GAVIN PUBLISHERS

OPEN ACCESS

International Journal of Nursing and Health Care Research

Schlemmer T. Int J Nurs Health Care Res 03: 1160.

DOI: 10.29011/2688-9501.101160

Research Article

Nurse Practitioner Occupational Burnout: A Focus on the Variables and Themes

Tanya Schlemmer*

College of Nursing and Health Sciences, Department of Graduate Nursing, University of Texas at Tyler, Tyler, Texas, USA

***Corresponding author:** Tanya Schlemmer, College of Nursing and Health Sciences, Department of Graduate Nursing, University of Texas at Tyler, 6600 Red Bud Drive, Flower Mound, Tyler, Texas 75022, USA

Citation: Schlemmer T (2020) Nurse Practitioner Occupational Burnout: A Focus on the Variables and Themes. Int J Nurs Health Care Res 03: 1160. DOI: 10.29011/2688-9501.101160

Received Date: April 30, 2020; **Accepted Date:** May 26, 2020; **Published Date**: May 29, 2020

Abstract

Purpose: The prevalence of occupational burnout is high amongst service professionals and the nursing profession is no different. The rate of occupational burnout amongst nursing professionals and medical professionals is high. The themes or impact of occupational burnout amongst Nurse Practitioners is not well described in the literature. Herein this article describes the investigation into the issue of nurse practitioners and occupational burnout.

Data Sources: Scientific literature review, CINHAHL Complete and other online literature databases and resources. A State of the Science systematic review was conducted to further examine this issue to identify the prevalence of the problem amongst nurse practitioners, to identify factors or specific areas of concern, and to investigate if nurse practitioners' outcomes toward occupational burnout as they align with similar focus areas in medical practice.

Conclusion: The literature results suggest that higher demands, lower resources, and lower adaptive organizational attitudes are associated with burnout. Themes for female gender, role as a generalist, in family practice or as faculty revealed increased burnout risk. Environment, personal characteristics and qualities are implicated as specific variables accelerating the risk for burnout.

Implications for Practice: The environment, locus of control factors (internal and external) and how nurse practitioners and women providers, are perceived impact care delivery for those directly associated and ultimately impact occupational burnout amongst nurse practitioners.

Keywords: Alleviating and recognizing variables for increased risk of burnout are the key components toward reduction and elimination of risk; Advanced practice nurse (APN); Advanced practice provider (APP); Burnout, Burn-out; Goal orientation; Nurse practitioner (NP); Occupational burnout; Organizational climate; Professional burnout; Role ambiguity; Vulnerability; Work environment (incongruous/ threatening), and locus of control (external); Work-life balance

Introduction

Nursing as a profession has long been plagued with professional or occupational burnout for as long as people have been working. The prevalence of professional or occupational burnout is not lost on the nursing as a profession. The prevalence of burnout among nursing professionals is high and the following indicators have been studied: Gender, age, marital status, level of healthcare, shift work, work shift and healthcare service areas predicted at least one of the dimensions of the syndrome. Burnout is a combination of chronic exhaustion and negative attitudes toward work with damaging consequences for employee health and productivity. Chronic burnout is considered as an important moderator of daily employee functioning. Bakker & Costac, [1] state "Chronic burnout strengthens the loss cycle of daily job demands, daily exhaustion, and daily self-undermining and the burned-out worker needs help in structurally changing their working conditions and health status" [1].

The medical model has recognized the propensity for medical students and physicians alike, to progress into burnout with studies focusing on burnout in the various practice areas. Physician surveys have been conducted within each of the specialty focus areas that physicians practice with alarming high rates of physician occupational burnout being recognized. Many additional studies have been conducted for emergency department physicians, which identify a higher burnout rate within that setting, specifically noting 60% physician burnout rates. There is limited research on advanced practice nurse's external or work locus of control and the impact of professional or occupational burnout. The concept of professional or occupational burnout and the impact on the Nurse Practitioner's (NP's) role is of primary focus. The role of the Nurse Practitioner (NP) and risk of burnout may be equivalent to physicians, in the primary care provider role or general Internal Medicine - is of interest. In addition, understanding or recognizing the relationship of occupational burnout amongst primary healthcare providers to patient safety outcomes is of concern for the following risks: medical errors, and lower patient satisfaction [2] or inability of patients to reach desired outcomes. There are several effects of physician burnout, as reported on many longitudinal surveys being conducted within the medical community, but few surveys identified are pertaining specifically to NP's.

Purpose

The purpose was to explore the literature for incidence, themes and factors associated with occupational burnout amongst Nurse Practitioner's [Family (FNP), Adult (ANP), Adult-Geriatric (AGNP), Gerontological (GNP)] actively employed in clinical practice as a Primary Care Provider (PCP) or Advanced Practice Provider (APP).

Definitions

Nurse Practitioner: Nurse Practitioners who are licensed to practice (diagnose, prescribe and treat) medicine and may do so independently [3].

Burnout: Burnout is considered a chronic response to prolonged, job-related, negative stressors [4]. "A negative state of physical, emotional, and mental exhaustion that is the result of a gradual process of disillusionment" [5].

Burnout Syndrome: Freudenberger [6] was the first clinician to coin the term "Burnout Syndrome" to describe a state of physical and emotional depletion experienced most frequently in human service professions, such as health care, mental health, and social services, ones involving caregiving relationships to service recipients.

Burnout Theory: "All persons belonging to the phases of frustrated strivings, success depression, strenuous noncommitment, general depression, circumscribed frustration and work alienation, irrespective of their etiological pattern" qualifies as experiencing burnout and is a theoretical approach grouped on a hierarchy of levels: loss of autonomy, environmental factors and personality dispositions, individual case studies and individual action episodes or disturbed action episodes [5].

Background

The medical profession has evaluatedburnout within the various focus areas of physician practice. According to the Medscape Family Physician Lifestyle Report (2017), studies reveal 55-60% burnout, particularly amongst Emergency Room, Internal Medicine and Family Practice focus areas [7]. Their findings identify significant increases within the longitudinal studies for occupational burnout in the recent 10-years. The comparison from prior studies conducted in 2011, reflected an increase in burn-out by 10% in all physician specialties (Medscape, 2015, 2016). Influencing factors ranking amongst the culprits of burnout included: work-life balance, organizational coherence, electronic health record burdens, paperwork, volume of patients seen and other administrative burdens were highest on the impact of burnout. Women physicians had a higher burnout risk as did younger physicians than older physicians who had more experience in practice or had more years in practice [8]. Maslach & Leiter [9] identified three interrelated dimensions to burnout continuum: exhaustion-energy, cynicism-involvement, and inefficacy-efficacy and found there is a strong robust relationship between them. Lack of recognition as cited by Cordes & Dougherty [10], from service recipients, colleagues, managers, and external stakeholders devalues both the work and the workers and is closely associated with feelings of inefficacy as cited by Maslach [9]. Research based on these theoretical frameworks of Bakker, et al. [11]; Schaufeli, et al. [12], has found that a lack of reciprocity, or imbalanced social exchange processes, is predictive of burnout while control over the workplace hazards increases employees' energy and health at work.

Methods

Design: Systematic Research Review

Data Sources: CINHAHL Complete [1993 - 2017]. Cochrane Library [1990 - 2017]. CQEW Nursing [1993 - 2017]. Health Source: Nursing Academic Ed. [1981 - 2017]. Medline [1992 - 2017]. Medscape [1993 - 2017]. PubMed [1990 - 2017]. PsychINFO [1981 - 2017]. See the data source matrix within (Figure 1).

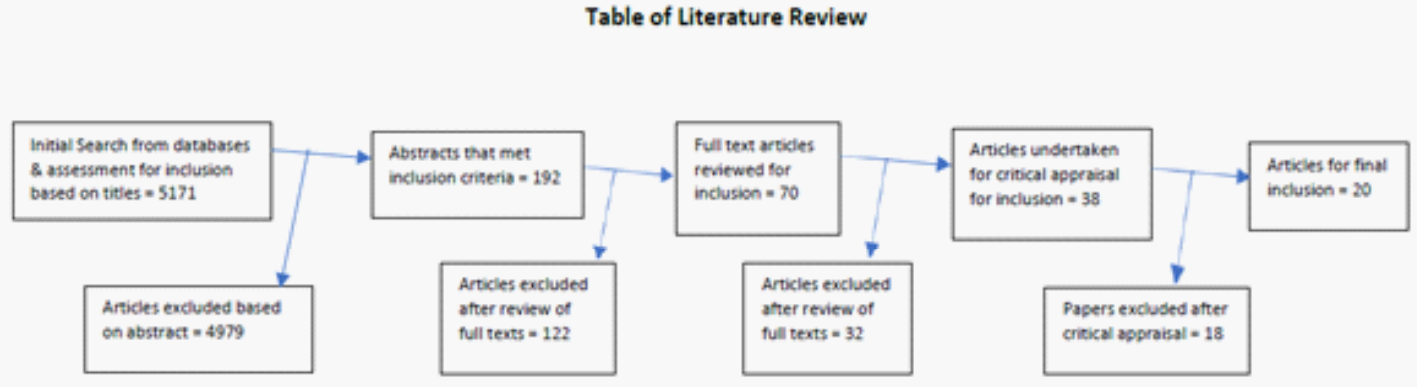


Figure 1: Matrix of Literature Review Search.

Database Selection: Electronic database selection, the number of potential articles and those articles reviewed. CINHAHL Complete, MEDLINE, Health and Psyche Instruments, Health Source: Nursing/Academic Edition, Academic Search Complete, Professional Development Collection, Psychology and Behavioral Sciences, Health Reference Center Academic (192). See the database listing within (Table 1) and the literature review listing within (Table 2).

Database	Papers amongst the search	Papers identified for review
CINHAHL Complete [1981 – 2017]		
Burnout & NPs	278	9
NP Professional Burnout	62	5
NP, Burnout research	31	2
Occupational Burnout & NP	14	3
Occupational Burnout & FNP	3	0
Occupational Burnout & APNs	28	2
Occupational Burnout & NP role	6	1
Occupational Burnout & NP as PCP	105	10
Burnout, Burn-out or Burn out & NP	56	6
Burnout & Locus of Control, external	11	9
Cochrane Library [1983 – 2017]		
Burnout & NPs	9	1
Medline [1981 – 2017]		
Occupational Burnout & NPs	8	1
Burnout & NP	52	6
Burnout Research & NP	25	3
Burnout & Locus of Control, External	143	33
Locus of Control & NP	53	1
Locus of Control & Burnout	49	8

Medscape [1981 – 2017		
NP role & Burnout	1493	25
PsychINFO [1981 – 2017]	62	38
Health Source: Nursing/Academic Ed	45	3
Occupational Burnout NPs, Burnout Research	32	3
Burnout & APNs	20	3
PubMed [1971 – 2017]		
NP Burnout	66	
→Burnout & NPs	55	10
Wiley Online [2016 – 2017]		
Burnout Research	2362	
→Burnout Research, FNP Primary Care	97	3
Burnout Research, NP in PCP, Occupational Burnout	15	2
Health Reference Center Academic		
Burnout Research, NPs	11	
→Burnout Research, Occupational Burnout, NPs	4	
Burnout Research, Occupational Burnout, GPs	16	2
Burnout Research		
Nurse Practitioners	6	3

Table 1: Literature Search of Occupational Burnout amongst NPs.

Study	Study Design	Geographical setting	Study Setting	Study Focus	Sample Size	Methods Study design	Outcomes Measured	Results
[13]	Descriptive Nonexperimental	Arizona	APNs in Arizona	Adult APNs, NPs in AZ, Job Satisfaction	329 NPs in AZ 155 surveys completed (47%)	ANOVA, t-tests, Nonparametric correlation	MNPJSS survey. Demographic data, income, employment status & type	No relationship between job satisfaction and gender, employer type, annual income, or employment status. NPs were least satisfied with intra-practice partnership/ collegiality, professional growth, and benefits.
[14]	descriptive statistics and zero-order correlations	Global: 43 nations from 32 countries 48 states in USA	U.S. employees using Mechanical Turk	Income inequality, job insecurity, burnout	Study 1 consisting of 23,778 individuals nested in 30 countries Study 2 collected data from 402 employees residing in 48 states in the United States,	Drawing from conservation of resource (COR) theory two-level Type II mediated moderation structural equation modeling (SEM); multilevel mediated moderation SEM	International Social Survey Program (ISSP); Gini coefficient provided Standardized World Income Inequality Database. Individual-level JI and burnout (i.e., exhaustion) came from the International Social Survey Program (ISSP), a continuing, annual of program of cross-national collaboration (43 nations) on surveys	The basic tenant of COR theory is that people are driven to maintain, foster, and protect resources (i.e., objects, conditions, personal characteristics, energies). Hypothesis 1 (replication): Job Insecurity is positively related to burnout (i.e., exhaustion in Study 1 and emotional exhaustion and cynicism in Study 2). Income inequality [country level (Study 1) & state level (Study 2)] moderates the positive relation of job insecurity & burnout. Stronger relationship with > income inequality.

[9]	Descriptive-correlational; Longitudinal study	Large N. American University	Organizational employees	burnout, job engagement, early indicators	466 employees; business and administrative services. Time 1: 992, or 87% response rate. Time 2: 812, or 72% response rate.	annual assessment process & checkup survey process. Survey, Longitudinal study	6 areas of work-life identified are predictive of burnout & congruities are predictive of engagement. Burnout– engagement. 6 areas of work-life: workload, control, reward, community, fairness, and values	+ results support early predictors of burnout. Cronbach's alpha, & correlations for 3 dimensions of burnout and 6 areas of work-life. People w/ inconsistent pattern at Time 1 were > likelihood to change than those who did not.E22
[9]	Descriptive-correlational; Longitudinal study	Eastern Canada.	Participating organizations were four healthcare districts	Burnout	Study 1: N = 1766 Study 2: N = 1166 health care employees, including a wide range of clinical, administrative, & support areas with nursing as the > single occupational group	Surveys ANOVA	Latent profile analysis, with two large datasets, was used to identify multiple person-centered profiles across the burnout – engagement continuum, as assessed by the three dimensions of the Maslach Burnout Inventory (MBI).	5 profiles emerged: Burnout (high on all 3 dimensions), Engagement (low on all 3), Overextended (high on exhaustion only), Disengaged (high on cynicism only), and Ineffective (high on inefficacy only). Each profile w/ a different pattern of correlates with organizational variables. The Disengaged profile = more negative than Overextended, & closer to the Burnout profile, which argues against the use of exhaustion alone as a proxy for burnout.
[15]	Longitudinal study. Correlation	United States. recruited by telephone.	recruited by telephone.	Nurses' perceptions of control; indices of burnout & depressive symptomatology; perceptions of job uncontrollability	N = 101 of 127 nurses Time 1: N = 127 of 167 Time 2: N = 119 of 127	Test-re-test; coefficients of correlation; Multiple regression.	alternative structural equation models; cross-lagged panel design. LISREL-7 procedures were used to evaluate the longitudinal models.	Burnout realism is distinct from depressive realism & burnout realism is situationally determined as burned-out nurse's perceptions matched the criterion of control but did not deviate beyond criterion in the direction of underestimation of control & supported by the threat-to-control data. Excessive exposure to demanding & nonchallenging environments increases perceptual accuracy, & is associated with burnout.
[1]	Theoretical analysis	Global	Burnout Diary research	analyze the burnout phenomenon of the burned-out worker. Capture the process leading to burnout, and explain chronic burnout.	3000 Finnish workers, 2000 dentists; 406 social workers in CA; 80 volunteer counselors in USA.	Theoretical Analysis. In a large meta-analytic study of ~115 different studies.	Review the burnout antecedents & consequences; propose a model with chronic burnout as a moderator of daily functioning in the workplace.	An over-all model of burnout in which chronic burnout is considered as an important moderator of daily employee functioning was developed.
[16]	Descriptive summary; correlational	Minnesota	Faculty physicians Academic, General Internal Medicine	career satisfaction among physicians specializing in internal medicine and its related subspecialties.	Email Survey 556 physicians Department of Internal Medicine at a large academic medical center; Approximately 23% of the participants were women.	Multivariant analysis; Odds ratio; chi square	Survey evaluated demographic variables, work characteristics, and career satisfaction. Burnout was measured using the Maslach Burnout Inventory.	34% of faculty members met the criteria for burnout. Women (43% vs 31%; P = .02) and physicians younger than 55 years (37.3% vs 19.4%; P < .001) had higher rates of burnout. Those spending less than 20% of their time (approximately 1 d/wk) on most meaningful activity had higher rates of burnout (53.8% vs 29.9%; P<.001). Time spent on most meaningful activity was the largest predictor of burnout on multivariate analysis (odds ratio, 2.75; P = .001).

[17]	Literature Review; Descriptive	USA	nurse practitioner (NP) practice in primary care settings.	NPs, Work environments: Primary Care: organizational climate & culture	A review to investigate literature. More than 32 definitions of organizational climate have been reported in the literature	A literature search was conducted using MEDLINE, PubMed, HealthSTAR/ Ovid, ISI Web of Science, and several other health policy and nursing databases.	Survey of Organizational Attributes for Primary Care (SOAPC) was developed to assess the organizational attributes of primary care practices. The Practice Environment Scale of the Nursing Work Index (PES-NWI). Organizational Climate Questionnaire; Nursing Context Index (NCI); Nursing Workplace Satisfaction Questionnaire (NWSQ); Professionalism and Environmental Factors in the Workplace Questionnaire	Primary care settings, organizational climate barriers, such as poor communication and lack of support for NPs, prevent NPs in primary care settings from fully utilizing their skills and knowledge to provide high-quality patient care, ethical challenges, low levels of empowerment, and dissatisfaction with intra-practice partnerships. The evidence supports that organizations should strive to improve organizational climate for NP practice.
[18]	Descriptive summary; correlational	Spain	Burnout levels were evaluated in a group of nurses.	professional burnout; Nursing Prevalence; Risk factors	676 nursing professionals from public health centers.	Questionnaires. Cross-sectional studies; Multilinear regression; t-test	Nurse Burnout levels were evaluated. Dependent variables were the three Burnout dimensions: emotional exhaustion, depersonalization & personal accomplishment. Independent variables were sociodemographic, organizational, personality-related variables.	There were statistically significant differences in burnout levels associated with the following variables: age, gender, marital status, having children, level of healthcare, type of work shift, healthcare service areas and conducting administrative tasks. Burnout was also associated with personality-related variables.
[19]	Descriptive summary; Correlational	France	business owner-managers	Burnout; Job stressors; Occupational loneliness; Entrepreneurial orientation; SME owner-managers	377 business owner-managers in France	Questionnaires. Multi-wave data;	short phone questionnaire; response rate = 75% and data were collected by phone at four different times over an eight-month period. Examine occupational stress in small-to-medium enterprise (SMEs) owner-manager; further explore individual & contextual factors for burnout vulnerability.	The results showed that the conditional indirect effect of loneliness was stronger and significant when entrepreneurial orientation is low, but weaker and not significant when entrepreneurial orientation is high.

[20]	Descriptive Summary; Correlational	Helsinki, Finland	University Student Study. Teachers, Researchers, Mainly in Humanities & Social Sciences disciplines	Burnout; Work engagement Workaholism; The circumplex model of subjective well-being at work; Highly educated employees; Person-oriented approach	sample of 292 Time 1 trial (77 men, 215 women); Time 2 trial 161 (40men, 121women; Time 3 trial 125 of the participants were the same	longitudinal study; chi square; correlation; Latent Profile Analysis (LPA)	75% of the participants worked in the public sector – in universities, the civil service, and municipalities – and the remaining 25% in private sector organizations. 22.3% were teachers or researchers— in humanities and social sciences disciplines, while the rest worked in various other fields, i.e. social work. 71.3% felt that their education was appropriate for their current job. General Survey (MBI-GS); Areas of Work-life Survey (AWLS); Utrecht Work Engagement Scale (UWES); Work Addiction Risk Test; Recovery experience Questionnaire.	Identify different profiles of subjective well-being at work (i.e. burnout, work engagement and workaholism) among highly educated employees. Results revealed that employees with the Engaged profile experienced high levels of energy and dedication, whereas employees with the Exhausted-Workaholic profile experienced exhaustion, cynicism and workaholism. Social pessimism in the transition from high education to work predicted poor subjective well-being at work. Workaholism decreased during the career among members of the Exhausted-workaholic profile. Engaged employees experienced detachment and relaxation, life satisfaction and rewards.
[21]	Descriptive Summary; Correlational	Holland	Dutch General Practitioners, gender (sex) differences in burnout	Burnout gender differences in male versus female GPs.	Sample of 212 GPs of which 128 were male.	A three-wave longitudinal study (2002, 2004, 2006) in a random sample. Data were analyzed by means of SPSS and LISREL.	Data by self-report questionnaires– Maslach Burnout Inventory. Determine causal order of the three burnout dimensions among male and female GPs and result differences of burnout between genders.	20% of the GPs is clinically burned out. Evidence for the etiological process of burnout or causal order of the three burnout dimensions, differs between men and women. Women seem to develop more emotional exhaustion over time, even when worked fewer hours than male GPs. In addition, men scored - on average - higher on depersonalization. Women who are exhausted and depersonalizing their patients, feel guilty and less certain about their work and the quality of care provided.
[22]	Descriptive Summary; correlational	Global	Literature Search	locus of control, work locus of control, general locus of control, personality, meta-analysis	Research. Literature search of Spector's (2008) online bibliography of work locus of control research. Using the search term work locus of control; additional studies via the PsycINFO database; Google Scholar	A meta-analysis examined the hypothesized consequences of work and general locus of control with a Regression analysis.	Review the relationship between locus of control and several criterion variables that are routinely examined in organizational research. Internal locus of control (i.e., those who believe that they can control their own lives) and individuals who have an external locus of control (i.e., those who believe that their lives are controlled by outside influences, such as other people or fate).	Work locus of control yielded stronger relationships with work-related criteria (e.g., job satisfaction, affective commitment, and burnout) than general locus of control. General locus of control had stronger relationships with general criteria (e.g., life satisfaction, affective commitment, & burnout). Regression analysis found unique effects for both work and general locus of control. 1) many of the effects of locus of control may occur via perceptual processes. 2) locus of control may influence job performance and career success via effects on motivational processes. 3) locus of control may influence interpersonal relationships at work via effects on one's behavior in social situations.

[23]	Descriptive Summary; correlational	Italy	Hospital workers: nurses & other clinicians	Burnout; cynicism; exhaustion; job control; workload	352 hospital workers from five Italian public hospitals in 2013. voluntarily completed a self-administered paper questionnaire	Questionnaire. Cross-sectional survey	Measures for exhaustion, cynicism, job control, and workload. Burnout among health care workers is associated with high turnover rates and absenteeism due to sickness, relative ineffectiveness in the workplace, as well as low job satisfaction.	Return rate of 81.1%. Results supported the moderation effect of job control on the relationship between workload and exhaustion. Results found support for the sequential link from exhaustion to cynicism. Workload is positively related to exhaustion with $p < 0.001$; job control is negatively related to exhaustion with $p < 0.001$; job control moderates the relationship between workload and exhaustion with $p < 0.001$; exhaustion is positively related to cynicism with 95% confidence intervals; and thus, exhaustion mediates the relationship between workload and cynicism.
[24]	Descriptive Summary	Global. studies were conducted across 16 different countries, six continents, with a large proportion being based in America.	Literature Review Healthcare professionals	To determine whether there is an association between healthcare professionals' wellbeing and burnout, with patient safety.	46 studies. studied professions: nurses (n = 24 studies), physicians (n = 7), pharmacists (n = 2), hospital staff (n = 2), paramedics (n = 1), surgeons (n = 2), anesthetists (n = 1) doctors in training (n = 8). PCP physicians (n = 1)	Systematic research review. Data Sources: PsychInfo (1806 to July 2015), Medline (1946 to July 2015), Embase (1947 to July 2015) and Scopus (1823 to July 2015) were searched, along with reference lists of eligible articles.	Systematic research review. Quantitative, empirical studies: i) either a measure of wellbeing or burnout, and ii) patient safety, in healthcare staff populations. MBI; General Health Questionnaire (GHQ), Harvard National Depression Screening Day Scale (HANDS), linear stress scales, Quality of Life scales, and emotional distress. 1. To explore the association between wellbeing in health care professionals and patient safety. 2. To explore the association between burnout in health care professionals and patient safety. 3. To explore the studies that measure both wellbeing and burnout in relation to patient safety	46 studies were identified. 16 of 27 wellbeing studies found a significant correlation between poor wellbeing & worse patient safety, with 6 studies finding an association with some but not all scales used, and one study finding a significant association-- but in the opposite of majority of studies. 21 of 30 studies measuring burnout found a significant association between burnout and patient safety, whilst 4 studies found an association between one or more (but not all) subscales of the burnout measures employed, and patient safety.

[25]	Descriptive Summary; Correlational	United States	Physicians	catalogue work-life challenges among academic GIM divisions; to provide data cataloguing stress, burnout, and their predictors among general internists nationally; and to advise clinical and administrative leaders on targeted interventions to improve work-life, wellness, and career attractiveness within GIM.	1235 clinicians sampled. General internal medicine (GIM) physicians, NPs, Pas	Email survey. Questionnaire. 15 GIM divisions. Divisions were recruited from the Northeast, Mid-Atlantic, South, Midwest, and Western regions. Many divisions included both hospital- and ambulatory-based clinicians. Several included Veterans Affairs (VA) and civilian clinicians	An email survey of physicians, nurse practitioners, and physician assistants in. A ten-item survey on stress, burnout, and work conditions such as electronic medical record (EMR) challenges. Categorized into burnout, high stress, high control, chaos, good teamwork, high values alignment, documentation time pressure, and excessive home EMR use. 1. Workload 2. Workday structure 3. Staff support 4. EMR stress/ documentation burden 5. Leadership 6. Work–home balance	Of 1235 clinicians sampled, 579 responded (47%). High stress was present in 67%, with 38% burned out (burnout range 10–56% by division). Half of respondents had low work control, 60% reported high documentation time pressure, ½ described too much EMR time, & most reported very busy or chaotic workplaces. Key themes were: short visits, insufficient support staff, a Relative Value Unit mentality, documentation time pressure, & undervaluing education. 2/3 felt aligned with departmental leaders' values, and ¾ were satisfied with teamwork. Burnout was associated with high stress, low work control, and low values alignment with leaders (all $p<0.001$). The 45 VA faculty had <burnout than civilian counterparts (17% vs. 40%, $p<0.05$). Hospitalists described better teamwork than ambulatory clinicians & fewer hospitalists noted documentation time pressure (both $p<0.001$)
[26]	Descriptive Summary; Correlation	Holland	Company Managers Telecom; Blue Collar workers-food service: Positive thinking seminar recruits	Burnout; Extraversion; Neuroticism; Personality; Temperament; Work engagement	572 Dutch employees	standard deviations computed for 1. burnout, work engagement, personality & temperament. 2. Pearson correlations examined associations among variables.	Participants were men (83%). The mean age was 42 years (SD = 8.0). 70% had a managerial position, 52% completed at least college education. Sample 1: managers from a Dutch Telecom Company Sample 2: blue-collar workers from a food-processing company Sample 3: recruited among participants of a seminar on "positive thinking"	Results showed that high neuroticism is the core characteristic of burnout, whereas work engagement is characterized by low neuroticism in combination with high extraversion and high levels of mobility. Thus, personality and temperament make a difference as far as burnout and work engagement are concerned.

[27]	Descriptive Summary; Correlation	New Haven, CT	Patients: CLPS, NIMH-funded, multiple-site, personality disorders	self-criticism; perfectionism; depression; psychosocial impairment; perceived social support	107 patients. Participants were 107 patients from a larger sample of 162 patients recruited for the CLPS, a NIMH-funded, multiple-site, longitudinal, repeated-measures study of personality disorders	Longitudinal study; Repeated measures; 3-wave design: Time 1: Time 2 Time 3 Chi-square; Zero-order correlations; Regression Analysis. All participants were treatment seekers or treatment consumers from multiple clinical settings at entry to the CLPS. Recruitment of participants was targeted for patients meeting DSM-IV criteria for at least 1 of 4 personality disorders or major depressive disorder without personality disorder.	self-criticism (SC), assessed by the Dysfunctional Attitude Scale (DAS; 1), Neuroticism was assessed using the NEO-PI-R, Depressive Symptoms—The 24-item depression scale from the Personality Assessment Inventory (PAI), Major depression scores were rated by the interviewers using the LIFEPS Psychiatric Status Ratings, Psychosocial functioning was assessed by the interviewers using the LIFE-PS, Negative Social Interactions—A revised 24-item version of the Test of Negative Social Exchange (TENSE), Perceived Social Support—Three four-item scales from the Social Provisions Scale (SPS).	Dysfunctional Attitude Scale self-criticism and neuroticism were associated with self-report depressive symptoms, interviewer-rated major depression, & global domains of psychosocial functional impairment. A relationship between SC & depressive symptoms is explained by the tendency of these individuals to experience higher levels of daily stress and to negatively appraise the availability of social resources. Negative social interactions were indirectly related to the depression/global impairment composite through lower perceived social support, but negative social interactions were not directly related to the depression/global impairment over time. It's possible for negative social interactions to be a unique prospective predictor of maladjustment outcomes over time. Findings demonstrated that individuals with higher levels of SC nevertheless exhibited lower perceptions of social support, which, explained their vulnerability to major depression & global psychosocial impairment. Causal inferences demonstrate negative perceptions of social support mediation or explain the relation between SC & depression & psychosocial impairment over time.
[28]	Descriptive Summary	Global	Systematic Research Review	Burnout, Emotional labor, Conservation of resources (COR) theory.	accurately assess the quantitative relations, through meta-analysis, of job demands, job resources, & organizational attitudes with burnout	Meta-analysis, PsycINFO, MEDLINE, and Social Sciences Citation Index computer databases were used to conduct a literature search reviewing articles from 1981 to 2010. In the PsycINFO and MEDLINE	The version of the Maslach Burnout Inventory used was explored as a moderator of the variables on job demands, resources, and attitudes and their relationship with burnout to the Conservation of resources (COR) theory. Emotional exhaustion occurs first. Cynicism occurs as a maladaptive coping mechanism to deal with the excessive demands and lack of resources. COR theory hypothesizes that people strive to obtain, build, and protect that which they value & strain occurs when these resources are threatened, lost, or there is a failure of gain after investment of resources.	Results suggest that higher demands, lower resources, and lower adaptive organizational attitudes are associated with burnout. Hypothesis 1. Demands are positively related to emotional exhaustion, cynicism, and reduced personal accomplishment. Hypothesis 2. Perceived control and autonomy at work are negatively related to emotional exhaustion, cynicism, and reduced personal accomplishment. Hypothesis 3. Job satisfaction and organizational commitment are negatively related to emotional exhaustion, cynicism, and reduced personal accomplishment; in contrast turnover intentions are positively related to the three dimensions of burnout.

[29]	Descriptive Summary	United Kingdom	Systematic Research Review. Health Professionals	work factors; staff; and ill health/absenteeism/economic consequences	Healthcare Professionals: Physicians, Nurses Sample sizes range N = 72 to N = 1176	Systematic review. Variety of databases. Four electronic databases used: Medline (1987–99), PsychInfo (1987–99), Embase (1991–99), & Cochrane Controlled Trials Register (1987–99).	Systematic Research Review. The primary focus of this review is the association between work factors and psychological ill health among health care staff.	Doctors found an association between work control and social support and psychological distress. Among nurses, lack of co-worker support, job influence, and organizational climate and role ambiguity were associated with psychological distress.

Table 2: Lit Review-NP Occupational Burnout.

Exclusion Criteria: Duplicates were removed. Focus areas for Critical Care, Certified Registered Nurse Anesthetist (CRNA), Clinical Nurse Specialist (CNS), Neonatal, Pediatrics, oncology, Psych/Mental Health, Midwife, general surgery, obstetrics, women's health, Palliative Care/Hospice, Long-term Care, Nursing Management, and acute care specialty services as well as other health care staff roles or non-relevant focus area topics were excluded.

Inclusion Criteria: Published peer reviewed observational, cross-sectional, longitudinal and prospective studies focusing on burnout in the role of a direct health care provider as an Advanced Practice Nurse, Nurse Practitioner (certified in Family, Adult, Adult-Geriatrics and Gerontological), Advanced Practice Provider, Physician Assistants (PAs), physician's in comparison to NP and PA roles within primary care, Internal Medicine, or as a generalist medical provider role with a predominant focus in areas related to NP practice environments for primary care and Internal Medicine type practices were included. English language was required and there were no restrictions on year of publication.

Literature Review

Burnout

Leiter & Maslach [30] reveal there are five profiles that have emerged from the burnout analysis: Burnout (high on all three dimensions), Engagement (low on all three), Overextended (high on exhaustion only), Disengaged (high on cynicism only), and Ineffective (high on inefficacy only). Each of these profiles showed a different pattern of correlates with organizational variables. The Disengaged profile was more negative than Overextended, and closer to the Burnout profile, which argues against the use of exhaustion alone as a proxy for burnout. Canadas-De la Fuente, et al. [18] identified that neuroticism, agreeability, extraversion and conscientiousness are personality traits that predict at least two of the dimensions of burnout syndrome in nurses. Historically, studies investigated the physical and psychological symptoms, complaints or effects of burnout on the individual within various service professions or occupations. Burnout may be interpreted negatively as avoidance of professional responsibilities [31] or loss of job interest [32] in a way that often leaves the person feeling unsupported. Risk factors for burnout include a lack of observable clinical effectiveness, isolation, ambivalence about competency and working with resistive, confrontational, violent or aggressive clients [33].

Work Locus of Control

Perceptions of lack of job control are antecedent to burnout, which, in turn, precedes depressive affect. McKnight, & Glass [15] wrote greater burnout is associated with less personal control. The article identified a perceived lack of control led to burnout and then to a depressive affect. The results of a 2-year longitudinal study of nurses reflected on the initial assessment and follow-up, whereby the burned-out nurses displayed accurate perceptions of job uncontrollability. A national survey conducted in 2012, within the Academic General Internal Medicine (GIM) division [25] reported: short visits, insufficient support staff, documentation time pressure, and undervaluing education as key themes. Other factors for work condition identified included: very busy or chaotic work environments and too much time spent on Electronic Medical (EMR) with additional EMR challenges as impacting factors for stress and burnout, particularly in the ambulatory or out-patient locations versus the inpatient or hospital areas. The Linzer study, conducted in 2012, revealed burnout was associated with high stress, low work control and low values alignment with leaders [25]. A survey was conducted amongst 465 physician generalists (general internal medicine, primary care internal medicine, preventive medicine, or hospital internal medicine) in one major hospital. The group generalist group represented various roles general practice, research and academia demonstrated more time spent in meaningful work resulted greater satisfaction and less burnout. Women represented 23% of those surveyed. The results of the overall study revealed 34% of faculty members were burned out. Generalists were more likely to be burned out than subspecialists (42.3%), women (43%) and physicians younger than 55 years (37.3%) were recognized as burned out. Burnout was observed without regard for relationship status or if there were children 18 years or younger living at home [16].

The study conducted reported by Jiang & Probst [14] evaluated individual-level job insecurity and burnout. The Conservation of Resources (COR) theory was used in the study. The basic tenant of COR theory is that people are driven to maintain, foster, and protect resources (i.e., objects, conditions, personal characteristics, energies) and that income inequality at the country-level and state-level threatens one's obtainment of object resources, which in turn would result in an exacerbation of personal stress response and burnout. The findings contribute to the literature on psychological health disparities for income-inequality and the results support the exacerbating role of higher-level income inequality on the job-insecurity-burnout relationship. There was a positive relationship to the emotional exhaustion, cynicism for burnout and was stronger in context with greater income inequality. Wang Q, et al. [22] evaluated work locus of control and distinguishes between individuals who have an internal locus of control (i.e., those who believe that they can control their own lives) and individuals who have an external locus of control (i.e., those who believe that their lives are controlled by outside influences, such as other people or fate) within the work environment. Their hypothesis stated: "Work locus of control will yield stronger relationships with work-related criteria than general locus of control" and yielded a stronger relationship with work-related criteria (e.g., job satisfaction, affective commitment, and burnout) than general locus of control. The study demonstrated three conclusions: 1) many of the effects of locus of control may occur via perceptual processes, 2) locus of control may influence job performance and career success via effects on motivational processes, and 3), locus of control may influence interpersonal relationships at work via effects on one's behavior in social situations.

Alacron [28] conducted a meta-analysis was conducted on job demands, resources, and attitudes and their relationship with burnout associated to the COR theory. The hypotheses in the study predicted that demands, resources, and organizational attitudes would be related to each dimension of burnout, several relations are worth noting. First, all three demands had significant relations with burnout. Specifically, demands had the strongest relation with exhaustion. Organizational attitudes had moderate to strong relations with burnout. Reduced personal accomplishment had moderate correlations with job attitudes. Resources had seemingly consistent relations with exhaustion and cynicism, but a stronger relation with reduced personal accomplishment.

Work-Life Balance and Engagement

Small to medium Sized Enterprise Owner-Managers (SMEs) are vulnerable to burnout and Fernet, et al. [19], discovered complex pathways toward burnout and job stressors associated with the contextual factors of entrepreneurial orientation (occupational loneliness) with low versus high entrepreneurial orientation.

Innanena, et al. [20] conducted a longitudinal study to identify different profiles of subject wellbeing at work (i.e. burnout, work engagement and workaholism) among highly educated employees. It is noted that work engaged employees experienced detachment and relaxation, life satisfaction and rewards. The study found two latent classes: Engaged and Exhausted-Workaholic. The results revealed that employees with the Engaged profile experienced high levels of energy and dedication, whereas employees with the Exhausted-Workaholic profile experienced exhaustion, cynicism and workaholism. Social pessimism was further identified as the transition from high education to work predicted poor subjective well-being at work. Organizational climate may be a barrier for nurse practitioners within primary care. The work conducted by Poghosyan, et al. [17] investigated this issue and found the following themes: poor communication and lack of support for NPs, prevent NPs in primary care settings from fully utilizing their skills and knowledge to provide high-quality patient care. Even though NPs are providing care to millions of patients, little is known about outcome affects regarding organizational climate, the workforce, and the direct care impact. Linzer, et al. [25] conducted an email survey of physicians, nurse practitioners, and physician assistants in 15 General Internal Medicine (GIM) divisions. The survey participants were recruited from Veterans Affairs (VA) divisions form around the United States where a ten-item survey queried stress, burnout, and work conditions such as electronic medical record (EMR) challenges for the VA and civilian clinicians. The survey items were categorized into burnout, high stress, chaos, good teamwork, high values alignment documentation pressures and excessive EMR use. Key themes from the qualitative analysis included: short visits, insufficient support staff, a Relative Value Unit mentality, documentation time pressure, and undervaluing education. The survey response rate was 47% with 579 responses from 1235 clinicians sampled. The high stress was present in 67 %, with 38 % burned out (burnout range 10-56 % by division). Half of respondents had low work control, 60 % reported high documentation time pressure, half described too much home EMR time, and most reported very busy or chaotic workplaces.

Well-Being, Burnout and Patient Safety

Michie & Williams [29] found an association between work factors and psychological ill health among health care staff. These factors are likely to lead to problems for patients in that both the quantity and quality of patient care may be diminished and thus a systematic examination of selected databases was conducted. The results revealed the following themes: doctors found an association between work control and social support and psychological distress; there was a lack of co-worker support among nurses; job influence, organizational climate and role ambiguity were associated with psychological distress. In addition, sickness absence was associated with work pressures and lack of training, unsupportive management style, role ambiguity, tolerance of absenteeism, and low pay. Hall, et al. [24] conducted a systematic research review

to determine whether there is an association between healthcare professionals' wellbeing, burnout with patient safety. Forty-six studies were identified and most of the studies reviewed identified that poor wellbeing and moderate to high levels of burnout were associated. The patient safety outcomes: medical errors-lacked ability to determine causality. There was a correlation between poor wellbeing and worse patient safety in 16 of 27 studies and there was a significant association between burnout and patient safety in 21 of 30 studies, with four additional studies finding an association between one or more (but not all) subscales of the burnout measures employed and patient safety.

A Dutch study was conducted to examine work engagement as a positive antipode and the differentiation of personality and temperament for neuroticism and low extraversion. The study conducted by Langelaan, et al. [26] hypothesized that employees who score high on burnout are characterized by high levels of neuroticism and low levels of extraversion and that there would be a plausible positive relationship with extraversion and a negative relationship with neuroticism. The results indicted a high neuroticism as a core characteristic of burnout and work engagement is characterized by low neuroticism in combination with high extraversion and high levels of mobility. Personality and temperament were shown to make a difference in work engagement and burnout. Dunkley, et al. [27] found an association between Self-Criticism (SC) and neuroticism with self-report depressive symptoms, interviewer-rated major depression, and global domains of psychosocial functional impairment. Their research found a relationship between SC and depressive symptoms is explained by the tendency of these individuals to experience higher levels of daily stress and to negatively appraise the availability of social resources. In addition, their research found negative social interactions were indirectly related to the depression/ global impairment composite through lower perceived social support, but that negative social interactions were not directly related to the depression/global impairment over time. They conferred a possibility that negative social interactions might not be a unique prospective predictor of maladjustment outcomes over time.

Discussion

Many psychological and behavioral theories and tools have been used to study and evaluate burnout. Maslach has a burnout theory (1981a, 1982a, 1982c, 1986) as well as an inventory tool (1981, 1982a, 1982c, 1984), Maslach & Jackson inventory tool manual [34] which has been a standard for conducting research focusing on occupational burnout. However, there are very few studies conducted specific to advanced practice nurses or nurse practitioners specifically. The healthcare landscape has once again altered toward another paradigm shift - including advanced practice providers amongst the provider variables. The synthesis review identified the five profiles that emerged from burnout research analysis: Burnout (high on all three dimensions), Engagement (low on all three), Overextended (high on exhaustion only), Disengaged (high on cynicism only), and Ineffective (high on inefficacy only) conducted by Leiter & Maslach [9]. Each of the profiles showed a different pattern of correlates with organizational variables and the disengaged profile was more negative than Overextended profile, and closer to the Burnout profile, which argues against the use of exhaustion alone as a proxy for burnout. The Canadas-De la Fuente, et al. [18], found variable statistically significant differences in burnout levels associated with the following variables: age, gender, marital status, having children, level of healthcare, type of work shift, healthcare service areas and conducting administrative tasks. In addition, their research also demonstrated that burnout was associated with personality-related variables.

Dunkley, et al. [27] found an association between Self-Criticism (SC) and neuroticism with self-report depressive symptoms, interviewer-rated major depression, and global domains of psychosocial functional impairment. Their research found a relationship between SC and depressive symptoms is explained by the tendency of these individuals to experience higher levels of daily stress and to negatively appraise the availability of social resources. In addition, their research found negative social interactions were indirectly related to the depression/ global impairment composite through lower perceived social support, but that negative social interactions were not directly related to the depression/global impairment over time. Houkes, et al. [21] found evidence for gender differences between men and women in the etiological process of burnout or causal order of the three burnout dimensions. This research identified that women seem to develop more emotional exhaustion over time, even when working fewer hours than male GPs. In addition, men scored - on average - higher on depersonalization scores. Women who are exhausted and depersonalizing their patients, also felt guilty and less certain about their work and the quality of care provided.

The evidence discussed in Poghosyan, et al. [17] supports improvement of organizational climate for NP practice and identified the following organizational climate barriers within primary care settings: such as poor communication and lack of support for NPs; preventing NPs in those settings from fully utilizing their skills and knowledge to provide high-quality patient care; have ethical challenges; low levels of empowerment; and greater dissatisfaction within intra-practice partnerships and NPs were least satisfied with intra-practice partnership/ collegiality, professional growth, and benefits. The research showed that when entrepreneurial orientation is low, the conditional indirect effect of loneliness was stronger and significant, but weaker and not significant when entrepreneurial orientation is high. Jiang and Probst [14] drew upon the basic tenant of conservation of resource theory is that people are driven to maintain, foster, and protect resources (i.e., objects, conditions, personal characteristics, energies) in their

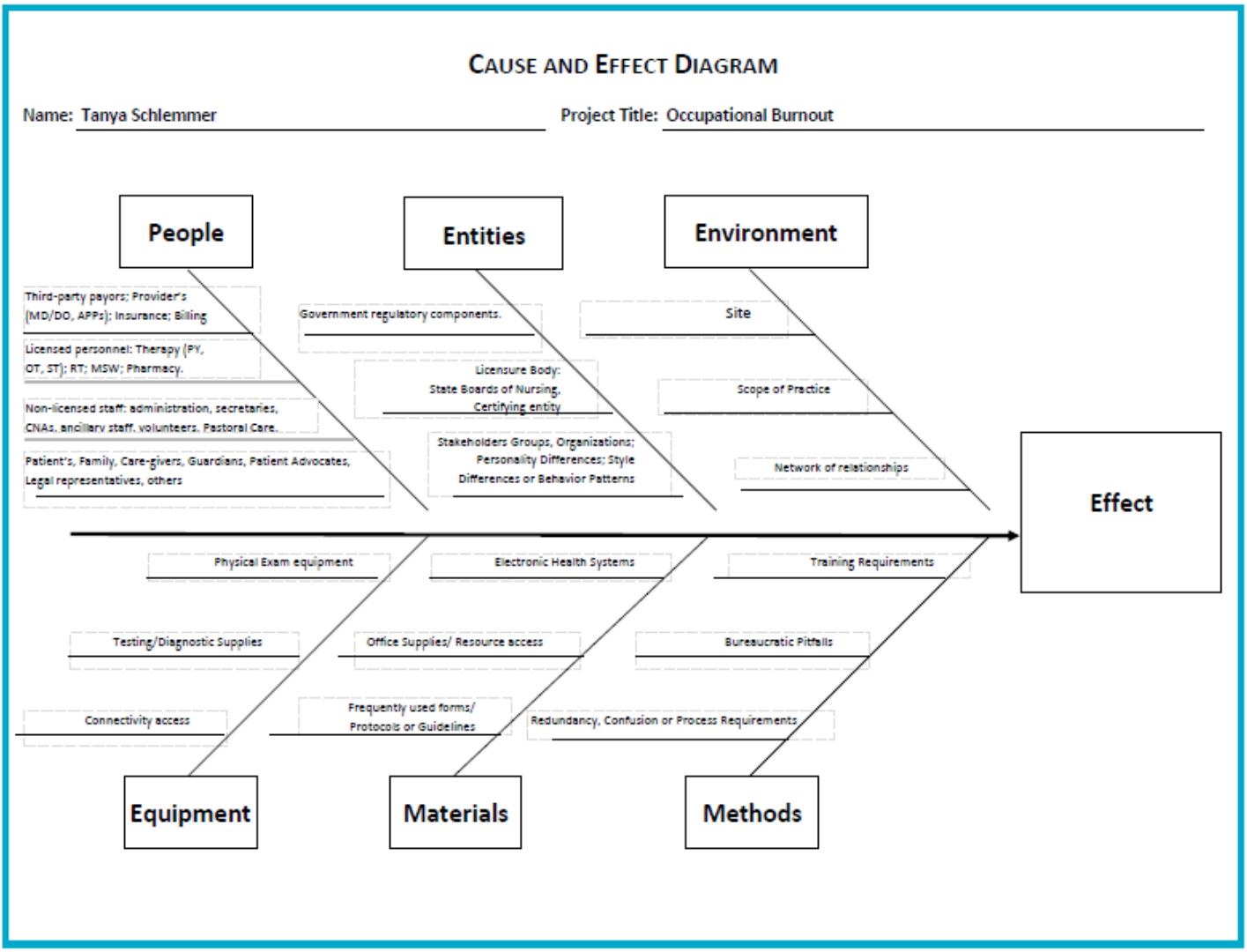
research and confirmed the following: job insecurity is positively related to burnout (i.e., exhaustion alone; emotional exhaustion and cynicism, Income inequality, at the country level and at the state level, moderates the positive relation between job insecurity and burnout such that this relationship is stronger within the context of greater income inequality.

Literature review research results by Innanena, et al. [20] revealed the following: that employees with the Engaged profile experienced high levels of energy and dedication, whereas employees with the Exhausted-Workaholic profile experienced exhaustion, cynicism and workaholism; social pessimism in the transition from high education to work predicted poor subjective well-being at work; workaholism decreased during the career among members of the Exhausted-workaholic profile; and that engaged employees experienced detachment and relaxation, life satisfaction and rewards. In addition, the results by Langelaan, et al. [26] identified that high neuroticism is the core characteristic of burnout, whereas work engagement is characterized by high extraversion and high levels of mobility in combination with low neuroticism. Thus, personality and temperament makes a difference in burnout and work engagement. Hall, et al. [24] identified a significant correlation between poor wellbeing and worse patient safety in 16 or 27 studies that measured wellbeing and found a significant association between burnout and patient safety in 21 of 30 studies that measured burnout. Their results provided support for the hypotheses about early predictors of burnout and also found a correlation for the three dimensions of burnout and the six areas of work-life. Women (43%) and physicians younger than 55 years (37.3%) had higher rates of burnout in the study conducted by Shanafelt, et al. [16]. Their study identified that those spending less than 20% of their time (approximately 1 day/week) on the most meaningful activity had higher rates of burnout (53.8%) and the time spent on the most meaningful activity was the largest predictor of burnout. Michie, et al. [29] identified that doctors found an association between work control, social support and psychological distress. Among nurses, lack of co-worker support, job influence, and organizational climate and role ambiguity were associated with psychological distress.

Linzer, et al. [25] found high stress was present in 67% of General Internal Medicine physicians with 38% burned out on average. However, the ranges of burnout were 10-56 % by division within the Veterans Affairs (VA) and civilian work environments. Half of respondents had low work control, 60% reported high documentation time pressure, half described too much home EMR time, and most reported very busy or chaotic workplaces. Key themes from the qualitative analysis were short visits, insufficient support staff, a Relative Value Unit mentality (productivity measures), documentation time pressure, and undervaluing education. Two-thirds felt aligned with departmental leaders' values, and three-quarters were satisfied with teamwork. Burnout was associated with high stress, low work control, and low values alignment with leaders. Langelaan [26] identified their results suggested higher demands, lower resources, and lower adaptive organizational attitudes are associated with burnout. The following hypotheses were correlational: Demands are positively related to emotional exhaustion, cynicism, and reduced personal accomplishment. Perceived control and autonomy at work are negatively related to emotional exhaustion, cynicism, and reduced personal accomplishment. Job satisfaction and organizational commitment are negatively related to emotional exhaustion, cynicism, and reduced personal accomplishment; in contrast turnover intentions are positively related to the three dimensions of burnout.

Barriers

The exploration of the constructs of professional burnout, specific to nurse practitioners has been a daunting task. The obstacles of identifying active and current search terms has been challenging and more difficult and frustrating than one might think. The search terms used for a literature review or a literature search seem to be ever-evolving as nursing trends shift. These terminology trends seem contribute as a process barrier for the literature review. The search terms become difficult to pinpoint and if you are unaware of the current "Lingo" your search may be incomplete. The barrier in exploration of knowledge is evident as nursing "Lingo" trends shifting of terminology continues to demonstrate a metamorphosis within paradigm shifts. The search terms become difficult to pinpoint and if you are unaware of the current "Lingo" your search may be incomplete. The concepts, ideas, recent research conducted may be housed within an assortment of databases and not readily evident under a larger umbrella of search terms. See the Cause & Effect Flow Chart in (Figure 2). The identified search terms may be within nooks and crannies of a body of work, but certainly not easily accessible when hidden or unavailable for general search terms. A novice exploring literature review searches for a simple topic discovery may not appear, unless specified terms are refined for a detailed or narrow focused subject. Methods and search barriers are restrictive to learning, knowing and to recognizing the available nursing research, thus Nursing Informatics may need to develop the field of library science to facilitate the ease of discovery over the next decade. Expanded search terms and formatting for process discovery may impart the nursing science into the nursing community and the public.


CAUSE AND EFFECT DIAGRAM
Name: Tanya Schlemmer
Project Title: Occupational Burnout
People
Entities
Environment
Third-party payors; Provider's (MD/DO, APPs); Insurance; Billing
Licensed personnel: Therapy (PY, OT, ST); RT; MSW; Pharmacy.
Non-licensed staff: administration, secretaries, CNAs, ancillary staff, volunteers, Pastoral Care.
Patient's, Family, Care-givers, Guardians, Patient Advocates, Legal representatives, others
Government regulatory components.
Licensure Body: State Boards of Nursing, Certifying entity
Stakeholders Groups, Organizations; Personality Differences; Style Differences or Behavior Patterns
Site
Scope of Practice
Network of relationships
Effect
Physical Exam equipment
Electronic Health Systems
Training Requirements
Testing/Diagnostic Supplies
Office Supplies/ Resource access
Bureaucratic Pitfalls
Connectivity access
Frequently used forms/ Protocols or Guidelines
Redundancy, Confusion or Process Requirements
Equipment
Materials
Methods

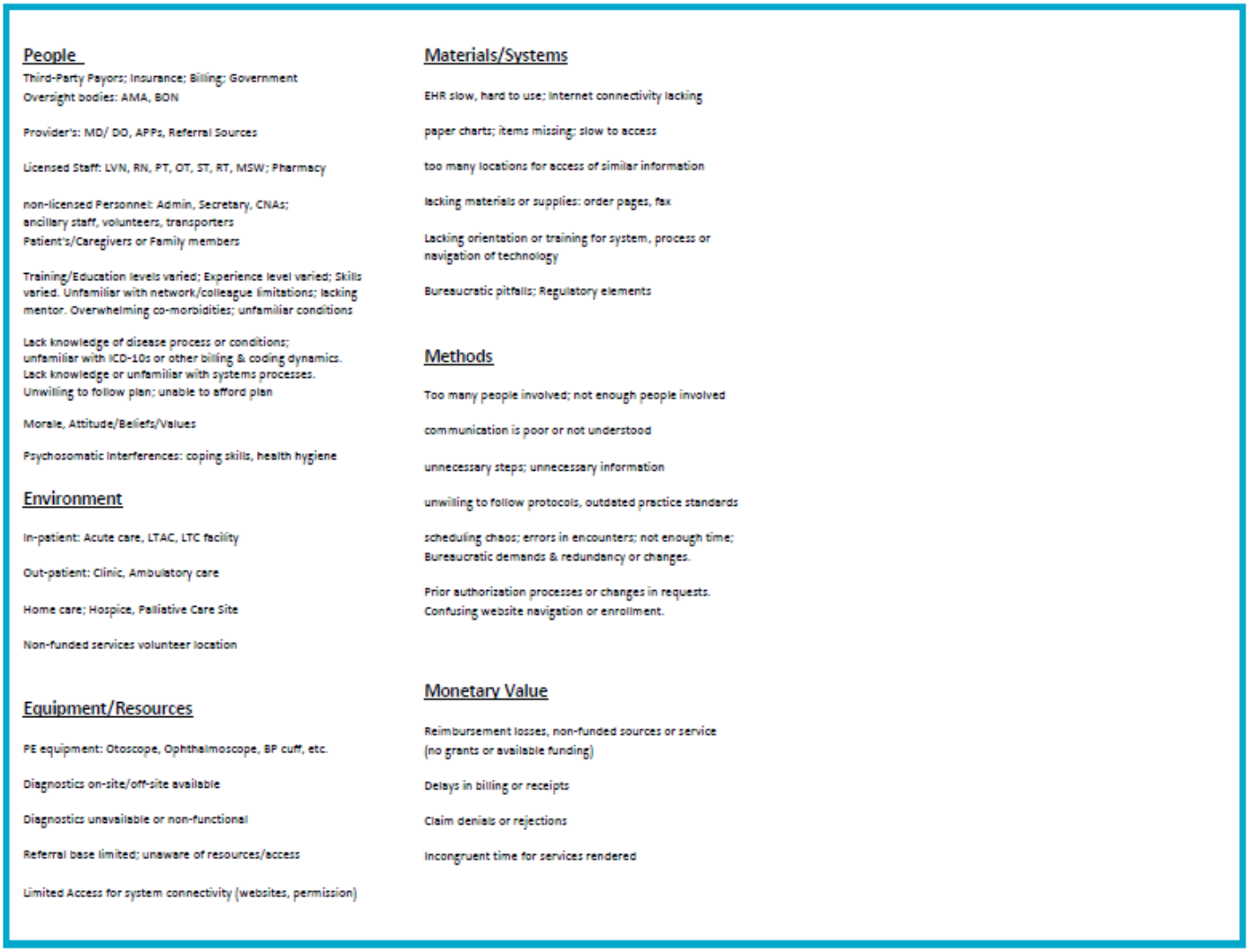


Figure 2: Burnout_Cause & Effect.

Conclusion

The literature results suggest that higher demands, lower resources, and lower adaptive organizational attitudes are associated with burnout. Based on the research, the following hypotheses were correlational: Demands are positively related to emotional exhaustion, cynicism, and reduced personal accomplishment. Perceived control and autonomy at work are negatively related to emotional exhaustion, cynicism, and reduced personal accomplishment. Job satisfaction and organizational commitment are negatively related to emotional exhaustion, cynicism, and reduced personal accomplishment; in contrast turnover intentions are positively related to the three dimensions of burnout. The literature review research results supported the moderation effect of job control on the relationship between workload and exhaustion. Results also found support for the sequential link from exhaustion to cynicism and that workload is positively related to exhaustion; job control is negatively related to exhaustion; job control moderates the relationship between workload and exhaustion; exhaustion is positively related to cynicism; and thus, exhaustion mediates the relationship between workload and cynicism. It appears that burnout realism is distinct from depressive realism and nurses demonstrated accurate perceptions of the criterion of control and the research suggests that burnout realism is situationally determined. Thus, supporting the view that excessive exposure to demanding and nonchallenging environments is associated with burnout.

Acknowledgements

This paper would like to acknowledge Danita Alfred, Ph.D., R.N., mentor and Professor at the University of Texas at Tyler and Dr. Kate O'Neill, DNP, R.N., Sr. Advisor Practice, Education and Innovation.

References

1. Bakker AB and Costac PL (2014) Chronic job burnout and daily functioning: A theoretical analysis, Burnout Research 1: 112-119.
2. Lie D (2009) The case of the emergency department physician who burned out: Risk factors, impact, and early interventions.
3. Parker LE, Jacobson PD, Coulter I (1994) The road to professionalization: Nurse practitioners and physician assistants. AHSR FHSR Annual Meeting Abstract Book 11: 35-36.
4. Shirom A (1989) Burnout in work organizations. In: Cooper, C.L. and Robertson, I., International Review of Industrial and Organizational Psychology: 25-48.
5. Maslach C, Schaufeli W, Marek T (1993) Professional Burnout: Recent Developments in Theory and Research. Washington DC., Taylor & Francis.
6. Freudenberger HJ (1974) Staff burnout. Journal of Social Issues 30: 159-164.
7. Peckman C (2017) Medscape Lifestyle Report 2017: Race and Ethnicity, Bias and Burnout.
8. Devine L (2016) EHRs a major factor in physician burnout, panel says.
9. Maslach C and Leiter MP (2008) Early predictors of nob burnout and engagement. Journal of Applied Psychology 93: 198-512.
10. Cordes CL and Dougherty TW (1993) A review and an integration of research on job burnout. Academy of Management Review 18: 621-656.
11. Bakker AB, Schaufeli WB, Sixma HJ, Bosveld W, van Dierendonck D (2000) Patient demands, lack of reciprocity, and burnout: A five-year longitudinal study among general practitioners. Journal of Organizational Behavior 21: 425-441.
12. Schaufeli W, van Dierendonck D, van Gorp K (1996) Burnout and reciprocity: towards a dual-level social exchange model. Work & Stress 10: 225-237.
13. Schiestel C (2007) Job satisfaction among Arizona adult nurse practitioners, Journal of the AANP 19: 30-34.
14. Jiang L and Probst TM (2016) The rich get richer and the poor get poorer: Country-and state level income inequality moderates the job insecurity-burnout relationship, Journal of Applied Psychology 102: 672-681.
15. McKnight JD and Glass CD (1995) Perceptions of control, burnout, and depressive symptomatology: A replication and extension, Journal of Consulting and Clinical Psychology 6: 490-494.
16. Shanafelt TD, West CP, Sloan JA, Novotny PJ, Poland GA, et al. (2009) Career Fit and Burnout Among Academic Faculty. Archives in Internal Medicine 69: 990-995.
17. Poghosyan L, Nannini A, Clarke S (2013) Organizational climate in primary care settings: Implications for nurse practitioner practice, Journal of the American Association of Nurse Practitioners 25: 134-140.
18. Canadas-De la Fuente GA, Vargas C, San Luis C, Garcıa I, Canadas GR, et al. (2015) Risk factors and prevalence of burnout syndrome in the nursing profession, International Journal of Nursing Studies, 52, 240-249.
19. Fernet C, Torrèsb O, Austina S, St-Pierrea J (2016) The psychological costs of owning and managing an SME: Linking job stressors, occupational loneliness, entrepreneurial orientation, and burnout, Burnout Research, 3, 45-53.
20. Innanena H, Tolvanenb A, Salmela-Aroa K (2014) Burnout, work engagement and workaholism among highly educated Employees: profiles, antecedents and outcomes, Burnout Research 1: 38-49.
21. Houkes I, Winants Y, Twellaar M, Verdonk P (2011) Development of burnout over time and the causal order of the three dimensions of burnout among male and female GPs. A three-wave panel study BMC Public Health 11: 240.
22. Wang Q, Bowling NA, Eschleman KJ (2010) A meta-analytic examination of work and general locus of control. Journal of Applied Psychology 95: 761-768.
23. Portoghese I, Galletta M, Coppola RC, Finco G, Campagna M (2014) Burnout and Workload Among Health Care Workers: The Moderating Role of Job Control. Saf Health Work 5: 152-157.
24. Hall LH, Johnson J, Watt I, Tsipa A, O'Connor DB (2016) Healthcare Staff Wellbeing, Burnout, and Patient Safety: A systematic review. PLoS ONE 11: e0159015.
25. Linzer M, Poplau S, Babbott S, Collins T, Guzman-Corrales L, et al. (2016) Worklife and wellness in academic general internal medicine: Results from a national survey, Journal of Internal Medicine 31: 1004-1010.
26. Langelaan S, Bakker AB, van Doornen LP, Schaufeli WP (2005) Burnout and work engagement: Do individual differences make a difference? Personality and Individual Differences 40: 521-532.
27. Dunkley DM, Sanislow CA, Grilo CM, McGlashan TH (2009) Self-criticism versus neuroticism in predicting depression and psychosocial impairment over four years in a clinical sample, Comprehensive Psychiatry 50: 335-346.
28. Alarcon GM (2011) A meta-analysis of burnout with job demands, resources, and attitudes, Journal of Vocational Behavior 79: 549- 562.
29. Michie S and Williams S (2003) Reducing work related psychological ill health and sickness absence: a systematic literature review, Occupational Environmental Medicine 60: 3-9.
30. Leiter MP and Maslach C (2016) Latent burnout profiles: A new approach to understanding the burnout experience, Burnout Research 3: 59-100.
31. Maslach C (2003) Burnout: The Cost of Caring. Major Books. Cambridge MA.
32. Hanrahan N, Aiken L, McClaine L, Hanlon A (2010) Relationship between psychiatric nurse work environments and nurse burnout in acute care general hospitals. Issues in Mental Health Nursing 31: 198-207.

33. Randolph G, Price J, Collins J (1986) The effects of burnout prevention training on burnout symptoms in nurses. Journal of Continuing Education in Nursing 17: 43-49.

34. Maslach C and Jackson SE (1986) The Maslach Burnout Inventory: Manual (2nd Edition) Palo Alto, CA: Consulting Psychologists Press.