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Testing the Job Demands–Job Resources Model for Police Officer Job Burnout in a Sample of Indian Police Officers

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Abstract

Using the job demands–resources model, the association of job demands (dangerousness, role underload, role overload, role ambiguity, and role conflict) and job resources (instrumental communication, formalization, input into decision-making, views on training, and job autonomy) with the burnout dimensions of emotional exhaustion, depersonalization, and reduced sense of accomplishment was studied among of 827 police officers in the State of Haryana in India. Multivariate regression indicated that dangerousness, underload, ambiguity, and conflict were associated with higher emotional exhaustion, while input, training, and job autonomy were negatively related. Underload, ambiguity, and conflict were related to higher depersonalization, while overload, instrumental communication, training, and autonomy were related to lower levels. Ambiguity was linked with a reduced sense of accomplishment, while dangerousness, instrumental communication, and training had negative associations. Overall, the results support the job demands–resources model; however, curiously, overload was linked to lower depersonalization and dangerousness was linked to an enhanced sense of accomplishment. The implications for Indian police administrators are lower the significant job demands and raise the significant job resources to reduce job burnout among officers. What is not clear is if the results of the current and past studies apply to officers across the world or vary by nation/culture. The implication for police scholars is the need to conduct research among officers in a wide array of nations to help answer the question of which job demands and resources are universal in their association with the burnout dimensions and which ones are contextual, varying across nations.

Keywords Police · Law enforcement · Job demands–resources model · Job burnout · India

Officers are a valuable and important resource for police organizations everywhere. Officers carry out a wide array of duties and tasks to ensure organizational goals and objectives are met. Not only do officers affect the success (or failure) of a police agency, but workplace variables also affect officers. Policing is a unique occupation; it has features not frequently found in other organizations, and some of these features can cause high levels of demands and strain, which raise the chances of job burnout (Vuorensyrja & Malkia, 2011). No positive outcomes have been attributed to job burnout (Malach Pines & Keinan, 2005). Job burnout among police officers has been linked with poorer interaction with

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citizens, greater use of force, lower job performance, greater substance use, higher problems in home life, and increased anger and frustration (Kop et al., 1999; Malach Pines & Keinan, 2005; Martinussen et al., 2007; McCarty, 2013). Job burnout among police has also been reported to result in more absences from work, less involvement in prosocial behaviors (going beyond what is expected at work), lower life satisfaction, higher levels of health problems, and higher turnover intent and turnover (Burke, 1994; Kohan & Mazmanian, 2003; Malach Pines & Keinan, 2005; Martinussen et al., 2007; Vuorensyrja & Malkia, 2011). Job burnout should be reduced or avoided entirely, if possible. Ranta and Sud (2008) maintained that far more police officers are killed by work stress and burnout than by criminals.

Due to burnout's damaging outcomes, policing researchers have examined various variables that purportedly contribute to it. Evidence exists that some workplace variables are associated with burnout (Martinussen et al., 2007). While the limited past research on police burnout has provided valuable information, there is a need for additional research. Additional testing of a theoretical model is needed in order to understand how different groups of workplace variables relate to officer burnout. Testing theoretical models helps reveal work environment variables that specifically relate to burnout. Moreover, the vast majority of police burnout research to date has focused on personnel in Western nations, particularly the US. Far less research has explored the effects of workplace factors on police officer burnout in nonwestern nations. This oversight needs to be addressed, not only to add to the literature but also to help police officers who do a demanding job that helps protect others. There is a need to conduct research on burnout among police officers in a wide array of nations, including nonwestern nations, in order to help understand whether different workplace variables' associations with burnout are universal or situational and contextual, varying across nations. Cultural forces can play a role in how workplace factors affect employees (Kwantes, 2009). Understanding whether and how workplace factors vary in their relationships with job burnout across different cultures adds to the literature so police scholars and administrators can better understand what workplace changes result in improvements for staff outcomes. In other words, what differences depend on the location of the police agency? Officers across the globe are a valuable resource that needs to be protected. Their work experiences could be enhanced to the benefit of officers, citizens, and the community.

The current study examined the applicability of the job demands–job resources model to determine whether job demands and job resources have a relationship job burnout among Indian police. Job demands are workplace factors that make the job more challenging and impede officer success (Schaufeli & Taris, 2014), while job resource variables are workplace factors which help officers be more successful in their jobs and/or allow the job to be more pleasant, as well as buffering the more trying aspects of the job (Demerouti et al., 2001). The current study examined the job demands of perceiving the job to be dangerous, role underload, role overload, role ambiguity, and role conflict, while the job resources examined were instrumental communication, formalization, input into decision-making, views of training, and job autonomy. The current study explored the effects of the job demands–job resources model on job burnout among police officers from Haryana, India. The findings from this study can help not only Indian police administrators and scholars understand how workplace variables contribute (or not) to police burnout, but police scholars and administrators in other nations by presenting a more thorough and detailed understanding of whether the relationships are universal or are contextual.

Further research on police burnout in other nations is important. This study is not only replication of past studies, but it adds salient information on whether findings vary across different contexts. As noted by Lindsay and Ehrenberg (1993), "replication is little discussed in the statistical literature nor practiced widely by statistically minded researchers. It is needed not merely to validate one's findings, but more importantly, to establish the increasing range of radically different conditions under which the findings hold, and the predictable exceptions" (p. 217). As Jowell (1998) pointed out that "the importance and utility to social science of rigorous cross-national measures is incontestable. They help to reveal not only intriguing differences between countries and cultures, but also aspects of one's own country and culture that would be difficult or impossible to detect from domestic data alone" (p. 168). The Republic of India (henceforth, India) is the world's most populous democracy and is a dynamic emerging nation increasingly assuming a more prominent role on the world stage (Unnithan, 2009). Even though India is highly populated with a growing and vibrant economy, little has been published in Western journals concerning Indian police officer burnout. This exploratory study was, therefore, undertaken using data from officers in two police districts in the Indian state of Haryana.

Literature Review

Job Burnout

Job burnout has received considerable recognition in the last five decades. First coined by Freudenberger (1974), it was defined as a psychological disorder triggered by chronic exposure to work stress. One of the most widely accepted and dominant conceptualizations is that burnout is a three-dimensional syndrome that expresses burnout as emotional exhaustion (feelings of being emotionally fatigued and

drained by others), depersonalization (exhibiting dehumanized and cynical attitudes toward people who are recipients of one's services) and reduced personal accomplishment (decline in one's feeling of competence and successful achievement in work) (Maslach & Jackson, 1981). Service-oriented occupations that require working with others and responding to the client's demands seem especially prone to burnout, and policing is a human services occupation requiring extensive working with others.

A Brief Review of Selected Studies of the Predictors of Police Burnout

Research validates that policing is a highly stressful occupation (Queiros et al., 2020). Research also suggests that police personnel are highly susceptible to developing psychological strain, which can lead to job burnout. Over the years, several studies have identified dynamic workplace stressors associated with burnout among police officers. Based on previous empirical findings, police stressors are viewed as operational and organizational stressors (Shane, 2010). Operational stressors are associated with policing job-related work and duties. Past research has established a positive link between some policing tasks and responsibilities and burnout, such as exposure to critical incidents (Gershon et al., 2009, found increase job strain), perceived dangerousness of the job (McCarty & Skogan, 2012, who found no significant connection between dangerousness and burnout among US officers), adverse work exposures (i.e., shootings and bloody crime scenes) (McCarty et al., 2007, who found a significant association with burnout among US male officers), threats of violence (Vuorensyrja & Malkia, 2011, who found a negative association with burnout among Finnish officers), use of force (Dowler, 2005, who found a positive association with burnout among US officers; Kop & Euwema, 2001, who observed significant relationships with emotional exhaustion and depersonalization but not feelings of personal accomplishment among Dutch officers), and dealing with victims of crime (Morabito et al., 2020, who reported a positive association with burnout for US police detectives).

Organizational stressors are associated with attributes of the organization and its practices. Organizational stressors are a greater source of stress for police officers than operational stressors; however, they are less well studied (Violanti et al., 2017). Organizational practices, such as rule inflexibility (Gaines & Jermier, 1983, who reported a positive association with emotional exhaustion among US officers), unfair promotions and treatment (Gershon et al., 2009, who found a positive relationship with job stress among US officers; McCarty & Skogan, 2012, who found a positive relationship with an overall measure of burnout among US officers), and time pressures and deadlines (Vuorensyrja & Malkia, 2011, who observed a significant relationship with an overall measure of burnout among Finnish officers) have all been linked to burnout. Additionally, role stressors of role conflict (Vuorensyrja & Malkia, 2011, who observed a significant relationship with an overall measure of burnout among Finnish officers), role ambiguity (Kwak et al., 2018, who found significant associations with depersonalization and reduced sense of accomplishment but a nonsignificant association with emotional exhaustion among South Korean officers), and role overload (Suresh et al., 2014, for Indian officers found job demands were linked to burnout) are positively associated with burnout, as is work–family conflict (Lambert et al., 2019, who found that the effects of the four types of work–family conflict varied with the three burnout dimensions among Indian police; McCarty & Skogan, 2012, who found a positive link between an overall work–family conflict measure and an overall burnout measure among US officers). Besides these stressors, which are also referred to as job demands, there is growing evidence that factors that represent job resources contribute to reducing levels of police burnout. In fact, job resources have been observed to serve as protective factors against job-related strain and are linked to beneficial health outcomes among police personnel in Germany (Santa Maria et al., 2020). The job resources of social support (Martinussen et al., 2007, who found a positive relationship of social support with emotional exhaustion, depersonalization, and a reduced sense of accomplishment among Norwegian police officers; Zeng et al., 2020, who observed a negative association with support and a composite burnout measure for Chinese officers), defective leadership (Vuorensyrja & Malkia, 2011, who reported a positive relationship with burnout for Finnish officers), job control (Bhowmick & Mulla, 2016, who found job control had a significant negative association with emotional exhaustion but was a nonsignificant predictor of depersonalization and a reduced feeling of personal accomplishment burnout among Indian officers), trust (Dowler, 2005, who reported trust in partner officer was inversely related to overall burnout among US officers), job meaning (Gong et al., 2021, who found job meaning, a part of job empowerment, to be negatively associated with the three dimensions of burnout among Chinese officers), and job rewards (Santa Maria et al., 2020, who found a positive relationship with an overall burnout measure among German officers), have been reported to be linked to officer job burnout. The review of past studies is not exhaustive; numerous other studies have explored how workplace variables are linked to different measures and dimensions of job burnout for police officers across different nations. This brief review simply illustrates that workplace variables appear to be associated with police officer job burnout and that job demands tend to be related to greater levels of different dimensions of burnout and job resources to be associated with lower levels of burnout for officers. Nonetheless, there is need for additional research.

First, empirical research supports the idea that workplace factors play a role in burnout for police officers across different nations. Second, very few studies have examined how workplace variables affect the three dimensions of burnout among the same group of officers. Knowing how workplace variables affect the three dimensions of burnout would be important information for police administrators and scholars, in order to develop and institute efforts to reduce each dimension of burnout for officers. Third, the majority of the past research has focused on Western officers. It is important to conduct research on officers in different nations to determine whether the associations of specific workplace variables are universal or are contextual (i.e., varying by nation). Fourth, no previous research study fully tested the job demands–job resources model in explaining the three dimensions of job burnout among Indian police officers. The current study explored the relationships of the job demand variables of perceived dangerousness of the job, role underload, role overload, role ambiguity, and role conflict, and relationships of the job resource variables of instrumental communication, formalization, input into decision-making, views of training, and job autonomy on the burnout dimensions of emotional exhaustion, depersonalization, and a reduced sense of accomplishment at work among Indian police officers from State of Haryana.

Job Demands–Job Resources Model and Hypotheses

Demerouti et al. (2001) developed the job demand–resource model, which acts as an overarching model with a wide array of applications across all job-related settings, irrespective of the job-specific demands and resources. Building on the notion that every career has its specific risk factors associated with job stress, Demerouti et al. (2001) categorized these factors into two broad factors: job demands and job resources. Job demands were defined by Demerouti et al. (2001) as "those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" (p. 501). Job resources refer to "those physical, psychological, social, or organizational aspects of the job that are either/or: (a) functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; and (c) stimulate personal growth, learning, and development" (Demerouti et al., 2001, p. 501).

According to the job demands–resources model, the interaction between job demands and job resources plays a major role in the development of job strain, which, in turn, is linked to raised chances of job burnout (Bakker & Demerouti, 2007). Bakker and Schaufeli (2000) noted that prolonged exposure to job demands raises psychological strain (which, in turn, heightens the level of burnout). Job resources, on the other hand, aid employees in pursuing their jobs productively and make them feel appreciated in the workplace (Hu et al., 2011). In contrast, lack of job resources can become a job demand in itself, leading to higher psychological strain (Schaufeli & Taris, 2014). As job demands and resources (and their associations) can vary across occupations and nations, testing the relationships of different job demands and resources in organizations in various nations is important. As noted by Schaufeli and Taris (2014), "the job demands-resources model does not restrict itself to specific job demands or job resources. It assumes any demand and any resource may affect employee health and well-being" (p. 44). Likewise, Demerouti and Bakker (2011) asserted "that every occupation has its own specific risk factors associated with work-related stress. These factors can be classified in two categories (i.e., job demands and job resources), thus constituting an overarching model that may be applied to various occupational settings, irrespective of the particular demand and resources involved" (p. 2). The job demands–resources model provides the theoretical framework for why workplace demands and resources would be associated with job burnout among police officers (Bakker & Demerouti, 2007; Demerouti & Bakker, 2011). For the current study, the job demand variables were perceived dangerousness of the job, role underload, role overload, role ambiguity, and role conflict, and job resource variables were instrumental communication, formalization, input into decision-making, views of training, and job autonomy.

Dangerousness of the job refers to perceptions that the job poses a risk to the well-being of the person and that injury is possible (Cullen et al., 1985). There are certain risks inherent to policing, regardless of nation. Officers are sometimes required to deal with uncooperative individuals who may be assaultive. Fear of being injured on the job can cause psychological strain, which, over time, may trigger emotional exhaustion, depersonalization, and a reduced sense of work accomplishment among police officers. While not specifically studied in past research among Indian officers, this job demand was hypothesized to have positive associations with the three burnout dimensions.

Role underload occurs when a worker is given too little work to do (Melamed et al., 1995). Not enough work can result in boredom and tedium, leading to a lack of mental stimulation for police officers regardless of nation. In the end, role underload can result in psychological strain, raising levels of emotional exhaustion, depersonalization, and a reduced sense of work accomplishment. Indian officers without sufficient work tasks are likely to feel psychological tedium. Role underload was postulated to have positive relationships with the three job burnout dimensions among Indian police officers.

Role overload occurs when too many work tasks are required during a limited time period or when equipment or resources are not sufficient to accomplish the assigned work (Lambert et al., 2005). Officers are sometimes required to handle situations involving multiple issues at once. Feeling overwhelmed at work can hinder the successful completion of the job and is more likely to result in feeling rushed and strained (Schaufeli & Bakker, 2004). There is a shortage of officers in the surveyed area, and religious and caste disturbances have led to increased work demands for the surveyed Indian police officers. Role overload was predicted to have positive relationships with Indian police officer emotional exhaustion, depersonalization, and a reduced sense of work accomplishment.

Role ambiguity occurs when there is a lack of clarity concerning job expectations and how to perform duties (Rizzo et al., 1970). Role ambiguity is a job demand in that makes the job more difficult, which, in turn, enhances the psychological strain felt from work (Schaufeli & Taris, 2014). Regardless of nation, this work demand is theorized to make the job more difficult, which, in turn, likely raises the level of psychological strain felt by a police officer. In the end, this job demand was expected to increase Indian police officer emotional exhaustion, depersonalization, and a reduced sense of work accomplishment.

Role conflict occurs when directions or expectations are inconsistent with one another (Rizzo et al., 1970). For officers across the globe, being provided conflicting directions and expectations likely makes the job more difficult, increasing the level of frustration and strain. Likely, role conflict makes the job difficult for the surveyed Indian officers. As a job demand, role conflict was expected to be associated with higher levels of emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment at work for Indian police officers.

Instrumental communication refers to the perception that salient information concerning tasks, equipment, procedures, expectations, and organizational issues is received (Price & Mueller, 1986). This information is a job resource, because it can aid officers in doing their jobs and help them be more successful at work. It also sends a message that the police organization values and respects the officer. While not previously studied in Indian police burnout research, this job resource is likely sought by Indian officers, because it should increase successful job outcomes, giving an officer a greater sense of accomplishment and pride. As such, instrumental communication was predicted to decrease all three dimensions of job burnout among the surveyed Indian police officers.

Formalization refers to the extent to which written rules, policies, and procedures are created and used within an organization (Pandey & Scott, 2002). This job resource provides officers with directions, guidance, and structure in doing their jobs. This job resource generally results in a greater sense of confidence and a positive psychological state of mind. While not previously studied in burnout research involving Indian officers, this job resource was theorized to aid officers in doing their work, reducing the level of tension they experienced. As such, perceptions of formalization were postulated to decrease emotional exhaustion, depersonalization, and reduced sense of personal accomplishment on the job among police officers surveyed in India.

Input into decision-making refers to perceptions that employees have a say in salient organizational matters (Price & Mueller, 1986). Feeling that one has a voice in organizational matters is likely to allow the person to feel that they are respected and valued. In addition, this job resource allows officers a voice in the organization and can help them be more successful at their jobs. While not always done, Indian police officers allowed a voice in the organization may use this resource to reduce other job demands, this reducing the level of psychological strain. As such, perceptions of input were postulated to decrease emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment on the job.

Views that quality training is provided can provide officers with greater job confidence, as well as provide them with the skills for better job performance (Lambert et al., 2009). Additionally, a perception that the police organization has provided quality job training can be interpreted as being respected and valued. Perceiving quality training should provide Indian police officers with greater confidence to do the job well. In turn, this should result in the job being more enjoyable with reduced psychological strain. In the end, this job resource was postulated to decrease the level of emotional exhaustion, depersonalization, and reduced sense of accomplishment on the job for the surveyed Indian police officers.

Job autonomy is the degree of control officers feel they have in terms of their job duties, how they are done, and in what order (Ross & Reskin, 1992). Job autonomy provides flexibility for officers regardless of nation. This job resource also sends a message that the organization trusts the officer. Allowing Indian police officers, who sometimes have to deal with a wide range of complex situations, a certain amount of flexibility should make them more successful at the job and lead them to appreciate how much the organization appreciation trusts them. This should improve positive psychological feelings resulting from the job and lower negative ones. While not previously studied among Indian officers in terms of burnout, job autonomy was hypothesized to decrease all three burnout dimensions for the surveyed police officers.

Brief Overview of Indian and Haryana Police

The British, due to their control of India during its British colonial history, heavily influenced current Indian policing. The British introduced the use of formal policing to control the indigenous Indian population (Raghavan, 1999). After independence from Britain in 1947, several police administration changes were introduced (Shah, 1999).

India is a federal republic comprised of 28 states and 8 union territories (areas governed by the federal government). Although India's federal government maintains several specialized central law enforcement agencies (e.g., Border Security Force and Central Bureau of Investigations), the 28 state police agencies perform the vast majority of police services (Dhillon, 2011; Lambert et al., 2015). States hire and train most officers, except for top police administrators. As the federal government has the power to hire, train, appoint, and remove top police administrators, who are called Indian Police Service Officers (Raghavan, 1999), the central government retains some control (Lambert et al., 2015).

Policing in India can be a very demanding occupation (Lambert et al., 2016, 2018). Kaur et al. (2013) asserted that policing is one of the most challenging and stressful occupations in India. There is a shortage of police officers in many areas, which often leads to overwork; many officers work 10-h shifts and are often called into work on days off (Ranta & Sud, 2008). Police neither are unionized nor subject to collective bargaining agreements, as is the case in some other nations, such as the US (Lambert et al., 2015). Indian police officers must often work in unpleasant conditions, such as hot and humid weather, and frequently must navigate political pressures in the workplace (Bano, 2011). Public disturbances based on religious or caste differences occur, which the police try to end, which sometimes involves violence and the use of force (Lambert et al., 2016, 2018). Police relations with the public can often be strained because some Indian citizens feel that the Indian police are more motivated to serve the wealthy and powerful instead of the general public (Nalla & Madan, 2012). Tyagi and Dhar (2014) noted that being an Indian police officer is a unique and trying experience. Similar to other nations, the typical Indian police officer faces many challenges (Kumar & Narula, 2020). As such, exploring how job demand and resource variables are associated with burnout in Indian officers is important, so that police scholars and administrators have the information they need to make informed decisions concerning changes to working conditions to reduce levels of burnout. The surveyed officers in this study worked in a district in the State of Haryana, and these officers face the same challenges faced by many other Indian officers.

Haryana, a state in northern India, has a population of 25.4 million people, who live in 17,070 square miles (Indian Census, 2012). Even though this state makes up a small portion of India's total land area (1.4%), it has one of the fastest-growing populations in the nation. Haryana is adjacent to the national capital of New Delhi and is considered a relatively well-developed state (Census 2011.co.in, 2015). The motto of the Haryana police is *sewa suraksha sahyog* (service, security, and cooperation) (Sehrawat, 2017). The Haryana Police, headed by a Director General of Police, is a force of approximately 57,000 officers and is divided into 22 districts (Haryana Police, 2020). Each district unit maintains the same responsibilities of patrol, traffic, security, investigation, and intelligence gathering. The data for the current study were obtained from Haryana police force officers assigned to the Sonipat and Rohtak districts—approximately 1500 officers from the Rohtak district, and 1500 officers from the Sonipat district. Nearly 2.5 million people live in these two districts (Haryana Police, 2020). Most newly hired individuals start at the rank of constable, which is line position with no supervision of other officers; however, constables can be promoted. The next rank is head constable, which is like corporal or sergeant in other nations. After head constable are the ranks of Assistant Sub Inspector, who oversees an outpost (like substation in other nations) and Sub Inspector (similar to lieutenant in other nations). Above these ranks is the position of Inspector, who often oversees a police station and is similar to police or precinct captain. Only these ranks were included in the current study. No higher ranked officers, such as police administrators, were surveyed.

Method

Participants

Human subjects' approval for this study was obtained from an institutional review board. The data for this study are from a survey of officers who were assigned to the Rohtak and Sonipat districts of police force in the Haryana State of India. These districts were selected because one of the authors had access to the areas and had a successful prior relationship with Haryana police agency overall and with the police force in these two districts. At the time of the survey, each of the two selected districts had about 1500 officers each assigned, or 3000 officers in total. The two districts served a total population of about 2.5 million (Haryana Police, 2020).

A questionnaire was developed based on past police research. The back method of translation was used where the questionnaire was translated into Hindi, the national language of India, and then a second scholar translated the survey back into English to determine whether there were any translation problems. The questionnaire was first pilot tested among Indian police officers, including police

administrators. Any issues noted were corrected. Using systematic random sampling, the data were collected from a questionnaire that was distributed to 1000 of the 3000 officers in the Rohtak and Sonipat districts. A list of the officers assigned to these two districts was used where the first officer was selected and then every third officer on the list was selected until a sample of 1000 officers was obtained. The selected officers received a packet that contained the cover letter, the consent form, the questionnaire, and a return envelope. This packet was given out during roll calls. The cover letter explained the nature of the study, indicated that participation was voluntary, and that responses would be anonymous. Officers took the questionnaire at a time and location of their choice. Material could be returned in a provided unmarked envelope and access to these envelopes was only available to a member of the research team. A total of 827 questionnaires were returned, which was a response rate of approximately 83%. This relatively high response rate was attributed to two reasons. First, one of the authors had a positive past relationship with the Haryana overall and with the two selected districts. Second, officers were encouraged to be part of the study and officers were informed that the information to be obtained from the study would benefit the Haryana police in particular and the police agencies around the world in general. Based on personnel records, the participants appeared to be representative of the overall population of officers in terms of the demographic characteristics of age, gender, tenure, and position.

Variables

Dependent Variables

The burnout dimensions of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment at work were the dependent variables. The burnout items were adapted from Wright and Saylor (1991), and responses were summed to form individual indexes of each burnout dimension. See the "Appendix" for burnout items and their response options. The burnout dimension of emotional exhaustion was measured using four items and had a Cronbach's alpha value of 0.71. Depersonalization was measured using seven items, and these items had a Cronbach's alpha value of 0.75. A reduced sense of personal accomplishment at work was measured using six items and had Cronbach's alpha of 0.69. A factor analysis using principal axis factoring with varimax rotation revealed that the items loaded on the predicted factors, indicating convergent validity and unidimensionality. All the factor loading scores were 0.50 or higher (see "Appendix" for the factor loading scores). The general rule of thumb is to use factor loading scores of at least 0.40 or higher, and those above 0.50 are viewed as good (Kim & Mueller, 1978).

Importantly, there is no single agreed upon method to measure burnout. In a recent review of 51 police burnout studies, Queiros et al. (2020) reported that fourteen different measures were used to measure burnout. The most common (32 studies) was the Maslach Burnout Inventory, followed by the Oldenberg Burnout Inventory (5 studies) (Demerouti & Bakker, 2008). The remaining burnout measures were used by one or two studies. We used the Wright and Saylor's (1991) burnout measures for two reasons. First, while the Maslach Burnout Inventory is commonly used, there is a per survey fee associated with it, and we had limited financial resources. Saylor and Wright's items are available at no cost, and, while possessing fewer items, are similar to those found in the Maslach Burnout Inventory. Furthermore, Saylor and Wright's items also measure all three burnout dimensions proposed by Maslach and Jackson (1981), which we wished to test, whereas the Oldenberg Burnout Inventory (Demerouti & Bakker, 2008) only measures the burnout areas of emotional exhaustion and work disengagement. Further, the items from Wright and Saylor (1991) appear to have face validity. Nonetheless, we note that not using the Maslach Burnout Inventory is a limitation, particularly in comparing the current findings to past results. As this was an exploratory study to explore how various work demands (e.g., perceived dangerousness of the job, role underload, role overload, role ambiguity, and role conflict) and job resource variables (e.g., instrumental communication, formalization, input into decision-making, views of training, and job autonomy) affected the burnout dimensions of emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment, we decided to proceed.

Independent Variables

The independent variables of focus were the five job demands and the five job resource variables. The items used to measure the job demands and job resources can be found in the "Appendix". All of the items for the job demand and job resource items were entered into a factor analysis and loaded on the predicted factor with factor loading scores higher than .40 (Kim & Mueller, 1978). The factoring loading scores for each item can also be found in the "Appendix".

Perceiving the job as dangerousness was measured using four items from Cullen et al. (1985), and these items has a Cronbach's alpha of .67. The items for role underload (2 items), role overload (2 items), role ambiguity (2 items), and role conflict (4 items) were adapted from Triplett et al. (1996). The role conflict items had a Cronbach's alpha of .69. As there were only two items apiece for role underload, role overload, repetitiveness, and role ambiguity, no Cronbach's alphas were calculated (Eisinga et al., 2013). One of the reasons for using a limited number of items was to keep the survey to a manageable length. The use of two items

each to measure role underload, role overload, repetitiveness, and role ambiguity is a limitation.

An index for perceived instrumental communication was created using five items adapted from Curry et al. (1986). The index had a Cronbach's alpha of .90. The perceptions of formalization variable were measured using two items from Oldham and Hackman (1981). Input into decision-making was measured using a three-item index adapted from Lambert and Hogan (2009) and had a Cronbach's alpha of .71. Views that meaningful training was provided was measured using two items adapted from Lambert et al. (2009). Job autonomy was measured using two items from Curry et al. (1986). The items for training and job autonomy loaded on the predicted factor in factor analysis. As they had only two items, Cronbach's alphas were not calculated for formalization, training, and autonomy (Eisinga et al., 2013). As noted earlier, using limited items to measure formalization, training, and job autonomy was due to the need to keep the length of the survey to a manageable length to encourage officers to complete it and is a limitation.

The selected items were pilot tested among officers, including police supervisors and administrators, to ensure they accurately measured the latent concepts as intended. The use of limited items to measure some latent concepts is a limitation, which the authors hope future research will address. Finally, the demographic characteristics of gender, age, position, district, tenure, and educational level were included more as control variables than explanatory variables in this study. See Table 1 for how these personal characteristic variables were measured and coded.

Table 1 Univariate statistics of study variables

Variable	Description	Min	Max	Med	Mean	SD
Personal chars						
Gender	88% male (coded 1) 12% female (coded 0)	0	1	1	0.88	0.33
Age	Age in years	21	57	34	36.53	9.46
Position	69% line officer (coded 1) 31% other position (coded 0)	0	1	1	0.69	0.46
District	50% Rohtak District (coded 1) 50% Sonipat District (coded 0)	0	1	0.5	0.50	0.50
Tenure	Tenure in years at agency	0	39	11	13.81	9.20
Ed level	42% college degree (coded 1) 58% no college degree (coded 0)	0	1	0	0.42	0.49
Job demands						
Dangerousness	4-item additive index, α = .67	4	20	15	14.44	3.33
Role underload	2-item additive index	2	10	4	4.77	1.76
Role overload	2-item additive index	2	10	8	7.35	1.74
Role ambiguity	2-item additive index	2	10	5	5.26	1.73
Role conflict	4-item additive index, α = .69	4	20	12	11.89	3.18
Job resources						
Instrumental com	5-item additive index, α = .90	5	25	17	17.37	5.29
Formalization	2-item additive index	2	10	7	6.76	1.83
Input into DM	3-item additive index, α = .71	3	15	11	10.66	2.18
Training	2-item additive index	2	10	7	7.04	1.98
Job autonomy	2-item additive index	2	10	6	5.64	1.87
Dependent vs emotional	4-item additive index, α = .71	4	19	10	10.23	3.29
Depersonalization	7-item additive index, α = .75	7	29	15	15.61	4.84
Accomplishment	6-item additive index, α = .69	6	30	13	13.33	3.47

Min stands for minimum value, Max for maximum value, Med for median value, Mean for mean value, SDev for standard deviation value, Personal Chars for personal characteristics, Ed Level for educational level, Dangerousness for perceiving the job as dangerousness, Instrumental Com for instrumental communication, Input into DM for input into decision-making, Training for views of training, Dependent Vs for dependent variables, Emotional for emotional exhaustion burnout, Depersonalization for depersonalization burnout, Accomplishment for reduced sense of personal accomplishment burnout, and α for Cronbach's alpha, a measure for internal reliability. Position measured if the officer was a supervisor of other officers or not. Those coded as 1 held the rank of constable (i.e., line officer) and did not supervise other officers. Those coded 0 supervised other officers and held the ranks of head constable, Assistant Sub Inspector, Sub Inspector, and Inspector. The total number of participants was 827

Results

The descriptive statistics for the variables are presented in Table 1. None of the variables were constants (i.e., there was variation in all the variables). The data conformed approximately to a normal distribution. Further, the median and mean values for the variables are like one another, also suggesting a normal distribution. All the alpha values were above .60, which is the rule of thumb cut-off point (Gronlund, 1981). As noted above, the factor analysis results suggested unidimensionality of the items for the latent concepts.

A correlation matrix for the variables is reported in Table 2, and pairwise deletion was used for missing cases. For all three dimensions of burnout, none of the personal characteristics had statistically significant correlations. Role underload, role ambiguity, and role conflict each had significant positive correlations with the three burnout dimensions. Dangerousness had a positive significant correlation with emotional exhaustion and significant negative correlations with depersonalization and reduced sense of accomplishment, which surprisingly means an increase in feeling at risk on the job resulted in lower reported depersonalization of others. Role overload had a nonsignificant correlation with emotional exhaustion and had negative correlations with the other two burnout dimensions. In other words, surprisingly, rises in role overload were associated with lower emotional burnout and lower levels of feeling ineffective at work. Formalization and training views each had significant negative correlations with the three burnout variables, which means a growth in perceptions of formalization and/or training were related to lower perceptions of emotional exhaustion, depersonalization, and feeling ineffective at work. Instrumental communication was negatively correlated with emotional burnout and reduced accomplishment burnout, which means that higher levels of this job demand were associated with lower emotional exhaustion and a reduced level of feeling ineffective. Instrumental communication had negative correlations with emotional burnout and reduced accomplishment burnout, which means that higher levels of this job demand were linked to lower emotional exhaustion and a reduced level of feeling ineffective. On the other hand, instrumental communication had a nonsignificant correlation with depersonalization. Increases in input into decision-making were associated with a decline in the level of emotional exhaustion but had nonsignificant correlations with the other two burnout dimensions. Job autonomy had a significant negative correlation with depersonalization, which means greater job latitude and input on the job was associated with being less callous and impersonal to citizens and fellow officers. Job autonomy, however, had nonsignificant correlations with emotional exhaustion and a reduced sense of accomplishment at work.

Ordinary least squares (OLS) regression equations were estimated with emotional exhaustion, depersonalization, and reduced sense of personal accomplishment as the dependent variables. The independent variables in each of the OLS equations models were the personal characteristics, job demands, and job resources. Listwise deletion was used for the missing responses in the multivariate analyses. To meet the power of analysis, there should ideally be at least 20 cases (participants) and no less than 10 cases for each independent variable (Berry, 1993; Tabachnick & Fidell, 2013). Thus, with 16 total independent variables, there should be 320 cases (and no less than 160). This criterion was met, even with listwise deletion, in the current study. With listwise deletion, the numbers of participants in the emotional exhaustion, depersonalization, and reduced sense of personal accomplishment regression equations were 657, 655, and 652, respectively. The OLS regression results are reported in Table 3. Multicollinearity is seen as a problem when Variance Inflation Factor scores (VIF) exceed 5 (Tabachnick & Fidell, 2013). The VIF scores are reported in Table 3. As the highest VIF score was 2.18, multicollinearity was not viewed as a problem. The issues of outliers, influential cases, normality, linearity and homoscedasticity of residuals, and independence of errors in the regression analysis were also tested (Berry, 1993; Tabachnick & Fidell, 2013).

For the emotional exhaustion equation, the R^2 value was .32, which meant that the independent variables accounted for approximately 32% of the observed variance in the dependent variable. None of the personal characteristics had a statistically significant association with the dependent variable. Role overload had a nonsignificant association while the other job demand variables had statistically significant positive relationships with this dimension of burnout. Greater perceptions of the job as dangerous, role overload, role ambiguity, and role conflict were associated with greater emotional exhaustion for officers. Among the job resource variables, input, view of training, and job autonomy had significant positive relationships, which meant an expansion in any of these variables resulted in lower levels of report emotional exhaustion. Instrumental communication and formalization had nonsignificant relationships with this dependent variable. Based on the standardized regression coefficients (see β column), the significant independent variables can be ranked on the magnitude of the relationship with the dependent variable. Other than dangerousness, which had a similar-sized association, the significant job demand variables had a twice or larger relationship on emotional exhaustion than did the job resource variables.

The independent variables explained approximately 45% of the observed variance in the depersonalization variable. Among the personal characteristics, only age and tenure were significant predictors. Rises in either were associated with greater levels of depersonalization. Dangerousness

Table 2 Correlation matrix of study variables

Var	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1.00																	
2	.20**	1.00																
3	− .11**	− .68**	1.00															
4	− .06	− .05	.10**	1.00														
5	.01	.69**	− .14**	.06	1.00													
6	− .17**	− .32**	.18**	− .15**	− .11**	1.00												
7	.03	− .07*	.05	.19**	− .06	− .01	1.00											
8	.02	.04	− .03	− .02	− .04	− .06	− .07	1.00										
9	.03	− .11**	.09*	.13**	.02	.03	.36**	− .21**	1.00									
10	.10**	− .09*	.04	.04	− .01	.02	.02	.07	.05	1.00								
11	.08*	− .11**	.05	.14**	− .04	.02	.17**	.22**	.18**	.35**	1.00							
12	− .07*	.11**	− .12**	− .25**	.06	− .04	− .08*	− .08*	− .08*	− .30**	− .44**	1.00						
13	.02	.14**	− .10**	− .16**	.05	− .02	− .14**	− .04	− .05	− .40**	− .28**	.32**	1.00					
14	.04	.11**	− .07	− .05	.04	− .04	− .08*	.10**	.00	− .11**	.01	.04	.16**	1.00				
15	.02	.07	− .07*	− .01	− .02	− .01	− .15**	− .12**	.01	− .32**	− .19**	.21**	.12**	− .02	1.00			
16	− .04	.07*	− .04	− .11**	.00	.04	− .20**	− .22**	− .24**	− .20**	− .14**	.21**	.08*	.06	.13**	1.00		
17	.03	.03	.01	.04	.02	− .01	.08*	.30**	− .02	.41**	.42**	− .22**	− .17**	− .08*	− .26**	− .01	1.00	
18	− .03	.04	− .04	− .04	.06	− .03	− .12**	.45**	.19**	.35**	.33**	− .07	− .13**	.04	− .26**	− .18**	.53**	1.00
19	.08	.01	.00	.03	.00	− .01	− .24**	.13**	− .12**	.33**	.12**	− .32**	− .20**	− .07	− .36**	− .01	.27**	.26**

Var = variable, 1 = gender, 2 = age, 3 = position, 4 = district, 5 = tenure, 6 = educational level, 7 = dangerousness of the job, 8 = role underload, 9 = role overload, 10 = role ambiguity, 11 = role conflict, 12 = instrumental communication, 13 = formalization, 14 = input into decision-making, 15 = views of training, 16 = job autonomy, 17 = emotional exhaustion burnout, 18 = depersonalization burnout, and 19 = reduced sense of personal accomplishment. See Table 1 for a description of the variables and how they were coded. The total number of participants was 827 but with pairwise deletions the number of cases for correlations ranged from 743 to 823

*$p \leq .05$, **$p \leq .01$

Table 3 Ordinary Least Squares (OLS) regression results for police officer job burnout

Variable	Emotional exhaustion Burnout				Depersonalization burnout				Reduced sense of personal Accomplishment burnout			
	B	SE	β	VIF	B	SE	β	VIF	B	SE	β	VIF
Personal chars												
Gender	− .16	.34	− .02	1.10	− .68	.46	− .05	1.10	.53	.37	.05	1.02
Age	.01	.02	.04	2.16	.05	.02	.09*	2.16	.00	.02	.00	2.18
Position	.23	.32	.03	1.88	.29	.42	.03	1.87	− .16	.35	− .02	1.90
District	− .14	.24	− .02	1.19	− .16	.32	− .02	1.19	.03	.26	.01	1.19
Tenure	.06	.04	.05	1.07	.13	.05	.07*	1.07	.00	.04	.00	1.07
Educational level	.00	.24	.00	1.20	.26	.32	.03	1.21	− .14	.26	− .02	1.21
Job demands												
Dangerousness of job	.08	.04	.08*	1.32	− .07	.05	− .05	1.32	− .20	.04	− .19**	1.32
Role underload	.36	.07	.20**	1.23	.88	.09	.32**	1.23	.08	.07	.04	1.25
Role overload	− .10	.07	− .05	1.26	− .24	.10	− .09**	1.26	− .04	.08	− .02	1.27
Role ambiguity	.65	.08	.34**	1.49	.93	.10	.32**	1.48	.36	.08	.18**	1.49
Role conflict	.26	.04	.24**	1.47	.46	.06	.29**	1.46	− .07	.05	− .06	1.47
Job resources												
Instrumental comm	.00	.02	.00	1.44	− .16	.03	− .17**	1.44	− .16	.03	− .24**	1.44
Formalization	.13	.07	.07	1.40	.14	.10	.05	1.40	− .08	.08	− .04	1.40
Input into DM	− .13	.05	− .09**	1.07	.02	.07	.01	1.07	− .10	.06	− .06	1.06
Views of training	− .17	.06	− .10**	1.24	− .30	.08	− .12**	1.24	− .40	.07	− .23**	1.23
Job autonomy	− .18	.06	− .10**	1.22	− .43	.09	− .17**	1.22	.08	.07	.04	1.23
F value/R^2	18.61**/.32				32.61**/.45				14.73**/.27			

See Table 1 for a description of the variables and how they are coded. B represents the unstandardized coefficient, SE for the standard error of the regression slope, β the standardized coefficient, and VIF for variance inflation factor, a measure of multicollinearity. Personal Chars stands for personal characteristics, Instrumental Comm for instrumental communication, and Input into DM for input into decision-making. The total number of participants was 827. Listwise deletion was used, and the number of cases was 657 for emotional exhaustion, 655 for depersonalization, and 652 for reduced sense of personal accomplishment

*$p \leq .05$, **$p \leq .01$

had a nonsignificant association. Greater role conflict was related to greater depersonalization treatment of others. Similarly raised levels of role underload and role ambiguity were linked to heightened depersonalization. Interestingly, increases in role overload were associated with lower levels of reported engagement in depersonalization of others. Formalization and input were nonsignificant predictors. Instrumental communication, views of training, and job autonomy had significant negative relationships with depersonalization, which meant greater amounts of these job resource variables were related to lower levels of depersonalization among the surveyed officers. Based on the standardized regression coefficients, role overload and role ambiguity had the largest sized coefficients, followed closely by role conflict. Instrumental communication and job autonomy had the fourth and fifth largest sized association, followed closely by views of training which had the sixth largest sized association. Role overload had the smallest sized relationship among the significant variables on depersonalization.

About 27% of the variance of reduced sense of personal accomplishment at work were accounted by the independent variables as a group. None of the personal characteristics were significant predictors. Among the job demand variables, only perceived dangerousness of the job and role ambiguity had significant associations. Increases in feeling the job was dangerousness and rises in role ambiguity both were related to higher levels of feeling ineffective at work. Among the job resource variables, only instrumental communication and views of training were significant predictors and both had negative associations, which meant greater levels of these two job resources were linked to a reduction in a feeling of reduced accomplishment on the job. Based on standardized regression coefficients, the significant job demand and job resource variables had similar-sized associations on reduced sense of personal accomplishment on the job, with the job resource variables having slightly larger sized relationships with this dependent variable.

Discussion and Conclusion

Overall, the current results support the job demands–resource model for explaining job burnout among the surveyed officers. In general, job demands appear to raise the level of job burnout dimensions and job resources appear to reduce burnout dimensions. The current results indicate that Indian police administrators need to be aware of job demands and job resources. It is important to note that the relationships between specific job demand and resource variables differed and the direction of the association was not always as hypothesized.

As hypothesized, the job demands of feeling the job is dangerous, role underload, role ambiguity, and role conflict each had a negative relationship with emotional exhaustion. As job demands, these variables likely result in greater psychological strain for officers, which, over time, boost the chances of being emotionally drained from the job. Surprisingly, role overload did not have significant association with emotional burnout in the multivariate regression analysis. The current results suggest that being overwhelmed at the job may not be associated with emotional exhaustion from the job. This was an unexpected result. Role overload could keep officers busy, so they feel that they are making a difference in their community. In other words, officers may be so focused on getting the task done and the situation under control that they do not experience this form of job burnout. This is an untested explanation that needs to be further explored by future research.

As hypothesized, the job resources of input into decision-making, training, and job autonomy had negative associations emotional exhaustion. These variables likely aid officers in their jobs, allowing them to feel better about themselves and being more successful, which in the end reduces psychological strain which can lead to emotional exhaustion. Contrary to our hypotheses, neither instrumental communication nor formalization had significant associations. Instrumental communication may not have a direct association with emotional exhaustion. Instrumental communication could have an indirect relationship with emotional exhaustion though role ambiguity and role conflict. As indicated in Table 2, instrumentational communication had significant negative moderate-sized correlations with the two job demands. Instrumental communication may reduce role ambiguity and conflict, which, in turn, reduces the level of emotional burnout from the job. This is something that needs to be explored by future studies. It is also possible that random error resulted in the observed nonsignificant association when in reality formalization is related to lower levels of emotional exhaustion. Beneficial formalization could reduce emotional exhaustion while harmful formalization could be linked to higher levels of emotional exhaustion. Pandey and Scott (2002) point out that beneficial formalization (called "green tape"), which helps officers be more effective and successful at their jobs, and harmful formalization (called "red tape" or "bureaucratic red tape"), which makes the job more difficult and less successful. The current study used a general measure of formalization and did not measure green and red tape formalization separately. Future studies should measure green and red tape formalization to determine whether the results change.

As hypothesized, the job demands of role underload, role ambiguity, and role conflict had positive associations with depersonalization. These job demands appear to result in officers taking out their frustration and strain on others. On the other hand, perceived dangerousness of the job did not have significant relationships in the multivariate analysis. Officers could have realized that being a police officer was dangerous before they accepted the job, and, as such, dangerousness was not associated with depersonalization. Working a dangerousness job might also give officers a sense of pride in protecting their community. Another explanation is that this variable, created for Western criminal justice employees, did not accurately measure perceived dangerousness among Indian officers. Future research should explore whether measuring perceived dangerousness of the job differently changes the findings. It is also possible that feeling at risk actually has a significant association with depersonalization among Indian police officers, but it was missed in the current study due to random error. This is why future replication research is so critical, so a clearer picture is obtained concerning how perceived dangerousness of the job and depersonalization are related for Haryana officers and for officers in other nations.

Contrary to our hypothesis, role overload had a negative association with the depersonalization dimension of burnout. This finding could be due to random chance, and, in fact, role overload could raise depersonalization or be nonsignificant; however, this negative association could also be due cultural forces. When compared to the cultures of many Western nations, such as the US, India is far more collective than individualistic (Hofstede Insights, 2021). Collective cultures tend to value relationships and the group more than the individual, which tends to result in more respectful interactions (Hofstede Insights, 2021). Another explanation is that the surveyed officers were too overwhelmed by the job to have the time to be impersonal to others. Further, officers may blame the organization rather than the public and their coworkers for this job demand and, as such, greater levels of depersonalization do not result, although commitment to the organization could suffer. These are all untested explanations in need of future research.

As hypothesized, the job resources of instrumental communication, training, and job autonomy were associated with lower levels of depersonalization as reported by the

surveyed Indian officers. These job resources likely aid officers in doing their job and raise the level of positive psychological feelings, which, in turn, lower depersonalization of others. On the other hand, neither formalization nor input into decision-making had significant associations in the multivariate regression equation. Again, officers could have perceived formalization differently in terms of being an aid (green tape) or a hinderance (red tape). Future research needs to examine whether having more focused measures of formalization could change the findings. It is also possible that formalization was not linked to depersonalization among the surveyed officers, but it is for officers in other nations.

That input into decision-making did not have a significant direct negative association was also surprising. The surveyed Indian officers who perceive a lack of a voice in the organization could blame the organization rather than citizens and fellow officers, and, as such, take out their frustration on the organization, such as lower performance or lower organizational commitment. Not having a voice in the organization (i.e., input) can raise the level of emotional burnout, it probably does not result in greater depersonalization because the organization is blamed. It is also possible that input is negatively related to depersonalization for officers in other nations. The nonsignificant finding in the current study could also be due to random chance, and, in fact, this job resource could have a negative relationship on this dimension of job burnout. There is a need for additional research not only in India but other nations to help determine the association between input and depersonalization and if this association is universal or contextual, varying across nations.

Role ambiguity was positively related to a reduced sense of feeling of accomplishment at work. That role ambiguity reduces this dimension of burnout makes sense, because this job demand generally makes the job more difficult. Only one job demand had a significant negative association with reduced sense of personal accomplishment on the job in the regression equation. Interestingly, perceived dangerousness of the job had a negative association with feeling ineffective at work. This was also surprising. Officers who see the job as dangerous could feel a greater sense of accomplishment of working a job to protect others in the community. In other words, feeling at risk from the job could give police officers a greater sense of the role they play in a community, and their willingness to do the job while being a risk provides them a sense of pride. It is also possible that the association for this job demand varies across nations (i.e., is contextual and not universal). As noted earlier, India is more of a collective than individualistic culture, and the group is considered more important than the individual (Hofstede Insights, 2021). As such, the surveyed Indian officers may be more willing to be at risk to protect others than could be the case for Western nations, such as the US. A further explanation is that the measure for perceived dangerousness of the job failed to tap this latent concept adequately among the surveyed Indian officers. This job variable has previously been used in US studies. A more refined, more culturally appropriate, and better-understood measure might result in a positive association with a reduced sense of feeling of accomplishment. Still another explanation is that the current finding was due to random chance. All these explanations are untested. Future research should examine whether the current findings can be replicated and whether the results differ across nations.

Contrary to our hypothesis, role underload, role overload, and role conflict each had nonsignificant associations with a reduced sense of feeling of accomplishment among the surveyed Indian police officers. These job demands may not be directly related to feeling either effective or ineffective at the job. While these job demands may cause psychological strain for the surveyed officers, this strain may not be directly linked to a reduced sense of accomplishment at the job. This explanation, however, needs to be tested.

Instrumental communication and views of training were the only two job resource variables to be significant predictors of reduced sense of accomplishment, and both had negative associations. Instrumental communication likely provides officers the information and guidance to be better at their jobs. Training likely provides officers with the skills in order to be more effective at their jobs and to be successful. Conversely, formalization, input into decision-making, and job autonomy had nonsignificant relationships in multivariate analysis. As previously indicated, a general measure of formalization was used, and different findings may result if separate green and red tape measures of formalization were used. Interestingly, neither input into decision-making nor job autonomy had significant relationships with this this burnout dimension. It is unclear why having a voice in the organization (input) and the job (job autonomy) did not have significant relationships with this burnout dimension. These job resource variables are not directly related or vary by nation and are not significant predictors for the surveyed Indian officers. The current results could also be due to random chance, and these variables could have direct negative associations on this dimension of burnout. This supports the contention that new studies are critical.

For the emotional and reduced sense of accomplishment dimensions of burnout, none of the personal characteristics had significant associations in the regression analyses. Further, only age and tenure had significant associations with depersonalization, and both had positive relationships. As officers aged and the longer that they had been police officers, the higher the level of depersonalization they reported. It should be noted that age and tenure were highly correlated ($r = .69$, $p \leq .01$). In India, most police officers start at an

early age and tend to stay with the same police agency. The positive relationship of age and tenure with depersonalization could be the result of the strains of the job taking its toll on officers over time and, in the end, they become more impersonal and callous towards others. In other words, this association may be the result of officers hardening over time from the job and results in a more impersonal approach of working with citizens and fellow officers. Future research needs to explore why age and tenure with the police agency had a positive association with the depersonalization dimension of burnout so interventions can be undertaken to benefit officers and to improve their connection with community members.

As with many studies, the current study had limitations. It was a single exploratory study involving police officers from the Rohtak and Sonipat districts of the State of Haryana in India. The findings need to be replicated among officers in other areas of India and among officers in other nations. Future research involving officers from different agencies and nations on how job demands and job resources relate to the three burnout dimensions will aid in helping to determine whether associations are universal or contextual. Future research should measure variables for role underload, role overload, role ambiguity, formalization, training, and job autonomy with more items. Due to space limitations for the length of the questionnaire, these concepts were measured with two items. While the factor analysis results supported the decision to create the indexes for the latent variables and the Cronbach's alphas values were above the cut-off point of .60, new research should examine how the values can be raised. Future research should explore whether the results change if different measures of burnout are used, such as the Maslach Burnout Inventory (Maslach et al., 1996) or the Oldenberg Burnout Inventory (Demerouti & Bakker, 2008). The current study used burnout measures based on Wright and Saylor (1991), and this was done because, unlike the Maslach Burnout Inventory, it was available at no cost and examined the three dimensions of burnout proposed by Maslach and Jackson (1981). Our measure of burnout, however, makes it difficult to compare the current findings with past studies that used other burnout measures. We did not use the measure of the Oldenberg Burnout Inventory (Demerouti & Bakker, 2008), because this measure of burnout breaks job burnout into the dimensions of emotional exhaustion and work disengagement. We were more interested in tapping into three burnout dimensions proposed by Maslach and Jackson (1981). Past studies have used many other measures of police burnout (see Queiros et al., 2020). Using different burnout measures makes comparison of the findings across different studies more difficult. Likewise, there has been no consistent testing of job demand and job resource variables in past studies. This also makes it more difficult to compare the findings with the past body of police burnout research.

The relationship of other job demands and resources with the different dimensions of burnout should be explored. With future research, the specific job demands and resources contribute to officer job burnout should be better understood so changes can be made to reduce burnout of officers. More research is needed on the long-term consequences of job burnout for police officers, such as work performance, mental health, physical health, workplace deviance, absenteeism, turnover intent, turnover, organizational citizenship (i.e., going beyond what is expected at work), and life satisfaction. The use of a cross-sectional design did not allow for causality to be demonstrated in the current study. Longitudinal studies are needed for empirically demonstrating causal relationships of job demands and resources on the three dimensions of job burnout. Clearly, there is a need for far more research concerning job burnout among police officers is needed.

There have been numerous past studies of police burnout across different countries, with some focusing on consequences and others focusing on antecedents. In addition, past studies have used different measures of burnout, and results sometimes vary depending on whether an overall burnout measure or burnout dimension was assessed. Further, there have been differences in which workplace variables were studied and how they were measured. Some studies, including the current study, have measured individual workplace variables (i.e., role ambiguity and role conflict as separate measures) and some studies have grouped variables into overall areas of work demands (e.g., combining all the job demands into one measure) and work resources (e.g., combining all the job resources into one measure). While the current study and many of the past studies used different measures of burnout and did not include the same predictor variables, some of the current findings appear to be universal across nations and other findings appear to be contextual, varying from past research, suggesting that cultural forces that vary across nations may play a role. The impact of perceived dangerousness varied in the current study from the few studies that found that dangerousness and risk of harm was positively linked to police burnout in different countries (McCarty& Skogan, 2012, US officers; Vuorensyrja & Malkia, 2011, Finnish officers). This suggests that the relationship of job dangers and burnout may be contextual, varying across nations. Similarly, the same appears to be the case for role overload, which was found to raise burnout among Israeli officers (Malach Pines & Keinan, 2006), but, in the current study, reduced depersonalization burnout and had no significant relationship with emotional exhaustion or reduced sense of accomplishment. Among Chinese police, training views were associated with a greater feeling of personal accomplishment but was not linked to either emotional

exhaustion or depersonalization (Wang et al., 2014). The current study found that training views had negative relationships with all three burnout dimensions, suggesting that it may have a universal relationship with a reduced sense of accomplishment, but may be contextual for the two other burnout dimensions. On the other hand, overall, the current results for role conflict and role ambiguity are consistent with past research involving Finnish and US officers (Burke & Deszca, 1986).

On the other hand, too little research has included the same job demand and resources variables to answer conclusively which relationships are universal, cutting across nations, and which are contextual, varying across different nations and cultural forces. Additional international studies are needed. This does not mean the current study does not add to the literature. With future studies and findings of past studies, the ability to conclude whether the relationships with specific variables and burnout dimensions should be possible. The authors recommend four things for future research on workplace variables and police burnout. First, select not only a burnout measure that meets the focus of research but one that allows the current results to be compared with past results. Second, break down the workplace variables into job demands and job resources. This will allow for an assessment of the job demands–resources model is a valid theoretical foundation for studying different dimensions of burnout among police in different nations. Third, select job demand and resource variables used in past research in order to provide information on how specific workplace factors are linked to police burnout across the globe. Fourth, conduct research involving police in different nations, particularly for nations not previously studied. This future research should provide salient information to police scholars and administrators on how workplace variables are related to different dimensions of officer burnout and whether the results are universal or contextual.

Assuming the findings are replicated, efforts need to be undertaken to reduce job demands and enhance job resources for officers. Officers need to be asked what is causing role underload, role overload, role ambiguity, and role conflict, and their suggestions of how these job demands can be reduced should be sought. In addition, job analyses should be conducted to see how jobs can be changed to reduce these job demands. For example, analysis could come up with ways to reorganize posts, combining those with role underload and those with role overload, so the new posts are more balanced. Training needs to be done so officers are aware of these job demands and what strategies can help buffer the negative aspects of job demands and where they can turn to for assistance. Supervisors need to be trained about these job demands, how to determine whether they are occurring, and how to possible implement interventions to help reduce these demands. Supervisors also need to be evaluated and rewarded for their successful efforts to deal with these job demands. A discussion involving officers and supervisors need to be undertaken about why some feel the job is dangerous. This information can used to make changes to job training, so officers feel less at risk at their job.

Instrumental communication needs to be improved. Administrators need to examine how instrumental communication flows to officers and how it can be improved. Officers and supervisors need to be surveyed on where there are communication problems. Supervisors and managers need to be trained on both the importance of instrumental communication and how to enhance it. Supervisors and managers need to be rewarded for increasing instrumental communication among those they supervise. Greater input into decision-making by officers should not only be allowed but encouraged. Allowing a greater voice in the organization sends a message to officers that they are valued and trusted by the organization, as well as increasing the opportunity for officers to tell administrators the strains that may be contributing to job burnout. Allowing input does not mean administrators are bound by the suggestions and requests made; however, it does mean explaining why changes were not made. Feedback and ideas from officers of how training can be enhanced should be sought. Supervisors also need to be asked how quality of training can be raised and rewarded for their ideas that improve views of training. In addition, information about changes in training need to be shared throughout the organization (i.e., increasing instrumental communication). Officers should be asked for their ideas on job autonomy and how it can realistically and safely raised. Supervisors need to be informed of the importance of allowing responsible and qualified officers greater job autonomy. Further the evaluations of supervisors should include how they contributed to greater job autonomy and there should be rewards for engaging in such.

In conclusion, police officers are critical and often valuable public servants in nations across the globe. They perform a myriad of tasks and duties. Policing can be a trying occupation and strain is likely. Burnout is a threat to officers, their employing organizations, and their communities. In light of demands of policing, police organizations should not be contributing to burnout with high job demands and low job resources. To reduce the role workplace factors that play a role in burnout, new research is needed. The current findings suggest that police administrators should take note of job demands and job resources and their possible role with job burnout. The job demands–resource model suggests that negative outcomes increase because of job demands and are reduced because of jobs resources (Schaufeli & Bakker, 2004). The results of the current study support this model in explaining the job burnout of police officers. Police administrators need to be aware that the job demands of perceived dangerousness of the job, role underload, role overload,

role ambiguity, and role conflict are associated with one or more of the dimensions of burnout and should be reduced. Similarly, efforts should be undertaken to raise the level of instrumental communication, input into decision-making, views of training, and job autonomy, as they are negatively related to one or more of the burnout dimensions. Efforts aimed at reducing officer job burnout and improving the work environment of police officers not only benefits individual officers but also the police agency and the community. At the very least, the authors hope this study will spur more research on how workplace factors are associated with police officer burnout not only in India but also in other nations. Without more solid knowledge in this area, making burnout prevention recommendations to administrators will continue to be problematic and haphazard. In addition, additional research will help understand which factors are universal in contributing to burnout and which ones are contextual in terms of being limited to a particular police agency or within a region or nation.

Appendix

Except for Instrumental Communication, the below index items were measured using a Likert response scale ranging from strongly disagree (coded 1) to strongly agree (coded 5). The instrumental communication items were measured using a scale ranging from not informed at all (coded 1) to very well informed (coded 5). After each item in brackets is the factor loading score.

Emotional Exhaustion (1) Working with others is an emotional strain for me [.69]; (2) I feel that I am burned out from my job [.82]; (3) I am emotionally drained at the end the day from my job [.74]; and (4) Work makes me feel hopeless [.67]. *Depersonalization* (1) I feel that I treat some citizens as if they were impersonal objects [.54]; (2) I feel that I have become more callous toward my coworkers [.59]; (3) I am becoming less sympathetic to others at work [.65]; (4) I find myself mistreating others because I do not care anymore [.71]; (5) I do not really care what happens to others [.72]; (6) The vast majority of time at work, I treat citizens with respect (reverse coded) [.56]; and (7) The vast majority of time at work, I treat all coworkers with respect (reverse coded) [.66]. *Sense of Reduced Personal Accomplishment at Work* (1) I feel that my coworkers value my assistance (reverse coded) [.51]; (2) I feel that I am effective in solving problems at work (reverse coded) [.67]; (3) I feel that I am a positive influence within the Haryana police (reverse coded) [.58]; (4) I have the ability to deal effectively with the problems of citizens (reverse coded) [.73]; (5) I feel that I am positively influencing citizens with my work here (reverse coded) [.70]; and (6) I feel that I can create a relaxed atmosphere for citizens (reverse coded) [.59]. *Perceived Dangerousness of the Job* (1) In my job, a person stands a good chance of getting hurt [.66]; (2) I work at a dangerous job [.83]; (3) My job is a lot more dangerous than most jobs in the community [.76]; and (4) A lot of people I work with have been physically injured on the job [.58]. *Role Underload* (1) There is so little for me to do on a typical day at work that I am bored [.78]; and (2) Haryana police expects too little of me in terms of work demands [.78].

Role Overload (1) Haryana police expects too much of me in terms of work demands [.82]; and (2) I consider myself overworked on my job [.82]. *Role Ambiguity* (1) I do not always understand what is expected of me at work [.76]; and (2) The rules that we're supposed to follow seem to be very clear (reverse coded) [.76]. *Role Conflict* (1) I am ordered to do things differently than they should be done [.73]; 2) Depending on the supervisor, my job orders differ greatly [.58]; (3) I get criticized by one supervisor for doing things ordered by another supervisor [.72]; and (4) At work, I am often caught between conflict orders from different supervisors [.71]. *Instrumental Communication* (each item was proceeded by "how informed are you by Haryana Police management about the following aspects of your job"): 1) What is to be done [.81]; (2) What is most important about the job [.83]; 3) How the equipment is used [.86]; 4) Rules and regulations [.86]; and (5) What you need to know to do the job correctly [.89]. *Formalization* (1) At my current position, there is a written manual that helps me do my duties [.78]; and (2) The job description for my position is accurate for what is really required for the job [.78]. *Input into Decision-Making* (1) When there is a problem, management frequently consults with employees on possible solutions [.83]; (2) Management routinely puts employee suggestions into practice [.81]; and (3) Management often asks employees their suggestions on how to carry out job-related tasks and assignments [.62]. *Views of Training* (1) I do not have enough training to do my job well (reverse coded) [.81] and I have been provided enough training to do my job well [.80]. *Job Autonomy* I have a great deal of freedom as to how I do my job [.79]; and (2) My job does not allow me much opportunity to make my own decisions (reverse coded) [.79].

Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethical Approval The study had human subjects review approval and met all ethical requirements.

References

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*, 309–328.

Bakker, A. B., & Schaufeli, W. B. (2000). Burnout contagion processes among teachers. *Journal of Applied Social Psychology, 30*, 2289–2308.

Bano, B. (2011). Job stress among police personnel. *International Conference on Economics and Finance Research (IPEDR), 4*, 290–293.

Berry, W. (1993). *Understanding regression assumptions*. Sage Publications.

Bhowmick, S., & Mulla, Z. (2016). Emotional labour of policing: Does authenticity play a role? *International Journal of Police Science & Management, 18*, 47–60.

Burke, R. J. (1994). Stressful events, work-family conflict, coping, psychological burnout, and well-being among police officers. *Psychological Reports, 75*, 787–800.

Burke, R. J., & Deszca, E. (1986). Correlates of psychological burnout phases among police officers. *Human Relations, 39*, 487–501.

Census2011.co.in. (2015). *Haryana population census data 2011*. Retrieved from http://www.census2011.co.in/census/state/haryana.html.

Cullen, F. T., Link, B., Wolfe, N., & Frank, J. (1985). The social dimensions of correctional officer stress. *Justice Quarterly, 2*, 505–533.

Curry, J. P., Wakefield, D. S., Price, J. L., & Mueller, C. W. (1986). On the causal ordering of job satisfaction and organizational commitment. *Academy of Management Journal, 29*, 847–858.

Demerouti, E., & Bakker, A. B. (2008). The Oldenburg Burnout Inventory: a good alternative to measure burnout and engagement. In J. Halbesleben (Ed.), *Handbook of stress and burnout in health care* (pp. 65–78). Nova Science Publishers.

Demerouti, E., & Bakker, A. B. (2011). The job demands-resources model: Challenges for future research. *SA Journal of Industrial Psychology, 37*, 01–09.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*, 499–512.

Dhillon, K. (2011). The police and the criminal justice system in India. In A. Mehra & R. Levy (Eds.), *Perspectives from India and France* (pp. 27–59). Delhi: Pearson.

Dowler, K. (2005). Job satisfaction, burnout, and perception of unfair treatment: The relationship between race and police work. *Police Quarterly, 8*, 476–489.

Eisinga, R., Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International Journal of Public Health, 58*, 637–642.

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues, 30*, 159–165.

Gaines, J., & Jermier, J. M. (1983). Emotional exhaustion in a high stress organization. *Academy of Management Journal, 26*, 567–586.

Gershon, R. R., Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior, 36*, 275–289.

Gong, Z., Li, M., & Niu, X. (2021). The role of psychological empowerment in reducing job burnout among police officers: A variable-centered and person-centered approach. *SAGE Open, 11*(1), 2158244020983305. https://doi.org/10.1177/2158244020983305

Gronlund, N. E. (1981). *Measurement and evaluation in teaching*. MacMillan.

Haryana Police. (2020). *Haryana police*. Retrieved from http://haryanapolice.nic.in/index.asp.

Hofstede Insights. (2021). *Country comparison*. Retrieved from https://www.hofstede-insights.com/product/compare-countries/.

Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The job demands–resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior, 79*, 181–190.

Indian Census. (2012). *Haryana population census data, 2011*. Retrieved from: http://www.census2011.co.in/census/state/haryana.html.

Jowell, R. (1998). How comparative is comparative research? *American Behavioral Scientist, 42*, 168–177.

Kaur, R., Chodagiri, V. K., & Reddi, N. K. (2013). A psychological study of stress, personality, and coping in police personnel. *Indian Journal of Psychological Medicine, 35*(2), 141–147.

Kim, J., & Mueller, C. (1978). *Factor analysis statistical methods and practical issues*. Sage.

Kohan, A., & Mazmanian, D. (2003). Police work, burnout, and pro-organizational behavior: A consideration of daily work experiences. *Criminal Justice and Behavior, 30*, 559–583.

Kop, N., & Euwema, M. (2001). Occupational stress and the use of force by Dutch police officers. *Criminal Justice and Behavior, 28*, 631–652.

Kop, N., Euwema, M., & Schaufeli, W. (1999). Burnout, job stress, and violent behavior among Dutch police officers. *Work and Stress, 38*, 267–275.

Kumar, A., & Narula, S. (2020). Feeling of insecurity in Khaki: Its effects on burnout and allied consequences in Haryana Police officers. *International Journal of Indian Culture and Business Management, 21*, 94–117.

Kwak, H., McNeeley, S., & Kim, S. H. (2018). Emotional labor, role characteristics, and police officer burnout in South Korea: The mediating effect of emotional dissonance. *Police Quarterly, 21*, 223–249.

Kwantes, C. T. (2009). Culture, job satisfaction and organizational commitment in India and the United States". *Journal of Indian Business Research, 1*, 196–212.

Lambert, E., & Hogan, N. (2009). The importance of job satisfaction and organizational commitment in shaping turnover intent: A test of a causal model. *Criminal Justice Review, 34*, 96–118.

Lambert, E. G., Hogan, N. L., Moore, B., Tucker, K., Jenkins, M., Stevenson, M., & Jiang, S. (2009). The impact of the work environment on prison staff: The issue of consideration, structure, job variety, and training. *American Journal of Criminal Justice, 34*, 166–180.

Lambert, E. G., Hogan, N. L., Paoline, E. A., & Clarke, A. (2005). The impact of role stressors on job stress, job satisfaction, and organizational commitment among private prison staff. *Security Journal, 18*(4), 33–50.

Lambert, E. G., Qureshi, H., & Frank, J. (2016). Spilling over: An exploratory study of the correlates of strain-based work–family conflict among police officers in India. *International Journal of Police Science and Management, 18*, 87–103.

Lambert, E. G., Qureshi, H., Frank, J., Klahm, C., & Smith, B. (2018). Job stress, job involvement, job satisfaction, and organizational commitment and their associations with job burnout among Indian police officers: A research note. *Journal of Police and Criminal Psychology, 33*, 85–99.

Lambert, E. G., Qureshi, H., Hogan, N. L., Klahm, C., Smith, B., & Frank, J. (2015). The association of job variables with job involvement, job satisfaction, and organizational commitment among Indian police officers. *International Criminal Justice Review, 25*, 194–213.

Lambert, E. G., Qureshi, H., Keena, L. D., Frank, J., & Hogan, N. L. (2019). Exploring the link between work-family conflict and job burnout among Indian police officers. *The Police Journal, 92*, 35–55.

Lindsay, R. M., & Ehrenberg, A. S. (1993). The design of replicated studies. *The American Statistician, 47*, 217–228.

Martinussen, M., Richardsen, A. M., & Burke, R. J. (2007). Job demands, job resources, and burnout among police officers. *Journal of Criminal Justice, 35*, 239–249.

Maslach, C., & Jackson, S. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*, 99–113.

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *MBI: Maslach burnout inventory*. CPP Incorporated.

Malach Pines, A., & Keinan, G. (2005). Stress and burnout: The significant difference. *Personality and Individual Differences, 39*, 625–635.

Malach-Pines, A., & Keinan, G. (2006). Stress and burnout in Israeli border police. *International Journal of Stress Management, 13*, 519–540.

McCarty, W. (2013). Gender differences in burnout among municipal police sergeants. *Policing: an International Journal of Police Strategies and Management, 36*, 803–818.

McCarty, W., & Skogan, W. (2012). Job-related burnout among civilian and sworn police personnel. *Police Quarterly, 15*, 1–19.

McCarty, W., Zhao, J., & Garland, B. (2007). Occupational stress and burnout between male and female police officers: Are there any gender differences? *Policing: an International Journal of Police Strategies and Management, 30*, 672–691.

Melamed, S., Ben-Avi, I., Luz, J., & Green, M. S. (1995). Objective and subjective work monotony: Effects on job satisfaction, psychological distress, and absenteeism in blue collar workers. *Journal of Applied Psychology, 80*, 29–42.

Morabito, M. S., Pattavina, A., & Williams, L. M. (2020). Vicarious trauma, secondary traumatic stress or burnout?: An exploratory study of the effects of investigating sexual assault cases on detectives. *Policing: an International Journal, 44*, 77–92.

Nalla, M. K., & Madan, M. (2012). Determinants of citizens' perceptions of police–community cooperation in India: Implications for community policing. *Asian Journal of Criminology, 7*, 277–294.

Oldham, G. R., & Hackman, J. R. (1981). Relationships between organizational structure and employee reactions: Comparing alternative frameworks. *Administrative Science Quarterly, 26*, 66–83.

Pandey, S. K., & Scott, P. G. (2002). Red tape: A review and assessment of concepts and measures. *Journal of Public Administration Research and Theory, 12*, 553–580.

Price, J., & Mueller, C. (1986). *Absenteeism and turnover among hospital employees*. JAI Press.

Queiros, C., Passos, F., Bartolo, A., Marques, A. J., da Silva, C. F., & Pereira, A. (2020). Burnout and stress measurement in police officers: Literature review and a study with the operational police stress questionnaire. *Frontiers in Psychology, 11*, 587. https://doi.org/10.3389/fpsyg.2020.00587/full

Raghavan, R. (1999). *Policing a democracy: A comparative study of India and the US*. Manohar Publishers and Distributors.

Ranta, R. S., & Sud, A. (2008). Management of stress and burnout of police personnel. *Journal of the Indian Academy of Applied Psychology, 34*, 29–39.

Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly, 15*, 150–163.

Ross, C. E., & Reskin, B. F. (1992). Education, control at work, and job satisfaction. *Social Science Research, 21*, 134–148.

Santa Maria, A., et al. (2020). The role of job demands and job resources in the development of emotional exhaustion, depression, and anxiety among police officers. *Police Quarterly, 21*, 109–134.

Sehrawat, Y. (2017). Now, avail online police services in Haryana at Rs50. *Hindustan Times*. Retrieved from https://www.hindustantimes.com/gurgaon/now-avail-online-police-services-in-haryana-at-rs50/story-ooY4JwQbIRRzq2KNtWLrIJ.html.

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*, 293–315.

Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: implications for improving work and health. In G. Bauer & O. Hammig (Eds.), *Bridging occupational, organizational, and public health* (pp. 43–68). Springer.

Shah, G. (1999). *History and organisation of Indian police*. Anmol Publications.

Shane, J. M. (2010). Organizational stressors and police performance. *Journal of Criminal Justice, 38*, 807–818.

Suresh, S., Anantharaman, R., Subramanian, R., & Ajitha, A. (2014). Certain correlates of burnout among police personnel in a metropolitan city of a developing country. *Archives of Business Research, 2*, 1–8.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (7th ed.). Pearson.

Triplett, R., Mullings, J. L., & Scarborough, K. E. (1996). Work-related stress and coping among correctional officers: Implications from organizational literature. *Journal of Criminal Justice, 24*, 291–308.

Tyagi, A., & Dhar, R. L. (2014). Factors affecting health of the police officials: Mediating role of job stress. *Policing: an International Journal of Police Strategies and Management, 37*, 649–664.

Unnithan, N. P. (2009). Crime and justice in India: Editorial comment. *Journal of Contemporary Criminal Justice, 25*, 128–130.

Violanti, J. M., et al. (2017). Police stressors and health: A state-of-the-art review. *Policing: an International Journal of Police Strategies and Management, 40*, 642–666.

Vuorensyrja, M., & Malkia, M. (2011). Nonlinearity of the effects of police stressors on police officer burnout. *Policing: an International Journal of Police Strategies and Management, 34*, 382–402.

Wang, Y., Zheng, L., Hu, T., & Zheng, Q. (2014). Stress, burnout, and job satisfaction: Case of police force in China. *Public Personnel Management, 43*, 325–339.

Wright, K., & Saylor, W. (1991). Male and female employees' perceptions of prison work: Is there a difference? *Justice Quarterly, 8*, 505–524.

Zeng, X., Zhang, X., Chen, M., Liu, J., & Wu, C. (2020). The influence of perceived organizational support on police job burnout: A moderated mediation model. *Frontiers in Psychology, 11*, 1–11.