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Case manager job strain in public child welfare agencies: Job demands and job control's additive effects, and instrumental feedback's mediating role

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ABSTRACT

Public child welfare agencies are universally acknowledged as highly stressful work environments. Organizational and occupational health scholars assert that reducing employee strain perceptions in challenging and strenuous workplace settings necessitates control over one's job. Consistent with this idea, the job demands–control (JD–C) model's additive hypothesis states that perceived job demands and perceived job control jointly impact perceptions of job strain. Over three decades of empirical testing, however, has yielded inconsistent findings. This study sought to clarify mixed research results using a sample of 349 public child welfare case managers. Specifically, self-report instrumental feedback was introduced as a possible mediator of the association between perceived job control and perceived job strain. In line with the literatures on indeterminate human service technologies and dynamic complex environments, two types of mediational (structural equation modeling and bootstrapping) analyses confirmed the construct's role as an intervening variable when job demands were perceived as challenging. Data are the first to uncover this mediated relationship within a JD–C framework. More importantly, data call into question the predictive validity and practice utility of the model's seminal additive hypothesis in public child welfare agencies. Practice implications for public child welfare case managers and ideas for advancing JD–C research are also presented.

1. Introduction

Public child welfare agencies are universally acknowledged as highly stressful occupational environments. In response to this circumstance, child welfare researchers have focused considerable scientific effort toward uncovering salient individual – (e.g., resilience, self-efficacy) and organizational – (e.g., organizational culture and climate) level factors that reduce the strain perceptions of public child welfare case managers (Pecora, Whittaker, Maluccio, & Barth, 2012). Interestingly, characteristics of the job, which directly link employees to their larger organizational context, have received far less empirical study (Preston, 2013a, b). Organizational and occupational health scholars propose a dynamic and interdependent relationship between an employee's perception of her or his job characteristics and level of perceived job strain (Karasek & Theorell, 1990; Luchman & González-Morales, 2013). Within this broad interdisciplinary literature, one particular sub-field, occupational health psychology, has sought to uncover job characteristics that mollify perceptions of job strain under mentally challenging and emotionally demanding workplace conditions similar to those found in the field of child welfare (De Lange, Taris, Kompier, Houtman, & Bongers, 2003; Taris & Kompier, 2005a,b).

Empirical evidence from the occupational health psychology literature possesses, at least, two unifying features. First, Karasek's (1979; Karasek & Theorell, 1990) job demands–control (JD–C) model serves as the literature's dominant theoretical and conceptual framework. Second, extensive cross-sectional, longitudinal, and experimental research examining perceived job demands and perceived job control's additive effects on various measures of perceived job strain have yielded inconclusive results (De Lange et al., 2003; Häusser, Mojzisch, Niesel, & Schulz-Hardt, 2010; Van der Doef & Maes, 1999). Inconsistent findings have led some organizational and occupational health researchers to advocate for more scientific studies that explore perceived job control's indirect effects (Terry & Jimmieson, 1999). Further, because the JD–C model was originally conceived for industrial occupations that used predictable and reliable organizational technologies (Karasek & Theorell, 1990), other researchers (Marshall, Barnett, & Sayer, 1997; Pousette, Jacobsson, Thylefors, & Hwang, 2003; Söderfeldt et al., 1996) have questioned the model's predictive validity and practice utility in human service occupations (e.g., child welfare) that employ indeterminate technologies.

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In their comprehensive meta-analytic review of feedback interventions, Kluger and DeNisi (1996) argue that feedback is a construct that cuts across and unites seemingly disparate social science theories. Feedback information, for example, is central to the major theories that underpin Karasek's (Karasek, 1979; Karasek & Theorell, 1990) JD–C model.[1] Osman (2010) further identifies goal-related or instrumental feedback, due to its favorable impact on employee performance in dynamic and complex environments (e.g., public child welfare agencies), as a contextual factor that affects how individuals interpret the controllability of their immediate social surroundings. Thus, the aim of this study is twofold. First, this study introduces self-report instrumental feedback as a potential intervening variable within the theoretical logic and conceptual framework of Karasek's JD–C model. Second, this study empirically tests the construct's mediating role on the control-strain association using a sample of public child welfare case managers.

2. Job demands–control model

The JD–C model (Karasek, 1979; Karasek & Theorell, 1990) hypothesizes that perceived job demands and perceived job control jointly impact perceptions of job strain through a causal mechanism Karasek labels active learning (i.e., new knowledge, job skills, and problem solving strategies). Job duties and responsibilities construed as challenging heighten cognitive arousal that employees invest toward confronting more demanding performance requirements. If demands of the job are perceived as too taxing, job performance deteriorates as routine job skills and problem solving strategies become ineffective (Karasek, 1998; Karasek & Theorell, 1990). The perceived gap between actual and desired employee performance transforms excess cognitive arousal into work anxiety. Work anxiety spawns off-task ruminations that obstruct the effective processing of information essential for learning new knowledge and mastering new job skills (Warr & Downing, 2000), as well as understanding and resolving unfamiliar work-related problems (Bergman et al., 2012; Daniels, Boocock, Glover, Hartley, & Holland, 2009). Decrements in these core facets of active learning increase perceived job strain by lowering positive outcome expectations and feelings of job competence. Hence, when job demands are experienced as onerous, work anxiety inhibits active learning which in turn raises an employee's strain perceptions (Karasek, 1979; Karasek & Theorell, 1990).

Control over one's job, however, is predicted to mitigate perceived job strain when job duties and responsibilities are judged as formidable. Job control expedites the efficient (re)allocation of surplus cognitive arousal toward overcoming non-routine and/or reoccurring work-related problems, and away from off-task ideations that induce learning-inhibiting work anxiety (Karasek, 1998; Karasek & Theorell, 1990). Job control also facilitates experimenting with novel ideas, and testing unproven job skills and problem-solving strategies (De Jonge, Spoor, Sonnentag, Dormann, & van den Tooren, 2012; Taris & Kompier, 2005a). Consequences of active learning that resolve meaningful work-related obstacles and/or produce value-added performance outcomes are routinized and incorporated into an employee's existing repertoire of coping capabilities (Ohly, Sonnentag, & Pluntke, 2006). An expanded range of coping capabilities strengthen information processing capacity by inhibiting anxiety-inducing ideations (Warr & Downing, 2000). Feelings of job mastery and favorable performance results that emerge from more efficacious employee coping minimize perceptions of job strain (Daniels, Beesley, Wimalasiri, & Cheyne, 2013). Thus, when job demands are judged as burdensome (but not overwhelming), perceptions of control advance active learning and decrease work anxiety which in turn attenuates strain perceptions (Karasek, 1998; Karasek & Theorell, 1990).

Job demands–control researchers investigate the hypothesized joint effects of perceived job demands and perceived job control on employee-related physical, psychological, and behavioral outcomes by testing for additive and interactive effects (Häusser et al., 2010). The former predicts the presence of two statistically significant main effects, while the latter predicts a statistically significant demands–control interaction (Karasek, 1979). Although the proposed JD–C interaction has received substantially more theoretical and conceptual attention (Häusser et al., 2010; Van der Doef & Maes, 1999), Karasek (1989) insists that the JD–C model's seminal insight is perceived job demands and perceived job control's additive effects on individual-level outcomes. Several comprehensive literature reviews examining additive model studies have consistently uncovered mixed empirical support. Only 41% and 36% of the research studies examined by Van der Doef and Maes (1999), and Häusser et al. (2010), for example, fully supported Karasek's additive hypothesis when various measures of psychological well-being were used. Further, De Lange et al. (2003) found full support for only 47% of high-quality longitudinal additive model studies that used either physical or psychological indicators of job strain. Similar inconsistencies have been uncovered in the social work literature. For instance, in a sample of New York City human service workers, Rafferty, Friend, and Landsbergis (2001) reported support for Karasek's (1979) additive model, while Kim and Stoner (2008) documented null findings based on a sample of California state-registered social workers.

Explanations for inclusive research results include, but are not limited to, the reliance on cross-sectional research; dimensionality of Karasek's (1979) job control measure; operationalization of his job demands construct; possible confounding of Karasek's job demands measure with his job control and job strain measures; incongruence between the type of demand employees encounter and type of control at their disposal; and omitted control variables, such as socioeconomic status (De Jonge & Kompier, 1997; Kain & Jex, 2010). While instructive, these research design, psychometric, and conceptual modifications fail to address the unique occupational environment the JD–C model was originally intended to confront. In their ground-breaking book, *Healthy Work*, Karasek and Theorell (1990) state that the JD–C model's theoretical orientation was purposefully developed for factory-like "work environment[s] where stressors are routinely planned, years in advance" and "these stressors… occur day in and day out for decades" (p. 85–86). Hence, predictable and reliable organizational technologies used in industrial occupations may constitute *the* environmental contingency necessary for fostering perceived job control's strain-reducing properties. De Jonge and Kompier (1997) and others (Marshall et al., 1997; Pousette et al., 2003; Söderfeldt et al., 1996) have also identified and discussed this potential occupational-level boundary condition.

3. Indeterminate organizational technologies

3.1. Industrial occupations

Organizational technologies are purposively designed tools and techniques that transform an agency's untreated inputs into prescribed outputs (Hasenfeld, 1983; Sandfort, 2010). Technologies associated with industrial occupations are scientifically-based and adopt procedural knowledge anchored in tangible cause–effect relations (Austin, 2002; Hasenfeld, 2010). Because these technologies are highly reliable and predictable, perceived job control minimizes strain perceptions in, at least, two important ways. First, employees who operate or interface with industrial technologies can use control over their job to develop empirically-based procedural knowledge that accurately estimates the probable results of their behavioral actions (Hasenfeld, 1983). Tangible action–outcome relations , in other words, reduce workplace ambiguity concerning the identification, selection, and execution of requisite

[1] Action [regulation] theory (Frese & Stewart, 1984), general adaptive syndrome theory (Selye, 1950), job characteristic model (Hackman & Oldham, 1980), and learned helplessness theory (Seligman, 1975), all explicitly or implicitly incorporate and discuss goal-related feedback information.