Sources and Adverse Effects of Burnout Among Academic Staff: A Systematic Review

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A B S T R A C T

Job Burnout is a globally recognized problem. Burnout is experienced by academicians once they are exposed to the cumulative negative effects of work demands that exceed their available coping capacities. Burnout affects the health and working performance of academicians, and ultimately diminishes their productivity. Despite the widespread prevalence of Burnout, it has not been mostly studied in teaching profession, particularly at university level. For this reason, a systematic review of the literature was carried out to comprehend the sources and adverse effects of burnout among academicians working in universities. In this regard online data was located, assessed and summarized from three databases, i.e. Taylor & Francis, Medline/PubMed and Science Direct. A predetermined inclusion criterion and three step screening process helped in selection of 54 studies out of total 11478 studies. The selected 54 studies were checked for quality. The results of this review have identified a broad range of individual and organizational sources and adverse effects of burnout among academicians. This review has also identified certain moderating and mediating factors of burnout. The findings of current review have confirmed the prevalence of burnout among academicians. The burnout stricken universities are less productive since their academic staff suffer from lower job satisfaction, poor performance, lower commitment and high turnover intentions. Moreover, they suffer from physical and psychological health problems. The problem of burnout should be managed at the individual and institutional levels, both by the academicians, management of university and policy makers in the higher education sector.

INTRODUCTION

In the past university teaching was thought to be less stressful (Norlund et al., 2010) because universities provided a good working environment with academic freedom and abundant resources (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010). However, due to the twenty first century global changes the modern universities have passed through a transition (McCaffery, 2018), which has made the working environment within universities very demanding. The cumulative effects of work related demands followed by scarcity of resources and the lack of suitable coping capacities eventually lead to burnout (Fernet, Guay, Senécal, & Austin, 2012). Burnout is characterized by emotional and mental exhaustion, accompanied by the feelings of hopelessness, negative self-concept, poor self-efficacy and

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cynicism towards people (Brackett et al., 2010; Moczydłowska, 2016). The burnout appears among the employees in shape of physical and psychological health problems. These health problems ultimately cause absenteeism, work loss and diminished productivity (Schnall, Dobson, Rosskam, & Elling, 2018).. The concept of burnout has received less attention as compared to stress (Kyriacou, 2001) because of difficulties in its operationalization and absence of theoretical frameworks. The lack of understanding about the concept of burnout has attracted the researchers (Maslach, Leiter, & Schaufeli, 2009). Despite of existing literature on the nature of burnout among university teachers, some of the aspects of burnout are still unexplored. For this reason, previous researchers like, e.g., (Byrne, Chughtai, Flood, Murphy, & Willis, 2013; Gonçalves, Fontes, Simães, & Gomes, 2019; Lackritz, 2004; Zhang & Zhu, 2008; Zhang & Feng, 2011) recommended that future researchers should focus on identifying the diverse causes and subsequent effects of burnout in academia. Thus, there is scope for future research on the concept of burnout in university setup. In this regard, a systematic review of literature on burnout was carried out to understand the different sources and adverse effects of burnout among academic staff working in universities.

PROBLEM STATEMENT AND RESEARCH QUESTIONS

The study of demographic characteristics is important because they can influence the overall results of the study (Huff & Tingley, 2015). For this reason Leiter & Maslach (2005) pointed out that demographic characteristics should be considered while predicting burnout. Several studies in the past have confirmed demographic characteristics of educators as contributory factors of burnout. For example, Lau, Yuen, & Chan (2005) found that demographic variables like age, gender, religion, marital status, teaching experience, etc., were significant predictors of burnout among teachers in Hong Kong. Moreover, Watts & Robertson (2011) conducted a systematic review and found that gender and age were identified as significant predictors of burnout among academicians. However, a review of existing literature could not trace any comprehensive systematic review on demographic characteristics of academicians and burnout. It motivates future research by identifying research questions as follow meaning that this study will determine the relationship between socio-demographic factors and burnout among academicians:

- Q1: Which demographic variables are the most significant factors of burnout among academicians?

- Q2: Do the symptoms of burnout vary in relation to the demographic characteristics of academicians?

The causes and effects of burnout are diverse. The factors of burnout are either work related, e.g., emotional demands, role conflict, workload, etc., or individual characteristics, e.g. demography, personality, attitude, etc. Once the burnout is experienced, it has certain individual or organizational effects (Leiter & Maslach, 2005). Some of the recent meta analyses on teacher burnout, e.g. Mérida-López & Extremera (2017) have made it clear that future researchers should identify a broad range of factors for comprehending the detailed nature of teacher burnout, since teachers are part of an eco-system (environment within and outside educational institutions), where they are likely to be affected by both personal and work related factors. Similarly, Yorulmaz, & Altinkurt (2018) conducted a meta-analysis of the factors of teachers Burnout in Turkey and they recommended that future researchers should conduct meta-analyses for determining the relationships between different individual or organizational factors of teachers Burnout and the effect of these variables on the overall productivity of teachers. Such previous studies actually identify research questions like as follows:

- Q3: What are the potential sources and effects of burnout among academic staff?

- Q4: Does burnout is more caused by individual or organizational factors?

- Q5: Does burnout affect the individual or organizational lives of the academic staff?

It should be further noted that the effects of burnout cannot be directly determined because there are certain moderating as well as mediating variables, which moderate the relationship between the sources and effects of burnout (Halbesleben, 2006). Therefore, this study will explore the diverse causes and effects of Burnout in academia so that the mechanism of Burnout in teaching profession could be understood.

METHODS

Research Steps

The steps of systematic review were as per guidelines provided by Khan, Kunz, & Kleijnen (2003) and Wright, Brand, & Dunn (2007). These steps include (i) formulation of research questions (ii) development of research protocols (iii) identifying relevant literature (iv) data extraction (v) assessing quality of studies (vi) analysis of data and presentation of results (vii) discussion and conclusion.

Search Strategy and Data Sources

Specific terms and phrases were used to locate studies in the selected databases. Terms like "Burnout", "Job Burnout" and "Occupational Burnout", whereas phrases like "Burnout in teaching profession", "Burnout among university teachers", "Burnout in academia", "Causes of Burnout among university teachers", "Effects of Burnout in university" and "Causes & consequences of Burnout in University" were used. Data sources consisted of four online databases including Taylor & Francis, Medline/PubMed and Science Direct. To acquire the most current literature, the search process was limited to the studies published from the year 2000 till year 2015. This search process was carried out within time period of three months, i.e., from November, 2017 to January, 2018.

Inclusion Criteria

The inclusion criteria are as under:

1. Only quantitative studies were included because their results can be easily interpreted and broadly generalized;

2. Studies published in the English language were searched and included, since most of work on Burnout has been conducted in the English language, furthermore, English language can be easily understood by the most of the readers;

3. Studies published from the year 2000 till year 2015 were searched and included;

4. Only journals and conference articles were searched, which were published under peer review process. It was done because publication bias can become a major threat to the validity of systematic review. The "grey literature" like reports, manuals and other materials that are not controlled by commercial publishers should be avoided (Hopewell, McDonald, Clarke, & Egger, 2007);

5. Studies that examined the relationship between demographic characteristics and burnout were included;

6. Furthermore, studies that examined burnout either as independent or dependent variable were included. Also, studies that examined the probable moderators and mediators of burnout were also searched and included;

7. Only those studies were included that were published on university teachers and teachers working in colleges, institutes and departments related affiliated with the university.

Screening and Selection of Studies

A rigorous screening process was devised to ensure that only relevant studies are selected according the predetermined inclusion criteria. For screening purposes three reviewers were appointed by assigning one electronic database to the each reviewer. The search and review process started in November, 2017 till January, 2018. In a time period of three months, total 11478 studies were identified, which were further screened for choosing only relevant studies. The studies were searched and screened in two phases, i.e., in the first phase keys words and phrases were entered into the selected online databases. The identified studies were chosen by reading their titles and abstracts. Those studies which qualified the first phase were left for a detailed review in the second phase, where whole texts were reviewed and studies were screened on the basis of predetermined inclusion criteria. Figure 1.
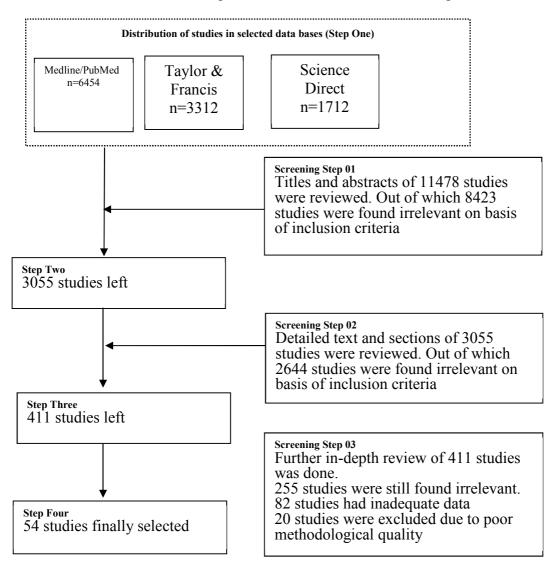

Fig. 1 Flow diagram for the screening of studies.

In depth Quality Assessment

In the current study, quality assessment was done by eleven items of Epidemiological Appraisal Instrument (Genaidy et al., 2007), i.e. 1) Hypothesis/Objectives; 2) Problem Statement/Research Gaps; 3) Definition of variables; 4) Study Design; 5) Population & Sampling; 6) Miss data record; 7) Statistical Analysis; 8) Presentation of Findings; 9) Discussion; and 10) Conclusion & Recommendations. All items were scaled on three levels, i.e. No=0, Partial=1 and Yes=2. The Epidemiological Appraisal Instrument scores can be divided as 0.0 to 0.75 (poor), 0.76 to 1.25 (average) and 1.26 to 2.00 (high) (Maudgalya, Wallace, Daraiseh, & Salem, 2006). Two independent reviewers were selected for the quality assessment of finally selected 74 studies. Out of 74 studies, 20 studies were excluded due to poor methodological quality. The remaining 54 studies had mean score ranged from minimum 0.94 to maximum 1.81, whereas their inter-rater reliability Kappa value was 0.71.

RESULTS

General characteristics of selected studies

The fifty four finally selected studies were published between year 2000 to year 2015. One study, i.e.,Singh and Bush (1998) was published in the year 1998. This study was added into review because it has explained diverse sources and effects of burnout. The selected studies were carried out in universities and affiliated institutions located in USA, UK, Netherland, Turkey, Spain, China, India, Iran, Pakistan, Nigeria, Norway, Australia, Canada and South Africa. The respondents included instructors, Research Assistants, Junior Lecturers, Lecturers, Assistant Professors (Senior Lecturers), Associate Professors and Professors. The age of respondents ranged from 18 years to 79 years, whereas the sample size ranged from n=40 to n=2000.

Burnout and Demographic Characteristics of Academicians

Eleven studies Jaswantlal, Abdul Rahman, Rampal, & Rampal (2014), Taris, Schreurs, & Van Iersel-Van Silfhout (2001), Zamini, Zamini, & Barzegary (2011), Lackritz (2004), Hogan & McKnight (2007), Ghorpade, Lackritz, & Singh (2007), Tümkaya (2006), Nagar (2012), Golub, Johns, Weiss, Ramesh, & Ossoff (2008), Toker (2011) and Ghorpade, Lackritz, & Singh (2011) had reported that female teachers experienced higher level of burnout, while three studies Bilge (2006), Yibai & Haoliang (2012) and Motallebzadeh, Ashraf, & Yazdi (2014) had reported that male teachers experienced higher burnout. Eight studies Jaswantlal et al. (2014), Lackritz (2004), Hogan & McKnight (2007), Ghorpade et al. (2007), Tümkaya (2006), Golub et al. (2008), Tijdink, Vergouwen, & Smulders (2013) and Tijdink, Vergouwen, & Smulders (2014) had reported that academic staff within the age category of 20 to 35 years have higher level of burnout, whereas four studies (Motallebzadeh et al. 2014; Toker 2011; Nagar 2012; Bilge 2006) stated that academic staff that are above the age of 40 years perceive more burnout. One study Tijdink et al. (2014) reported that married teachers have higher level of burnout. While four studies (Çam, 2001), Toker (2011), Yao et al. (2015), and Kizilci, Erdogan, & Sözen (2012) had reported that single teachers have high levels of burnout.

The Sources and Effects of Burnout in Academia

The environmental sources of burnout are divided into work demands, role demands, resource scarcity, time pressure, relationship demands and other demands as clear from Table 1. Seventeen studies reported

nine types of workloads, including an academic load of teaching & research, e.g., see (Gonzalez & Bernard, 2006), administrative work, e.g., see (Shanafelt et al., 2009) and additional office work at home or weekends e.g., see (Goddard, O'Brien, & Goddard, 2006). Five studies reported two types of role demands, i.e. Role ambiguity and Role conflict, e.g., see (Ghorpade et al. 2011). Three studies reported resource scarcity, including lack of funds and low salary Eight studies reported time related demands in which most common demand was less or no time for specific academic tasks, e.g., see (Golub et al. 2008). Six studies reported poor relationship with colleagues and students, e.g., see (Goddard et al. 2006; Taris et al. 2001). The other sources of burnout include leadership problems & inadequate facilities (Salami, 2011), failure to keep up with knowledge developments, lack of performance contingent reward, lack of collaborative research & lack of recognition (Singh, Bush 1998), exposure to performance appraisal (Pishghadam, Adamson, Sadafian, & Kan, 2014), poor physical work setting (Çam 2001), non-supportive organizational culture (Zamini et al., 2011), completing education during job (Shanafelt et al., 2009), job insecurity (Tümkaya 2006) and less chances of promotion (Golub et al. 2008). The personal sources of burnout are divided into social and work related as clear from Table 2. The social factors include personal life style like, e.g., Sleeping pattern (Yao et al. 2015), personality & behavior (Teven, 2007), poor family life & conflicts (Singh,Bush 1998; Otero-López et al. 2008), self-disharmony, lack of interpersonal trust and stiffness (Yibai, Haoliang 2012), daily hassles & life events, social isolation & personal problems (Hultell & Gustavsson, 2011; Otero-López, Mariño, & Bolaño, 2008), unmet expectations, fulfillment of self-expectations and communication style (Çam 2001).

Table 1 Environmental Sources of Burnout

Workload/Work Demands	Role Demands
Academic Workload	Role Ambiguity & Role Conflict
Research overload	Mismatch between teaching subjects
Level of courses taught	**Resource Scarcity**
Work during weekend	Lack of funding
Bring office work to home	Low Salary
Research Supervision	Lack of Research Fund
Engaged in Administrative work	**Relationship Demands**
Additional work per week	Student Misbehavior
Number of students in class	Poor working relationship with colleagues
	Student evaluating teachers
Time Pressure/Time Related Demands	Cynical colleagues
Time pressure	Poor relation with students
No time for research due to teaching	**Other Demands**
Less time for personal activities	Exposure to Performance Appraisal

Hours of teaching per week	Lack of recognition
Hours spent in other job per week	Non-supportive Organizational Culture
Other Demands	Physical Work Setting
Leadership problems	Completing Education during Job
Inadequate Facilities	Quantitative demands
Failure to keep up with knowledge developments	Job Insecurity
Lack of performance contingent reward	Less chances of promotion
Lack of collaborative research	

The work related sources of burnout include perception of supervisor (Teven 2007), mobbing behavior (Gül, İnce, & Özcan, 2011), attitude, belief and involvement towards work (Azeem, 2010; Olivos-Jara, Galán-Carretero, & Santos-Segovia, 2014), research and publication related frustration (Lackritz 2004; Tijdink et al. 2013), job dissatisfaction and organizational justice perception (Karakus, Ustuner, & Toprak, 2014; Zhang, 2008) and less achievements in career (Zhong et al., 2009).

Table 2 Personal Sources of Burnout

Social	Work
Sleeping pattern	Perception of Supervisor
Five Big Personality factors	Attitude towards work
Communication style	Job Dissatisfaction
Fulfillment of self-expectations	Frustration in publication review process
Neuroticism	Frustration with negligible impact of research
Work family conflict	Organizational justice perceptions
Unmet expectations	Career Achievement
Passive stress coping	Job Involvement
Self-Disharmony	Mobbing Behaviors
Self-stiffness	Belief to be Promoted and Work Prestige
Lack of Interpersonal Trust	Satisfaction with specialty
Personal problems	
Type-A Behavior	
Psychological Hardiness	
Daily Hassles & Life Events	
Social Isolation	

Effects of Burnout
The selected studies have reported both physical and psychological effects of burnout among academic staff. The majority of studies (75%) reported three psychological symptoms of burnout, i.e. Emotional

exhaustion, depersonalization, lack of personal accomplishment. Other psychological symptoms of burnout include cynicism, exhaustion, reduced professional efficacy, psychological distress and poor mental health. The physical effects of burnout include physical health issues such as gastro-intestinal problems, headaches, muscular tension, high blood pressure, bodily pain, diminished vitality and chronic fatigue. The organizational effects of burnout as reported by the selected studies consist of turnover intentions, lack of commitment, diminished organizational citizenship behavior, inattentiveness & reduced work engagement, reduced job satisfaction, and job related stress as clear from Table 3. The selected studies have also reported different moderators of burnout. The potential moderators of burnout include support of supervisor & colleagues, social support of spouse, supportive departmental climate, practical assistance in department and practical assistance from spouse, self-efficacy, optimism, skill discretion, decision authority, role clarity, turning to God, venting of emotions, ability to relax as coping mechanisms, work autonomy, and supervisor support.

Table 3   Effects of Burnout

Human Effects	Organizational Effects
Emotional exhaustion	Turnover Intentions
Depersonalization	Lack Of Commitment
Diminished Personal Accomplishment	Low Organizational Citizenship Behavior
Cynicism	Inattentiveness at work
Psychological Distress	Job Dissatisfaction
Poor Mental Health	Job Stress
Gastrointestinal Problems	Reduced Work Engagement
Headaches,	Less Professional Development
Muscular Tension	**Moderators of Burnout**
High Blood Pressure	Self-Efficacy
Bodily Pain	Supportive Departmental Climate
Diminished Vitality	Decision Authority
Chronic Fatigue	Turning to God

Moderators of Burnout

Venting of Emotions	
	Personality types (Extraversion
Ability to Relax	
	Openness to Experience, Emotional Stability,
Work Autonomy	Conscientiousness)

DISCUSSION ON RESULTS

In this systematic review, initially the linkages between burnout and demographic characteristics of academic staff were examined. Later, the sources and effects of burnout were investigated. The results showed that burnout was significantly associated with the demographic profiles of academic staff, while the sources and effects of burnout were diverse, ranging from individual to organizational. The demographic factors associated with burnout were gender, age, marital status, education and job position, etc. While the sources of burnout were divided into environmental, personal and process, and its effects were divided into human and organizational. Due to changes in the world socio-economic conditions, the working environment inside universities has also changed and has become complex. The academic staff are exposed to a variety of work related demands and pressures (Winefield, Boyd, & Saebel, 2008).

The results of this systematic review also confirmed that academic staff were exposed to personal and environmental demands. The environmental demands mainly consist of work demands, role demands, resource scarcity, time pressure, relationship demands and other demands (e.g. Job insecurity and less recognition at work). While the personal demands are related to personal lifestyle, personality, family relationship, expectations, attitude, belief and perceptions, etc. It also includes personal factors like teaching & research related frustration, dissatisfaction with job, organizational justice perception and achievements in career, etc. Such results are consistent with the findings of previous systematic reviews on the sources of burnout, e.g. Khamisa, Peltzer, & Oldenburg (2013) and Seidler, Liebers, & Latza (2008). Other studies include for example a meta-analysis conducted by Yorulmaz, & Altinkurt (2018) on teachers Burnout in Turkey revealed that the teachers were affected from diverse causes of burnout and burnout negatively affected their working performance. Similarly, another meta-analysis did by Montgomery & Rupp (2005) on 65 published research papers on teachers Burnout and stress between 1998 & 2003. This meta-analysis examined the associations amid teachers Burnout, stress and several other concepts, including burnout coping, burnout symptoms, emotional or other responses, personality factors as mediators, personal or social support, environmental demands, and socio-demographic characteristics of teachers. The results of this study found a strong association between the factors of burnout and the effects of burnout.

The widespread prevalence of burnout in the academic world denotes that university teaching has become a demanding profession. The modern universities have gone through an age of transition, a shift towards the complexity that is caused by constant global changes (Göransson & Brundenius, 2010). The government policies towards universities have also changed and more budget cuts have been imposed. Now universities are expected to generate funds on self-reliant basis. The universities are also expected to contribute in term of research and development (Duderstadt, 2009) ultimately the academic staff members are exposed to different work demands and they are also confronted with a shortage of resources, which ultimately causes burnout.

The findings of this review have some practical implications for the faculty members and administrative staff working in universities and for those who are the policy makers in the higher education system. For academic staff, awareness about the sources of burnout is important so that the root causes of burnout are identified and eliminated. Such knowledge is important because certain factors are strong and positive predictors of burnout. For e.g., the level of burnout changes with age and job positions. The young faculty members are more prone to burnout. Therefore, reduction of teaching load and early career counseling can act as a preventive tool for coping burnout. Other potential factors like poor relationship

with colleagues, large number of students in class, less time for research and role conflict, etc., if properly handled can considerably reduce the burnout level. The administrative staff should particularly be concerned about the facilities that they provide to the academic staff. The policies and procedures pertaining to promotion, rewards, funds, salaries, performance evaluation and organizational justice, etc., should be carefully formulated and implemented.

The management of universities should take care of physical working conditions because ergonomically unfit work environments contribute to the development of physical stressors. The administration of universities should arrange stress management trainings on a regular basis so that academic staff develop necessary skills and capacities to cope burnout during work. The policy makers in higher education system should devise strategies for increasing the amount of financial resources allocated to the universities. As lack of resources is one of significant determinant of burnout, thus, decisions need to be made for accessing the needs of universities and the amount of budget allocated. The current review identified leadership problems as a factor of burnout. The policy makers should devise policies for institutional autonomy and universities should be allowed to participate in policy formulating matters.

LIMITATIONS

A few limitations of this systematic review need to be mentioned. It was a systematic review, therefore, no meta-analysis was conducted that may have added more comprehensive information about the sources of burnout and its differential and cumulative effects. The selected studies were mostly cross-sectional, therefore any causal relationship between variables could not be determined. Moreover, the mediators of burnout were not investigated in this review. The selected studies were published in English language, therefore some of important studies published in other languages may not have been considered. Finally, this review was specifically on the university teaching staff, hence studies conducted on school teachers were not examined. The future researchers are recommended to conduct comprehensive meta-analysis on burnout factors among university teachers by including studies having cross-sectional and causal research designs. It will be particularly interesting to know the contributory or causal factors of burnout. The future researchers should also examine the studies published in languages other than English.

CONCLUSION

Burnout is a recognized workplace hazard in the teaching profession. The current systematic review confirmed that burnout exists in the teaching profession. More specifically, the university teachers are exposed to a variety of stressors that causes burnout. The burnout-stricken universities are less productive and stagnant. The staff members working in such universities have lower job satisfaction and organizational commitment. They have high turnover intentions and are always thinking of leaving jobs or switching to other jobs. Furthermore, they suffer from physical and psychological health problems that impairs their normal work functioning and performance. The problem of burnout should be managed at the individual level by the academic staff and at the institutional level by the management of university and policy makers in the higher education system.

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