

Occupational Stress in the Multicultural Workplace

Romana Pasca · Shannon L. Wagner

Published online: 11 March 2011
© Springer Science+Business Media, LLC 2011

Abstract Occupational stress is a well researched topic leading to the development of strong, viable models of workplace stress. However, there is a gap in the literature with respect to the applicability of this research to specific cultural groups, in particular those of immigrant status. The present paper reviews the extant literature regarding occupational stress from a multicultural perspective, evaluates the usefulness for existing models in the multicultural context, and discusses current issues with respect to increasing multiculturalism in the work environment. The authors conclude that workforce diversity is emerging as a pressing issue of organizational life and consequently, that future research needs to continue investigating whether current knowledge regarding workplace stress is fitting with the multicultural diversity of the present-day working population.

Keywords Occupational stress · Immigrants · Models of stress · Multicultural · Work

Introduction

Recently there have been an increasing number of studies researching work stress and its influence and various manifestations on the health of working individuals [1]. The current shifting in the labor market, characterized by economic recession, globalization, and increased workforce diversity, imposes important changes at the organizational

level which in turn may create significant amounts of stress for workers. Increasing diversity in the workforce leads toward new and complex demands in terms of accommodating workers' needs, interests, and backgrounds within the workplace environment. Increased participation by minority populations has altered the responsibilities of organizations such that there is a need for increased accountability to ensure equitable, responsible and inclusive workplaces. Baba et al. [1] reported that occupational stress can be viewed as a process in which stressors are associated not only with the content and circumstances of work but also to the individual characteristics, resources, and social environment. However, most previous research has failed to consider the components of social environments, family relationships, and cultural backgrounds in which workers are living, including the variables specific to minority workers. As a result, previous research has overstated the role of the workplace and deemphasized other social factors in the attempt to understand the association between occupational stress and positive or negative health outcomes.

Description of Theoretical Models That Link Work and Stress

In an effort to better explain occupational stress and its implication on individual health and well-being, six primary models of stress are discussed in the literature and have been used to better understand the complex relationships between work stressors and resulting negative, and/or positive influences on health (a comprehensive review of this literature is beyond the scope of this article; for a detailed review of this literature, the reader is referred to Noonan and Wagner [2]). However, from the perspective

R. Pasca · S. L. Wagner (✉)
University of Northern British Columbia, 3333 University Way,
Prince George, BC V2N 4Z9, Canada
e-mail: wagners@unbc.ca

of the multicultural worksite, each of these models is lacking. That is, for the most cited models of occupational stress, the focus is on the manner in which the worker interacts with and/or interprets the workplace environment. In general, these oft-cited models provide virtually no recognition for the substantial influence of societal and interpersonal factors related to the process of integration. For example, the main objective for many studies using these models has been the identification of the most common sources of work stress. Sauter et al. [3] defined the most common sources of occupational stress as workload and work pace, conflict and ambiguity in the workplace, career concerns, work scheduling, interpersonal relationships, and job content and control—none of these factors include issues specific to a multicultural workplace, such as discrimination and attitudinal or legislative barriers to inclusion. While most theoretical frameworks have been proposed primarily for the purpose of analyzing occupational stress on the population looked at as a homogenous majority, the relationships between ethnic minorities and job stressors/health outcomes have been largely unaddressed. In addition, there is a strong need to determine whether these models are able to capture special issues that are of particular relevance for diverse cultural and ethnic groups. With the globalization of work and increasing diversity of the workplace, current theoretical models of occupational stress must be adapted to include all groups and attempt to increase understanding and respect regarding differences between these groups.

Demand-Control-Support Model

Since the 1980s, the leading work stress model in occupational health psychology has arguably been the demand-control model proposed by Karasek [4]. Essentially, the model posits that the combination of low control and high demand leads to negative health outcomes. In other words, employees who face high demands in the workplace and have little control over their work are considered to be exposed to stressors that may negatively influence their health [5, 6].

Social support at work, an overlooked component, was later incorporated into the model; as a result, the demand-control-support model was defined. This newer model postulates that the highest risk of illness is expected in employees with high demand, low control, and low social support in the workplace. Although the demand-control-support model is very similar to the demand-control model, the former underlines the hypothesis that the psychological and social pressures people experience in the workplace develop from social and interpersonal relations among the participants in the work process [7–11]. The recently added social aspect may be particularly meaningful for an

immigrant population given the possibility of workplace social isolation created by one's immigrant status.

Although the new model provides a better picture of work related stressors, this model is considered strictly focused only on the characteristics of work itself. Specifically, only factors such as work pace and overload, work schedule, and job content and control, have been considered as the main stressors in the work place. To date, occupational stress research has demonstrated that there is a strong need to extend Karasek's model outside workplace settings and begin including important aspects of individual life and work experiences, such as interpersonal relationships, social support, adjustment issues, cultural values, and even the acculturation process and related implications [9].

From a multicultural point of view, a further limitation of Karasek's model is represented by the fact that the model was conceptualized for resident individuals from developed countries, countries characterized by high levels of industrialization, educational attainments, and health standards. Therefore, it is important to determine whether this model is distinctive to individuals originally from industrialized societies or whether it is to the same extent applicable to individuals who immigrate into westernized environments [12]. The marginal socio-economic status of immigrants, most of whom have been raised outside the country of current residence, may make them more vulnerable to risk factors, emerging from both workplace and social environment, than their native-born counterparts. Variables such as age, gender, race, ethnicity, education level, language proficiency, or availability of ethnic or other community support, need to be introduced into the equation for both immigrant and non-immigrant populations.

Effort-Reward Imbalance Model

The workplace based effort-reward imbalance model, proposed by Siegrist [13, 14], represents a different theoretical framework used to define work-related stress. This model postulates that the imbalance occurring between workplace efforts and occupational reward leads to distress and adverse health effects [15]. Siegrist's model emphasizes that work role has the potential to provide opportunities of positive self-experience, increased self-efficacy, and recurrent positive experience of self-esteem if one is adequately rewarded. Conversely, failure of employers to recognize or reward efforts can be detrimental to an employee's health and well-being [16].

Immigrant workers often report feelings of loss as they encounter working life in their new country [17]. This loss often occurs because they are regarded as unqualified and lacking in workplace initiative. Their efforts to

demonstrate skills or abilities are often not properly understood and/or rewarded by their co-workers, supervisors and/or employers. In addition, effort may be increased via activities such as learning language competency and regaining lost occupational status. These differences in aspects of social exchange and interpretation may impact the amount of reward perceived as available within the workplace environment. Therefore, conceptualizations of adequate effort-reward balance based on research with native workers may no longer hold, and additional research using the Effort-Reward model will be necessary in order to determine its applicability within diverse worksites.

Cognitive Activation Theory of Stress

A different approach used in the attempt to explain individual reactions to workplace stressors is the Cognitive Activation Theory of Stress (CATS) as proposed by Ursin and Eriksen [18]. This theory posits that if the individual is in control of his/her actions and the result has predictable and desired outcomes, then there will be no need to activate one's internal stress response. Conversely, if the individual is unsure about the future actions to be taken and does not consider themselves as having the necessary resources to pro-actively deal with the future demands, then the individual needs to enhance his/her efficacy by psycho-physiological activation. This type of psycho-physiological activation is considered healthy and necessary for a short period of time, but over the longer term may pose serious health risks for the individual. Arnetz [19] has applied the Cognitive Activation Theory of Stress at the organizational level and has analyzed the influence of permanent organizational changes on employee mental health. This researcher evaluated the clarity of organizational goals as a predictor of mental energy or work-related exhaustion for employees. In other words, departments with lower clarity of organizational goals respond with higher collective stress in order to meet external productivity demands, as compared to departments with high clarity of organizational goals. As predicted, clarity of organizational goals was an important moderator of organizational stress and overall well-being. These results clearly illustrate that employees in departments with poor goal clarity have higher levels of stress and therefore, may be more susceptible to develop depressive disorders than employees working in departments with strong leadership and clear organizational goals. Consequently, the Cognitive Activation Theory of Stress model may be useful, not only in understanding variations in individual stress responses and experiences, but also in interpreting and managing organizational stress.

The literature also emphasizes that cultural background can play a very important role in shaping the ways in which

efficacy beliefs are developed, the purposes to which they are put, and the socio-structural arrangements through which they are best exercised [17, 20–22]. Therefore, individuals may achieve greater personal efficacy and productivity when their psychological orientation is congruent with the structure of the social system [23]. In other words, the greater an individual's compatibility with present workplace and other social structures, the lower the level of stress and the easier the process of adjustment in the community and at the workplace. Immigrants to a new country are faced with integrating into a new society, a society that often differs substantially from their home country in terms of social customs, values and traditions. Consequently, it can be assumed that immigrants may be working in situations where their psychological orientation is not congruent with the structure of the workplace social system. According to the Cognitive Activation Theory, this presumed incongruity, as created by a need to integrate into an unfamiliar workplace environment, may lead to additional workplace stress for immigrant employees. In addition, this lack of congruency may be exacerbated by experiences of discrimination or lack of understanding, experiences that may further suggest for the employee that there is a lack of compatibility. Given CATS' focus on individual interpretations of real environmental situations, this theory is proposed as potentially useful for research regarding multicultural workplaces. That is, this theory is capable of accounting for the additional stresses that may actually exist for immigrant employees as well as the individual level variation in perspective regarding experienced stressors.

Social Ecology Theory

Social Ecology Theory as proposed by Stokols [24] represents another framework used in occupational stress research. This theory focuses on both the person and the environment, and suggests that individual dispositions, resources, and characteristics shape perceptions of how employment influences health [25]. Thus, to find out how a specific job and/or work environment influences health outcomes, individual attributes, which may skew the reporting of job effects on health, must be controlled. For example, workers who had higher levels of perceived constraints and neuroticism, worked nights or overtime, or reported serious ongoing stress at work or higher job pressure, reported negative health outcomes [25]. Ettner and Grzywacz [25] employed a distinct approach in studying the work-health relationship by examining the rating of objective and subjective characteristics of workers, while simultaneously controlling for personality and other individual-traits thought to influence reporting behavior. These authors used Social Ecology Theory to explain the

association between various aspects of employment arrangement and worker health. The results of this study indicated that workers who experienced serious ongoing work stress or job pressure reported more negative effects, whereas workers who were self-employed, worked part-time, or reported a higher level of skill on the job, reported more positive effects. This study provides rich information for employers and policymakers on why and how to improve working conditions and to create jobs that benefit not only the worker, but also the employer and community. Although this particular study provides unique information regarding the relationship between work and mental health, it is less clear what the results would indicate if a more comprehensive ecological model and a larger number of person–environment interactions were to be considered. It follows then that this model should be used with caution.

Person–Environment Fit

Another theoretical framework largely employed in the research is the person–environment (P–E) fit framework proposed by Caplan [26]. This model characterizes stress as a lack of correspondence between characteristics of the person and the work environment [27]. Essentially, the concept of P–E fit suggests that alignment between characteristics of people and work environments result in positive outcomes for both individuals and organizations. Conversely, a large body of research [25] shows that a poor fit between individual characteristics and work environment, especially in the case of individuals who tend to react to stress with negative emotional states, increases the risk of health problems. Furthermore, the fit between immigrant workers' desires, interests, values and personalities, and the jobs in which they are engaged exemplifies the concept of "dignified work". For many people, one's occupation defines a large part of one's sense of identity, and the loss of this identity, because of leaving behind their previous life and occupation they had established in their home country, may result in feelings of uselessness, frustration, low self-esteem, and low self-efficacy. Therefore, regaining their lost social status and professional identity in the host country can be considered one of the main goals regarding perceived fit in the workplace, and the attainment of dignified work [12]. In summary, the P–E fit model is considered one of the few conceptualizations of an individual's relationship to the environment that encompasses a broad range of relationships. A main limitation of this model, however, is represented by the fact that the broad range of relationships encompassed within the model makes it difficult to establish which stressors are fundamentally important from those that are not. An additional limitation of this model is the focus on individual characteristics as the primary predictor for workplace stress. For

immigrant workers, social and environmental factors (e.g., discrimination, lack of professional status) should not be underestimated as potential contributors to the experience of occupational stress. Consequently, this model may have limited use as an independent model of immigrant workplace stress.

Lay Theory of Stress

Finally, a lay theory of stress has been proposed by Furnham [28]. This theory uses a lay representation of stress and represents a different approach in the attempt to delineate sources of occupational stress. As such, this theory is conceptualized as the common sense explanation people provide for aspects of social behavior. There are researchers [e.g., 29] who argue that knowledge of how individuals interpret the concept of stress has particular utility in understanding manifestations of occupational stress cross-culturally. For example, because of cultural differences, people might describe illness differently and possibly even experience different symptoms. Acknowledging that people from different cultural groups may experience or express occupational stress differently would be very helpful in conceptualizing culture specific workplace stress. Research conducted by Kinman and Jones [29] examined lay representations of work stress utilizing semi-structured interviews with 45 individuals from a range of occupations. These researchers found that individual beliefs in relation to stress are likely to subsequently effect individual perceptions and therefore, work-related actions. Unfortunately, no clear consensus was ascertained as to how work stress was interpreted. Participants referred to a diverse array of personal, environmental, and social factors when defining the concept of work-stress and placed different weighting on the role these factors played in the antecedents and outcomes of stress. In conclusion, Kinman and Jones [29] stated that "lay representations of workplace stress are likely to have a profound impact on individual perceptions and experiences of health symptoms and on determining the type of remedial action that the respective person might take. The manner in which an individual conceptualizes occupational stress may also influence their work-related actions" (p. 118). However, the small sample size used in the study is considered an important limitation with respect to the generalizability of the results.

Summary of Models of Stress

The previous review of the literature highlights three themes regarding existing models of stress for use with immigrant populations. First, the two prevailing models

relating work and health are the job demand-control-support and the effort-reward imbalance models. The use of these two models in current studies has generally demonstrated, however, that some aspects of work experiences, as a result of new workplace realities, go beyond the core constructs of the models. Consequently, these models must be reconsidered for future research, allowing them to capture the full range of experiences of workers in today's increasingly flexible, multicultural, and competitive workplaces.

Second, the majority of existing studies analyzing the subject of work-related stress explore only the surface of the interaction effects within and between cross-cultural groups. All the theoretical frameworks discussed above have been employed to explain work-related stress; however, most of them have omitted any cross-cultural consideration and applicability. For example, if one was to conduct work-stress related research with recent immigrants, one might want to consider such concepts as immigrants' characteristics, pre- and post-migration stressors, coping strategies adopted by individuals, their families, and the larger society in relation to the resettlement experience. Research on similarities and differences in human attitudes and behavior, particularly research that takes these concepts into account, is essential in determining how work-related stress affects individuals and whether different cultural groups perceive stress differently.

Third, the literature seems to suggest that social and workplace support can be very helpful to ease the general process of adjustment for immigrants. Thus, the impact of social support, in general, and workplace support, in particular, on immigrants' health should be considered of great importance. Future research should attempt to modify existing theoretical models to include new configurations of social and workplace environment. Such research should also attempt to demonstrate that social and workplace support are intertwined with an individual's personal characteristics and therefore, these factors must play a more specific role in research. In general, the concept of social and workplace support offered to immigrants as a moderator needs further clarification and specification in order to be useful. Perhaps it needs to be broken down to smaller units such as supervisor support, coworker support, family support, and peer support, in order to illustrate differential effects [30–32].

The reviewed literature highlights that the majority of existing empirical research does not specifically take into account immigrants' characteristics when analyzing work-related stress. Very few of the theoretical frameworks used to study occupational stress have focused on establishing relationships between job characteristics/stressors and individual characteristics, such as personal development, adaptation, and change, while also taking into consideration diverse characteristics and cultural backgrounds.

Moreover, the few cross-cultural and comparative studies that do exist [21, 23, 32] are not enough to warrant clear results, and highlight the need for further research on work-related stress considering both the objective characteristics of the work environment and the subjective needs of the employee.

In summary, although the conceptual frameworks outlined above tried to capture most aspects that could influence employee health and well-being within a workplace environment, it must be clear that occupational stress has not yet been well-defined within the context of the multicultural workplace. This term is frequently used in health care and occupational settings without regard for the powerful and varied connotations it may hold for individuals with different ethnic, cultural, or religious backgrounds.

Stressors Emerging From Multicultural Workplaces

All theoretical frameworks presented above focus on various aspects of work and work environment that may have an influence on individual health and well-being. Given the changes to the multicultural world of work, many voices from this area of research recognize the need to rethink and/or expand on these theoretical models in order to capture all the dimensions of work that might, directly or indirectly, affect the health of employees [11]. Specifically, there is a strong need to identify contemporary dimensions of work that might influence the quality of the work experience in today's multicultural workplaces. This can be made possible through an attentive exploration of all workplace factors that might alter the relationship between work, family, and life interests and responsibilities. For example, most studies on occupational stress agree that the core dimensions of work susceptible to shaping the way in which work experiences are perceived by employees are: job demands and decision latitude, quality of social interactions, arrangements of work, and the fit between workers' interests and their jobs [11, 25, 31, 33]. These factors can be generally organized according to broader social and environmental factors (e.g., discrimination; social interaction), workplace factors (e.g., job demands; organizational change; re-establishing professional status) and, finally, factors specific to the individual worker (e.g., individual characteristics).

Discrimination and Social Factors

From a multicultural workplace perspective, there is considerable evidence demonstrating that immigrant employees often face discriminatory attitudes and negative reactions at the work site from their native born co-workers or supervisors [34]. These attitudes toward immigrants held

by people in the host country affect immigrants' ability to adjust, secure employment, and integrate into the community [17]. Immigrants' experience of discrimination and lack of social support in the workplace can lead to low self-esteem, fear, anger, loneliness, inability to cope, and psychological distress [35]. Social support, however, is regarded as a very important tool in moderating stress-strain in organizational settings, particularly in multicultural work sites. Consistent with this, findings by Amason et al. [30] indicated that supportive intra-organizational relationships have been linked to reduced uncertainty, increased job satisfaction, job security, satisfaction with supervisors, and also increased individual self-worth and health. In addition, Amason and colleagues stressed the fact that, in a multicultural workplace, individuals with different ethnic and social backgrounds may perceive social support differently. Therefore, training in cultural sensitivity and communication skills presented to the work community as a whole, may play a major role in promoting helpful social support at the workplace for immigrants.

Another similar factor when considering stress in the workplace is the quality of social interactions. Social support in the workplace, such as support from co-workers and supervisors, is associated with positive outcomes. Conversely, lack of contact and interaction with co-workers, hostility, harassment, or injustice in the workplace are normally associated with negative health outcomes, increased levels of stress, and low levels of job satisfaction and life satisfaction. In their review, Keloway and Day [36] emphasize the fact that social support may reduce the negative effects of workplace stressors by acting as a buffer. They argue that social support in the workplace represents an important component of recent models of work environments. However, developing social support for immigrant workers may be more difficult, considering the fact that discrimination and stereotypes in the labor market may represent some of the most common impediments to an immigrant's attempt to become integrated in the host country. Research reveals that as many as one in four visible minority immigrants report experiencing some form of discrimination during the early years of resettlement [31]. As such, healthy multicultural workplaces must carefully consider the fact that for immigrants in particular, entering a work site is about gaining access and belonging to a community, both in a social and professional sense [23] and that the worksite experience may strongly influence individual health and well-being, as well as working community outcomes.

Job Demands

Karasek's model predicts that high job demands, low decision latitude, and low social support combined together

in the work environment lead to adverse health effects. Thus, a state of equilibrium between efforts and rewards in the workplace can moderate the relationship between work and health, as well as between health and well-being. From the immigrant point of view, the attempt to maintain this state of equilibrium can be very challenging and demanding. Besides the common stressors characteristic of the workplace environment and normally associated with job demands, immigrants have to cope with additional aspects of acculturation. Communication skills, the need to secure employment and/or the need to regain lost professional identity and/or occupational status are only few of the additional stressors that can affect immigrants' health and well-being. For example, immigrants with professional skills and training who have to accept unskilled and low-paying entry level jobs in the host country can experience feelings of frustration, bitterness, and hopelessness [17].

Organizational Change

The continuous changes imposed on organizations by the need to constantly improve productivity and efficiency is widely associated with negative health outcomes among employees [37]. Although individuals, departments, and organizations react differently to stressors stemming from organizational changes, organizational support has been suggested as an important moderator of organizational stress and overall well-being [38]. Ample organizational support may be even more crucial for immigrant employees attempting to cope with organizational change. Language and other types of communication barriers may limit immigrant understanding of the reasons and/or processes related to organizational change. Moreover, the stress of organizational change may be felt more intensely by immigrant employees who may be attempting to cope with additional stressors related to their immigrant status and/or who may have had great difficulty attaining their current level of employment.

Re-Establishing Professional Status

The real acceptance of work communities, the ability to adjust to a new culture of work, the acculturation process and language barriers, and the desire to regain lost professional status may represent dimensions that need to be taken into consideration when analyzing characteristics of today's working population. Despite the probable benefits, finding a position similar in professional standing to one's previous standing in the home country may be much more difficult for an immigrant in a new country. Often time, previous credentials are not recognized and the application process may be tainted by discriminatory attitudes and

policies—these difficulties related to finding similar status may put immigrant workers at greater risk for occupational stress and related health effects.

Individual Characteristics

It is also noteworthy that some of the studies reviewed in this paper demonstrate that while some aspects of work/job stressors are considered as common stressors to all individuals, others are considered as having a differential impact and influence on individual health. That is, not all stressors affect all individuals in the same manner [36]. This suggestion is very helpful when considering the circumstances of immigrants, whereby, according to Yost and Lucas [17], immigrants must not only adjust to the many losses that accompany immigration, such as loss of personal and occupational status, lack of skills and/or knowledge of how to compete in the new environment, and possible discrimination based on immigrant status, but also to any additional stressors surrounding family, social, and relationship issues. All these adjustments can create an especially difficult experience for the individual. This experience might be either alleviated or exacerbated through an individual's access to resources, coping styles, and/or social interaction.

Previous literature reveals that individual characteristics and resources can play a major role in the interaction between the process of securing employment and health [5, 11, 17, 22, 25, 33, 39]. Thus, age, gender, marital status, income, social status and support, recent life events, and traumatic events have to be considered when analyzing levels of occupational stress. Findings by Ettner and Grzywacz [25] supported that workers with higher levels of perceived constraints and neuroticism, and lower levels of extraversion were more likely to report that their health was negatively influenced by their job. In addition, these authors state that visible minorities or individuals with a low level of education or social status are likely to use different criteria in evaluating the health effects of their job. These authors further suggest that this difference is evident because these individuals, who often face discrimination, lack of communication, or marginalization, find it very difficult to secure employment. Therefore, marginalized workers tend to consider, in the short-term, that being employed, even in a low-paying entry-level job, is relevant to their health and well-being. Unfortunately, from a long-term perspective, being underemployed or unemployed can negatively influence employees' well-being.

Personality characteristics moderate the relationship between work and health—different people expect different outcomes from work. This relationship between mental health and work has always been reciprocal and strongly

correlated with individual characteristics [31]. For example, individuals who lose their jobs or who do not properly fit with their jobs experience a high risk of stress, whereas individuals who are prone to health problems are more likely than the non-stressed to be laid-off work. Consistent with these findings, Yost and Lucas [17] support the idea that immigrants represent a special group within the reality of today's multicultural workplaces, needing careful attention not only when examining the ways that workplace conditions affect their health, but also when examining the health of communities beyond the workplace.

Unfortunately as demonstrated above, much of the literature regarding work stress and immigrants is focused on individual and workplace characteristics, similar to the focus used when researching native workers. A focus on individual variables limits understanding of social and environmental contributors to occupational stress, contributors that may differ for immigrant workers. It is apparent that much additional research is required in order to gain clarity regarding how the multicultural environment differs from a traditional worksite, as well as what role organizations should play in decreasing structural and attitudinal barriers intended to increase workplace integration for immigrant workers.

Suggestions for Future Research

The few studies investigating immigrants' occupational stress provide inconsistent findings. For example, research with Mexican immigrants associated conflict in work relationships with increased marital strain and mental health distress [22]; other research using Muslim participants was based on findings and measures not validated with the population of interest [21]. Moreover, research based on community inquiries has even suggested that immigrants have fewer emotional problems than the native-born individuals [20, 31]. In an attempt to offer an explanation for the inconsistency of the findings, Beiser [31] stated that “it is not immigration per se, nor even its challenges that create mental health risk, but rather the interaction among vulnerabilities, stressors, social resources, and personal strengths” (p. 118).

The majority of studies examined in the present paper did not consciously model interactions between personal and work factors and did not specifically take into account immigrant characteristics when analyzing work-related stress. In addition, the debate about whether people from different cultural groups experience or express work-related stress differently represents an important area of ongoing research. For example, personal interpretation and representation of workplace stress is likely to shape individuals' perceptions and experience on the positive or

negative influence of work on health and furthermore, on determining the type of remedial action that might be taken.

Taking into consideration that annually Canada and the United States admit hundreds of thousands of immigrants, and the fact that workforce diversity is emerging as one of the most pressing issues of organizational life [21], future research should employ new approaches in order to fill the gaps in our understanding of the dynamics of diversity and its implications for occupational stress research. The main focus might be on whether the findings about the influence of the workplace environment on employees' work attitudes and behavior are in the same manner applicable to the multicultural diversity of the current working population. The field requires research about immigrant and refugee work-related issues in comparison to members of the receiving society as a whole, as well as investigations comparing immigrants with native-born individuals.

Acknowledgments The authors gratefully acknowledge the reviewers' helpful comments on previous versions of this manuscript.

References

- Baba VV, Jamal M, Tourigny L. Work and mental health: a decade in Canadian research. *Can Psychol.* 1998;39:94–104.
- Noonan J, Wagner SL. Workplace stress: theory and implications. *J Vocat Eval Work Adjust.* 2010;37:1–10.
- Sauter SL, Murphy LR, Hurrell JJ. Prevention of work-related psychological disorders: a national strategy opposed by the National Institute for Occupational Safety and Health. *Am Psychol.* 1990;45:1146–58.
- Karasek RA, Baker D, Marxer F, Ahlborn A, Theorell T. Job decision latitude, job demands and cardiovascular disease: a prospective study of Swedish men. *Am J Public Health.* 1981;71:694–705.
- Grebner S, Semmer NK, Elfering A. Working conditions and three types of well-being: a longitudinal study with self-report and reading data. *J Occup Health Psychol.* 2005;10:31–43.
- Ganster DC, Dewyer DJ, Fox ML. Explaining employees' health-care costs: a prospective examination of stressful job demands, personal control, and physiological reactivity. *J Appl Psychol.* 2001;86:954–64.
- Helland Hammer TH, et al. Expanding the psychosocial work environment: workplace norms and work-family conflict a scoreless stress and health. *J Occup Health Psychol.* 2004;9:83–97.
- Loretto W, et al. Assessing psychological well-being: a holistic investigation of NHS employees. *Int Rev Psychiatr.* 2005;17:329–36.
- Marchand A, Demers A, Durand P. Do occupation and work conditions really matter? A longitudinal analysis of psychological distress experiences among Canadian workers. *Sociol Health Illn.* 2005;27:602–27.
- Peeter MCW, et al. Balancing work and home: how job demands are related to burnout. *Int J Stress Manage.* 2005;12:43–61.
- Polanyi M, Tompa E. Rethinking work-health models for the new global economy: a qualitative analysis of emerging dimensions of work. *Work.* 2004;23:3–18.
- Xie JL. Karasek's model in the People's Republic of China: effects of job demands, control, and individual differences. *Acad Manage J.* 1996;39:1594–618.
- Seigrist J. Adverse health effects of high-effort/low-reward conditions. *J Occup Health Psychol.* 1996;1:27–41.
- Seigrist J. Adverse health effects of effort-reward imbalance at work: theory, empirical support and implications for prevention. In: Cooper CL, editor. *Theories of organizational stress.* p. 190–204.
- Van Vegchel N, De Jonge J, Landsbergis PA. Occupational (inter)action: the interplay between job demands and job resources. *J Organ Behav.* 2005;26:535–60.
- Rugulies R, et al. Distribution of effort-reward imbalance in Denmark and its prospective association with a decline in self-rated health. *J Occup Environ Med.* 2009;51:870–8.
- Yost AD, Lucas MS. Adjustment issues affecting employment for immigrants from the former Soviet Union. *J Employ Counsel.* 2002;39:153–70.
- Ursin H, Eriksen HR. The cognitive activation theory of stress. *Psychoneuroendocrinology.* 2004;29:567–92.
- Arnetz BA. An attempt to apply a cognitive occupation theory to organizations. *Psychoneuroendocrinology.* 2005;30:1022–6.
- Cochrane R, Stopes-Roe M. Psychological symptoms in Indian immigrants to England—a comparison with native English. *Psychol Med.* 1981;11:319–27.
- Jamal M, Badawi JA. Job-stress, type-A behavior and employees' well-being among Muslim immigrants in North America: a study in workforce diversity. *Int J Commer Manage.* 1995;5:6–22.
- Santos SJ, Bohon LM, Sanchez-Sosa JJ. Childhood family relationships, marital and work complex, and mental health distress in Mexican immigrants. *J Commun Psychol.* 1998;26:491–508.
- Rismark M, Sitter S. Workplaces as learning environments: interaction between newcomer and work communities. *Scand J Educ Res.* 2003;47:495–510.
- Stokols D. Establishing and maintaining healthy environments: toward a social ecology of health promotion. *Am Psychol.* 1992;47:6–22.
- Ettner SL, Grzywacz JG. Workers' perceptions of how drugs affect health: a social ecological perspective. *J Occup Health Psychol.* 2001;6:101–13.
- Caplan RD, Harrison RV. Person-environment fit theory: some history, recent developments, and future directions. *J Soc Issues.* 1993;49:253–76.
- Elovainio M, et al. Organizational and individual factors affecting mental health and job satisfaction: a multilevel analysis of job control and personality. *J Occup Health Psychol.* 2000;5:269–77.
- Furnham A. Lay theories of work stress. *Work Stress.* 1997;11:68–78.
- Kinman G, Jones F. Lay representations of workplace stress: what do people really mean when they say that they are stressed. *Work Stress.* 2005;19:101–20.
- Amason P, Watkins Allen M, Holmes SA. Social support and acculturative stress in the multicultural workplace. *J Appl Commun Res.* 1999;27:310–34.
- Beiser M. The health of immigrants and refugees in Canada. *Can J Public Health* 1999; 96:CBCA Reference S30.
- Shuval JT. The reconstruction of professional identity among immigrant physicians in three societies. *J Immigr Health.* 2000;2:191–202.
- Wang J, Patten SB. Perceived work stress and major depression in the Canadian employed population, 20–49 years old. *J Occup Health Psychol.* 2001;6:283–9.
- Tran AG, Lee RM, Burgess DJ. Perceived discrimination and substance use in Hispanic/Latino, African-Born Black, and Southeast Asian immigrants. *Cultur Divers Ethnic Minor Psychol.* 2010;16(2):226–36.

35. Williams DR, Neighbors HW, Jackson JS. Racial/ethnic discrimination and health: findings from community studies. *Am J Public Health*. 2003;93:200–8.
36. Kelloway EK, Day AL. Building healthy workplaces: what we know so far. *Can J Behav Sci*. 2005;37:223–35.
37. Hansson AS, Vingard E, Arnetz B, Anderzien I. Organizational change, health, and sick leave among health care employees: a longitudinal study measuring stress markers, individual, and work site factors. *Work Stress*. 2008;22:69–80.
38. Dawley DD, Andrews MC, Bucklew NS. Enhancing the ties that bind: mentoring as a moderator. *Career Dev Int*. 2010;15(3):259–78.
39. Pines AM. Adult attachment styles and their relationship to burnout: a preliminary, cross-cultural investigation. *Work Stress*. 2004;18:66–80.