding of how to use information derived from PRM is developed, agencies should use PRM to identify high risk cases for early intervention services rather than as the equivalent of clinical judgments. More extensive discussions of PRM applications in child welfare can be found in recently published reviews of the topic (Casey Family Programs, 2015; Packard, 2016).

Safety Decision-Making Models and Approaches to Improve Decision-Making: Moving Beyond Case Characteristics to Worker and Contextual Factors

Much of child welfare safety and risk decision-making research and practice focuses on tools to improve decision-making based on case or individualized family/child characteristics. However, a number of recent conceptual frameworks in child welfare stress the importance of recognizing worker and contextual factors to understand the process of decision-making and decision-making errors. Several models and approaches used within this more recent framework include:

- ▶ Systemic approach to investigating errors
- ▶ Decision-making ecology

- ▶ Signal detection theory and the general assessment and decision-making model
- ▶ Judgments and decision processes in context model

An overview of each of these models and approaches to safety decision-making in child welfare is provided below, along with brief descriptions of similar models. While listed as distinct models and approaches, it is important to understand that the models build off of each other and encompass many overlapping elements.

Systemic Approach to Investigating Errors in Child Welfare Decision-Making

The systemic approach differs from traditional approaches. Traditional approaches to investigating child maltreatment decision-making errors consider human error as the end point, or, result of a decision. For example, a traditional approach to investigating the fatality of a child known to the child welfare agency may focus on whether a worker failed to follow a policy or procedure. Following this approach, post-investigation interventions aimed at reducing decision-making errors made by workers have focused on three mechanisms:

- ▶ Punish the worker who made the error in an attempt to discourage other workers from making similar mistakes.
- ▶ Attempt to formalize or standardize processes with increasingly precise instructions to reduce the role of individual human reasoning.
- ▶ Increase practice monitoring through auditing or quality assurance procedures.

Proponents of the systemic approach argue that these mechanisms have not been completely successful in improving child safety outcomes. Additionally, the traditional approach does not take into account that the worker may have had limited information.

The systemic approach to investigating errors stresses that human error should be the starting point for understanding decision-making errors, rather than the end point (Munro, 2005). This approach, in contrast to the traditional approach, emphasizes systems-level variables that affect the context in which a decision error is made. Specifically, workers are located within an organizational culture that limits their activities, sets up rewards and punishments, provides resources, and defines goals that are sometimes inconsistent (Munro, 2005). All of these contextual factors can affect a worker's decision-making. A more complete understanding of the systemic variables that result in decision-making errors may lead to more effective interventions that reduce errors.

Decision-Making Ecology Model

The decision-making ecology (DME) model acknowledges that workers make decisions within an agency and a broader systemic context. Decisions are understood as a result of the entire context. Factors at varying levels interact with and influence decisions in various ways. The figure below represents the DME, followed by examples of potentially influential factors at each level (Baumann, Dalgleish, Fluke, & Kern, 2011). Another component of the DME is that outcomes related to past decisions inform subsequent decision-making processes.
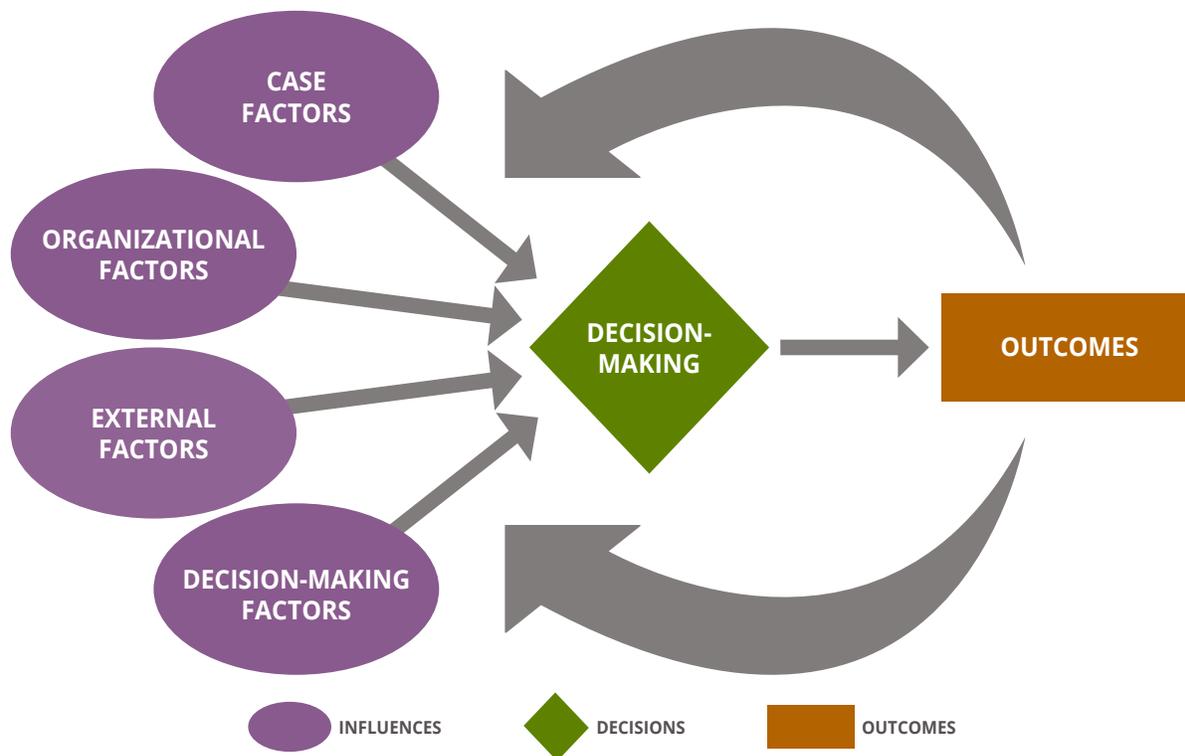
|	
Case Factors:	Information related to the maltreatment incident and family circumstances
Organizational Factors:	Agency structure and functioning, management practices, staffing
External Factors:	Laws and policies informing appropriate decisions and subsequent responses, societal attitudes toward child safety and family preservation
Decision-making Factors:	Attitudes, knowledge, skill, and other characteristics of the worker making a decision

Signal Detection Theory and the General Assessment and Decision-Making Model

Applying signal detection theory to child welfare predates the development of the DME. However, the general assessment and decision-making model (GADM), which uses signal detection theory to explain the psychological process of decision-making, has since been incorporated into the larger DME framework (Baumann et al., 2011).

Signal detection theory suggests that, when two choices are available, information about family and case circumstances are considered along a strength of evidence continuum, in the direction of one alternative or the other (Dalgleish, 1988). A point exists along the continuum at which a specific decision is either made or not made—the threshold for action. If the threshold for action is crossed in assessing safety, for example, a removal may be triggered.

The figure below represents the threshold concept in child welfare decision-making (Dalgleish, 2006). This figure also highlights an important difference between judgments and decisions in the GADM. Judgment

refers to assessment, while the decision threshold relates to the actual action taken; even if two workers agree on a judgment, they may take a different action. For example, two workers may judge, or assess, that a safety concern exists but one worker may have a bias toward family preservation while the other may have a bias toward removal. This may affect workers' removal thresholds and therefore their decisions. In the application of the GADM, thresholds are influenced by the experiences and history of the decision-maker and can be shifted based on factors at each level of the DME (Baumann et al., 2011).

Assessment Dimension:
Risk or "Level of Concern"
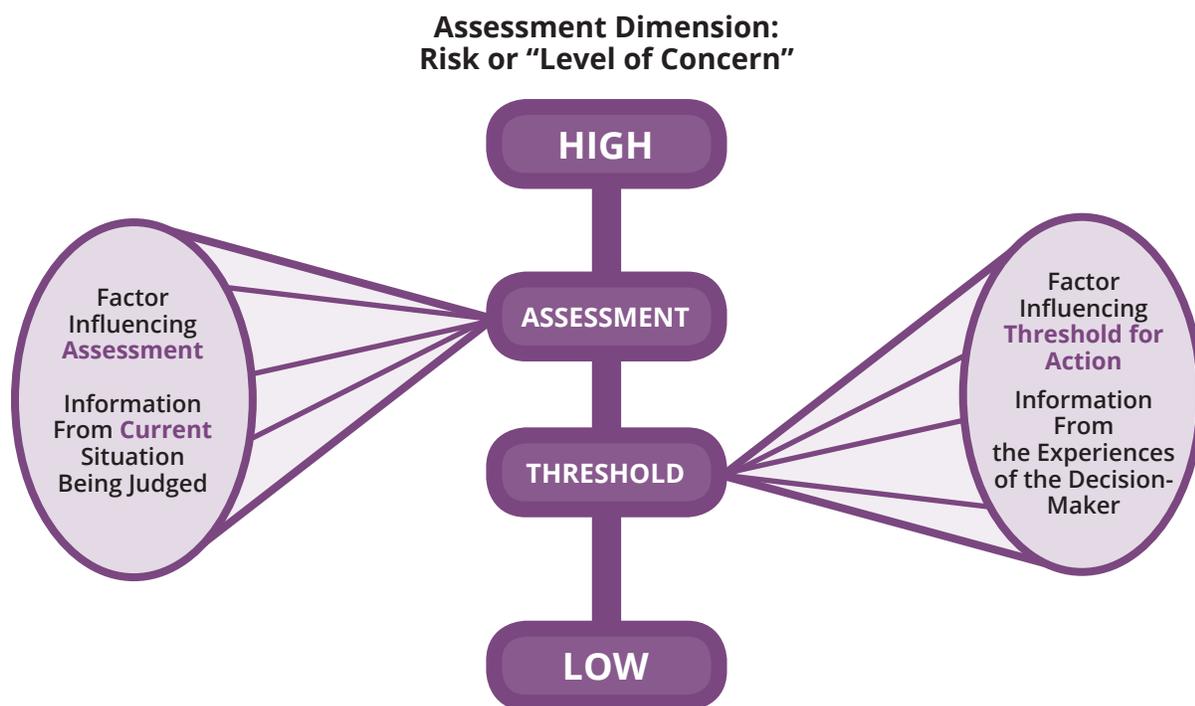
If the **Assessment** is *ABOVE* the ***Threshold***, then **ACTION** is taken.
If the **Assessment** is *BELOW* the ***Threshold***, then **NO ACTION** is taken.

Judgments and Decision Processes in Context Model

In the judgments and decision processes in context (JUDPIC) model, factors that influence decision-making include case information, personal characteristics, agency features, and wider factors such as the organizational context of the decision-making agency and the overall characteristics of the service system (Benbenishty, Davidson-Arad, Lopez, Devaney, et al. 2015).

Similar to the GADM, judgments are differentiated from decisions. The path from judgment to decision may be mediated by service constraints and availability and is moderated by factors such as policies on what threshold warrants child placements, available knowledge and evidence that connect case characteristics and appropriate interventions, and values and attitudes about the merits of protecting the child and maintaining the family unit (Benbenishty et al. 2015).

Additional Models

The above models have been applied in child welfare decision-making research and stress the importance of understanding the context in which decisions are made. This is not an exhaustive list. Other, similar models have been applied to child welfare decision-making, including:

- ▶ The adaptive decision model. The adaptive decision model is based on behavior decision theory. It has been advocated in general decision science and applied to child welfare decision-making (Stevens, 1998). This model assumes that variables representing the problem, person, and social context can influence decision-making.
- ▶ The naturalistic approach to decision-making. The naturalistic approach to decision-making is a recently proposed model that, like other models, identifies case-level factors, worker-level factors, and structural factors as important in decision-making (Platt & Turney, 2014). This model also emphasizes collaborative working relationships both inside and outside of the child welfare agency (for example, organizations that receive service referrals from child welfare) as an important factor.

These models share a common belief that factors beyond case characteristics (i.e., information related to the allegation, family, and child) can influence decision-making.

Empirical Evidence of Factors Associated with Decision-Making

Many empirical studies over the last several decades have examined the relationship between explanatory factors and decisions made along the child welfare decision continuum. This brief identifies some case-level, worker-level, and context-level variables that have been demonstrated to influence decision-making. Because child welfare decisions are difficult to make with a precise degree of accuracy and a "correct decision" is often unknown, and because research indicates that different factors influence decisions at different points along the decision-making continuum, most research assesses the consistency of a particular decision rather than its accuracy.

Case-Level Variables

Case-level variables include characteristics of a maltreatment event (e.g., allegation type, referral party, severity of abuse or neglect), as well as characteristics of the child and family (e.g., presence of previous referrals or assessments, child age, caregiver age, household size, and socioeconomic status). Risk and safety assessment tools use case-level variables to aid risk and safety decisions. The influence of case-level variables on child welfare decision-making are some of the most thoroughly researched factors.

Maltreatment Event

Some of the case-level variables that have the most established influence on decision-making at multiple points along the decision continuum include the severity of the abuse or neglect and frequency of past harm (Stevens, 1998; Dalgleish & Drew, 1989; Meddin, 1984; Wells, Fluke, & Brown, 1995; Katz, Hampton, Newberger, Bowles, & Snyder, 1986). More severe abuse and more frequent past harm are both more likely to be associated with decisions to further intervene along the decision-making continuum (e.g., substantiation, services, removal).

Some studies suggest that certain allegations are more likely to be associated with intervention decisions. For example, different studies found:

- ▶ Emotional maltreatment and presence of emotional harm during assessment are associated with out-of-home placement decisions (Fluke, Chabot, Fallon, MacLaurin, & Blackstock, 2010).
- ▶ Children within a hospital setting who had no physical injuries were more likely to be removed from their home than those with physical injuries. This may be due to clinicians perceiving non-physical injuries (e.g., neglect, emotional abuse) as evidence of chronic family problems and increased risk of future harm, as opposed to a single physical incident (Katz et al., 1986).

- ▶ Contrary to placement decisions, physical abuse allegations are more likely to be substantiated than other types of allegations (Giovannoni, 1989).
- ▶ Within a multiple country sample using case vignettes, emotional harm and neglect had the highest rates of substantiation (Benbenishty et al., 2015).
- ▶ Allegations of sexual abuse are associated with increased likelihood of a referral being investigated (Wells et al., 1995).
- ▶ The source of the maltreatment report is associated with the decision to investigate a referral (Wells et al., 1995) and substantiate child abuse and neglect (Giovannoni, 1991; Eckenrode, Powers, Doris, Mnusch & Bolger, 1988).
- ▶ Reports from mandated or professional reporters are more likely to be investigated and substantiated than those from non-mandated or non-professional reporters. In addition, reports from a source that the case worker "finds believable" are more likely to result in an investigation (Wells et al., 1995).

Child and Family Circumstances

Individual circumstances of the child and family are also relevant case-level variables in decision-making. Different studies found:

- ▶ Child age is associated with increased rates of out-of-home placement and substantiation. Child welfare agencies are more likely to investigate reports of maltreatment involving younger children (Meddin, 1984; Stewart, 1993; Wells et al., 1995; Eckenrode et al., 1988).
- ▶ Presence of mental health problems, substance abuse, and domestic violence within a family are associated with higher rates of substantiation (Font & Maguire-Jack, 2015).
- ▶ Lower income levels are associated with substantiation and removal (Berger & Waldfogel, 2004; Detlaff, Rivaux, Baumann, Fluke, & Rycraft, 2011; Baumann, Fluke, Graham, Hedderson et al., 2010; Rivaux, James, Wittenstrom, Baumann, Sheets, Henry, et al., 2008).
- ▶ Race is associated with removal (Enosh & Bayer-Topilsky, 2015; Baumann et al., 2010).
- ▶ Family cooperation as well as parenting skills and insight are associated with service and substantiation decisions (Dalgleish & Drew, 1989; Meddin, 1984; Stevens, 1998; Font & Maquire-Jack, 2015; Fluke et al., 2010).

Worker-Level Variables

Limited research consistently demonstrates the association between worker-level variables and decision-making (DePanfilis & Scannapieco, 1994). However, a number of studies have found significant associations between worker characteristics and attitudes and patterns in child-welfare decision-making. For example, individual studies found:

- ▶ Workers with an advanced degree are more likely to substantiate a case involving neglect or abuse (Font & Maguire-Jack, 2015).
- ▶ Workers with more experience in child welfare and with a higher self-assessment of their skills are less likely to substantiate a case involving abuse or neglect (Fluke, Parry, Shapiro, Hollinshead et al., 2001; Child Welfare Information Gateway, 2003).
- ▶ A Utah study suggested that workers who have experienced more adverse childhood experiences may be less likely to recommend removal of a child (Fluke, Hollinshead, & Vanderloo, 2017).
- ▶ Worker attitudes toward key issues involved in removal and reunification decisions, assessed in the Child Welfare Attitudes Questionnaire, revealed that pro-removal workers are more likely to recommend removal based on case vignettes than anti-removal workers (Arad-Davidzon & Benbenishty, 2007).

- ▶ Workers with a less favorable view of foster care and residential placement are less likely to place a child out of home (Benbenishty et al., 2015).
- ▶ Workers who stated that resource availability was not a factor in their decision-making process are more likely to investigate a referral (Wells, Lyons, Doueck, Brown & Thomas, 2004).
- ▶ Workers who believed that the role of child welfare is to intervene whenever a child is at risk of harm are more likely to investigate referrals (Wells et al., 2004).

Context-Level Variables

Like worker-level variables, the influence of context-level variables in decision-making has been less researched than case-level variables. However, several recent studies have identified agency-level and system-level variables associated with decision-making in child welfare.

Certain decisions along the decision-making continuum vary significantly across jurisdictions due to structural and legal response differences. For example, several different studies demonstrated that:

- ▶ Screening decisions to investigate a referral ranged from 37 to 100 percent in 12 agencies studied across multiple jurisdictions (Wells et al., 1995).
- ▶ An analysis of Canadian Incidence Study data found that a greater number of reports involving Aboriginal families within an agency (agency-level variable) was related to placement decisions. This may be due, in part, to a scarcity of agency or community resources and services in agencies with more Aboriginal family referrals (Fluke et al., 2010).
- ▶ Higher rates of placement disparity for African American children correlate with counties with lower population density (Wulczyn, Barth, Yuan, Jones-Harden, & Landsverk, 2005).
- ▶ Substantiation is less likely in agencies that are able to provide services to families that were the subject of unsubstantiated referrals (Font & Maguire-Jack, 2015). The same study found that substantiation is less likely when collaboration with other social institutions is higher (Font & Maguire-Jack, 2015).
- ▶ Use of a structured decision-making tool increases the threshold for substantiation and results in a higher likelihood of removal among substantiated cases (Font & Maguire-Jack, 2015). According to the authors, a higher likelihood of removal among substantiated cases in agencies which used a structured decision-making tool may have been because only high-risk cases were substantiated (Font & Maguire-Jack, 2015).
- ▶ Supervisors who perceive their own work units as cohesive and themselves as supportive increase the likelihood of substantiation (Child Welfare Information Gateway, 2003).

Similar to the observation that investigation, substantiation, and removal rates differ across jurisdictions within the United States, international research has found variations among countries. For example, one study involving decision-making across four countries found:

- ▶ Practitioners significantly differ in most outcomes, including attitudes toward child welfare involvement, substantiation, intervention recommendation, and risk assessments. The country in which a worker is practicing may modify the effect of attitudes on decisions made (Benbenishty et al., 2015). The historical context of the development of the child welfare system within jurisdictions was found to be important in understanding attitudes and practices of workers in the respective countries.

Considerations for Practice

Understanding the factors that influence child welfare decision-making and the relationship of those factors to commonly used decision-making tools can help child welfare agencies focus decision-making strategies. Increased understanding of this relationship can also help agencies respond to systemic gaps in the decision-making process in a more effective way that can improve safety outcomes. The information in this brief can help child welfare agencies look more deeply at all relevant factors that influence decision-making, not just case-level variables. These factors include worker-level and context-level variables, personal strategies commonly used in decision-making, and personal biases. Further, understanding these factors as they relate to common child welfare decision-making frameworks and commonly used decision-making models may help agencies use decision-making tools with greater effectiveness.

Use of Safety and Risk Assessment Tools

Strengthening empirical evidence around the validity and reliability of risk and safety assessment tools should remain a priority. However, valid and reliable assessment tools alone may not be enough to ensure consistent and accurate decision-making, given the influence of other variables. Ongoing attention to the processes through which workers engage families, gather information about families' unique circumstances, and use that information to reach decisions is also needed. It is also critical that there is buy-in regarding tool use at all agency levels, so that other policies and processes support and align with accurate tool completion.

Additionally, agencies should consider the relevant factors that influence decision-making when they use assessment tools. For instance, agencies may wish to encourage workers to complete the assessment instrument and process before decisions are made in order to avoid non-case-level variables from influencing the assessment to achieve a specific result. Further, workers should be encouraged and supported to be as thorough and detailed as possible when completing assessment instruments, which may have an impact on the timeframes required to complete assessments. Child welfare agencies may want to enhance training and coaching opportunities, to ensure workers are confident when completing the assessment process. Field observation and refresher training are also potential strategies to ensure consistency in decision-making is maintained. Enhanced training may also help clarify which decisions a specific tool is meant to guide and what other influences should be considered in order to have the desired impact. Lastly, given the influence of other factors on the process, agencies should also engage in quality assurance activities that inform training and coaching to improve the accuracy of decisions.

As noted, the use of predictive risk modeling is an emerging strategy in child welfare that may also serve to assist in the more precise assessment of risk using available data sources (e.g., data that does not need to be collected by the worker).

Service Availability

Several studies indicate that service availability may play a role in decision-making. For example, child welfare worker substantiation decisions may be influenced by the worker's perception of whether the agency has the ability to serve families with a referral found to be unsubstantiated (Font & Maguire-Jack 2015). This also suggests the possibility that substantiation decisions can be a "gateway to services" and are not just made on the basis of confirmed maltreatment. Child welfare systems should consider their ability to offer services when needed, even without a substantiated referral, in order to mitigate this practice. Some agencies have turned to differential response models, which allow for more than one method of responding to child abuse and neglect referrals and leave more flexibility to assess families' situations to improve meeting targeted underlying needs.

Workforce Issues

Agency efforts to improve retention of qualified staff may have a positive effect on safety decision-making. Some research suggests that worker attitudes may have a role in decision-making and that less child welfare experience may be related to a stronger orientation towards child removal than family preservation (Fluke, Hollinshead, Corwin, Nikolova, & Lwin, 2015). More child welfare experience may be associated with an increased likelihood of an unsubstantiated finding of abuse or neglect (Fluke et al., 2001). One possible explanation for this is that, as workers become more experienced, they become more comfortable with their skills to differentiate risk and harm and are less prone to err "on the side of safety." This indicates that workforce retention strategies may impact child safety decisions so that children and families spend less time involved with the agency. While more research needs to be done to fully understand the impact of worker variables such as experience, orientation, and decision outcomes to decision-making, staff retention continues to be connected to improved child welfare outcomes broadly.

Impact of Group Decision-Making

Group decision-making has not been well researched to date, but some have hypothesized that group decisions may reduce biases of individual workers, reduce individual discretion, and increase the consistency of the decisions made (NAPCWA, 2009). However, the possibility of overcompensating to reach consensus also has the potential to lead to inappropriate decisions (Keddell, 2014). While some agencies have begun using group processes aimed at improving decision-making, for example, RED (Read, Evaluate, Direct) Teams or Group Supervision (American Public Human Services Association, 2012), the effects of such processes on decision-making outcomes requires additional research in order to be adequately understood.

Conclusion

Child welfare workers are tasked with making important decisions related to the safety of children. Recent research suggests that these complex decisions are influenced by a variety of factors at the case, worker, agency, and broader contextual levels. They are also likely being made using a variety of imperfect decision-making strategies that can lead to errors and result in adverse outcomes for children.

Decision-making factors can influence outcomes in a positive direction when understood in the context of specific tools. Recognizing that decision-making flows from assessment and that the assessment itself is different from the decision to take action, decision-making factors at all agency levels need our attention. Finally, intervention at the organizational and leadership levels, as well as practice levels, of child welfare is necessary to support child welfare workers in improving assessment and decision-making for better safety outcomes.

References

American Public Human Services Association. (2012). *Practice innovations in child welfare*. Retrieved from http://www.aphsa.org/content/dam/aphsa/pdfs/OE/InnovativePracticesinChildWelfare.pdf

Arad-Davidzon, B., & Benbenishty, R. (2007). The role of workers' attitudes and parent and child wishes in child protection workers' assessments and recommendation regarding removal and reunification. *Children and Youth Services Review, 30*(1),107-21.

Barnett, S., Lund, T.R., Mattern, G., & Meyer, E. (2009, June). Decision points in child welfare (handout). In The role of State Child and Family Services Reviews (CFSRs) in enhancing safety. Session held at the National Summit on the Intersection of Domestic Violence and Child Maltreatment, Jackson Hole, WY. Available from http://www.thegreenbook.info/summit/workshops.htm

Baumann, D.J., Dalgleish, L., Fluke, J., & Kern, H. (2011). *The decision-making ecology*. Washington, DC: American Humane Association.

Baumann, D.J., Fluke, J., Graham, J.C., Hedderson, J., James, J., ... Wittenstrom, K. (2010). *Disproportionality in child protective services: The preliminary results of statewide reform efforts*. Austin, Texas: Texas Department of Family and Protective Services. Retrieved from https://repositories.lib.utexas.edu/bitstream/handle/2152/15377/Texas_DisproportionalityFosterCare.pdf?sequence=2

Beecroft, E., and Jones, B. (2008). *The impacts of actuarial risk assessments on child protective services in Virginia*. Richmond, Virginia: Virginia Department of Social Services. Retrieved from: www.dss.state.va.us/files/about/reports/children/cps/all_other/2008/SDM_impacts_2008-02-19.pdf

Benbenishty, R., Davidson-Arad, B., Lopez, M., Devaney, J., Spratt, T., Koopmans, C., ... Hayes, D. (2015). Decision making in child protection: An international comparative study on maltreatment substantiation, risk assessment and interventions recommendations, and the role of professionals' child welfare attitudes. *Child Abuse & Neglect, 49*, 63–75.

Berger, L.M. & Waldfogel, J. (2004). Out-of-home placement of children and economic factors: An empirical analysis. *Review of Economics of the Household, 2*, 387–411.

Casey Family Programs. (2015). Predictive analytics: Applications for child welfare. *Practice Digest, 7*. Retrieved from http://www.coloradohsda.org/pdf/Prac_Digest_PA_hdout_6_20_16.pdf

Child Welfare Information Gateway (2003). *Decision-making in unsubstantiated child protective services cases: Synthesis of recent research*. Washington, D.C.: U.S. Department of Health and Human Services.

Dalgleish, L.I. (1988). Decision-making in child abuse cases: Applications of social judgment theory and signal detection theory. In B. Brehmer & C.R.B. Joyce (Eds.), *Human judgment: The SJT view*. North-Holland: Elsevier Science Publishers.

Dalgleish, L. (2006). Testing for the effects of decision bias on overrepresentation: Applying the GADM model. Paper presented at *The 16th International Congress on Child Abuse and Neglect*.

Dalgleish, L.I., & Drew, E.C. (1989). The relationship of child abuse indicators to the assessment of perceived risk and to the court's decision to separate. *Child Abuse and Neglect, 13*, 491–506.

De Haan, I., & Connolly, M. (2014). Another Pandora's box? Some pros and cons of predictive risk modeling. *Children and Youth Family Services Review, 47*(1), 86–91.

DePanfilis, D., & Scannapieco, M. (1994). Assessing the safety of children at risk of maltreatment: Decision-making models. *Child Welfare, LXXIII*(3), 229–245.

Detlaff, A., Rivaux, S., Baumann, D.J., Fluke, J., & Rycraft, J. (2011). Disentangling substantiation: The influence of race, risk and poverty on the substantiation decision in child welfare. *Children and Youth Services Review, 33*, 1630–1637.

Eckenrode, J., Powers, J., Doris, J., Munsch, J., & Bolger, N. (1988). Substantiation of child abuse and neglect reports. *Journal of Consulting and Clinical Psychology, 56*(1), 9–16.

Enosh, G., & Bayer-Topilsky, T. (2015). Reasoning and bias: Heuristics in safety assessment and placement decisions for children at risk. *British Journal of Social Work 45*, 1771–1787.

Fluke, J.D., Chabot, M., Fallon, B., MacLaurin, B., & Blackstock, C. (2010). Placement decisions and disparities among aboriginal groups: An application of the decision-making ecology through multi-level analysis. *Child Abuse & Neglect, 34*, 57–69.

Fluke, J., Hollinshead, D., Corwin, T., Nikolova, K., & Lwin, K. (2015). Family preservation or child safety? How experience and position shape child welfare workers' perspectives. Presented at *The 2015 International Conference on Innovations in Family Engagement*.

Fluke, J., Hollinshead, D., & Vanderloo, M. (2017). The impact of staff and organizational characteristics on IV-E waiver intervention implementation in child welfare from a decision-making ecology perspective: Common methods for data collection and analysis. Presented at *Waiver Evaluator Convening*, Seattle, WA.

Fluke, J. D., Parry, C., Shapiro, P., Hollinshead, D., Bollenbacher, V., Baumann, D., & Davis-Brown, K. (2001). *The dynamics of unsubstantiated reports: A multi-state study – Final report*. Denver: American Humane Association.

Font, S.A., & Maguire-Jack, K. (2015). Decision-making in child protective services: Influences at multiple levels of the social ecology. *Child Abuse & Neglect, 47*, 70–82.

Giovannoni, J.M. (1991). Unsubstantiated reports: Perspectives of child protection workers. *Child and Youth Services Review, 15*(2), 51–62.

Hoffrage, U., & Hertwig, H. (2012). Simple heuristics in a complex social world. In J.I. Krueger (Ed.), *Social judgment and decision-making*, New York, NY: Psychology Press.

Homans, G.C. (1958). Social behavior as exchange. *The American Journal of Sociology, 63*(6), 597–606.

Kahneman, D. (1991). Judgment and decision-making: A personal view. *Psychological Science, 2*(3), 142–145.

Katz, M.H., Hampton, R.L., Newberger, E.H., Bowles, R.T., & Snyder, J.C. (1986). Returning children home: Clinical decision-making in cases of child abuse and neglect. *American Journal of Orthopsychiatry, 56*(2), 253–262.

Keating, K., Buckless, B., & Ahonen, P. (2016, April). Child safety and risk assessments in American Indian and Alaska Native communities (OPRE Report #2016-48). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/safetyassessment-brief2016_b508.pdf

Keddell, E. (2014). Current debates on variability in child welfare decision-making: A selected literature review. *Social Sciences, 3*, 916–940.

Kemshall, H. (2010). Risk rationalities in contemporary social work practice. *British Journal of Social Work, 40*, 1247–1262.

Lopez, M., Fluke, J.D., Benbenishty, R., & Knorth, E.J. (2015). Commentary on decision-making and judgments in child maltreatment prevention and response: An overview. *Child Abuse & Neglect, 49*, 1–11.

Meddin, B.J. (1984). Criteria for placement decisions in protective services. *Child Welfare, 63*(4), 367–373.

Munro, E. (2005). Improving practice: Child protection as a systems problem. *Children and Youth Services Review, 27*, 375–391.

National Association of Public Child Welfare Administrators. (2009). *A framework for safety in child welfare*. Washington D.C.: American Public Human Services Association.

Packard, T. (2016). *Literature review: Predictive analytics in human services*. San Diego, CA: Southern Area Consortium of Human Services. Retrieved from https://theacademy.sdsu.edu/wp-content/uploads/2016/03/sachs-predictive-analytics-report-feb-2016.pdf

Platt, D., & Turney, D. (2014). Making threshold decisions in child protection: A conceptual analysis. *British Journal of Social Work, 44*, 1472–1490.

Rivaux, S.L., James, J., Wittenstrom, K., Baumann, D.J., Sheets, J., Henry, J., & Jeffries, V. (2008). The intersection of race, poverty and risk: Understanding the decision to provide services to clients and to remove children. *Child Welfare, 87*, 151–168.

Shlonsky, A., & Gambrill, E. (2014). Risk assessment. In G. Mallon & P.M. Hess (Eds.), *Child welfare for the 21st century. A handbook of practices, policies, and programs* (pp. 253–269). New York, NY: Columbia University Press.

Stein, T., & Rzepnicki, T.L. (1984). *Decision-making in child welfare intake: A handbook for practitioners*. New York, NY: Child Welfare League of America.

Stevens, L.R. (1998). *Decision-making during investigation* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 99007040).

Stewart, A. (1993). *An investigation of decision-making by child protection workers* (Doctoral dissertation). Retrieved from The University of Queensland, Australia. (Thesis #8553).

Vaithianathan, R., Maloney, T., Putnam-Hornstein, E., Jiang, N., De Haan, I., Dale, C., & Dare, T. (2012). *Vulnerable children: Can administrative data be used to identify children at risk of adverse outcomes?* The Centre for Applied Research in Economics, University of Auckland. Retrieved from http://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/vulnerable-children/auckland-university-can-administrative-data-be-used-to-identify-children-at-risk-of-adverse-outcome.pdf

Wells, S.J., Fluke, J.D., & Brown, C.H. (1995). The decision to investigate: Child protection practice in 12 local agencies. *Children and Youth Services Review 17*(4), 523–46.

Wells, S.J., Lyons, P., Doueck, H.J., Brown, C.H., & Thomas, J. (2004). Ecological factors and screening in child protective services. *Children and Youth Services Review, 26*, 981–97.

Wolock, I. (1982). Community characteristics and staff judgments in child abuse and neglect cases. *Social Work Research and Abstracts, 18*(2), 9–15.

Wulczyn, F., Barth, R., Yuan, Y., Jones-Harden, B., & Landsverk, J. (2005). *Beyond common sense: Child welfare, child well-being and the evidence for policy reform*. New Brunswick, NJ: Aldine Transaction.