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# Role stressors in Australian transport and logistics workers: Psychosocial implications \*

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#### ABSTRACT

Psychosocial injury is an important issue for the transport and logistics sector. Indeed, these workers typically face multiple role stressors that compromise mental health and, in turn, have a deleterious effect on safety outcomes. The present study investigated the interactive effects of three roles stressors on employee strain (psychological strain and sleep disturbances) and employee morale (job dissatisfaction and turnover intentions) in 443 Australian road transport and logistics workers. Regression analyses using PROCESS revealed significant three-way interactions among role overload, role ambiguity, and role conflict. When both role ambiguity and role conflict were low, the negative consequences of role overload on employees from the impact of role overload. Conversely, when both role ambiguity and role conflict were high, psychological strain, sleep disturbances, job dissatisfaction, and turnover intentions remained high, regardless of the level of role overload. Implications for theory and practice in the transport and logistics sector are discussed.

The psychosocial health and well-being of transport and logistics workers is an issue of concern, with studies demonstrating that mental health indicators for this group often fall below normative samples (Couto and Lawoko, 2011; Orris et al., 1997; Shen et al., 2013). Jespersen et al. (2016) acknowledged that managing and regulating psychosocial risks in workplaces is a 'wicked problem', and that there is a need for further research to facilitate a better understanding of the nature and causes of psychosocial injuries. In this study, the interaction among three role stressors, namely role overload, role conflict, and role ambiguity, on two sets of employee outcomes (strain and morale) is investigated in a sample of Australian transport and logistics workers. While the influence of these three role stressors on employee outcomes have been considered individually or as additive effects, their joint effects have not been previously considered in the transport and logistics sector. Drawing on Role Theory (Kahn et al., 1964) and Conservation of Resources (COR) theory (Hobfoll, 2001), the different combinations of high and low role stressors present opportunities to buffer or exacerbate psychological strain and employee morale, and have implications for job design in the transport and logistics industry. Thus, this research aims to address this gap in the literature and assess the extent to which specific combinations of role stressors have buffering and exacerbating effects in relation to strain and morale.

### 1. Mental health and work stress in transport and logistics workers

The transport and logistics sector contributes approximately 5% of Gross Domestic Product to the Australian economy and employs over half a million people (Commonwealth of Australia, 2012). In the Australian Work Health and Safety Strategy 2012-2022, transport and logistics was identified as a priority industry for prevention of major work-related disorders (a wide range of injuries and fatalities, including mental disorders; Safe Work Australia, 2012). Mental health issues are quite prevalent in transport and logistics workers. Orris et al. (1997) found that drivers reported higher physical and psychological strain than the general population. Shen et al. (2013) found that depression in drivers was higher than the national average. da Silva-Júnior et al. (2009) found prevalence of depression to be 14% in drivers, compared to 2-6% in the general population. Duffy and McGoldrick (1990) found that 13% of drivers scored as high as or higher than psycho-neurotic outpatients. Drivers also reported lower job satisfaction than a normative sample of workers. de Pinho et al. (2006) found that 46% of

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drivers reported hypersomnolence (excessive sleepiness) and poor quality of sleep. Couto and Lawoko (2011) reported a prevalence rate of 30% mild burnout and 3% severe burnout in drivers. Shattell et al. (2012) found drivers most commonly reported loneliness, depression, chronic sleeping problems, and chronic fatigue/low energy.

The Work-Related Mental Disorders Profile report published by Safe Work Australia (2015) identified the transport and logistics industry as having one of the highest claims of work-related mental disorders. 'Transport, postal and warehousing' was included in the top four industries. Approximately 90% of workers' compensation claims involving a mental condition were linked to types of mental stress. Of the mechanisms that comprised mental stress, work pressure was the most common. Although work-related mental disorder claims only equate to approximately 6% of all workers' compensation claims, they are generally associated with extensive absences and considerably higher benefit payments compared to all other workers' compensation claims (Safe Work Australia, 2018). Claims data indicates the median time off work for a mental disorder is 16 weeks, which is 2.9 times higher than the median time off work for all claims and the median payment is \$28,400, which is 2.6 times higher than the median payment for all claims (Safe Work Australia, 2018).

In addition to giving rise to workers' compensation claims, mental health issues in the transport and logistics industry have been shown to lead to unsafe behaviors and crashes (Carty et al., 1999; Lagarde et al., 2004; Legree et al., 2003; Norris et al., 2000; Westerman and Haigney, 2000). Rowden et al. (2011) found that daily hassles and job-related tension were positively related to psychological strain in transport workers. Psychological strain was, in turn, positively related to driving lapses, errors and road rule violations. Strahan et al. (2008) found job-related tension was positively related to fatigue-related driver behavior.

Thus, mental health is an important issue for research in the transport and logistics sector, particularly understanding the psychosocial factors that cause or contribute to the health and well-being of workers. Mooren et al., in their 2014 literature review on safety management in heavy vehicle transport, cited only one study considering specific psychosocial factors. Additionally, only a few studies cited considered the role of work pressures more broadly, emphasizing the gap in the literature and the importance of studying the role that psychosocial risk factors, such as role stressors, play in influencing psychosocial well-being. As such, there is a need for research investigating the relationship between role stressors and employee outcomes in Australian transport and logistics workers. The purpose of this study is to investigate whether the three role stressors, overload, conflict, and ambiguity, have additive or interactive effects in predicting employee outcomes in terms of their strain and morale.

#### 1.1. Role stressors and psychosocial health

Role theory, as described by Kahn et al. (1964), proposes that employees interact with different role senders (e.g., supervisors, coworkers, customers, members of the public) and, from these interactions, obtain information, direction, task instructions, requests, and assistance. Role senders make demands and place expectations on employees and this can take the form of perceived stressors when workers perceive that there is overload (in terms of demands), conflict (between demands), or ambiguity (about role requirements and expectations). In order to deal with such stressors, employees must exert effort to reduce overload, resolve conflict, and reduce ambiguity. High levels of these stressors overwhelm employees' resources to cope and have a negative impact on mental health and well-being. This is consistent with COR theory (Hobfoll, 2001), which proposes that individuals have a finite amount of resources and that strain may be brought about when they perceive a lack resources to deal with or manage the stressors they are exposed to (Hobfoll, 1989; Wright and Hobfoll, 2004). In the occupational stress literature, role overload, role conflict, and role ambiguity are three of the most prominently studied

role stressors, and there is a multitude of studies examining their consequences for transport and logistics workers.

#### 1.1.1. Role overload

Role overload occurs when employees have limited or insufficient time to complete job tasks and responsibilities, and arises from excessive workloads and difficult deadlines (Kahn et al., 1964; Ohly and Fritz, 2010). The increasing demand for 24-h and just-in-time deliveries, along with improvements in tracking and communications technology, greater traffic congestion, and ever increasing safety compliance requirements, has created high workloads and tight timeframes (de Croon et al., 2002). Indeed, time pressure from tightly planned schedules is a common form of role overload encountered by transport and logistics workers (Rydstedt et al., 1998). As such, it is well-established that role overload has a wide range of negative consequences for transport and logistics workers. For instance, role overload is positively related to psychological strain indicators in both drivers (Hung et al., 2012; Orris et al., 1997; Sluiter, 1999) and warehouse workers (Hoppe et al., 2010). For drivers, role overload also has implications for physical depletion and health in terms of sleep problems (Sluiter, 1999), fatigue (de Croon et al., 2002, 2004; Rydstedt et al., 1998), a greater need for recovery at the end of the workday (de Croon et al., 2004), psychosomatic complaints (Rydstedt et al., 1998), and high blood pressure (Greiner et al., 2004). Further, role overload has negative implications for job satisfaction in drivers (de Croon et al., 2002; Lobban et al., 1998) and warehouse and sales workers (Lobban et al., 1998), as well as organizational commitment in drivers (Hung et al., 2012), and turnover intentions (Hung et al., 2012) and actual turnover (de Croon et al., 2004) in drivers.

#### 1.1.2. Role conflict

Role conflict occurs when employees encounter incompatible pressures or demands simultaneously that cannot be reconciled (Rizzo et al., 1970). It reflects the degree to which employees are expected to perform two or more mutually exclusive tasks (Kahn et al., 1964). Inconsistent policies, inadequate resources and incongruent expectations often manifest in role conflict (Cordes and Dougherty, 1993; Singh et al., 1994). Boundary-spanning roles are those acting as a link between the organization and the wider environment through interactions with both internal and external stakeholders. Transport and logistics workers are often required to interface with management, customers, and health and safety legislators and inspectors. Thus, such workers are particularly susceptible to role conflict exposure, as they are required to satisfy incompatible demands from multiple role senders, while simultaneously complying with safety regulations (Bode et al., 2011; Boles et al., 1997; Kemp et al., 2013). Moreover, transport and logistics workers often face incompatible demands between 'getting the job done' and safety compliance. Empirical studies have shown that role conflict is positively related to job stress (irritation) and psychological strain in warehouse workers (Hoppe et al., 2010), emotional exhaustion in drivers (Kemp et al., 2013), and negatively related to job satisfaction in drivers, warehouse and sales workers (Lobban et al., 1998) and organizational commitment in drivers (Kemp et al., 2013).

#### 1.1.3. Role ambiguity

Role ambiguity occurs when an individual lacks sufficiently clear information about expectations or consequences of role performance (Kahn et al., 1964; Singh, 1993), experiences uncertainty with respect to job responsibilities, or perceives insufficient important job-related information (Rubino et al., 2009). Unclear or constantly changing specifications regarding expectations and duties also constitutes role ambiguity. Role ambiguity is considered to act as a hindrance to employees' ability to pursue their achievement goals at work (Gilboa et al., 2008; LePine et al., 2005). In transport and logistics settings, it has been argued that role ambiguity may be brought about by dealing with equipment malfunctions and safety hazards in the process of driving, Download English Version:

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