

A Qualitative Crisis Management Theory Approach to the Perceived Impacts of the Public Hospital Working Environment on Patient-Facing Staff

Madeleine Iris Kendrick

BHRM

BComm (Hons)

**A thesis submitted in total fulfilment of the requirements for the degree of
Doctor of Philosophy**

**School of Psychology and Public Health
La Trobe University
Victoria, Australia**

January 2022

Table of Contents

Summary.....	iv
Chapter 1 Introduction.....	1
1.1 Background	2
1.2 Need for the Study	3
1.3 Overview of the Western Australian Health System	5
1.4 General Structure of Hospital Healthcare Teams in Australia	7
1.5 Literature	9
1.5.2 Individual and Organisational Resilience	12
1.5.3 Crisis Management Theory	13
1.5.4 Summary	16
1.6 Purpose and Aims of the Thesis	17
1.7 Data Sources	19
1.8 Epistemological and Methodological Approach	19
1.9 Structure of the Thesis	20
Chapter 2 Hospital Staff Report it is not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study	22
2.1 Introduction	22
2.2 Article	23
Chapter 3 A Qualitative Study of Hospital Clinical Staff Perceptions of Their Interactions with Healthcare Middle Managers	35
3.1 Introduction	35
3.2 Article	36
Chapter 4 Insight into Work-As-done Versus Work-As-Imagined; Staff Perceptions of a Health Service’s ‘Leadership Rounding’ Initiative	75
4.1 Introduction	75
4.2 Article	76
Chapter 5 Qualitative Study of Western Australian Public Hospital Systems: A Crisis Escalation Model for Public Management.....	92
5.1 Introduction	92
5.2 Article	93
Chapter 6 Discussion	128
6.1 Key Findings	128
6.2 Hospital Staff Report It’s Not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment	129
6.3 Hospital Clinical Staff Perceive Middle Management and Governing Board Activities Do Not Live Up to Expectations.....	133

6.4 The Escalation from a Prodromal Crisis to an Acute Crisis	138
6.5 Overall Implications	141
6.5.1 Theoretical Implications.....	141
6.5.2 Implications for Management Practice.....	146
6.6 Strengths and Limitations	150
6.6.1 Limitations.....	150
6.6.2 Strengths	153
6.7 Future Research	156
6.8 Conclusion	157
Appendix 1 University Ethics Approval	159
Appendix 2 Statement of Authorship.....	160
Paper 1	160
Paper 2	161
Paper 3	162
Paper 4	163
Appendix 3 Data Collection Tools	164
Interview Schedule – Frontline Patient-Facing Staff.....	164
References.....	168

Summary

Burnout has received attention for the reported negative impacts on healthcare workers worldwide. The primary aims of this thesis were to explore the workplace experiences of patient-facing staff who work in Australian public hospitals, and to investigate the impact of hospital management interventions to address burnout among staff.

The exploratory qualitative study using 73 semi-structured interviews identified that patient-facing staff at an Australian public health service did not experience burnout. Instead, they experienced long-term stress as a consequence of perceived workplace uncongeniality. Specifically, the workplace was perceived to be uncongenial largely due to the negative interpersonal interactions experienced from middle management.

A disconnect between work-as-imagined by hospital managers and work-as-done by patient-facing staff, highlighted why interactions between management and staff may have been perceived as negative. Negative perceptions of management, stemming from participant experiences, revealed a lack of respect and trust for the health service's management among patient-facing staff.

The impact of the perceived negative interactions with managers was illustrated in a crisis escalation model. The model used crisis management theory to chart the development of an escalating situation that threatened the ability of staff to provide safe care. Broken psychological contracts, the use of autonomous adaptation away from managers who were distrusted by staff, and dwindling morale, were found to escalate the crisis and increase staff stress.

These findings suggest improved relationships in the workplace could contribute to improved perceptions of congeniality, and lowered experiences of stress of patient-facing staff. By following crisis management theory, public healthcare managers can receive guidance on how to identify and resolve similar escalating situations in their workplace.

Statement of Authorship

This thesis includes work by the author that has been published, or accepted for publication, as indicated in the text. Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis submitted for the award of any other degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

All research procedures reported in this thesis were approved by ethics committees (Appendix 1).

Signed:

MADELEINE KENDRICK

Date: 26/1/2022

Acknowledgements

“...keep away from people who try to belittle your ambitions. Small people always do that, but the really great make you feel that you, too, can become great.”
(quoted from Mark Twain) (MacLaren, 1938 p. 66)

This section is dedicated to all the people who believed in me, and my ability to undertake this thesis. Specific thanks go to my supervisors, Professor Sandra G Leggat, and Professor Nicholas F Taylor, for providing timely advice and insight into my work. Their ability to untangle the mess of ideas I brought to their email inbox the first time we communicated is a testament to their experience. I count myself incredibly fortunate to have received supervision from the minds who wrote some of the key pieces in my field, and those who continue to use their skills in clinical practice. The dual perspective of both their academic and clinical acumen helped to ensure that this project could reach my aspired depth.

Those who mentored me from my beginnings as a fresh Human Resources graduate to a veritable interdisciplinary scholar include individuals both within and beyond academia. Namely, Dr Peter Morton, whose mentorship added welcome levity to the often lonely hours of data collection, is someone I consider both a colleague and a friend. Special thanks are also extended to Dan, Jill, Viv, and Susan, who opened doors and pointed me in the right direction. Without their guidance I would have floundered for weeks trying to get the project off the ground. Instead, their timely nudges and professional insights helped me decode the clinical ‘hidden curriculum’ that so many managers struggle with. Special mention is also warranted for members of the La Trobe RED team, and Graeme Oke (who is currently my favourite librarian) for their help and guidance during those fuzzy early days of candidacy.

Lastly, but certainly not in the least, I wish to thank my husband and research assistant, Dr Kevin Kendrick. Few PhD candidates have the luxury of a partner who is not only emotionally supportive, but is also abreast of the literature and can engage in scholarly

discussion. I almost can't believe my good fortune, but I'm sure the catch is still hidden somewhere.

This work was supported by an Australian Government Research Training Program Scholarship.

Preface

This thesis is based on a single study, containing chapters that may be read independently. Chapters 2 to 4 are manuscripts that have been published, or formatted for submission to peer reviewed journals. Chapter 2 is presented in the format in which it was published. Chapter 3 is presented in the format in which it was accepted for publication. Chapter 4 is a manuscript that has been submitted for publication, and is presented in manuscript form. These chapters use the referencing and citation style of the relevant journals.

Chapter 5 is prepared for submission to a peer reviewed journal, but is dependent on the publication of the manuscripts contained in Chapters 3 and 4. Chapter 5 is formatted as per the manuscript requirements of the target journal.

Chapter 6 is a grand discussion of the themes and issues arising from the aforementioned chapters, including implications of these findings, strengths and limitations, and direction for future research. Chapter 6, and the other sections of this thesis not submitted for publication, (Chapter 1, introductions to each of the published chapters, Chapter 5, and the appendices) use a referencing format based on the APA style and are written in Australian English.

Publication Details

Chapter 2: Kendrick, M., Kendrick, K., Morton, P., Taylor, N. F., & Leggat, S. G. (2020).

Hospital Staff Report it is not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study. *International Journal of Environmental Research and Public Health*, 17(11), 4107. Retrieved from <http://dx.doi.org/10.3390/ijerph17114107>

Chapter 3: Kendrick, M., Kendrick, K., Taylor, N. F., & Leggat, S. G. (2022) A Qualitative Study of Hospital Clinical Staff Perceptions of Their Interactions with Healthcare Middle Managers. *Journal of Health Organization and Management*. 36(4), 428-447. doi: 10.1108/JHOM-06-2021-0216

Conference Details

Kendrick, M. (2021, April 21-23). *Staff Adapt to Provide Safe Patient Care at Personal Cost; A Crisis Management Theory Approach to Autonomous Agents in a Healthcare Complex Adaptive System* [Conference Presentation]. Annual IRSPM Conference, International Research Society for Public Management, Virtual.

Kendrick, M. (2019, June 26-28). *Methods for an Australian Public Health Research Project to Obtain Clinical Staff Perspectives of Management Efficacy* [Conference Presentation]. Annual Conference 2019: European Academy of Management. Lisbon, Portugal. <http://pastconferences.euram.academy/programme2019/conference-programme.html>

Chapter 1 Introduction

Problem Statement

Media and literature are increasingly reporting a systemic staff burnout crisis in healthcare. Burnout is a syndrome where a person experiences a diminished sense of competence, cynicism, and exhaustion associated with workplace stress, which erodes the individual's desire and ability to continue working. Individuals who are burned out have reduced capacity to perform, and higher rates of turnover. These outcomes impact the sustainability of the healthcare workforce. Burned out individuals are less able to contribute to the needs of a team, as their cynicism and exhaustion erode morale and camaraderie, which in turn can increase the workload burden for their colleagues. Employees with high workloads are less available to provide mentorship and training to junior workers, which impacts the knowledge base of future staff and can affect the quality of care received by patients. High rates of turnover due to workplace dissatisfaction, exhaustion, and changes in profession, further reduce the long-term performance and availability of the healthcare workforce.

Systemic crises are situations that have not been resolved and have become chronic crises, embedded in a wider system. Burnout has been identified as a systemic crisis, given its reported prevalence in healthcare organisations in different countries. It is a concern that there is a gap in knowledge about how burnout is experienced by patient-facing healthcare staff, and how it impacts their experiences of the workplace. This thesis aims to address this knowledge gap by exploring patient-facing staff experiences in an Australian public hospital workplace. Identifying staff experiences of burnout can assist healthcare organisations to understand and address this crisis.

1.1 Background

The motivation for this research thesis originated from international coverage of the issue of clinician burnout (Davis, 2018; Learner, 2011; Lemaire & Wallace, 2017; McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011; Witt, 2015; Xu, 2018). Clinical stakeholders in hospitals called for resolution to the escalating crisis of clinicians committing suicide, requiring psychiatric intervention, and making serious clinical errors as a result of their deteriorating mental health (Learner, 2011; Witt, 2015). The subsequent ongoing Twitter campaign #MH4DOCS (Mental Health for Doctors) sought to raise awareness for more meaningful interventions than superficial wellness protocols and satisfaction surveys (Witt, 2015). Despite a wealth of academic literature on the causes, symptoms, and potential mitigating factors of burnout (Armon, 2014; Brunetto & Teo, 2013; Bryson, Forth, & Stokes, 2017; Dishon-Berkovits, 2014; Omar et al., 2015; Salyers, Flanagan, Firmin, & Rollins, 2015; Shin et al., 2014), criticism of ineffective wellness programs in both the news and social media continues to suggest that empirical evidence is not well utilised in the design and delivery of wellness practice (McCartney, 2015; Modi, 2018). However, these media reports may be subject to bias. To balance the potential bias of media reports, triangulation with scholarly sources is used to generate a well-rounded perspective of the issue.

Kendrick, Bartram, Cavanagh, and Burgess (2017) outlined how good governance and leadership during a hospital's greenfield construction stage improved workplace stability and employee satisfaction. Providing adequate support and meaningful change in a crisis, hospital leaders positively impacted the working environment through effective crisis management (Kendrick et al., 2017). Conversely, poor crisis management has negative impacts on staff wellbeing and morale, including making a mild issue into a more serious crisis situation and/or a disaster (Amos, 2019; Flanagan, 2012; Ketchen, 2014).

1.2 Need for the Study

Health systems failures are not rare occurrences in the context of the Australian health system (Boyle, Mackay, & Stockman, 2021; Morris, 2006; Schneider et. al., 2021). Despite this, the quality of healthcare provision in Australia remains at a high standard (Hall, 2015). The issue of employee burnout in hospitals is growing in urgency as reports of work intensification and poor clinical staff mental health contribute to an escalating global crisis (Back, Steinhäuser, Kamal, & Jackson, 2016; Davis, 2018; Mihail & Kloutsiniotis, 2016). Increasing reports of poor mental health among doctors in Australia (Thomas, Ripp, & West, 2018) and other parts of the world contribute to what has been termed a burnout crisis (Aasland, 2013; Caesar, Barakat, Bernard, & Butler, 2020; Takemura, Kunie, & Ichikawa, 2019; Thyer, Simpson, & Nugteren, 2018; Wible, 2018). In their attempt to define burnout, authors have described it as a syndrome (Dyrbye et al., 2017) or ‘a stress state characterised by symptoms of mental exhaustion and physical fatigue, detachment from work, and feelings of diminished competence’ (Danhof-Pont, van Veen, & Zitman, 2011 p. 505). Historically, the concept of burnout stemmed from descriptions of white-collar workers who suffered from reduced enthusiasm, and feelings of fatigue, related to their work (Freudenberger, 1974). Distinct from the theologically recognised term of ‘accidie’ (Cassian, 2000), and Tudor usage of the term ‘melancholy’ (Forman & Napier, 1596-1634), burnout was defined as a work-specific phenomenon affecting physical health and job satisfaction (Ginsburg, 1974).

The modern term of burnout is distinct but related to similar wellness and mental health concepts, such as emotional labour and fatigue, due to the severity of burnout as a negative psychological state (Sigsbee & Bernat, 2014). Burnout is the end result of long-term, sustained negative experiences such as stress, emotional labour and unmitigated fatigue (Dishon-Berkovits, 2014) in addition to poor work-life balance and lack of adequate support

networks (Armon, 2014; Daverth, Hyde, & Cassell, 2015). Some authors are beginning to make links between burnout and early-stage depression (Tóth-Király, Morin, & Salmela-Aro, 2021) which is used to explain the increased likelihood of physician suicide after reports of experiencing the burnout syndrome (Bianchi, Schonfeld, & Laurent, 2015a). Despite the recognition of burnout as a syndrome or occupational phenomenon few effective prevention and resolution interventions have been identified to address burnout among clinicians.

Management-implemented wellness programs have proven to be largely ineffective, leading to calls for a better understanding of how working conditions impact employees (ColinTaylorMD, 2018; Learner, 2011; Witt, 2015). Different perspectives on hospital staff mental health include findings of burnout and exhaustion being mitigated by positive lifestyle factors such as healthy relationships (Taku, 2014), exercise (Armon, 2014), positive affect and empowerment (Dyrbye et al., 2017; Fan et al., 2014; Willard-Grace et al., 2014), and adequate levels of sleep (Olson, Kemper, & Mahan, 2015; Rosen, Gimotty, Shea, & Bellini, 2006). While these identified mitigators for burnout are focused on the individual, other influences derive from the organisational environment – such as leadership practices and shift length (Brunetto & Teo, 2013; Shacklock, Brunetto, Teo, & Farr-Wharton, 2014). As Australian public hospitals were on the cusp of workforce shortage crises long before the impacts of the 2020 global pandemic (Department of Employment, 2017), identifying effective management strategies against burnout and its impacts are more important than ever (BeyondBlue, 2013).

In addition, an Australian Medical Association survey on staff satisfaction and employee wellbeing reported that organisational leadership was slow to react, and/or lacked a response to the burnout issue (AMA, 2017). While the literature is clear on how burnout is experienced by individuals, there has been little research on how management activities (or lack thereof) influence burnout in a hospital working environment. Similarly, there has been

little research on how hospital management activities directed towards burnout impact staff performance and safety.

1.3 Overview of the Western Australian Health System

The Australian health care system is a state-based system whereby each state (such as Western Australia (WA)) governs its own public and private networks (Duckett & Willcox, 2015). WA is Australia's largest state based on land area (Australian Government, 2021). With an estimated population of 2.6 million (City of Perth, 2021), the residents of the state are scattered across this land mass, with clusters of metropolitan settlements along the south-western coast. For this reason, the WA Country Health Service covers approximately 531,000 people across 2.5 million km² (Government of Western Australia, 2021b).

The wider region of Perth (including its central business district and surrounding metropolitan region) hosts approximately 1.93 million people, making it the country's fourth most populated capital city (Australian Bureau of Statistics, 2016). With the average life expectancy of Perth residents currently 80 years of age, and the median age of residents around 32 years (Australian Bureau of Statistics, 2016), the health of Western Australians is positively compared to other Australian states (Australian Bureau of Statistics, 2018). The demographics of Perth are multi-cultural, with the 2012 census recording that approximately 40% of residents were born overseas (Australian Bureau of Statistics, 2016). Despite being recognised as one of the world's most isolated cities, Perth consistently scores high on liveability surveys, where it was ranked sixth behind Tokyo in 2021 (The Economist Intelligence Unit, 2021). Part of Perth's appeal has been attributed to the relatively low cost of living for an Australian capital city, with rent costing approximately 45% less than equivalent homes in Sydney (Numbeo, 2021), its sunny climate, and a large agricultural sector providing locally-produced food for both domestic and international consumption (Government of Western Australia, 2021c).

The WA healthcare system is served by both public and private providers. This study focuses on public hospitals governed by the State Department of Health. The WA public health system is divided into five regions: the North Metropolitan; South Metropolitan; East Metropolitan; the Department of Health, Child and Adolescent Health; and the WA Country Health Service (Government of Western Australia, 2021a). The regions are supported by Health Support Services, PathWest (Pathology), and the Quadriplegic Centre. The five regions each govern a network of public hospital campuses, employing approximately 50,000 staff across the state (Government of Western Australia, 2021a; Health, 2017). Full-time staff in the WA public health service are supplemented by casual and contract workers, creating a staffing mix of employees both internally and externally managed by individual hospitals.

In 2004, a report was commissioned by the WA State Government to forecast population growth and model the requisite expansion of the public health system (Reid, 2004). Known as the ‘Reid Report’, the document recommended the disassembly of the Royal Perth Hospital in Perth’s central business district to provision the construction of a large tertiary health campus in the south (Reid, 2004 p. 56). Other recommendations made by the report suggested an increase in beds to match population growth and specialty demands, such as those projected for Psychiatry, to prevent delays in treatment and discharge (Reid, 2004 p. 13). Following this advice, Fiona Stanley Hospital, located south of the Perth central business district in the suburb of Murdoch, was commissioned and opened in 2016 (Western Australian Department of Health, 2015).

However, not all of the recommendations of the Reid Report were followed. For example, large parts of Fremantle hospital were decommissioned to staff and supply the new site (Kendrick et al., 2017; Titelius, 2015). Multiple enquiries into the commissioning of Fiona Stanley Hospital were conducted after large budget overruns and reports of staff and patient dissatisfaction with the new facility (Beattie, 2015; Kagi, 2015; Macmillan & Strutt,

2015). The enquiries identified that the construction and opening of the new hospital was poorly managed (Kendrick et al., 2017). Some issues lingered as a consequence of the previous State Government not undertaking the full list of recommendations contained in the Reid Report, such as ambulance ramping (Forero et al., 2019) and Emergency Department crowding (Geelhoed & de Klerk, 2012).

1.4 General Structure of Hospital Healthcare Teams in Australia

In Australian public hospitals, clinical teams are structured based on the type of care provided. A typical healthcare team in an Australian, ward-based public hospital department is led by a clinical dyad. The clinical dyad takes the form of two senior clinicians (such as a consultant physician and a nurse-manager) who collaborate to provide care co-ordinated among a team of clinicians from a range of professional disciplines (Clouser et al., 2020). In the case of Psychiatry, a consultant physician and a nurse-manager may lead a team including social workers, nursing and physician staff, and an occupational therapist (Beer, 2009; Edward, 2005). These dyadically-led teams also liaise with other hospital departments, such as the Emergency department (Amos, 2019) and the Pharmacy department (Carvalhana & Flak, 2009; Everett et al., 2013; Zhuo, Farrell, McNair, & Krewski, 2014) to provide healthcare and to ensure patient flow from in-hospital services to outpatient services (Aragon Penoyer et al., 2014; Kind et al., 2012; Ubbink et al., 2014). At the next organisational level, the middle managers who supervise the team leaders, also tend to comprise clinical dyads.

The clinical dyad model of leadership at the frontline of the public hospital is facilitated by hybrid management, comprising clinical and management roles (Burgess & Currie, 2013). Hybrid managers can take the form of traditionally recognised hybrids, such as nurse managers (Bonner & McLaughlin, 2014). However, less formal types of hybrid management can also occur, such as the case of management-trained consultant physicians (Kippist & Fitzgerald, 2009; McGivern, Currie, Ferlie, Fitzgerald, & Waring, 2015a). Hybrid

managers facilitate the translation of management directives to activities that can be used by clinical staff (Currie, Burgess, & Hayton, 2015; Quartz-Topp, Sanne, & Pöstges, 2018). An important distinction is that not all middle managers are hybrid managers, and vice versa. In the context of this thesis, the term ‘hybrid managers’ applies to staff in a dual leadership and clinical role. For clarity, ‘middle managers’ is used in this thesis to describe individuals in the organisational hierarchy above frontline workers regardless of their hybrid status.

Beyond the structure of individual clinical teams, the Australian public hospital structure takes the form of intersecting hierarchies. The clinical hierarchy is integrated with, yet separately governed to the administrative hierarchy. In the administrative hierarchy, the hospital executive sets the financial and activity-based goals for the hospital (Goodall, Bastiampillai, Nance, Roeger, & Allison, 2015). The clinical hierarchy is overseen by clinical directors at the division level, who meet with the hospital executive on a regular basis to set and monitor local activity and funding targets (Goodall et al., 2015; Shanafelt & Noseworthy, 2017; Swensen, Kabcenell, & Shanafelt, 2016), which is facilitated by the layers of administration and management throughout the health service.

Ongoing practice as a physician specialist requires adherence to guidelines as set by clinical colleges, such as the Royal Australian and New Zealand College of Psychiatrists (RANZCP) (Royal Australian & New Zealand College of Psychiatrists, 2020). These guidelines are evidence-based, and are necessary to maintain patient safety. Breach of these guidelines can result in the loss of fellowship and demotion from a specialist’s position. Thus, when directives between the hospital executive and the college conflict, clinical directors tend to favour priorities set by their colleges. This dynamic between public hospitals as places of employment, and clinical colleges as independent authorities on a specialist’s right to practice medicine at a fellowship level, influences the level of autonomy enjoyed by consultant physicians in Australian public hospitals. For example, hospitals have established

medical advisory committees, clinical governance structures and other mechanisms to engage clinicians in the pursuit of quality care.

1.5 Literature

1.5.1 Burnout

Burnout is a modern term for an issue that has been recognised in the medical profession for many decades (Bolton, 1982; Garrick & Jeffery, 1987). Burnout is most commonly defined and measured by the Maslach Burnout Inventory (MBI) (Maslach, 1981). Maslach developed the Inventory to measure emotional exhaustion, cynicism, and reduced feelings of accomplishment at work (Maslach, 1981; Maslach & Leiter, 2008). To date, burnout is usually investigated using quantitative methods, usually based on the MBI (Bartholomew et al., 2018; Brewer, Oh, Kitstantas, & Zhao, 2019; Chuang, Tseng, Lin, Lin, & Chen, 2016; Dishon-Berkovits, 2014; Dyrbye et al., 2013; Fan et al., 2014; Hall, Johnson, Watt, Tsipa, & O'Connor, 2016). The MBI has been criticised by scholars such as Kristensen, Borritz, Villadsen, and Christensen (2005), who argue for the importance of cultural nuance when assessing burnout outside of Western contexts. However, few other measures have been empirically validated. This provides a rationale for using Maslach as the basis to design interview questions for open-ended exploration of the topic.

Exhaustion and fatigue, heavy workloads, and a lack of time to rest, has contributed to the early deaths of medical practitioners; a phenomenon that was recorded in Western Australia as early as 1845 (Garrick & Jeffery, 1987 p. 16). Burnout creates an internal threat for hospitals from the potential for burned out staff to be unable to safely provide care, resulting in adverse clinical outcomes (Burke, Koyuncu, & Fiksenbaum, 2011; Davis & Beale, 2015; Montgomery, Panagopoulou, Kehoe, & Valkanos, 2011). In addition, rising levels of burned out staff create the risk of hospitals experiencing acute doctor shortages despite increasing numbers of medical school graduates (Australia's Future Health

Workforce – Psychiatry, 2016; BeyondBlue, 2013), as well as shortages of other health professionals (Health Workforce Australia, 2014 p. 69).

This suggests that one of the internal threats facing hospitals today could be the rising level of staff burnout (Armstrong, White, & Thakore, 2010; Day, Minichiello, & Madison, 2007; Gull, Khan, & Sheikh, 2020; McCann, Granter, Hassard, & Hyde, 2015; McHugh et al., 2011; Shacklock et al., 2014; Volpe et al., 2014) that has lasting negative impacts on working culture (Mannion & Davies, 2018; Lempp & Seale, 2004; Yogarabindranath Swarna, 2013), employee retention (Bartram, Casimir, Djurkovic, Leggat, & Stanton, 2012) and quality of patient care (Deshpande & Deshpande, 2014; Huggard & Dixon, 2011; McHugh et al., 2011; Montgomery et al., 2011; Wilkinson et al., 2017).

On social media, hospital employees have publicly criticised current organisational initiatives to treat burnout (ColinTaylorMD, 2018; Davis, 2018; Docs4Docs, 2018). Activities to treat burnout in hospitals currently focus on mindfulness and increasing individual resilience, due to the theoretical links with burnout prevention (Back et al., 2016; Davis, 2021). However, clinical staff have reported that mindfulness initiatives do not address the systemic issues that directly contribute to the burnout antecedents of emotional exhaustion, fatigue, and lack of control in the workplace (Agarwal, Green, Agarwal, & Randhawa, 2016a; Aherne et al., 2016; Farquhar, 2017; Salyers et. al., 2016). For the purposes of this thesis, the systemic influences that impact patient-facing staff burnout include increasing levels of work intensification (Aherne et al., 2016; Beasley, 2018; Crotty, Tamrat, Mostaghimi, Safran, & Landon, 2014; Ilie, Van Slyke, Parikh, & Courtney, 2009; Kesselheim, Cresswell, Phansalkar, Bates, & Sheikh, 2011; Mosaly et al., 2018; Petrakaki & Kornelakis, 2016), increasing shift lengths, and poor experiences with leadership (McDermott & Keating, 2011; O'Donnell, Livingston, & Bartram, 2012). There is

a research gap in that the challenge of protecting employees from these systemic causes of burnout within organisations has yet to be addressed.

Practicing clinicians worldwide, who are active on social media, have written about their experiences with burnout in their workplaces (tweets cited with permission) (ColinTaylorMD, 2018; Shillcutt, 2018; Witt, 2015) and have repeatedly referred to burnout as ‘crisis-level’, ‘a crisis’ and ‘at a critical level’ (Levi, 2018; Shanafelt & Noseworthy, 2017; Xu, 2018). In contrast, public managers are reluctant to label issues within the public healthcare sector as crises (Drennan, 2014; McCarthy, 1992). Social media provides a live and direct connection between frontline stakeholders, and the identity of clinicians who reported burnout in their workplaces from various hospitals in Australia and abroad. Although potentially biased, the consistency of social media perspectives on clinician burnout in hospital settings suggests that the issue may be widespread.

In addition to the lack of research on the systemic causes of burnout, little is known about the workplace experiences of clinicians and their hybrid managers (i.e., managers with both a clinical and management role) (Dyrbye et al., 2017; Dyrbye et al., 2013; Hansen & Girgis, 2010) in relation to burnout. This may be attributed to the evolving role of clinician-managers (Llewellyn, 2001), and the field of organisational psychology developing to the point where it could explore various phenomena associated with the professional group (Porter, 2008). The emergence of increased specialisation in academic fields, requiring interdisciplinary scholarship, have afforded contemporary and unique perspectives on issues previously un-addressed (Lindvig, 2018; Phelan, 2013). Within this thesis the combination of management theory, such as crisis management theory (Fink, 1986), and the healthcare quality and safety theory of Safety II (Fairbanks et al., 2014) offers this interdisciplinary approach. As greater attention is paid to the impacts of a person’s environment on their levels of stress and wellbeing (Westbrook et al., 2021; West, Dyrbye, Erwin, & Shanafelt, 2016),

focus on specific factors such as manager-employee dynamics is arguably a natural progression for scholarship on individual and organisational psychology.

1.5.2 Individual and Organisational Resilience

The relationship between burnout and organisational resilience is highlighted in studies that indicate that organisational resilience is internally reinforced by the wellbeing and activities of its members (Akgün & Keskin, 2014; Allen, 2011; Bhamra, 2015; Carmeli & Markman, 2011). There is a reported positive relationship between individual resilience and the prevention of burnout (Back et al., 2016; Cooke, Doust, & Steele, 2013; Olson et al., 2015). However, in a study of 5,445 US physicians, West et al. (2020) identified that despite having higher levels of resilience than the average population, the respondents still reported ‘substantial rates of burnout’ (p. 1).

By managing the known individual antecedents to burnout, such as high levels of stress, emotional exhaustion, and fatigue (Amiri et al., 2016; Cooke et al., 2013; Lemaire & Wallace, 2017; Teoh, Hassard, & Cox, 2020), it is possible to circumvent the internal threat and bolster organisational resilience (Dyrbye & Shanafelt, 2011; McHugh et al., 2011; Shanafelt, Dyrbye, West, & Sinsky, 2016). Moenkemeyer, Hoegl, and Weiss (2012) identified that the collective resilience of team members impacts the ability of a larger organisation to ‘bounce back’ from setbacks and unforeseen challenges. As such, burnout impacts both an employee’s personal resilience, and the resilience of organisations (Dyrbye & Shanafelt, 2011; Shanafelt, Dyrbye, West, et al., 2016; West, Dyrbye, & Shanafelt, 2018). In hospitals where burnout poses an internal threat to organisational resilience and performance (Cooke et al., 2013; Hansen & Girgis, 2010; Vinson, Zurakowski, Randel, & Schlecht, 2016), there is incentive to investigate these relationships further. This is because, despite knowing the likely antecedents to burnout on an individual level, clinical staff have suggested current management initiatives have not been helpful in addressing burnout among

clinical staff (ColinTaylorMD, 2018; Davis, 2021; Davis, 2018). Despite hospital initiatives focusing on building individual resilience, clinical staff continue to experience burnout, suggesting the need for more study.

1.5.3 Crisis Management Theory

Crisis management theory (CMT) is an approach pioneered by Stephen Fink, who illustrated how crises are created in organisations (Fink, 1986, 2013; Fink, Beak, & Taddeo, 1971; Ketchen, 2014). Fink describes a crisis as any situation that has the ‘potential to escalate in intensity, become subject to media scrutiny, interfere with normal operations of business, jeopardise the positive public image of an organisation, and/or damage the organisation’s bottom line’ (Fink, 1986 pp. 15-16). By identifying the creation of crises, organisations can develop strategic interventions at an early stage. The stages of a crisis as defined by Fink are: the prodromal (warning) stage, the acute stage, the chronic stage, and the resolution stage (Fink, 1986). Adding to the model, Millar and Heath (2003) introduced the smouldering stage, which is a stage situated between Fink’s prodromal, and acute crisis stages. The crisis stages utilise a medical-style framework of diagnosis, management, and recovery, with the ultimate aim of improved ‘immunity’ against future crises (Fink, 1986; Kapucu & Ustun, 2018; Lalonde & Roux-Dufort, 2010). Fink’s conceptualisation of crisis management as a cyclical, multi-stage event suggests that crises, once recognised (or ‘diagnosed’), can be effectively managed without long-term negative impacts.

Contemporary authors in crisis management have approaches that mirror, if not follow, the original writings of Fink (Al-Dabbagh, 2020; Boin & Lagadec, 2000; Christensen, Laegreid, & Rykkja, 2016; Coombs & Laufer, 2018; Drennan, 2014; Flanagan, 2012; Vašíčková, 2020). Authors who study crisis management in public organisations and large institutions agree on Fink’s definition and diagnostic model of crisis management, using it to analyse issues in a variety of contexts (Christensen et al., 2016; Drennan, 2014; Paccione-

Dyszlewski, Conelea, Heisler, Vilardi, & Sachs, 2012). These contexts include, but are not limited to public administration, healthcare, and local government services. By using a diagnostic framework for conceptualising crises and their development, Fink's work provided a theoretical foundation that later authors refined. Yet despite modern interpretations and additions to Fink's work, the original framework continues to be applied due to its versatility (Bowers, Hall, & Srinivasan, 2017; Fu, Svoboda, Tang, Dai, & Wu, 2013; Ice, 1991; Pearson, Roux-Dufort, & Clair, 2007).

1.5.3.1 Why Crisis Management? Fink and his contemporaries have been criticised by authors from divergent theoretical backgrounds, such as risk management. Risk management authors such as Fu et al. (2013) write that CMT is an inappropriate strategy for preventing issues when the better investigated and more thoroughly implemented theory of risk management is available. Specifically, in the context of the healthcare sector, risk management is more widely used on a daily basis (Dwyer & McNeil, 2016). Yet, while risk management theory has demonstrable merit (Aebi, Sabato, & Schmid, 2011; Aven & Krohn, 2014; Boland & Bremner, 2013), there are limitations in large organisations (Krieger, 2013).

Risk management is an appropriate approach for skilled and proactive personnel who constantly review their risk management plans in the context of the risks presented at a given time (Aebi et al., 2011; Anderson, 2013; Dionne, 2013). This approach best suits frontline employees, where risk management 'create(s) a reference framework that will allow (users) to handle risk and uncertainty' (Dionne, 2013 p. 154). Reference frameworks, such as risk management and clinical registries, are an important element of medical practice and hospital ward activity (Kutney-Lee et al., 2015). Similar findings have been identified in stakeholder-led community organisations, which consist of comparable frontline-level involvement in risk management (Carmeli & Markman, 2011; Vedeld, Coly, Ndour, & Hellevik, 2016). By applying risk management practices 'on the ground', research

has shown successful disaster avoidance through stakeholder-led risk management activities (Paccione-Dyszlewski et al., 2012; Vedeld et al., 2016).

However, risk management has weaknesses. One weakness emerged when risk management moved from forward-planning frontline teams, towards higher levels in an organisational hierarchy (Appiah, Amos, Bashiru, Drammeh, & Tuffour, 2017; Bakalikwira, Bananuka, Kaawaase Kigongo, Musimenta, & Mukyala, 2017; Bismark, Walter, & Studdert, 2013; Büchner, Schreyögg, & Schultz, 2014; Pettersen, Nyland, & Kaarboe, 2012). Organisational leaders, who are responsible for designing organisational strategy, but not for direct implementation, do not always have the information required to engage in risk management (Dionne, 2013). This has been attributed to the fact that upper levels in an organisational hierarchy are removed from the realities of frontline work (Tucker & Singer, 2015), and may experience organisational risks less frequently. This separation through power distance (and occasionally physical distance (Agarwal et al., 2016a; Baluch, Salge, & Piening, 2013; Cândido & Santos, 2015)) results in organisational leaders who are seemingly less aware of risk factors and therefore less proactive than frontline employees (Fink, 1986; McCarthy, 1992). As a result of this hierarchy-related weakness, many crisis management authors recommend that CMT should be implemented at the upper levels of an organisation, while risk management should be applied in frontline areas (Boin & Lagadec, 2000; Christensen et al., 2016; Drennan, 2014; Fink, 1986; Kapucu & Ustun, 2018; Lampel, Bhalla, & Jha, 2014). By following the tenets of CMT leaders are equipped to rectify issues that escalate to their attention rather than relying on risk management to prevent them all in the first place (Kashmiri & Brower, 2016; Nemeth, Wears, Patel, Rosen, & Cook, 2011).

CMT is infrequently applied to management activities in healthcare (Boin & Lagadec, 2000; Lalonde & Roux-Dufort, 2010; Paccione-Dyszlewski et al., 2012). On face-value, risk management appears to present managers with a veneer of control (Anderson, 2013; Arena,

Arnaboldi, & Azzone, 2010), conveniently avoiding scrutiny that might arise during the use of CMT and its terminology, (Dionne, 2013; Drennan, 2014). This is despite the two theories serving different, complementary purposes within an organisational context (Aebi et al., 2011; Christensen et al., 2016; Paccione-Dyszlewski et al., 2012).

The use of CMT in the theoretical framework of this thesis stems from the evidence that burnout may already be a crisis in Australian healthcare organisations (Baigent & Baigent, 2018; Day et al., 2007; Hansen & Girgis, 2010). The assessment of a burnout crisis in healthcare is stated as opinion in newspapers (Xu, 2018), and academic journals (Dzau, Kirch & Nasca, 2018; Sigsbee & Bernat, 2014). Studies of burnout in healthcare workers have suggested the prevalence of burnout as linked to higher rates of employee turnover and its associated cost to healthcare organisations (Johnson et. al., 2018). In 2017, Australian midwives reported a 43.8% prevalence of work-related burnout (Creedy et. al., 2017). A more recent study in 2020 reported that 76% of Australian physician trainees met the criteria of ‘high burnout’, while also meeting the criteria for depression (53%) and anxiety (46%) (Axxia et. al., 2020).

The indicators of a crisis are consistent across empirical studies regardless of context (Amos, 2019; Coombs & Laufer, 2018; Flanagan, 2012; Ice, 1991; Liff & Erickson, 2017). Although public sector managers may be reluctant to label public sector issues as crises (Anderson, 2013; de Kruijff, 2021), burnout among hospital employees, as presented in the academic literature (Huggard & Dixon, 2011), reports (AMA 2017), the news (de Kruijff, 2021) and social media (Levi, 2018), meets the criteria of a crisis, as defined by Fink (1986).

1.5.4 Summary

In Australia, and internationally, burnout is a CMT crisis that affects hospital employees. While experienced by individuals, the sustainability of the healthcare workforce may be impacted. Burned out workers experience reduced performance, and high rates of

turnover. Burned out individuals are less able to contribute to their teams, as cynicism and exhaustion can increase the workload burden for colleagues and erode morale. Resulting from this impact, employees with high workloads are less available to provide mentorship and training to junior workers, which impacts the organisation's future access to skilled workers. Dissatisfaction with the workplace, and exhaustion, can contribute to higher rates of turnover in an organisation. Current practice for addressing burnout focuses on building individual resilience. However, this has not been found to be successful in averting the crisis. This might be due to the focus on individual resilience which insufficiently addresses the systemic factors that contribute to burnout. However, there is currently insufficient evidence to support this point. Research is needed that explores how hospital staff experience burnout, and perceive the initiatives of their management for the reduction of burnout in their workplaces.

1.6 Purpose and Aims of the Thesis

The primary aim of this thesis was to explore the workplace experiences of patient-facing staff who work in an Australian public hospital within a larger health system. The exploration of these experiences includes both the experiences themselves, and the perceived impacts of the workplace experiences on staff wellbeing. The secondary aim of the thesis was to investigate the impact of hospital management interventions to address burnout among staff.

The thesis concerned the following research question:

'How do Australian public health organisations handle the systemic crisis of burnout?'

In addition to the above research question, three sub-questions were:

1. *What are patient-facing hospital staff experiences of burnout?,*
- 2 - *What are clinical hospital staff experiences of their interactions with management and their perceptions of workplace uncongeniality?*

and

3 - How effectively are Australian public health organisations managing the systemic crisis of employee stress reaction to a perceived uncongenial workplace?

The research questions were developed to address the thesis aim as an exploratory project in the areas of burnout, and its impact on the working community within the Western Australian public healthcare sector. The term ‘impact’ for this research is multi-level to reflect the dynamic interactions of both the systemic and individual influences on employee burnout. The impacts of employee burnout concerns employee wellbeing as well as performance, in terms of staff ability to perform their role safely and to their own best ability.

There are a range of terms used throughout this thesis to distinguish between different groups within the sample, and the healthcare community. These terms include ‘patient-facing’, ‘clinical’, and ‘frontline’ staff. These groups of individuals require distinction for clarity and ease of discussion. In the case of ‘patient-facing’ staff, use of this term refers to any staff member present who performs a patient-facing role, including administration and clinically-trained workers. ‘Patient-facing’ staff are distinct from ‘clinical’ staff, as ‘clinical’ refers only to individuals with clinical training, such as professionals in allied health, nursing, and medicine. ‘Frontline’, in turn, refers to the bottom layer of the healthcare organisational structure regardless of their patient-facing status, including bed managers and nurse-unit-managers who may or may not perform a patient-facing role. Use of ‘frontline’ instead of ‘patient facing’ aims to capture the nuance of individuals who may be present among the front lines of the sampled organisation, working closely with patient-facing staff, but who might not interact with patients on a daily basis.

The thesis' results aim to contribute greater understanding of burnout experienced by frontline hospital staff for the fields of healthcare management, organisational resilience, and Crisis Management Theory.

1.7 Data Sources

This thesis comprises a single study, with primary data collected from patient-facing staff in two hospital sites within the same public health service in Western Australia. Data in the chapters are sub-samples of the full dataset of 73 semi-structured interviews, based on the relevance of each sub-sample to the findings discussed. Including patient-facing staff instead of just clinicians allowed for clerks and administrative workers who interacted with clinicians and patients to participate. As clerks and administrative workers often worked closely with clinicians in the target hospitals, their perspectives were sought for added depth.

For relevant chapters, secondary sources were accessed. These included publicly available governance documents from the target health service, such as Annual Reports, and public media sources.

1.8 Epistemological and Methodological Approach

The research project underpinning this thesis used a multi-method qualitative methodology, drawing from an interpretivist/constructivist paradigm (Creswell, 2018). By approaching the research as an exploratory project where the views and perspectives of participants are collected, understanding of a social phenomenon can be attained. The background and lived experiences of the research team informed the meaning-making activity of analysis and writing. For future study replicability and transparency of research protocol, the backgrounds of each researcher are declared.

The research team consisted of four individuals: Two academic supervisors overseeing the project, based at the university; one key investigator conducting the project, based from the university and reporting to the two supervisors; and one clinically-trained

research assistant, based from the sampled hospitals. The clinically-trained research assistant was a doctor with experience in psychiatric medicine. The research assistant provided mentorship to the key investigator (the author of this thesis and all of the manuscripts contained herein) through advice on clinical culture, psychiatric interviewing techniques, and research support as a co-interviewer. The inclusion of a clinically-trained research assistant served to mitigate the inherent bias of the key investigator's perspectives on the project as an 'outsider', by providing their unique insights into data collection and analysis.

The key investigator was a human resources management graduate who cross-trained in public health from the university's business school. With experience in blue-collar recruitment and retail, the key investigator's experience with research prior to this project was archival data collection and analysis at an honours level. The key investigator initially approached the topic of burnout and healthcare management from the perspective of organisational psychology and human resources management.

Participants who volunteered for the study were told of the key investigator and research assistant's qualifications, but did not know the researchers beyond their capacity to appropriately handle sensitive research data. Participants were informed that the project was part of the requirements for a doctoral degree, but that the secondary aim was to seek improvements for the benefit of the target health service.

1.9 Structure of the Thesis

This thesis takes the form of a thesis with publications, with a collection of published and unpublished academic articles presented as chapters prior to a discussion chapter. To address the first aim, Chapter 2 explores the workplace experiences of patient-facing staff who work in an Australian public hospital. Chapters 3 and 4 addresses the second aim of the study, by exploring the perceived impact of hospital management interventions to address burnout among staff. Chapter 5 consolidates the study's exploratory analysis, presenting a

new theoretical model. The Discussion chapter (Chapter 6) serves to incorporate all of the findings and analysis into a cohesive whole, in addition to the data and analyses presented in each article.

Chapter 2 Hospital Staff Report it is not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study

2.1 Introduction

This chapter presents a published manuscript, formatted as accepted by the *International Journal of Environmental Research and Public Health*. This article addresses the research question: *What are patient-facing hospital staff experiences of burnout?* Chapter 2 presents a segment of data and analysis pertaining to participant experiences of their workplace, and staff perceptions of burnout.

2.2 Article



Article



Hospital Staff Report It Is Not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study

Madeleine Kendrick¹, Kevin Kendrick², Peter Morton², Nicholas F. Taylor^{1,3} and Sandra G. Leggat^{1,4},

¹ School of Psychology and Public Health, La Trobe University, Bundoora VIC 3086, Australia; 19460000@students.latrobe.edu.au

² WA Health, Perth WA 6004, Australia; kevin.kendrick@health.wa.gov.au (K.K.); peter.morton@health.wa.gov.au (P.M.)

³ School of Allied Health, Human Services and Sport, La Trobe University, Bundoora VIC 3086, Australia; n.taylor@latrobe.edu.au

⁴ School of Public Health, Harbin Medical University, Harbin 150081, China

* Correspondence: s.leggat@latrobe.edu.au

Received: 3 April 2020; Accepted: 4 June 2020; Published: 9 June 2020

Abstract: (1) Background: The issue of burnout in healthcare staff is frequently discussed in relation to occupational health. In this paper, we report healthcare staff experiences of stress and burnout. (2) Methods: In total, 72 healthcare staff were interviewed from psychiatry, surgery, and emergency departments at an Australian public health service. The sample included doctors, nurses, allied health professionals, administrators, and front-line managers. Interview transcripts were thematically analyzed, with participant experiences interpreted against descriptors of burnout in Maslach's Burnout Inventory and the International Statistical Classification of Diseases and Related Health Problems (ICD-11). (3) Results: Staff experiences closely matched the ICD-11 description of stress associated with working in an uncongenial workplace, with few reported experiences which matched the ICD-11 descriptors of burnout. (4) Conclusion: Uncongenial workplaces in public health services contribute to healthcare staff stress. While previous approaches have focused on biomedical assistance for individuals, our findings suggest that occupational health approaches to addressing health care staff stress need greater focus on the workplace as a social determinant of health. This finding is significant as organizational remedies to uncongenial stress are quite different from remedies to burnout.

Keywords: burnout; stress; occupational health; work

1. Introduction

Since authors Freudenberg and Maslach [1,2] published their works on burnout, studies on how 'unmitigated, chronic stress' impacts individuals have evolved from identifying antecedents to discussing remedies and preventative measures. Burnout in healthcare is reported with increasing frequency [3–5]. The consequences of burned-out healthcare staff are staff shortages and lower quality of patient care [6,7].

Research identifying how ‘burnout’ can overlap with other conditions, such as depression [8], has suggested the need to further distinguish burnout from other workplace-related issues to improve worker health and wellbeing. To assist with this differentiation the authors took a different approach to most studies of burnout. This article explores patient-facing healthcare staff perspectives of stress and burnout by using the International Statistical Classification of Diseases and Related Health Problems, 11th edition (ICD-11) mental health diagnostic codes to augment Maslach’s Burnout Inventory (MBI) as the theoretical framework of stress, burnout, depression, and anxiety. Depression and anxiety were included as the psychiatric literature discusses potential overlaps and commonalities between burnout and other mental illnesses [8,9].

Maslach has described burnout as involving, “ ... Emotional exhaustion, depersonalization, and lack of personal accomplishment” (p. 192). The ICD-11 described burnout as “a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed” [10]. The ICD-11, a diagnostic aid published by the World Health Organization (WHO), records these criteria for use in daily clinical practice. The ICD-11 outlines specific mental or behavioral conditions, such as generalized anxiety disorder, depression, and acute and chronic disorders associated with stress [10]. In addition, the ICD-11 includes differential classifications for ‘problems related to employment and unemployment’ that can impact health and wellbeing. One such problem, listed under the code QD83.0, is the ‘problem associated with uncongenial work’. The issue of ‘uncongenial work’ crosses the spheres of public health and organizational psychology, as specific conditions in the workplace are well established in the literature as a contributing factor to burnout [11,12].

The aim of the research was to explore staff experiences of stress and burnout in a large health service. This research question was developed based on literature, which has highlighted the link between a challenging work environment and high rates of burned-out staff among, e.g., urgent care doctors [4,13] and nurses [14]. Surgical and emergency professions are well-known for difficult working environments, which routinely include negative interpersonal interactions, shift work at unsocial hours, and the high acuity of the work [13,15]. However, the existing research targeting health professionals is largely quantitative [16], aiming to link various personal (e.g., emotional intelligence, job satisfaction) and organizational factors (e.g., leadership, social support) to reported burnout. This study aimed to fill a gap by exploring perceptions of stress and burnout in depth to ensure these constructs were clearly understood before antecedents and solutions were identified.

2. Materials and Methods

2.1. Study Design and Setting

The design of this study involved qualitative analysis of a series of in-depth semi-structured interviews to explore staff perceptions of their workplace experiences. Interview questions were designed involving consultation with project stakeholders on the research focus. Researchers then collected data independently of stakeholder input. No data were collected during the research design stage of the project, only suggestions. The study was set in two urban hospitals in a single public health service in Australia located in one major city. This allowed data to be combined for analysis. Three clinical departments were sampled. Staff from psychiatry, surgery, and emergency departments provided a range of perspectives from clinical areas known for high acuity work.

2.2. Study Population

The participants included in the frontline ‘patient-facing’ staff include doctors, nurses, allied health professionals, administration and clerical staff, and front-line managers (such as nurse-managers

who work on the ward). Patient-facing support services staff were excluded from the study because in one hospital these workers were employed by a private agency and not the health service directly. Participants were recruited using a combination of purposive and snowball sampling, where the researchers aimed to sample an entire team of patient-facing staff in the target departments. The process of recruitment involved an initial purposive approach using email introductions with the participant information statement attached that outlined the aims and protocol of the study, and in-person explanations of the study given pre-interview to confirm understanding. From the purposive approach, targeting staff in the psychiatry, emergency, and surgical departments, individuals were encouraged to tell their co-workers about the study and encourage others to participate. Individuals in the target departments were encouraged to discuss the study and the option of participating regardless of whether they had participated themselves.

2.3. Procedures

The study took a constructivist epistemology to the creation of knowledge from the subjective experiences and perceptions of individuals [17]. In line with this exploratory approach, the researchers used open-ended interviewing. Recommended by stakeholders during the project design stage, the key question from which responses were analyzed for this paper was, 'Please describe what work is like for you (?)'. Follow-up questions depended on the response given to the first question, including prompts such as, 'What causes stress for you when you're at work?' and 'what helps you to de-stress after work?'. Questions about the participant's experience and understanding of the concept of burnout included, 'What does the term 'burnout' mean to you?' and, 'Have you ever experienced burnout? (If so), What did it feel like for you?'.

Due to the semi-structured, qualitative nature of the interview, participant responses varied based on their experiences and priorities. This approach was informed by studies that have illustrated the use of shorter questionnaires and analytical tools to identify the presence of burnout [18,19], deriving from the themes in the MBI [2]. The researchers followed the example of authors such as West, Dyrbye et al. [18] with a simplified set of reflective questions based on MBI. A qualitative research design was chosen to enable in-depth exploration of participant views to address the research question. Interviews were conducted by two interviewers. One interviewer was a doctoral research student

(MK), who designed the project, with a background in management interviewing techniques. The other interviewer was a psychiatric registrar, with a background in psychiatric interviewing techniques (KK). The two interviewers collaborated during transcription and coding to ensure overall consistency and to discuss assumptions prior to analysis. When participants from the psychiatry department were familiar with the psychiatrist interviewer, the doctoral research student conducted the interview to maintain objectivity, and ensure that all responses could be kept confidential. In other cases, participants felt more comfortable speaking to the psychiatrist interviewer. Interviews were conducted face-to-face with the interviewer with audio recording for accurate transcription. The researchers also recorded participant responses with rich descriptions, due to the nuances communicated by non-verbal communication such as extended pauses, sarcasm, and emphasis on specific words. Three participants declined to be recorded during the interview and their responses were written as field notes by the researcher.

Interviews averaged approximately 40 min in duration, in a private location at the participant's discretion (such as in an office, or a consultation room after-hours). Participants volunteered knowing that there was no compensation. All interview transcripts were de-identified during transcription for participant confidentiality. Each participant was given the opportunity to review

and edit their resulting transcript; the few transcripts which were returned to the researchers had only minor corrections.

2.4. Data Management and Analysis

Data analysis was completed similar to steps presented in Braun and Clarke [20], in the form of deductive thematic analysis. Audio recordings were transcribed and re-reviewed. This was followed by generation of preliminary codes. From these codes overarching themes were identified for analysis. A two-level analysis was then conducted, initially of coded data extracts, and then of the whole data set with iterative recoding as necessary. Based on this, themes and subthemes were defined, considering preexisting descriptions of themes and terminology in academic literature. The completed transcripts, coding and collation was managed using NVivo qualitative data analysis software (QSR International Pty Ltd. Version 12, 2018, Melbourne, Australia).

The purpose of deductive thematic analysis was to identify themes and trends in the data relevant to the project and theoretical framework [21] based on the collected experiences and perceptions of participants [17]. The two interviewers completed coding, with the doctoral student coding the majority of transcripts, and the psychiatrist interviewer cross-coding a small number to ensure consistency as recommended by the COREQ checklist [22]. A further check was provided with another academic management member of the research team (SL) reviewing a sample of the de-identified transcripts and codes. This approach aimed to minimize researcher bias through coding by researchers from different professional backgrounds and documented discussion between team members to encourage transparency and self-reflexivity [21–25].

The process used to code documents was deductive and iterative, highlighting key words in the transcripts when they matched the ICD-11 theoretical framework of stress, burnout, depression, and anxiety. In the case of ‘anxiety’, key words such as ‘anxious’, ‘worried’, and ‘nervous’ would be highlighted and assigned to the main theme. When key words were not enough to qualify an anecdote (such as participant describing feeling ‘nervous’ and ‘stressed’), the context of the anecdote and the participant’s wider interview were considered before assigning a theme. The final assignment was based on ICD-11 guidelines with oversight from the consultant psychiatrist clinical site supervisor (PM). The transcripts were re-read and coded with a wider scope, incorporating quotes and anecdotes made by participants in relation to themes from the framework.

2.5. Ethics

The project was approved by the Health Service and La Trobe University Human Research Ethics Committees (HREC), registration number PRN: 0966. After receiving a participant information and consent form, all participants provided written informed consent prior to participating in the study. A withdrawal of consent form was provided to all participants in case they wished to no longer participate in the project. No participants withdrew their information. The research followed the consolidated criteria for reporting qualitative studies (COREQ) [22].

De-identifying and collectively organizing participant transcripts was an essential requirement of the ethics approval. Without the ability to protect the identities of participants, the research project would not have been allowed to proceed due to the negative impacts that identification could have on participants. Variables such as age, gender, and years of service were divulged by participants, but were not recorded to preserve confidentiality. In addition to de-identifying individual transcripts, the researchers stored individual consent forms separately in a secure location in the researchers’ private office. Given the confidential nature of the data, the transcripts cannot be made available in open access.

3. Results

A total of 72 participants were interviewed, with 35 from psychiatry, 7 from surgery, 22 from emergency, and 8 from ‘other’ categories, such as those who worked across both surgical and emergency departments. Participants included doctors, nurses, and allied health professionals, as well as administration staff and line managers. (See Table 1).

Table 1. Participant professional and clinical specialty groups.

	Doctors	Nurses	Admin	Allied Health	Line Management	Total
Psychiatry	7	6	7	9	6	35
Surgery	1	4	0	2	0	7
Emergency	7	7	3	1	4	22
‘Other’	0	1	2	0	5	8
Total	15	18	12	12	15	72

In the psychiatric and emergency departments leaders (such as senior nurse-managers, and administration personnel) openly endorsed participation to their colleagues, encouraging volunteers to contact the researchers. As a result, in emergency and psychiatry, the researchers were able to sample several complete teams of patient-facing staff (three teams in psychiatry, two teams in emergency). Data from the surgery and ‘other’ departments were included for analysis due to thematically consistent responses. While direct representation of a population in the data sample is required for statistical analysis, the distinctive advantage of semi-structured interviews is that a theme can reach saturation from a comparatively small cohort [21–25]. This phenomenon was experienced by researchers; the outcomes of which are discussed in the rest of the article.

When participants were asked to describe ‘what work was like for them’, the majority of participants discussed experiences of stress, anxiety, and burnout. While many individuals used the term ‘burnout’, when asked to describe what burnout meant to them, only a small number of participants described burnout as the “end stage of chronic stress” defined by Maslach [2] and the ICD-11. Very few individuals described neither workplace stress, anxiety, nor burnout.

3.1. Burnout or Something Else

When data collection was conducted and participant responses were compared with themes found in MBI and contemporary literature on burnout [11,16], a major theme emerged. Participants often felt that they or their co-workers were ‘burned out’, yet most participant descriptions (68 of 72) of experiences of ‘burnout’ were, in fact, not consistent with clinical indicators of burnout [10].

Differentiating Burnout from Other Conditions

To illustrate the differences between participant anecdotes that fit the descriptions of burnout and those which did not, two examples from the data have been selected. Participant 4’s responses to interview questions matched the diagnostic and research criteria for burnout. Participant 40’s did not, matching more closely to descriptions of stress.

“Got to a point ... and that’s only been in the last few years ... but it’s got to a point now where I was like ... I can’t feel this miserable every day and be ... a good person. Do a good job and do all the things I do like everyone else. ... Been a bit up-and-down, to be honest I know it sounds ridiculous, being a [clinician] and everything, but you know ... in my head, I was like “I was fine! Until this place happened.” And now, this place has happened. And now, you know, that’s it. I would say the only time I’ve got back to brilliant is when

I'm not here. So, when I'm on holiday. And I've had two big holidays while I've been here. Thankfully my [period of leave] came in, so I had [a lot of time] off work. It was the best. I didn't want to come back, obviously". (participant 4)

"... they were dropping me into some night shifts ... and I was having palpitations. I could feel it there ... like oh god I'm dreading ... I was really dreading going in **participant pats their chest during the anecdote**. Going online and [obsessively] checking the [high] patient numbers. That's what I started doing! But that's not good for me. Like, **recounting, visibly anxious** oh my god, I'm going into this". [which subsided once the participant began their shift] (participant 40)

Participant 40 described their experiences as 'much better' once they began their work routines; they felt more at-ease and less stressed. Participant 40 proceeded to describe how much they love their work, and how satisfying it was to connect with their patients. Participant 40 continued going to work because, "I still love my job! I love socializing, talking with patients ...", and because they derive a sense of deep satisfaction from providing high-quality, attentive care to patients. Like participant 40, most participants, including those who acknowledged significant stress, did not describe themselves or their co-workers as being 'emotionally exhausted', 'depersonalized', or 'lacking feelings of personal accomplishment'. The lack of descriptors of this nature indicated to researchers that these experiences were not burnout. Instead, participants regularly described experiences of consistent, daily stress as a consequence of their working environment, consistent with data from organizational psychology research on the negative impact of uncongenial working environments [9,26]. In short; the participant's reactions to the stressors of their working environment were not within the parameters of burnout disorders described by the ICD-11 or Maslach [2]. Instead, it was the workplace that was 'disordered'. These employees were working within the uncongenial workplace and were exhibiting reasonable reactions to an unreasonable working environment.

Participant 4's experience differed from participant 40's in many ways. Participant 40 appeared to experience anxiety, but this was largely anticipatory, as it evaporated once work began. In contrast participant 4 experienced anxiety and unhappiness that continued throughout work. They were also unable to detach from these sensations during weekends away from work, remaining focused on their experience of misery. These sensations only eased during prolonged holiday periods. This is congruent

with evidence that one of the few known remedies for burnout discussed in literature is time away from the workplace where those suffering from burnout usually experience complete recovery from their symptoms [12,27]. This in and of itself would not have been sufficient to qualify as likely burnout, but outside of the anecdote, the participant also described emotional exhaustion, depersonalization, loss of personal accomplishment, professional cynicism, and a loss of professional efficacy, which are all criteria identified in Maslach's work [2]. On review of the case by the Consultant psychiatric supervisor, participant 4 was identified as one of the few participants describing burnout, whereas participant 40, whose experience of anxiety was largely limited to checking patient numbers prior to the shift, did not ruminate on work was not classified as burnout. The experiences of participant 40 were far more common within our sample than those of participant 4.

3.2. The Uncongenial Workplace and Its Impact on Staff Wellbeing

Participants who appeared to experience the most stress in the workplace were staff in the middle of the patient-facing hierarchy, i.e., those who were neither junior, nor senior staff in the team. These staff included registrar doctors and registered nurses. As their role carried a large amount of responsibility, often with little autonomy, these 'middle' staff members explained that, "There is a lot of responsibility in the workplace, a lot of stress ..." (participant 12), and, "Why is this my responsibility to do ... I brought [it] up with every single level of person ... but it always used to come back to me, it was horrendous." (participant 4). Many of the participants listed other stressors that impacted their long-term wellbeing, such as feeling unsafe at work, feeling like there was more work to do than people available to do it, and user-unfriendly systems for forms and issue resolution.

"... it's almost like ... you want to get something done for the benefit of patients and staff ... and you're happy to go to all the effort to prove why it's needed and everything ... but then it's the continual ... 'oh, nobody knows' or 'you'll have to speak to so-and-so somewhere up the ladder about that', and you hit loads of dead-ends just trying to find out some very basic information" **participant rolls their eyes, emphasizing the word 'basic'**. (participant 72)

When asked to describe how these experiences made them feel, participants volunteered 'fatigue' and 'frustration' most frequently. Participants expanded on this, explaining that their frustrations mostly stemmed from systems and situations which prevented them from performing their job to their best ability;

"... I got a classic phone call the other day **irritated** ... There was a position being abolished [unnecessarily, as the position is actually required in the organization] ... but there's no money to reinstate the position now that it's been cut, so the workload has to be absorbed by current staff. There's no 'fat' in the system to absorb extra work anymore... So, we are all being provisioned to provide our services at a basic level, when we want to deliver silver or gold-standard care! When we can't do that, that's when the dissatisfaction comes in. **participant emphasizes the word 'dissatisfaction'**. When you know you're not delivering that standard, and there's somebody out there hurting because you can't, I feel concern for them... **participant looks upset by this disp-quote**". (participant 17)

This was the main theme, with interview participants describing feeling stressed when they believed that they were not providing optimal quality of patient care. Those staff in the middle of the hierarchy, were more likely to describe this stress than more senior or junior staff.

4. Discussion

The researchers sought to explore the patient-facing staff experiences of stress and burnout in a large health service by comparing interview responses to MBI [2] and the ICD-11 [9]. The data of this exploratory study and its implications came as a surprise after the focus of burnout in media and academic sources suggested a trend in public health workplaces [3,8,12]. Our data revealed two themes. The first suggested that despite increasing awareness, the concept of burnout is largely misunderstood and is frequently co-opted to describe experiences of long-term physical fatigue, chronic stress, and anxiety [10,28] experienced in an uncongenial workplace.

The second theme suggested that stress was most common among patient-facing staff in the middle of the hierarchy, and this was largely a consequence of their perceived inability to provide the quality of care they felt they should be providing. These findings are consistent with current

research that has found a relationship between episodes of missed care and powerlessness and stress among nurses [29].

These themes led to the conclusion that the experiences of those interviewed was not burnout, but stress arising from uncongenial working conditions. Despite participants self-reporting that they perceived their experiences to be 'burnout', their own descriptions did not match the ICD-11 nor Maslach's [2] descriptions of the burnout condition. Instead, participant anecdotes and descriptions more closely matched with ICD-11 descriptions of stress and anxiety related to an uncongenial workplace. The study's data and analysis were presented to the research team's consultant psychiatrist (PM), who agreed with this perspective.

4.1. Occupational Health and Staff Stress

The results of this study illustrated a case where participants suggested that they and their colleagues were suffering from burnout, but which in fact were stress responses to workplace factors, as also identified by Murtagh [30]. Despite the increasing attention on burnout of healthcare workers, recent systematic reviews have found limited understanding of the prevalence [31] and the factors contributing to burnout [32], making it difficult to build the evidence on effective interventions [29,33]. Whether the impacts on health are physical or psychological, it is the responsibility of a workplace to create an environment that is safe for an individual to conduct their work, with minimal risk [34–36]. This responsibility requires the workplace to take initiative to ensure staff safety, from training and education to regular risk assessments to check that safety standards are maintained [34].

While physical safety standards are well documented[37], the same cannot be said for psychological safety at work [38], such as the means for creating congenial workplaces to minimize staff experiences of stress [39]. The field of burnout and staff psychological safety in the workplace is still in development, as research primarily focuses on measurements of stress and burnout, as well as individualistic remedies, such as personal resilience capacity [40]. We suggest the next step in the field's evolution involves implementation studies and interventions to assess the applicability of theoretical findings such as those discussed by Lamontagne, Keegel and Vallance [36] and Shain, Arnold and Germann [41].

4.2. Implications for Public Health

While our analysis showed that the majority of participants in this project did not suffer from burnout, burnout remains the endpoint of long-term stressful experiences for an individual [1,2,10]. Therefore, if left to continue, an uncongenial working environment with large numbers of stressed healthcare staff is likely to contribute to burnout in the future. A further consideration is the negative effect on patient care by a stressed healthcare workforce [42]. What this means for public health policymakers, government departments, and hospital boards, is a need to recognize and address the conditions an uncongenial workplace creates for staff, particularly those working in high-acuity clinical professions. Remedies may include audits and service improvement initiatives addressing staff access to information systems [43], and leadership responses to staff concerns in the workplace to better support employees [44]. Access to information and leadership support for patient-care duties was a significant concern of our participants.

Rather than developing strategies to bolster individual staff resilience to these uncongenial working conditions, a more sustainable and effective solution may be to remedy specific stressors present in the workplace. This will require accurate assessment of social factors and psychological stressors, in addition to physical workplace factors, in each public hospital for which policymakers and boards are

responsible. To this end, the process of a staff-focused service review is highly recommended for the immediate future.

4.3. Limitations

Our results may be inconsistent with current literature on burnout due to targeting an infrequently sampled population or sampling a relatively small percentage of the overall number of staff working at the target health system. For context, the staff employed at the target health system number in the thousands, crossing a multitude of medical specialties, of which 72 participants were interviewed from three departments. However, by the end of the interviews no new themes emerged suggesting that data saturation had been achieved. There is potential for the participants of this study to experience work differently to those who have participated in other studies due to a variety of unique conditions present in this study's target health system, some of which were identified in Kendrick and Bartram et al. [45]. Further research may be required to confirm whether the results are generalizable to other health settings.

Due to the field of burnout being relatively new with diagnostic and measurement tools still undergoing revision and improvement [16], there is potential for burnout to be mis-diagnosed by clinicians and academics alike in the search for a solution to stress from an uncongenial

workplace. This interpretation raises a question for future studies on burnout rates in healthcare staff: what percentage of 'burned-out' individuals are genuinely burnt-out and what percentage are simply in need of a more functional place in which to conduct their work? The use of the participants' own description of their perceptions of stress and burnout offer a unique insight into the lived experiences of staff. This nonetheless presented a potential limitation of responder bias, which was suggested by the high number of participants responding that they felt burned-out, forcing the study to rely on cross-referencing the work of Maslach [2] and the ICD-11 [10] to qualify these anecdotes using established theory. Future research might also benefit from including additional variables, such as respondent gender and age, to draw further conclusions.

5. Conclusions

Burnout was rarely present despite participants self-reporting feeling burnt-out, or 'witnessing' burnout in their co-workers. This finding diverged from current literature on burnout in healthcare workers, which suggested a trend of high burnout rates across a range of cultural contexts [3,4,18]. The stress reaction to an uncongenial workplace reported by our study participants was largely attributed to staff inability to provide the quality of care they felt was necessary to best serve their patients but did not typically reach the criteria for burnout as defined by either Maslach or the ICD-11.

This unexpected finding and its interpretation led the authors to three potential conclusions: either (a) current studies on burnout are inaccurate and thus skewed towards confirmation-bias; (b) the target sample is a significant outlier that requires in-depth investigation as to the reasons why participant experiences do not match current trends of burnout; or (c) qualitative study has enabled greater depth in understanding the experiences of the staff that are not possible with existing quantitative burnout questionnaires [17,21,23]. This finding is also significant as organizational remedies to uncongenial stress are both scarcer [46] and different from remedies to burnout [47]. Healthcare organizations should pay greater attention to the working environment, taking care to ensure that hospitals are supportive of patient-facing staff duties and personal wellbeing. This study's results provide a rationale for shifting the future focus of health practitioner wellbeing away

from individual factors, such as personal resilience, towards organizational factors that act as social determinants of health.

Author Contributions: Conceptualization, M.K.; methodology, M.K.; validation, K.K., P.M., and S.G.L.; formal analysis, M.K.; investigation, M.K. and K.K.; resources, S.G.L., N.F.T.; data curation, M.K.; writing—original draft preparation, M.K.; writing—review and editing, N.T., S.G.L., K.K., and P.M.; supervision, M.K., K.K., S.G.L., and N.F.T.; project administration, S.G.L., N.F.T., and P.M. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Freudenberger, H. *Burnout: The High Cost of High Achievement*; Anchor Press: Norwell, MA, USA, 1974.
2. Maslach, C.; Jackson, S.E.; Leiter, M. (Eds.) *Maslach Burnout Inventory: Manual*; Consulting Psychologists Press: Paolo Alto, CA, USA, 1981.
3. Dzau, V.J.; Kirch, D.G.; Nasca, T.J. To Care is Human—Collectively Confronting the Clinician-Burnout Crisis. *N. Engl. J. Med.* **2018**, *378*, 312–314. [CrossRef]
4. Omar, A.; Elmaraghi, S.; Mahmoud, M.; Khalil, M.; Singh, R.; Ostrowski, P. Impact of leadership on ICU clinicians' burnout. *Intensive Care Med.* **2015**, *41*, 2016–2017.
5. Willard-Grace, R.; Hessler, D.; Rogers, E.; Dubé, K.; Bodenheimer, T.; Grumbach, K. Team structure and culture are associated with lower burnout in primary care. *J. Am. Board Fam. Med.* **2014**, *27*, 229–238.
6. Salyers, M.P.; Flanagan, M.E.; Firmin, R.; Rollins, A.L. Clinicians' perceptions of how burnout affects their work. *Psychiatr. Serv.* **2015**, *66*, 204–207.
7. Rabatin, J.; Williams, E.; Baier Manwell, L.; Schwartz, M.D.; Brown, R.L.; Linzer, M. Predictors and Outcomes of Burnout in Primary Care Physicians. *J. Prim. Care Community Health* **2016**, *7*, 41–43.
8. Bianchi, R.; Schonfeld, I.S.; Laurent, E. Burnout–depression overlap: A review. *Clin. Psychol. Rev.* **2015**, *36*, 28–41. [CrossRef]
9. World Health Organization (WHO). QD83: Problems Related to Employment or Unemployment, ICD-11. 11th ed. Available online: <https://icd.who.int/browse11/l-m/en> (accessed on 2 April 2020).
10. World Health Organization (WHO). Z73—Burn Out. Available online: <https://icd.who.int/browse10/2019/en#/Z73.0> (accessed on 2 April 2020).
11. Dyrbye, L.N.; Varkey, P.; Boone, S.L.; Satele, D.V.; Sloan, J.A.; Shanafelt, T.D. Physician satisfaction and burnout at different career stages. *Mayo Clin. Proc.* **2013**, *88*, 1358–1367.
12. Dishon-Berkovits, M. Burnout: Contributing and Protecting Factors within the Work-Family Interface. *J. Career Dev.* **2014**, *41*, 467–486.
13. Berger, E. Physician Burnout: Emergency Physicians See Triple Risk of Career Affliction. *Ann. Emerg. Med.* **2013**, *61*, A17–A19.
14. Reineck, C.; Furino, A. Nursing career fulfillment: Statistics and statements from registered nurses. *Nurs. Econ.* **2005**, *23*, 25–30.
15. Bartholomew, A.J.; Houk, A.K.; Pulcrano, M.; Shara, N.M.; Kwagyan, J.; Jackson, P.G.; Sosin, M. Meta-Analysis of Surgeon Burnout Syndrome and Specialty Differences. *J. Surg. Educ.* **2018**, *75*, 1256–1263.
16. Adriaenssens, J.; De Gucht, V.; Maes, S. Determinants and prevalence of burnout in emergency nurses: A systematic review of 25 years of research. *Int. J. Nurs. Stud.* **2015**, *52*, 649–661.
17. Miller, H.T. From social constructivist epistemology to context realism. *Crit. Policy Stud.* **2016**, *10*, 365–379.
18. West, C.P.; Dyrbye, L.N.; Sloan, J.A.; Shanafelt, T.D. Single item measures of emotional exhaustion and depersonalization are useful for assessing burnout in medical professionals. *J. Gen. Intern. Med.* **2009**, *24*, 1318–1321.
19. Hansen, V.; Girgis, A. Can a single question effectively screen for burnout in Australian cancer care workers? *BMC Health Serv. Res.* **2010**, *10*, 341.
20. Braun, V.; Clarke, V. Using thematic analysis in psychology. *Qual. Res. Psychol.* **2006**, *3*, 77–101.
21. Guest, G.; MacQueen, K.M.; Namey, E.E. Themes and Codes. In *Applied Thematic Analysis*; SAGE Publications, Inc.: Thousand Oaks, CA, USA, 2012; pp. 49–79.

22. Tong, A.; Sainsbury, P.; Craig, J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care* **2007**, *19*, 349–357.
23. Creswell, J.W. *Qualitative Inquiry & Research Design: Choosing among Five Approaches*, 4th ed.; SAGE Publications: Thousand Oaks, CA, USA, 2018.
24. Tracy, S.J. Qualitative Quality: Eight “Big-Tent” Criteria for Excellent Qualitative Research. *Qual. Inq.* **2010**, *16*, 837–851.
25. Clarke, V.; Braun, V. Guidelines for Reviewers and Editors Evaluating Thematic Analysis Manuscripts. University of Auckland, 2019. Available online: <https://cdn.auckland.ac.nz/assets/psych/about/ourresearch/documents/TA%20website%20update%2010.8.17%20review%20checklist.pdf> (accessed on 2 June 2020).
26. Neckel, S.; Schaffner, A.K.; Wagner, G. *Burnout, Fatigue, Exhaustion an Interdisciplinary Perspective on a Modern Affliction*; Palgrave Macmillan: London, UK, 2017.
27. Dieser, R.B.; Edginton, C.R.; Ziemer, R. Decreasing Patient Stress and Physician/Medical Workforce Burnout through Health Care Environments: Uncovering the Serious Leisure Perspective at Mayo Clinic’s Campus in Rochester, Minnesota. *Mayo Clin. Proc.* **2017**, *92*, 1080–1087.
28. Schaufeli Wilmar, B. Burnout: 35 years of research and practice. *Career Dev. Int.* **2009**, *14*, 204–220.
29. Kalisch, B.J.; Landstrom, G.L.; Hinshaw, A.S. Missed nursing care: A concept analysis. *J. Adv. Nurs.* **2009**, *65*, 1509–1517.
30. Murtagh, M.J. Hepatitis C in the workplace: A survey of occupational health and safety knowledge and practice in the beauty therapy industry. *Aust. N.Z. J. Public Health* **2004**, *28*, 207–211.
31. Van Mol, M.M.C.; Kompanje, E.J.O.; Benoit, D.D.; Bakker, J.; Nijkamp, M.D. The Prevalence of Compassion Fatigue and Burnout among Healthcare Professionals in Intensive Care Units: A Systematic Review. *PLoS ONE* **2015**, *10*, e0136955.
32. Chuang, C.-H.; Tseng, P.-C.; Lin, C.-Y.; Lin, K.-H.; Chen, Y.-Y. Burnout in the intensive care unit professionals: A systematic review. *Medicine* **2016**, *95*, e5629.
33. Ruotsalainen, J.; Serra, C.; Marine, A.; Verbeek, J. Systematic review of interventions for reducing occupational stress in health care workers. *Scand. J. Work Environ. Health* **2008**, *34*, 169–178.
34. Federal Register of Legislation. Safe Work Australia Act 2008. Available online: <https://www.legislation.gov.au/Details/C2017C00260> (accessed on 5 June 2020).
35. Chu, C.; Dwyer, S. Employer Role in Integrative Workplace Health Management. *Dis. Manag. Health Outcomes* **2002**, *10*, 175–186.
36. Lamontagne, A.D.; Keegel, T.; Vallance, D. Protecting and promoting mental health in the workplace: Developing a systems approach to job stress. *Health Promot. J. Aust.* **2007**, *18*, 221–228.
37. Arman, S.E. Are ergonomic interventions effective for prevention of upper extremity work-related musculoskeletal disorders among office workers? A Cochrane Review summary with commentary. *Musculoskelet. Sci. Pract.* **2019**, *45*, 102062.
38. Kotzé, M.; Steyn, L. The role of psychological factors in workplace safety. *Ergonomics* **2013**, *56*, 1928–1939.
39. Marklund, S.; Mienna, C.S.; Wahlström, J.; Englund, E.; Wiesinger, B. Work ability and productivity among dentists: Associations with musculoskeletal pain, stress, and sleep. *Int. Arch. Occup. Environ. Health* **2020**, *93*, 271–278.
40. Cooke, G.P.E.; Doust, J.A.; Steele, M.C. A survey of resilience, burnout, and tolerance of uncertainty in Australian general practice registrars. *BMC Med. Educ.* **2013**, *13*, 2.
41. Shain, M.; Arnold, I.; Germann, K. The Road to Psychological Safety: Legal, Scientific, and Social Foundations for a Canadian National Standard on Psychological Safety in the Workplace. *Bull. Sci. Technol. Soc.* **2012**, *32*, 142–162.
42. Hall, L.H.; Johnson, J.; Watt, I.; Tsipa, A.; O’Connor, D.B. Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review. *PLoS ONE* **2016**, *11*, e0159015.
43. Shanafelt, T.D.; Dyrbye, L.N.; Sinsky, C.; Hasan, O.; Satele, D.; Sloan, J.; West, P.C. Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction. *Mayo Clin. Proc.* **2016**, *91*, 836–848.
44. Shanafelt, T.D.; Gorringer, G.; Menaker, R.; Storz, K.A.; Reeves, D.; Buskirk, S.J.; Sloan, J.A.; Swensen, S.J. Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin. Proc.* **2015**, *90*, 432–440.

45. Kendrick, M.I.; Bartram, T.; Cavanagh, J.; Burgess, J. Role of strategic human resource management in crisis management in Australian greenfield hospital sites: A crisis management theory perspective. *Aust. Health Rev.* **2019**, *43*, 157–164.
46. Richardson, K.M.; Rothstein, H.R. Effects of occupational stress management intervention programs: A meta-analysis. *J. Occup. Health Psychol.* **2008**, *13*, 69–93.
47. Ruotsalainen, J.H.; Verbeek, J.H.; Mariné, A.; Serra, C. Preventing occupational stress in healthcare workers. In *Cochrane Database of Systematic Reviews*; Wiley & Sons, Ltd.: Hoboken, NJ, USA, 2014; Volume 11.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license

Chapter 3 A Qualitative Study of Hospital Clinical Staff Perceptions of Their Interactions with Healthcare Middle Managers

3.1 Introduction

This chapter presents an article manuscript, formatted as accepted for publication by the *Journal of Health Organization and Management*. This article is © Emerald Publishing Limited and permission has been granted for this version to appear here:

<https://latrobe.libguides.com/findingtheses/ltu>. Emerald does not grant permission for this article to be further copied/distributed or hosted elsewhere without the express permission from Emerald Publishing Limited.

This article addresses the research question: *What are patient-facing hospital staff experiences of management-implemented strategies addressing the issue of employee stress as a result of an uncongenial workplace?* Chapter 3 presents data and analysis pertaining to participant experiences of health service management, and staff perceptions of their managers in relation to these experiences.

3.2 Article

A qualitative study of hospital clinical staff perceptions of their interactions with healthcare middle managers

^aKendrick, M., ^bKendrick, K., ^aTaylor, N. F., ^{a,c}Leggat, S. G

^aLa Trobe University, Melbourne, Australia

^bWA Health, Australia

^cHarbin University, China

Abstract –

Purpose – We explored clinical staff perceptions of their interactions with middle management and their experiences of the uncongeniality of their working environment.

Methods- Semi-structured interviews of clinical staff from an Australian public health service's Emergency, Surgery, and Psychiatry departments. Volunteer interview transcripts were inductively coded using a reflexive thematic content analysis.

Findings – Of 73 interviews, 66 participants discussed their interactions with management. Most clinicians considered their interactions with middle management to be negative based on a violation of their expectations of support in the workplace. Collectively, these interactions formed the basis of clinical staff perceptions of management's lack of capacity and fit for the needs of staff to perform their roles.

Originality – This article is among the few papers which discuss interactions with management from the perspective of clinical staff in healthcare. How these perspectives inform the perception of workplace uncongeniality for clinicians contributes greater understanding of the factors contributing to adversarial relationships between clinicians and managers.

Practice Implications –Strategies to improve management's fit with clinicians' needs may be beneficial for reducing uncongenial workplaces for healthcare staff and enhanced patient care.

A qualitative study of hospital clinical staff perceptions of their interactions with healthcare middle managers

Introduction

How clinicians engage with management can influence the clinical working environment (Kendrick et al. 2020). There is a large international literature reporting difficult relationships between clinicians and their managers (McDermott & Keating, 2011; Keller et al., 2019), including hybrid clinical managers working in a clinical and management role (Gilbert et al., 2019). However, there is little explanation of why and how these relationships occur (Vicarelli & Pavolini, 2017) despite concerns that adversarial relationships can negatively impact healthcare staff and patient care (Kuhlmann, Rangnitt, and von Knorring, 2016; Keller et al., 2019).

The requisite skills for healthcare management efficacy are well established (Stoller, Goodall, and Baker, 2016) yet prior literature discusses that healthcare managers often lack the competency needed for professional legitimacy (Liang et al. 2013). While clinicians legally require continued demonstration of competence and registration to practice, healthcare managers often lack formal evidence of both (Liang et al., 2018, Leggat, Liang, and Howard, 2020). These practitioner differences may contribute to strained or adversarial relationships (Rundall et al. 2004, Tevis and Kennedy, 2020).

In management literature, there is acknowledgement that management personnel impact the social environment of a workplace (Becker, 2013; Glover, 2001; Hursthouse and Kolb, 2001). For example, perceived negative human interactions can create an uncongenial workplace for staff (De Jager, 2003; Kendrick, Kendrick, Morton, Taylor, & Leggat, 2020), defined as difficult conditions at work within the International Classification of Diseases (World Health Organization, 2016). Further, an uncongenial working environment can be defined as ‘not compatible’ and/or ‘not fitted/unsuitable’ for the needs of the worker (Merriam-Webster

Online Dictionary, 2020). For the context of this paper, we consider congeniality and *uncongeniality* to both address the suitability of the working environment for staff needs.

Studies presenting the clinical staff perspective of management activity in healthcare are few (McDermott & Keating, 2011). Since clinical staff are directly affected through interactions with management, their perspectives are important to increase our understanding of the hospital workplace (McCann, Granter, Hassard, & Hyde, 2015). Without clinical staff perspectives on management activity, studies assessing the benefit of particular activities can be biased (Tucker & Parker, 2014). We aimed to reduce this knowledge gap by exploring how clinical staff experience their working interactions with management, how these interactions influence their perceptions of management competency, how the differences in clinical and management culture influences these relationships, and how these factors inform development of adversarial relationships.

Theory

The theoretical framework informing this article involves, workplace uncongeniality in healthcare (Kendrick, Kendrick, Morton, Taylor, & Leggat, 2020), healthcare management fit with clinical culture (Guay, 2013), the role of psychological contracts in clinician-management relationships, (Akkermans, Bal, and De Jong, 2019), and clinical culture and the ‘hidden curriculum’ (O'Donnell and Hafferty, 2014).

Workplace Uncongeniality in Healthcare

In healthcare, the stress that is associated with perceptions of an uncongenial workplace can manifest in unsafe working conditions for patients and staff (Kendrick et al., 2020). In the literature similar situations have been referred to as toxic workplaces. Whilst the links between toxic workplaces and patient harm is well evidenced (Al Omar, Salam, & Al-Surimi,

2019; Pickering, Nurenberg, & Schiamborg, 2017), the impact of uncongenial workplaces has had only limited investigation (Kendrick, Kendrick, Morton, Taylor, & Leggat, 2020).

Literature on workplace uncongeniality is split between ergonomic uncongeniality (Badayai, 2012) and uncongeniality based on human resource factors (Kendrick et al., 2020).

Ergonomic uncongenialities are known to include factors such as lighting, noise levels, and a seating that provides back support (Badayai, 2012). The human resource factors that may create a working environment ‘not fit’ or ‘unsuitable’ for patient care might include experiences of bullying (Halim and Riding, 2018), management that is willfully blind to safety reports (Cleary and Duke, 2019) and a workplace that lacks psychological safety for staff (Kotzé and Steyn 2013, Edmondson, 1999). Adverse psychopathological outcomes from workplace uncongeniality, such as stress (Kendrick et al., 2020), can contribute to poor workplace culture, and lowered performance (Jahncke et al., 2011). While workplace ergonomics is an established field, less is known about uncongenialities associated with human resource factors, such as interpersonal relationships. This article focuses on the latter.

A developing area of knowledge regarding workplace uncongeniality in healthcare concerns the consequences of adversarial relationships between clinical and managerial staff (McDermott and Keating, 2011). As literature on relationships between management and clinical staff generally centers on the perspective of managers and management scholars (Kellner et al., 2016, Kellner et al., 2019), the perspective of the staff has been under-represented. Consequently, how these adversarial relationships are created (and, by extension, how to rectify them) is yet to be fully explored. Understanding clinicians’ perceptions of management could assist in improving these relationships, which in turn could lead to strategies that could improve overall congeniality of the hospital workplace.

The Hospital Manager

The professional cultures of medicine and management are distinct and potentially attributable to their different historical origins. Prior to the introduction of dedicated administrators and hospital workplaces, clinicians were fully autonomous and self-directed (Fernández Pérez, 2021; Garrick & Jeffery, 1987; Imhof, 1977). The introduction of bureaucrats into the medical workplace has spurred complaints, as many clinicians prefer to operate within their own standards in a self-determined manner as they have done for centuries (Mechanic 1976, Sartirana, Prenestini, and Lega 2014). Perhaps stemming from modern management's original role as overseers in industrial revolution era factories (Ackroyd 1996), the primacy of efficiency and cost-saving activities has often clashed with the humanistic focus of patient-centered care (Veronesi, Kirkpatrick, & Vallascas, 2014). On the other hand, Veronesi, Kirkpatrick, and Altanlar (2019) argue that public sector managers in healthcare have the potential to engage in 'budget maximizing activities' to improve the performance of hospitals and trusts. The authors refer to the possibility of manager alignment with public sector values, which could motivate behaviour consistent with clinician expectations.

The theoretical advantage of management practice which has evolved from the industrial revolution's managerial style could benefit a company's bottom line through the promotion of efficiency (Bloom and Van Reenen 2010). Attempting similar strategies in healthcare, as advocated by New Public Management (Willis et al. 2017), has had mixed results, requiring managerial adaptations to the production process and the needs of the workers (McCann et al. 2015).

Management-Staff Interactions

Akin to the expectations held for their colleagues, clinicians also hold healthcare managers to standards of demonstrable competency (McDermott et al. 2015). Standards considered

common between clinical and non-clinical healthcare workers include skills such as emotional intelligence (Clarke & Mahadi, 2017; Olson, Kemper, & Mahan, 2015), and clear communication (Gonzalez-Martinez, Bangerter, Le Van, & Navarro, 2016; Michel, 2017; Bourke, and Darymple, 2000). As the intermediary between the hospital's frontlines and its executive, middle management communication is considered vital for the effective function of a healthcare organisation (Burgess & Currie, 2013; Currie, Burgess, & Hayton, 2015; Edwards, Sevdalis, Vincent, & Holmes, 2012; Tomar & Dhiman, 2013). If inter-professional communications break down the implications affect patient care, and patient outcomes (Dendle et al., 2013; Durani, Dias, Singh, & Taub, 2013; Halim & Riding, 2018; M. Hutchinson & Jackson, 2013; Shapiro, 2018). A break-down in communication between frontline staff and middle managers is thus a cause for concern in the context of a healthcare workplace. Clinician responses to psychological contract breach are beginning to be explored in literature, such as lowered clinician morale and raised intent to quit (Islam, Khan, Khawaja, & Ahmad, 2017; McCabe & Sambrook, 2013; Rodwell, Ellershaw, & Flower, 2015; Rodwell & Gulyas, 2015).

Psychological contracts are unspoken, personal expectations for the obligations another individual is expected to fulfil (Tomprou, Rousseau, & Hansen, 2015 p. 561). Clinical culture informs the psychological contract expectations of clinicians for demonstrations of competency in the healthcare workplace.

Psychological contract theory also includes the relationship between staff psychological contracts and their wider organisation (McCabe and Sambrook 2013, McDermott et al. 2013). In this context, management can be seen as representatives of the priorities of the organisation, capable of potentially mitigating psychological contract breach with staff using social exchange theory (Bal, Kooij, and De Jong 2013). When a manager behaves in a manner incongruent with both employee expectations and formal organisational policy, staff

are able to distinguish that the contract breach is with the individual and not the organisation as a whole (Islam et al. 2017, Bunderson 2001, Morgan and King 2012).

Clinical Culture

The professional culture of clinicians is informed by factors including the Hippocratic oath, the academic collegiality of the medical hierarchy, and the apprentice model of postgraduate training (Rassie 2017). Traditionally, juniors were encouraged to defer to the judgement of experienced clinicians who carry the direct responsibility, and risk, of patient care decisions. The clinical hierarchy is enforced through expert and charismatic leadership (Sullivan and McKimm 2011), institutional knowledge, and referent power (Nugus et al. 2010). There is an expectation within clinical culture that these leadership skills, knowledge, and power are utilised by those in leadership positions for the benefit of patients and staff (Bonner and McLaughlin 2014, Kellner et al. 2016, Spehar, Frich, and Kjekshus 2014).

Clinicians in a multi-disciplinary healthcare workplace (such as a hospital) interact within this hierarchy by contributing their expertise to a clinical team's shared patient care activities (Fealy 2004). How these interactions occur is informed by the 'hidden curriculum' (Nugus et al. 2010). A 'hidden curriculum' micro-culture usually involves tacit knowledge of slang, behaviours, and assumptions familiar to members of the group sharing the culture. Each clinical team's 'hidden curriculum' may vary based on the multi-professional mix of skills, clinical speciality, individual personalities, and clinician's culture of origin (Molleman and Rink 2013). A clinical team's 'hidden curriculum' develops over time based on workplace interactions to construct a social understanding of ways of working and interpersonal interaction (Webster et al. 2015, Hunter and Cook 2018). Underlying this curriculum is the basic expectation of safe and evidence-based patient care activity (Witman 2014, World Medical Association, 1948), supported by non-clinical workers in the organisation (Donnelly,

2012; S. Hutchinson & Purcell, 2010; Maria Céu, Coelho, Gomes, & Sousa, 2019). In clinical culture, competency thus denotes safety, a standard from which healthcare managers are not exempt (Auraaen, Saar, and Klazinga 2020, Kotzé and Steyn 2013, Martin, McKee, and Dixon-Woods 2015, Morag et al. 2012). Interactions between managers and clinicians in a healthcare organisation are perceived by clinicians through the lens of clinical culture (Hasty, Miller, Lin, Shipper, & Lau, 2018; Lempp & Seale, 2004; Mulder, Ter Braak, Chen, & Ten Cate, 2019). How well a manager adheres to their teams' 'hidden curriculum' has implications for staff psychological contracts, and morale (McDermott, Conway, Rosseau, & Flood, 2013).

Research Question

The research question is to explore clinical staff perceptions of their interactions with management and their experiences of workplace uncongeniality in hospitals.

Methods

Setting

Three clinical departments within a metropolitan health service in Australia were selected for sampling based on researcher access. The service has been de-identified for publication.

Data Collection

In line with constructivist epistemology, exploratory qualitative research methods were used to collect and analyze interviews from volunteers. Participants were recruited with a combination of snowball and direct approach purposive sampling. The sampling method sought to collect a wide range of perspectives from clinical staff employed at the health service.

Ethics

All participants signed a consent form. Data were collected in accordance with research protocols submitted to the health service and university human research ethics committees, which were approved prior to the study's commencement. Interviews were conducted at a time and location at the discretion of participants, with a combination of on-site and off-site interviews at their convenience. Participant anonymity during on-site interviews was supported using a private office at the service, which was routinely used by other clinicians for patient interviews and clinical supervision meetings. Thus, participant activity around the interviewer's office would not be directly traced to the study. All participants were de-identified during the manual transcription process. Audio recordings were deleted after transcripts were complete. Transcripts were stored in an encrypted digital folder. All participants were given the option to review their transcripts for accuracy.

Approach

Two researchers (MK & KK) conducted semi-structured interviews. One interviewer was a management-trained doctoral candidate (MK), one was a clinical trainee psychiatrist (KK). The two interviewers conducted three interviews together to observe the other's interviewing style, with the rest of the interviews conducted by the first author (MK). As part of an interview guide from a broader study addressing workplace experiences, participants were asked questions such as, "*Describe what occurred during the most recent interaction you had with hospital management/leadership*". The interview developed from these prompts, discussing participant experiences, how participants responded to those experiences, and what perceptions about management these experiences created. Examples of follow-up questions asked of participants include, '*how did your experiences with [discussed manager] make you feel?*' and [in response to a discussion about feeling frustrated] '*why did that interaction frustrate you?*' Participants were encouraged to go into detail, focusing on experiences which had the most significant impact for them.

Analysis

Coding and analysis was facilitated by NVivo qualitative software (QSR International Pty Ltd. Version 12, 2018, Chadstone, Victoria, Australia). The two interviewers (MK & KK) cross-checked each other's codes and themes for improved inter-rater reliability and self-reflexive discussion of internal biases and assumptions.

Coding was conducted on two levels; semantic and latent. Coding was followed by consulting established literature on topics which reflected the codes assigned, and assigning themes to groups of conceptually-similar codes (Guest, MacQueen, & Namey, 2012). Themes and early analyses were reviewed by a third researcher (SL).

Analysis of transcripts was conducted using reflexive thematic content analysis, as outlined by Braun & Clarke (2006). Thematic analysis was drawn from an inductive transcript coding process which identified themes from the data. These themes were then matched with literature which appeared to most closely fit participant discussion. Two key themes were identified following this process; firstly, the types of interactions participants experienced with management, and secondly, how these interactions shaped clinicians' views of management.

The matched literature included psychological contract theory (Akkermans, Bal, and De Jong 2019, Rodwell, Ellershaw, and Flower 2015, Coyle-Shapiro and Kessler 2000), dyadic leadership of clinical teams (where two individuals from different professional groups provide leadership to the same team) (Llewellyn 2001, Clouser et al. 2020), and self-governing hierarchies (Morgeson 2005, Srivastava 2013), which are presented in this article's Discussion. The addition of dyadic leadership of clinical teams, psychological contract theory, and self-governing hierarchies, reflect the development of knowledge based on participant-led interviews. The additional theories contextualised the original theoretical

framework by offering a possible explanation for *why* participants responded the way that they did to their experiences. These theories were not present in the original theoretical framework as specific questions addressing topics such as dyadic clinical leadership were not asked of participants. Instead, participants discussed the phenomenon without prompting, which resulted in the inductive coding process making the additional theoretical link.

The process of reflexivity was facilitated through discussions between the analysts (MK), their academic supervisors (SL, NT) and clinical supervisors (KK).

Findings

The two interviewers completed 73 interviews, approximately 40 minutes each in duration, primarily from the Emergency, Psychiatry, and Surgical departments. Participants reviewed their interview transcripts, with no significant changes or redactions of consent. These discussions included two key themes; (1) types of interactions with management, and (2) how these interactions shaped clinicians' views of management. All 66 participants included in this article's analysis were patient-facing, with the majority working in clinical roles.

While data were provided on three layers of the management hierarchy: front line, such as nurse unit-managers (NUM), middle line management, and executive management, the most consistent and most frequent data related to participant interactions with middle management. Middle line managers, defined as individuals above first line or frontline managers in the organisational hierarchy, performed a clinical hybrid role in the studied health service (Bresnen et al. 2017). Consequently, these individuals were the focus for this analysis.

What Interactions with Management did Clinical Staff Experience?

Descriptions of participant interactions with management fitted into two sub-themes; 'interactions' and 'lack of interaction'. 'Interactions' included activities such as punitive measures in response safety reports and complaints, and responses to clinical staff needs. The

‘lack of interaction’ included a lack of consultation prior to implementing changes in the workplace, and physical absence.

Sub-Theme 1 - Management Interaction

Of the 66 individuals who discussed the impact of management in their experiences of work in depth, 45 discussed negative experiences, and 18 discussed little to no management influence on their experiences at work (ambivalent). As outlined in Table 1 (See Appendix) the perceptions varied by department. The Psychiatry department’s participants reported a higher prevalence of negative interactions with their middle managers than Emergency department participants, who were more ambivalent. The Surgical department participants, while responding similarly to the Psychiatry department, had insufficient participants to make firm conclusions.

Participants rarely perceived middle management as a positive contributor to clinical work. As participants were mostly clinical staff (others were clinical-support staff, such as patient-facing administration), expectations for the provision of patient care were clearly defined in hospital policy documents, and by the training each professional received;

“...every single action that we do has to be per hospital policy.” (Participant 19)

However, protocols such as consultation on resource allocation for patient and staff safety were discussed as being routinely disregarded by management;

*“...we expressed our concerns [...] what’s not working, it’s not realistic, ...but we’re feeling like we’re not being considered. It’s at the back of their (middle management) minds because of the budget that’s not going to fit. Then [...] we’ve been told, this is your budget, and this is what you’ll do. But we **said** it wasn’t going to work! So they*

*replied, 'well it's too late now, can't change it, sorry.' *eyeroll* So I've lost three [full time staff] in this new budget and I don't understand why!' (Participant 67)*

Clinical staff held the expectation that their managers should also follow clear roles and responsibilities;

"...Those who have management training know their boundaries, know their job description and the limits of it. I question why people do the things that they do, and if you know what you're doing, the role clarity is evident.

Do you believe your management has this training? (Interviewer)

No. [Boss, middle manager] steps out of their job role often and passes some jobs on to other staff. There's no thought to it, no discussion, nothing. I push back and say, no, this job is supposed to be for [someone else]." (Participant 68)

Expectations of clear roles and responsibilities extended to responsiveness to clinical staff needs, such as appropriate support for clinical issues and confidential handling of private matters. Interview participants outlined how the erosion of trust they experienced contributed to an uncongenial workplace for them;

"...if I had any problems I'd hope that my [nurse] manager can sort it out...because my experience going higher than that has not been good. Any times where we've had to go higher than that is when the [nurse] manager's not here... if the [nurse] manager had been here [the issue] probably would not have happened." (Participant 71)

Participants described management behaviours which eroded their sense of psychological safety, such as punitive responses to safety reports;

“The one debrief I’ve had with management was actually an interrogation [...] My colleague and I ...[details of risk reporting which got lost in the system]... there was ass-covering. That’s why we got pulled into that meeting. The interrogation went for about an hour, my colleague was crying.” (Participant 50)

“...you find out that you can’t be confidential with the things you tell them”
(Participant 43)

Frequently, participants perceived that management made inappropriate decisions which negatively impacted staff, such as punitive and uncongenial responses to safety reporting;

“The people that have been burned because they’ve gone to management...whenever something big or bad happens and you go...rather than a no-blame culture it’s a seek-and-destroy culture. They [middle management] tend to nit-pick everything and if someone tries to put something in anonymously, they will try to find out who it was...”
(Participant 36)

“There’s this culture of ‘you’ll pay for it’” (Participant 68)

Based on experiences with management’s punitive responses to safety incidents and complaints, participants described the erosion of their trust in management.

Sub-Theme 2 – Management Lack of Interaction

Participants described a general lack of knowledge of the roles or identity of middle management. Questions regarding who was responsible for what organisational task, and how to navigate the organisational hierarchy beyond an individual’s immediate consultant physician or NUM, were frequently answered with silence and a shrug.

“I do think the management structure we have now is very confusing...” (Participant 65)

A lack of staff familiarity with their middle managers was attributed to the physical absence of management on the patient care levels of the hospital. Management offices were usually in a separate location, and anecdotes of middle managers visiting to communicate with staff in person were rare;

“They sit up in their little glass box offices, making all these decisions...” (Participant 52)

“I do not see them very much.” (Participant 59)

Participants suggested that reporting to a responsible individual is an element of healthcare safety culture. Decisions from middle managers were perceived to be made without adequate consultation, paired with micro-management for the application of these decisions, contributing to an uncongenial working environment for staff;

“I feel stuck at this level where there is just no consultation, but consultation is required for safety. There are no job audits, limited discussion. We’re not informed properly, we’re just micromanaged. Suffocated. Extremely frustrated.” (Participant 68)

“...whatever [the boss] wants to raise with [them]...it’s just thrown at [them]. [...] You can’t say a thing. It’s just being told...” (Participant 43)

Negative impacts of the lack of consultation and trust involved the perception of management as over-reliant on processes and systems which were not fit for the needs and experiences of clinical staff;

“...the pervasiveness of these resilience programs everywhere, not just in [profession], ...I do get concerned that [middle] management who is not involved clinically would see that as something that is adequate...to stop things like burnout.

[...] It's not even close. It's necessary, but by no means is it adequate." (Participant 16)

Additionally, lack of consultation and role clarity resulted in un-fulfilled clinical staff requests for resources and support, with few avenues to escalate the requests to an appropriate individual. This included the process of communicating evidence-based updates to clinical protocols, developed by clinicians, which were difficult to update in the hospital system;

"It is so frustrating, and so long, that it actually seriously stops you from doing it [updating formal policy] [...] we've created two really important clinical guidelines that we have just not even started the process of trying to get it on the intranet because we know how challenging that is going to be, and how frustrating it's gonna be." (Participant 07)

The challenge of working with administrative systems was extended to interactions with managers, who were perceived as gatekeepers of those systems;

"...we do get 'consulted' on changes, but all that comes back is that we're keeping what we've got and you're not allowed to change it." (Participant 50)

A lack of consultation, and difficult-to-access systems, caused concern for participants who wished to maintain up-to-date, evidence-based practice in their departments. Participants reported that the clinical staff established workarounds, such as informally sending copies of clinically-developed protocols to staff without an 'official' update accompanying. This contributed to further informal processes, such as activities which relied on the protocol. These workarounds operated in liaison with, yet independent of, the health service's formal clinical governance system. Satellite-style clinical governance to this end often took the form

of a nurse-unit manager or a consultant physician assuming a leadership position to make local decisions without middle management input.

After perceiving repeated, disappointing experiences with management, the clinicians interviewed described their growing disregard for management importance and relevance in the workplace. This disregard began to negatively influence staff desire to engage with management;

“I know they have those staff forum things, but everyone knows that they don’t listen to what we say, so why bother?” (Participant 39)

Examples of middle management activity in the clinical working environment were usually perceived as an inconvenience;

“I can't think of an activity they do. They give us.. annoying...paperwork to do?”
(Participant 02)

Participants discussed their lack of belief in the managers’ competency. Participants’ belief was reinforced by interactions with managers in the workplace;

“Low-key, a lot of us think that [management activity] is just for the [middle] manager’s benefit and serves no other purpose.” (Participant 58)

“I imagine they really like paperwork. They really love tick-boxes. It’s what I imagine. They sit there in a meeting. With their tick-boxes. Ticking boxes. And then tell people to go tick more boxes. Which is terrible, but it’s genuinely what I picture. It’s what I see, from what they’ve built.” (Participant 49)

Participants cited both the physical absence of management, and the lack of understanding of clinical work, as reasons why they had little regard for their middle managers;

*“[Management] have got no idea. No idea... *rolls eyes*...It's just incredible.”*

(Participant 27)

“...the thing I get from hospital [middle] management is they're kind of useless and only care about [activity] stats. And accreditation. Not really about the [patient].”

(Participant 01)

“I think there's a lack of understanding of what we do.” (Participant 65)

Consistent with these views, participants discussed how poor-fit management caused issues for clinical staff by not following evidence-based practice. An example was provided by a participant, who discussed at length their frustrations associated with patient forms that were designed by management, and not audited for appropriateness;

“...the forms to fill out, I think they are written by people who have never done the job...[...] there is a form I saw, one of the doctors showed me, it wants us to write all the medications. Except it has three lines. And then we are told, use the form. But I can't, because the patient has seven medications. So, what, we lie on the form? So, we write on the form 'look at notes'. And then we are told, no, don't do that. Just write outside the box. And then we are audited- and they say we need to improve compliance. It- it is just very stupid, I like the idea of the form, but the forms- the people who make the decisions are stupid.” (Participant 12)

Over time, these concerns with management competency resulted in staff ceasing communications of their needs to their middle managers unless it was unavoidable, preferring to handle the issue with procedures informally established within their own teams;

“I think it really comes out on night shift when management's not there. There's a lot more team spirit on the night shift, a bit more laughter. It just feels a bit more free on the night shift.” (Participant 36)

“I think the easiest way to get by in this place is to just accept that management isn’t that important. Sometimes they send you little things to do, you do them; you don’t pay too much attention.” (Participant 30)

“I divorce myself from[middle] management just to get on with my job” (Participant 15)

To protect patients and coworkers from the risk of harm from the perceived lack of competency, and make healthcare provision more congenial for themselves, staff try to omit management from as many processes as possible.

Discussion

The central theme we identified in the data was that clinical staff were routinely disappointed in the behaviours they experienced from their middle managers. Middle management was described as either absent or obstructive, holding inflexible responses to receiving and delivering feedback, and being unattuned to staff needs. These experiences eroded staff trust in management and were perceived to contribute to workplace uncongeniality.

Our findings were consistent with the definition of an ‘uncongenial’ workplace, which is distinct from ‘toxic’. As ‘toxic’ workplaces are defined as “... environments [which] induce repulsive experiences...which lead to the negative, adverse and reduced outcomes of the employees” (Anjum et al., 2018 p. 2), we believe that a ‘toxic’ workplace is an order of magnitude more severe than what we observed in the sample. Brown et al. (2021) discussed that a “*Stressful, Hostile, and Toxic Workplace*” involves “*a hostile or toxic workplace (which) almost always feature an event or situation at the workplace that precipitated an intense emotional reaction*”, such as feeling “*disrespected; criticized, rejected, or discriminated against; intimidated; shamed or humiliated; and harassed...*” . Our participants did not regularly describe the experiences suggested by Brown et al. (2021), yet

participant anecdotes of the workplace described it as emotionally taxing, and that it did not facilitate the provision of patient care. Thus, it was uncongenial. This paper adds to two pre-existing papers identified in the literature to explicitly address ‘uncongeniality’ as an academic term.

Our analysis illustrates how clinical staff associate their interactions with management to their perceptions of workplace uncongeniality. Based on established links between a lack of confidence in management and adversarial relationships in healthcare (McDermott and Keating, 2011), our data provides additional context to illustrate how these relationships develop, their impact on clinical staff, and potential impacts on patient care.

Clinical staff outlined their unspoken assumptions for their managers to act in support of patient care, reinforcing the evidence for evaluation-oriented psychological contract expectations. In our sample, the repeated violation of psychological contracts led to adversarial behavior, including withholding information and autonomous adaptation away from management in a manner akin to behaviours reported in McDermott & Keating (2011). Autonomous adaptation away from management in our study included establishing a ‘satellite’, or self-governing hierarchy. As the establishment of a self-governing hierarchy can be a form of non-overt adversarial behaviour towards management, prior studies investigating inter-professional conflict in healthcare may have missed this potentially contributing factor to workplace interactions in healthcare. A key distinction found between the adversarial nature of a self-governing hierarchy and ‘normal’ frontline management discretion in our sample was the deliberate disregard of middle management input. Due to the absence of middle-management in front-line working spaces, this adaptation may have gone unnoticed (Cleary & Duke, 2019). The outcome of this self-directed adaptation was the formation of a communication silo (Wilberforce et al., 2013), which allowed for avoidance of conflict with management whilst being perceived to protect patient care.

Self-governing clinical hierarchies can act as a buffer for clinicians who perceive an uncongenial workplace. By intervening via self-governing hierarchies, clinical leaders can fulfil their subordinates' psychological contracts regarding the wider organisation's commitment to patient care (Goodall et al., 2015, Bal, Kooij, and De Jong, 2013). Dyadic clinical leadership (such as a consultant physician and a nurse-manager leading frontline staff as a team) can further act to protect patients and staff from poor-fit middle management decisions (Clouser et al., 2020). If frontline healthcare workers experience support and perceptions of safety as a consequence of the intervention of clinical leadership via self-governing hierarchies, their psychological contracts with the wider health service might not be violated (Coyle-Shapiro & Kessler, 2000; Islam et al., 2017; McDermott, Conway, Rosseau, & Flood, 2013; Morgeson, 2005).

Staff described middle managers as caring more about key performance indicators (KPIs) than patients and perceived them to make errors in practice paralleling those described by Dido Harding in Moberly (2018), such as decision-making without consultation and ignoring clinical staff feedback. Consequently, middle management were not perceived to behave in a manner that was a good fit for staff needs.

Middle managers were also described by clinicians as absent, or lacking interaction, in addition to negative interactions when they were present. Participant experiences of both negative interaction, and lack of interaction, led to the perception that middle managers lacked understanding of clinical working processes. Our analysis of participant perceptions suggests that lack of management education and standards of demonstrable competence may be associated with the inability of the managers to use evidence-based practice in a way that could be recognisable to clinicians (Han et al., 2006, Khatri et al., 2006, Stanton et al., 2010). This would impact the translation of management science (Hamet and Maurer, 2017), as well as a manager's ability to fit the perceived requirements of their staff. The perceptions of

clinical staff in this study echo the previous research on post-industrial, new public management approaches and their poor suitability for industries that require a tailored approach (McDermott et al., 2015, Tevis and Kennedy, 2020).

Based on their interactions (or lack of interaction) with middle managers, participants perceived that middle management was not acting in support of patient care activity.

Participants felt that the workplace was thus uncongenial to their work, and consequently posed a risk to their patients. Paired with enforcing user-unfriendly administration systems that, for example, dissuaded routine protocol updates, clinicians began adapting away from management in an effort to maintain patient and staff safety (Teoh, Hassard, and Cox, 2020).

These adaptations become incorporated into a clinical team's 'hidden curriculum' over time.

When a clinical team's 'hidden curriculum' micro-culture develops around a distrust for middle management, that team's activities can become avoidant or adversarial towards management input (Carney, 2011, McDermott et al., 2013).

Participant perceptions of middle-management lack of fit with clinical staff expectations were consistent, even when discussing hybrid-management. Despite the theoretical benefit of hybridization offering managers insight into both clinical and managerial work (Burgess & Currie, 2013; Currie, Burgess, & Hayton, 2015), not all hybrid managers effectively utilized the dual aspect of their role (McGivern, Currie, Ferlie, Fitzgerald, & Waring, 2015).

Mintzberg (2002) made a commentary on this phenomenon, highlighting the comparatively smooth transition to management experienced by nursing professionals as a potential side-effect of nursing culture and training. Those with a background in medicine, and executive management positions, were described by Mintzberg (2002) as prioritizing roles and tasks that were described as 'abstracted' and 'distant' from the frontline work of the hospital, echoing the anecdotes of participants. McGivern et al. (2015) suggested that this difference

might be attributed to the degree of willingness a clinician has for the task of hybridization, a perspective reinforced by authors such as Kippist and Fitzgerald (2009).

Limitations

Factors present in different healthcare settings, such as the management structure of health systems in other countries, or privately-funded healthcare, could influence our study's generalisability. An example of this might be found in Australian private hospitals, where the need to autonomously adapt away from managerial influence might be rendered unnecessary due the independent contractor relationship between medical clinicians and the hospital (Productivity Commission, 1999). Another potentially contributory quirk of the Australian private hospital sector is the competitive nature of its recruitment, where workplace congeniality is an active attractor. Conversely, Australian public hospitals may experience our studied phenomena more frequently given the lack of manager incentive to compete for clinician retention. Other healthcare contexts similar to Australia's public hospitals could feasibly experience situations similar to those found in the study.

Due to its qualitative, participant-led nature, this study cannot draw conclusions of causative relationships. Study data comprised subjective participant perspectives on their experiences. Future studies could include the perspectives of management. These limitations potentially impact the project's generalisability suggesting the need for replication in other cultural contexts, such as other countries and other models of healthcare (Kirkpatrick et al., 2009).

However, this is where the strengths of exploratory qualitative research can be demonstrated. Interviews focused on topics that were at the forefront of participants' concerns, permitting honest and free discussion. An example of the benefits of this process is the fact that we did not ask participants questions regarding adversarialism in their working relationships; this theme emerged from the data through semantic and latent coding practices (Braun & Clarke,

2006). The contributions of this study's analysis on psychological contracts, and adversarial relationships, addresses a current gap in healthcare management literature that might not have been achieved using other methods. Furthermore, many interviews touched on the same topics without prompting, indicating a level of consistency in perceptions across the participants.

Practice Implications

A possible wider implication of this article's analysis concerns the role of government policy in ensuring the competency of healthcare management. The Australian healthcare management industry does not yet receive professional oversight or requirements for accreditation of practitioners. Yet, the performance of healthcare managers can influence the overall performance of their hospital, and the health of the community which relies on that facility (Warren et al., 2007). Despite sampling a small number of clinical departments from within the same health service, participant discussions suggested that their behaviours might not be unique. Due to the impacts on the wider community, we urge public health officials to consider greater focus and investment in developing their healthcare manager workforce.

To achieve improvements, professional oversight and accreditation for management could be considered (Bartram & Rimmer, 2011; Pannick et al., 2016). One avenue would be to mandate professional registration with healthcare management colleges, such as the Australasian College of Health Service Management or Royal Australasian College of Medical Administrators. The assumption that each healthcare manager possesses the requisite training to perform to the expectations of their staff without accreditation may leave weaknesses in practitioner capacity unaddressed (Agarwal et al. 2016a, b, Leggat, Liang, and Howard, 2020). Greater professional engagement with research and professional

development opportunities may assist managers in improving the quality of their workplace interactions (McDermott et al., 2015, Hamet and Maurer, 2017).

For healthcare management professionals who already hold relevant qualifications and accreditation, deeper consideration of psychological contracts may limit staff adversarialism (Mazurenko et al., 2019). Furthermore, qualified managers could consider developing core healthcare management competencies, such as evidence-informed decision making and the ability to lead and manage change (Liang, Leggat, Howard, & Koh, 2013). One approach to assist with the implementation of core management competencies is the concept of ‘management by walking around’ (or ‘rounding’ as it is known in clinical terms) (Kelly, 1996; Tucker & Singer, 2015). By ‘rounding’, middle management can increase their engagement with staff, which in turn may improve their visibility for improved perceptions of leadership and evidence-informed decisions. Following the arguments of authors such as Moberly (2018) and Carney (2006), understanding the priorities and values of staff through open communication and responsiveness to the provision of quality patient care can assist with creating a congenial, and safe, healthcare workplace for all.

Conclusion

To summarise, non-overt demonstrations of adversarialism by patient-facing staff towards middle management in an Australian public hospital can occur as a response to the staff perception that managers were unwilling or unable to create a healthcare workplace that was congenial to the provision of patient care. This perception was reinforced through repeated interactions which violated the employee’s psychological contract with their managers. Perceptions of poor manager communication and punitive management approaches were examples of the types of behaviours which were perceived to breach staff psychological contracts. In response, the hidden curriculum evolved in some clinical teams to exclude

middle manager influence through dyadic clinical leadership to filter information and set clinical priorities at the front line. This created a communication 'silo' which was believed to improve staff ability to focus on providing quality patient care without the perceived burden of interacting with middle management.

Professional management registration should be considered to improve communications, and relationships between patient-facing staff and healthcare middle managers, fostering greater trust and collegiality.

References

- Ackroyd, Stephen. (1996). "Organization Contra Organizations: Professional and Organizational Change in the United Kingdom." *Organization Studies* Vol. 17 No. 4, p. 23.
- Agarwal, Renu, Roy Green, Neeru Agarwal, and Krithika Randhawa. (2016a). "Benchmarking Management Practices in Australian Public Healthcare." *Journal of Health Organization and Management*. Vol. 30 No. 1, pp. 31-56.
- Agarwal, Renu, Roy Green, Neeru Agarwal, and Krithika Randhawa. (2016b). "Management Practices in Australian Healthcare: Can NSW Public Hospitals Do Better?" *Journal of Health Organization and Management*. Vol 30 No. 3, pp 331-353.
- Akkermans, Jos, P. Matthijs Bal, and Simon B. De Jong. (2019). "Buffering the Breach: Examining the Three-Way Interaction Between Unit Climate Level, Strength, and Psychological Contract Breach." *Frontiers in Psychology*. Vol. 10. doi: 10.3389/fpsyg.2019.00473.
- Al Omar, M., Salam, M., & Al-Surimi, K. (2019). "Workplace Bullying and its Impact on the Quality of Healthcare and Patient Safety." *Human Resources for Health*. Vol. 17 No. 1, pp. 89-89. doi:10.1186/s12960-019-0433-x
- Anjum, Amna, Ming Xu, Ahmed Faisal Siddiqi, and Samma Faiz Rasool. (2018). "An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments." *International Journal of Environmental Research and Public Health*. Vol. 15 No. 5, pp. 1035.
- Auraaen, Ane, Kristin Saar, and Niek Klazinga. (2020). "System Governance Towards Improved Patient Safety." OECD Health Working Papers, No. 120, OECD Publishing, Paris, doi: 10.1787/2abdd834-en.
- Badayai, Abdul Rahman Ahmad. (2012). "A Theoretical Framework and Analytical Discussion on Uncongenial Physical Workplace Environment and Job Performance Among Workers in Industrial Sectors." *Procedia - Social and Behavioral Sciences*. Vol. 42 Supp. C, pp. 486-495. doi: 10.1016/j.sbspro.2012.04.214.
- Baird, Marian. (2001). "Greenfield Sites: Purpose, Potential and Pitfalls." *Asia Pacific Journal of Human Resources*. Vol. 39 No. 2, pp. 66-82.
- Bal, P. Matthijs, Dorien T. A. M. Kooij, and Simon B. De Jong. (2013). "How Do Developmental and Accommodative HRM Enhance Employee Engagement and

- Commitment?: The Role of Psychological Contract and SOC Strategies." *Journal of management studies*. Vol. 50, No. 4, pp 545-572. doi: 10.1111/joms.12028.
- Bartram, Timothy, and Malcolm Rimmer. (2011). "Editors' Note: How Mature is Australian HR?" *Asia Pacific Journal of Human Resources*. Vol. 49, No. 1, pp. 3-8.
- Becker, Wendy S. (2007). "Field of Dreams: Team Implementations and Greenfields." *Team Performance Management: An International Journal*. Vol. 13 No. 3/4, pp. 65-89.
- Becker, Wendy S. (2013). "Starting New Team Operations: Lessons From Greenfield Managers." *Team Performance Management: An International Journal*. Vol. 19, No. 1/2, pp. 72-86.
- Bloom, Nicholas, and John Van Reenen. (2010). "Why Do Management Practices Differ across Firms and Countries?" *Journal of Economic Perspectives*. Vol. 24, No. 1, pp. 203-24. doi: 10.1257/jep.24.1.203.
- Bonner, Gwen, and Sue McLaughlin. (2014). "Leadership Support for Ward Managers in Acute Mental Health Inpatient Settings." *Nursing Management*. Vol. 21, No. 2, pp 26.
- Bourke, B. and Darymple, J. (2000), "Teamwork in Multiprofessional Care", in Payne, M. (Ed.), *Teamwork in Multiprofessional Care*. Palgrave MacMillan, London.
- Bresnen, Mike, Damian Hodgson, Simon Bailey, Paula Hyde, and John Hassard. 2017. *Studying Management in Healthcare*. Routledge.
- Brown, Andrew O., Greg P. Couser, David Evan Morrison, and Gaurava Agarwal. (2021). "The Stressful, Hostile, and Toxic Workplace: An Advanced Understanding of a Common Clinical Complaint." *Psychiatric Annals*. Vol. 51, No. 2, pp.70-75.
- Bunderson, J. Stuart. (2001). "How Work Ideologies Shape the Psychological Contracts of Professional Employees: Doctors' Responses to Perceived Breach." *Journal of Organizational Behavior*. Vol. 22, No. 7, pp. 717-741. doi: 10.1002/job.112.
- Burgess, N., & Currie, G. (2013). "The Knowledge Brokering Role of the Hybrid Middle Level Manager: the Case of Healthcare". *British Journal of Management*. Vol. 24, No. S1, pp S132-S142. doi:10.1111/1467-8551.12028
- Carney, M. (2011). "Influence of Organizational Culture on Quality Healthcare Delivery." *International Journal of Health Care Quality Assurance*. Vol. 24, No. 7, pp. 523-539.
- Carney, Marie. (2006). "Understanding Organizational Culture: The Key to Successful Middle Manager Strategic Involvement in Health Care Delivery?" *Journal of Nursing Management*. Vol. 14, No. 1, pp. 23-33.

- Clarke, N., & Mahadi, N. (2017). "The Significance of Mutual Recognition Respect in Mediating the Relationships Between Trait Emotional Intelligence, Affective Commitment and Job Satisfaction". *Personality and Individual Differences*. Vol. 105, pp. 129-134. doi:10.1016/j.paid.2016.09.028
- Cleary, Sonja, and Maxine Duke. (2019). "Clinical Governance Breakdown: Australian Cases of Wilful Blindness and Whistleblowing." *Nursing Ethics*. Vol. 26, No. 4, pp. :1039-1049. doi: 10.1177/0969733017731917.
- Clouser, Jessica Miller, Nikita Leigh Vundi, Amy Mitchell Cowley, Christopher Cook, Mark Vincent Williams, Megan McIntosh, and Jing Li. (2020). "Evaluating the Clinical Dyad Leadership Model: A Narrative Review." *Journal of Health Organization and Management*. Vol. 34, No. 7, pp. 725-741. doi: 10.1108/JHOM-06-2020-0212.
- Coyle-Shapiro, Jackie, and Ian Kessler. (2000). "Consequences of the Psychological Contract For The Employment Relationship: A Large Scale Survey." *Journal of Management Studies*. Vol. 37, No. 7, pp. 903-930. doi: 10.1111/1467-6486.00210.
- Currie, G., Burgess, N., & Hayton, J. C. (2015). "HR Practices and Knowledge Brokering by Hybrid Middle Managers in Hospital Settings: The Influence of Professional Hierarchy". *Human Resource Management*. Vol. 54, No. 5.
- Dendle, C., Paul, A., Scott, C., Gillespie, E., Kotsanas, D., & Stuart, R. L. (2013). "Why Is It So Hard for Doctors to Speak Up When They See an Error Occurring?" *Healthcare Infection*, Vol. 18, No. 2, pp. 72-75.
- De Jager, Peter. (2003). "Poor Management is a Key Source of Stress." *ComputerWorld Canada*. Vol. 19, No. 15
- Donnelly, T. (2012). "Boost Patient Outcomes by Giving Nurses the Time to Care". *Nursing Times*, Vol. 108, No. 42, p. 7.
- Durani, P., Dias, J., Singh, H. P., & Taub, N. (2013). "Junior Doctors and Patient Safety: Evaluating Knowledge, Attitudes and Perception of Safety Climate". *BMJ Quality & Safety*, Vol. 22, No. 1, page 65.
- Edmondson, A. (1999). "Psychological Safety and Learning Behavior in Work Teams." *Administrative Science Quarterly*. Vol. 44, No. 2, pp. 350-383. doi: 10.2307/2666999.
- Edwards, R., Sevdalis, N., Vincent, C., & Holmes, A. (2012). "Communication Strategies in Acute Health Care: Evaluation Within the Context of Infection Prevention and Control". *Journal of Hospital Infection*, Vol. 82, No. 1, pp. 25-29. doi:10.1016/j.jhin.2012.05.016

- Fealy, Gerard. (2004). "‘The Good Nurse’: Visions and Values in Images of the Nurse." *Journal of Advanced Nursing*. Vol. 46, No. 6, pp.649 - 646.
- Fernández Pérez, P. (2021). “New Hospitals and Ideas for the Management of Large Hospitals in Western Europe (1880s–1930s)”. In *The Emergence of Modern Hospital Management and Organisation in the World 1880s–1930s* (pp. 19-32). Emerald Publishing Limited.
- Garrick, P., & Jeffery, C. (1987). *Fremantle Hospital: A Social History to 1987*: University of Western Australia. Crawley.
- Gilbert, Marie-Hélène, Julie Dextras-Gauthier, Pierre-Sébastien Fournier, André Côté, Isabelle Auclair, and Mouna Knani. (2019). "Organizational Constraints as Root Causes of Role Conflict: The Situation of Physician-Managers and Their Responses." *Journal of Health Organization and Management*. Vol. 33, No. 2, pp. 204-220. doi: 10.1108/JHOM-07-2017-0169.
- Glover, Linda. (2001). "Communication and Consultation in a Greenfield Site Company." *Personnel Review*. Vol. 30, No. 3, pp. 297-317.
- Gonzalez-Martinez, E., Bangerter, A., Le Van, K., & Navarro, C. (2016). “Hospital Staff Corridor Conversations: Work in Passing”. *Journal of Advanced Nursing*, Vol. 72, No. 3, pp. 521-532.
- Goodall, Amanda H., Tarun Bastiampillai, Michael Nance, Leigh Roeger, and Stephen Allison. (2015). "Expert Leadership: Doctors Versus Managers for the Executive Leadership of Australian Mental Health." *Australia and New Zealand Journal of Psychiatry*. Vol. 49, No. 5, pp. 409-411. doi: 10.1177/0004867415576977.
- Guay, Russel. (2013). "The Relationship Between Leader Fit and Transformational Leadership." *Journal of Managerial Psychology*. Vol. 28, No. 1, pp. 55-73.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Themes and Codes. Applied Thematic Analysis*. SAGE Publications, Inc. Thousand Oaks, CA: SAGE Publications, Inc.
- Halim, U. A., and D. M. Riding. (2018). "Systematic Review of the Prevalence, Impact and Mitigating Strategies for Bullying, Undermining Behaviour and Harassment in the Surgical Workplace." *BJS (British Journal of Surgery)*. Vol. 105, No. 11, pp. 1390-1397. doi: 10.1002/bjs.10926.
- Hallier, Jerry, and John Leopold. (1996). "Creating and Replicating HRM on Greenfield Sites: Rhetoric or Reality?" *Employee Relations*. Vol. 18, No. 5, pp. 46-65.

- Hamet, Joanne, and Frantz Maurer. (2017). "Is Management Research Visible Outside the Academic Community?" *M@n@gement*. Vol. 20, No. 5, pp. 492-516.
- Han, Jian, Paul Chou, Minston Chao, and Patrick M. Wright. (2006). "The HR Competencies-HR Effectiveness Link: A Study in Taiwanese High-Tech Companies." *Human Resource Management*. Vol. 45, No. 3, pp. 391-406. doi: 10.1002/hrm.20114.
- Hasty, B., Miller, S., Lin, D., Shipper, E., & Lau, J. (2018). Medical Student Perceptions of a Mistreatment Program During the Surgery Clerkship. *The American Journal of Surgery*, Vol. 215, No. 4, pp. 761-766. doi:10.1016/j.amjsurg.2018.01.001
- Hook, Joshua, David Boan, Don Davis, Jamie Aten, John Ruiz, and Thomas Maryon. (2016). "Cultural Humility and Hospital Safety Culture." *Journal of Clinical Psychology in Medical Settings*. Vol. 23, No. 4, pp. 402-409.
- Hunter, Kiri, and Catherine Cook. (2018). "Role-Modelling and the Hidden Curriculum: New Graduate Nurses' Professional Socialisation." *Journal of Clinical Nursing*. Vol. 27, No. 15-16, pp. 3157-3170. doi: 10.1111/jocn.14510.
- Hursthouse, Paul, and Darl Kolb. (2001). "Cultivating Culture in Greenfields: The Heinz Wattie's Case." *Personnel Review*. Vol. 30, No. 3, pp. 317-330.
- Hutchinson, M., & Jackson, D. (2013). "Hostile Clinician Behaviours in the Nursing Work Environment and Implications for Patient Care: A Mixed-Methods Systematic Review". *BMC Nursing*. Vol. 12, No. 25.
- Hutchinson, S., & Purcell, J. (2010). "Managing Ward Managers for Roles in HRM in the NHS: Overworked and Under-Resourced". *Human Resource Management Journal*, Vol. 20, No. 4, pp. 357-374. doi:10.1111/j.1748-8583.2010.00141.x
- Imhof, A. (1977). "The Hospital in the 18th Century: For Whom? The Charite Hospital in Berlin, the Navy Hospital in Copenhagen, the Kongsberg Hospital in Norway." *Journal of Social History*. pp 448-470
- Islam, Talat, Mubbsher Munawar Khan, Fauzia Naheed Khawaja, and Zulfqar Ahmad. (2017). "Nurses' Reciprocation of Perceived Organizational Support: The Moderating Role of Psychological Contract Breach." *International Journal of Human Rights in Healthcare*. Vol. 10, No. 2, pp. 123-131. doi: 10.1108/IJHRH-12-2016-0023.
- Jahncke, Helena, Staffan Hygge, Niklas Halin, Anne Marie Green, and Kenth Dimberg. (2011). "Open-Plan Office Noise: Cognitive Performance and Restoration." *Journal of Environmental Psychology*. Vol. 31, No. 4, pp. 373-382. doi: 10.1016/j.jenvp.2011.07.002.

- Keller, Eric J., Brad Giafaglione, Howard B. Chrisman, Jeremy D. Collins, and Robert L. Vogelzang. (2019). "The Growing Pains of Physician-Administration Relationships in an Academic Medical Center and the Effects on Physician Engagement." *PLoS One*. Vol. 14, No. 2. e0212014-e0212014. doi: 10.1371/journal.pone.0212014.
- Kellner, Ashlea Kate, Keith Townsend, Rebecca Loudoun, and Adrian Wilkinson. (2019). "Barriers to Frontline Manager Support for High-Trauma Workers." *Personnel Review*. Vol. 48, No. 6, pp. 1394-1409. doi: 10.1108/PR-10-2018-0397.
- Kellner, Ashlea, Keith Townsend, Adrian Wilkinson, Sandra A. Lawrence, and David Greenfield. (2016). "Learning to Manage: Development Experiences of Hospital Frontline Managers." *Human Resource Management Journal*. Vol. 26, No. 4, pp. 505-522.
- Kelly, J. G. (1996). "Management By Walking Around". *Management Matters (North York)*. Vol. 16, No. 1.
- Kendrick, Madeleine, Kevin Kendrick, Peter Morton, Nicholas F. Taylor, and Sandra G. Leggat. (2020). "Hospital Staff Report It Is Not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study." *International Journal of Environmental Research and Public Health*. Vol. 17, No. 11, pp. 4107. doi: 10.3390/ijerph17114107.
- Khatri, Naresh, Jack Wells, Jeff McKune, and Mary Brewer. (2006). "Strategic Human Resource Management Issues in Hospitals: A Study of a University and a Community Hospital." *Hospital Topics*. Vol. 84, No. 4, pp. 9-20.
- Kippist, L., & Fitzgerald, A. (2009). "Organisational Professional Conflict and Hybrid Clinician Managers: The Effects of Dual Roles in Australian Health Care Organizations". *Journal of Health Organization and Management*. Vol. 23, No. 6, pp. 642-655. doi:10.1108/14777260911001653
- Kirkpatrick, Ian, Peter Kragh Jespersen, Mike Dent, and Indareth Neogy. (2009). "Medicine and Management in a Comparative Perspective: The Case of Denmark and England." *Sociology of Health & Illness*. Vol. 31, No. 5, pp. 642-658. doi: 10.1111/j.1467-9566.2009.01157.x.
- Kotzé, Martina, and Leon Steyn. (2013). "The Role of Psychological Factors in Workplace Safety." *Ergonomics*. Vol. 56, No. 12, pp. 1928-1939. doi: 10.1080/00140139.2013.851282.

- Kuhlmann, Ellen, Ylva Rangnitt, and Mia von Knorring. (2016). "Medicine and Management: Looking Inside the Box of Changing Hospital Governance." *BMC Health Services Research*. Vol. 16, No. 6.
- Leggat, Sandra G., Zhanming Liang, and Peter F. Howard. (2020). "Differentiating Between Average and High-Performing Public Healthcare Managers: Implications for Public Sector Talent Management." *Australian Health Review*. Vol. 44, No. 3, pp. 434-442. doi: 10.1071/AH19087.
- Lempp, H., & Seale, C. (2004). "The Hidden Curriculum in Undergraduate Medical Education: Qualitative Study of Medical Students' Perceptions of Teaching". *BMJ*, Vol. 329, No. 7469, p. 770. Retrieved from <http://www.bmj.com/content/329/7469/770.abstract>
- Liang, Leggat, Howard, and Koh. (2013). "What Makes a Hospital Manager Competent at the Middle and Senior Levels?" *Australian Health Review*. Vol. 37, No. 5, pp.566-573. doi: 10.1071/AH12004.
- Liang, Zhanming, Felicity C. Blackstock, Peter F. Howard, David S. Briggs, Sandra G. Leggat, Dennis Wollersheim, David Edvardsson, and Aziz Rahman. (2018). "An Evidence-Based Approach to Understanding the Competency Development Needs of the Health Service Management Workforce in Australia." *BMC Health Services Research*. Vol. 18, No. 1, pp. 976-976. doi: 10.1186/s12913-018-3760-z.
- Llewellyn, Sue. (2001). "'Two-way Windows': Clinicians as Medical Managers." *Organisational Studies*. Vol. 22, No. 4, p. 30.
- Man, M., Toma, C., Motoc, N., Necrelescu, O., Chis, A., Lesan, A., . . . Rajnoveanu, R.-M. (2020). "Disease Perception and Coping with Emotional Distress During COVID-19 Pandemic: A Survey Among Medical Staff". *International Journal of Environmental Research and Public Health*, Vol. 17, No. 13, P. 4899. doi:10.3390/ijerph17134899
- Maria Céu, Santos, Filipe Coelho, Jorge F. S. Gomes, and Carlos M. P. Sousa. (2019). "Personal Values and the Features of Psychological Contracts." *International Journal of Organizational Analysis*. Vol. 27, No. 4, pp. 1111-1123.
- Martin, Graham P., Lorna McKee, and Mary Dixon-Woods. (2015). "Beyond Metrics? Utilizing 'Soft Intelligence' for Healthcare Quality and Safety." *Social Science & Medicine*. Vol. 142, pp. 19-26. doi: 10.1016/j.socscimed.2015.07.027.
- Maurits, Erica E. M., Anke J. E. de Veer, Peter P. Groenewegen, and Anneke L. Francke. (2017). "Home-Care Nursing Staff in Self-Directed Teams Are More Satisfied With

- Their Job and Feel They Have More Autonomy Over Patient Care: A Nationwide Survey." *Journal of Advanced Nursing*. Vol. 73, No. 10, pp. 2430-2440. doi: 10.1111/jan.13298.
- Mazurenko, O., Collum, T., & Menachemi, N. (2017). "Trends in Governance Structure and Activities Among Not-For-Profit U.S. Hospitals: 2009 – 2015". *Health Care Management Review*. Vol. 44, No. 3.
- Mazurenko, Olena, Jason Richter, Abby Swanson Kazley, and Eric Ford. (2019). "Examination of the Relationship Between Management and Clinician Perception of Patient Safety Climate and Patient Satisfaction." *Health Care Management Review*. Vol. 44, No. 1.
- McCabe, T. J., and Sally Sambrook. (2013). "Psychological Contracts and Commitment Amongst Nurses and Nurse Managers: A Discourse Analysis." *International Journal of Nursing Studies*. Vol. 50, No. 7, pp. 954-967. doi: 10.1016/j.ijnurstu.2012.11.012.
- McCann, L., Granter, E., Hassard, J., & Hyde, P. (2015). "'You Can't Do Both - Something Will Give' Limitations of the Targets Culture in Managing UK Health Care Workforces". *Human Resource Management*, Vol. 54, No. 5, pp. 773.
- McCann, Leo, John S. Hassard, Edward Granter, and Paula J. Hyde. (2015). "Casting the Lean Spell: The Promotion, Dilution and Erosion of Lean Management in the NHS." *Human Relations*. Vol. 68, No. 10, pp. 1557-1577.
- McDermott, Aoife, Edel Conway, Denise Rosseau, and Patrick Flood. (2013). "Promoting Effective Psychological Contracts Through Leadership: The Missing Link Between HR Strategy and Performance." *Human Resource Management*. Vol. 52, No. 2.
- McDermott, Aoife, and Mary Keating. (2011). "Managing Professionals: Exploring the Role of the Hospital HR Function." *Journal of Health Organization and Management*. Vol. 25, No. 6.
- McDermott, Aoife M., Louise Fitzgerald, Nicolette M. Van Gestel, and Mary A. Keating. (2015). "From Bipartite to Tripartite Devolved HRM in Professional Service Contexts: Evidence from Hospitals in Three Countries." *Human Resource Management*. Vol. 54, No. 5, pp. 813-831.
- McGivern, G., Currie, G., Ferlie, E., Fitzgerald, L., & Waring, J. (2015). "Hybrid Manager-Professionals' Identity Work: The Maintenance and Hybridization of Medical Professionalism in Managerial Contexts". *Public Administration*, Vol. 93, No. 2, pp. 412-432. doi:10.1111/padm.12119

- Mechanic, David. 1976. *The Growth of Bureaucratic Medicine*: John Wiley & Sons.
- Merriam-Webster Online Dictionary. 2020. 'Uncongenial'. In *Merriam-Webster*. Online.
- Michel, L. (2017). "A Failure to Communicate? Doctors and Nurses in American Hospitals". *Journal of Health Politics, Policy & Law*, Vol. 42, No. 4, pp. 709-717.
doi:10.1215/03616878-3856149
- Mintzberg, H. (2002). "Managing Care and Cure -Up and Down, In and Out". *Health Services Management Research*, Vol. 15, No. 3, pp. 193-206.
- Moberly, Tom. (2018). "Dido Harding, NHS Improvement: "I'm Shocked At the Lack of Basic People Management Skills in the NHS"." *BMJ*. Vol. 361. doi: 10.1136/bmj.k2657.
- Molleman, Eric, and Floor Rink. (2013). "Professional Identity Formation amongst Medical Specialists." *Medical Teacher*. Vol. 35, No. 10, pp. 875-876. doi: 10.3109/0142159X.2013.786817.
- Morag, Ido, Daniel Gopher, Avishag Spillinger, Yael Auerbach-Shpak, Neri Laufer, Yuval Lavy, Ariel Milwidsky, Rivka-Rita Feigin, Shimon Pollack, Itay Maza, Zaher S. Azzam, Hanna Admi, and Michael Soudry. (2012). "Human Factors–Focused Reporting System for Improving Care Quality and Safety in Hospital Wards." *Human Factors*. Vol. 54, No. 2, pp. 195-213.
- Morgan, Whitney Botsford, and Eden B. King. (2012). "Mothers' Psychological Contracts: Does Supervisor Breach Explain Intention to Leave the Organization?" *Human Resource Management*. Vol. 51, No. 5, pp. 629-649. doi: 10.1002/hrm.21492.
- Morgeson, Frederick P. (2005). "The External Leadership of Self-Managing Teams: Intervening in the Context of Novel and Disruptive Events." *Journal of Applied Psychology*. Vol. 90, No. 3, pp. 497-508. doi: 10.1037/0021-9010.90.3.497.
- Mulder, H., Ter Braak, E., Chen, H. C., & Ten Cate, O. (2019). Addressing the Hidden Curriculum in the Clinical Workplace: A Practical Tool for Trainees and Faculty. *Medical Teacher*, Vol. 41, No. 1, pp. 36-43. doi:10.1080/0142159X.2018.1436760
- Nugus, Peter, David Greenfield, Joanne Travaglia, Johanna Westbrook, and Jeffrey Braithwaite. (2010). "How and Where Clinicians Exercise Power: Interprofessional Relations in Health Care." *Social Science & Medicine*. Vol. 71, No. 5, pp. 898-909. doi: 10.1016/j.socscimed.2010.05.029.
- O'Donnell, Joseph F., and Frederic W. Hafferty. (2014). *The Hidden Curriculum in Health Professional Education*: Lebanon, New Hampshire: Dartmouth College Press.

- Olson, K., Kemper, K. J., & Mahan, J. D. (2015). "What Factors Promote Resilience and Protect Against Burnout in First-Year Pediatric and Medicine-Pediatric Residents?" *Journal of Evidence-Based Complementary & Alternative Medicine*, Vol. 20, No. 3, pp. 192-198.
- Pannick, Samuel, Nick Sevdalis, and Thanos Athanasiou. (2016). "Beyond Clinical Engagement: A Pragmatic Model for Quality Improvement Interventions, Aligning Clinical and Managerial Priorities." *BMJ Quality & Safety*. Vol. 25, No. 9. doi: 10.1136/bmjqs-2015-004453.
- Pickering, C. E. Z., Nurenberg, K., & Schiamberg, L. (2017). "Recognizing and Responding to the "Toxic" Work Environment: Worker Safety, Patient Safety, and Abuse/Neglect in Nursing Homes". *Quality Health Research*, Vol. 27, No. 12, pp. 1870-1881. doi:10.1177/1049732317723889
- Productivity Commission. (1999). *Private Hospitals in Australia*. edited by The Productivity Commission. Online.
- Rassie, Kate. (2017). "The Apprenticeship Model of Clinical Medical Education: Time for Structural Change." *The New Zealand Medical Journal (Online)*. Vol. 130, No. 1461, pp. 66-72.
- Rodwell, John, Julia Ellershaw, and Rebecca Flower. (2015). "Fulfill Psychological Contract Promises to Manage In-Demand Employees." *Personnel Review*. Vol. 44, No. 5, pp. 689-701.
- Rodwell, J., & Gulyas, A. (2015). "Psychological Contract Breach Among Allied Health Professionals". *Journal of Health Organization and Management*, Vol. 29, No. 3, pp. 393-412. doi:10.1108/JHOM-05-2013-0107
- Rundall, Thomas G., Henry J. Kaiser, Huw T. O. Davies, and Claire-Louise Hodges. (2004). "Doctor-Manager Relationships in the United States and the United Kingdom." *Journal of Healthcare Management*. Vol. 49, No. 4, pp. 251. doi: 10.1097/00115514-200407000-00007.
- Sartirana, Marco, Anna Prenestini, and Federico Lega. (2014). "Medical Management: Hostage to its Own History? The Case of Italian Clinical Directors." *International Journal of Public Sector Management*. Vol. 27, No. 5, pp. 417-429. doi: 10.1108/IJPSM-06-2012-0070.
- Shapiro, J. (2018). "Confronting Unprofessional Behaviour in Medicine". *BMJ*, Vol. 360.
- Shepherd, A. (2020). "Covid-19: Frontline Doctors Continue PPE fight". *BMJ (Clinical research ed.)*, Vol. 369, m2188-m2188. doi:10.1136/bmj.m2188

- Spehar, Ivan, Jan C. Frich, and Lars Erik Kjekshus. (2014). "Clinicians in Management: A Qualitative Study of Managers' Use of Influence Strategies in Hospitals." *BMC Health Services Research*. Vol. 14, No. 1, pp. 251-251. doi: 10.1186/1472-6963-14-251.
- Srivastava, Ranjana. (2013). "Speaking Up — When Doctors Navigate Medical Hierarchy." *The New England Journal of Medicine*. Vol. 368, No. 4, pp. 302-305. doi: 10.1056/NEJMp1212410.
- Stanton, P., S. Young, T. Bartram, and S. G. Leggat. (2010). "Singing The Same Song: Translating HRM Messages Across Management Hierarchies in Australian Hospitals." *International Journal of Human Resource Management*. Vol. 21, No. 4, pp. 567-581.
- Stoller, J., A. Goodall, and A. Baker. (2016). "Why The Best Hospitals Are Managed By Doctors." *Harvard Business Review*. Online. URL: <https://hbr.org/2016/12/why-the-best-hospitals-are-managed-by-doctors>.
- Sullivan, Helen, and Judy McKimm. (2011). "Doctor as Professional and Doctor as Leader: Same Attributes, Attitudes and Values?" *British Journal of Hospital Medicine*. Vol. 72, No. 8, pp. 463-466.
- Teoh, Kevin R. H., Juliet Hassard, and Tom Cox. (2020). "Individual and Organizational Psychosocial Predictors of Hospital Doctors' Work-Related Well-Being: A Multilevel and Moderation Perspective." *Health Care Management Review*. Vol. 45, No. 2.
- Tevis, Sarah E., and Gregory D. Kennedy. (2020). "Building Relationships with Hospital Administrators." In *Building a Clinical Practice*, edited by Tracy S. Wang and Adam W. Beck, 115-127. Cham: Springer International Publishing.
- Timmins, F. (2011). "Managers' Duty to Maintain Good Workplace Communications Skills: The Delivery of Safe Care Requires Good Nurse-Patient Relationships, in an Environment in Which Staff Feel Free to Speak Out and Put Forward Ideas, Fiona Timmins Describes How Managers Can Achieve Such Practice". *Nursing Management (Harrow)*, Vol. 18, No. 3, p. 30.
- Tomar, A., & Dhiman, A. (2013). "Exploring the Role of HRM in Service Delivery in Healthcare Organizations: A Study of an Indian Hospital". *Vikalpa: The Journal for Decision Makers*, Vol. 38, No. 2, pp. 21-38.
- Tomprou, M., Rousseau, D. M., & Hansen, S. D. (2015). "The Psychological Contracts of Violation Victims: A Post-Violation Model". *Journal of Organizational Behavior*, Vol. 36, No. 4, pp. 561–581. <https://doi.org/10.1002/job>

- Tucker, B., & Parker, L. (2014). "In Our Ivory Towers? The Research-Practice Gap in Management Accounting". *Accounting and Business Research*, Vol. 44, No. 2, pp 104-143. doi:10.1080/00014788.2013.798234
- Tucker, A., & Singer, S. (2015). "The Effectiveness of Management-By-Walking-Around: A Randomized Field Study". *Production and Operations Management*, 24(2), 253.
- Veronesi, G., Kirkpatrick, I., & Altanlar, A. (2019). "Are Public Sector Managers a "Bureaucratic Burden"? The Case of English Public Hospitals". *Journal of Public Administration Research and Theory*, Vol. 29, No. 2, 193-209. doi:10.1093/jopart/muy072
- Veronesi, G., Kirkpatrick, I., & Vallascas, F. (2014). "Does Clinical Management Improve Efficiency? Evidence from the English National Health Service". *Public Money & Management*, Vol. 34, No. 1, pp. 35-42.
- Vicarelli, G. M., & Pavolini, E. (2017). "Dynamics Between Doctors and Managers in the Italian National Health Care System". *Sociology of Health & Illness*, Vol. 39, No. 8, pp. 1381-1397.
- von Knorring, M., Alexanderson, K., & Eliasson, M. A. (2016). "Healthcare Managers' Construction of the Manager Role in Relation to the Medical Profession". *Journal of Health Organization and Management*, Vol. 30, No. 3, pp. 421-440.
- Warren, Nicholas, Michael Hodgson, Thomas Craig, Sue Dyrenforth, Jonathan Perlin, and Frances Murphy. (2007). "Employee Working Conditions and Healthcare System Performance: The Veterans Health Administration Experience." *Journal of Occupational & Environmental Medicine*. Vol. 49, No. 4, pp. 417-429. doi: 10.1097/JOM.0b013e31803b94ce.
- Webster, Fiona, Kathleen Rice, Katie N. Dainty, Merrick Zwarenstein, Steve Durant, and Ayelet Kuper. (2015). "Failure to Cope: The Hidden Curriculum of Emergency Department Wait Times and the Implications for Clinical Training." *Academic Medicine*. Vol. 90, No. 1, pp. 56-62. doi: 10.1097/ACM.0000000000000499.
- West, C. P., Dyrbye, L. N., Sinsky, C., Trockel, M., Tutty, M., Nedelec, L., . . . Shanafelt, T. D. (2020). "Resilience and Burnout Among Physicians and the General US Working Population". *JAMA Network Open*, Vol. 3, No. 7, e209385-e209385. doi:10.1001/jamanetworkopen.2020.9385
- Wilberforce, Mark, Sue Tucker, Michele Abendstern, Christian Brand, Clarissa Marie Giebel, and David Challis. (2013). "Membership and Management: Structures of Inter-

- Professional Working in Community Mental Health Teams for Older People in England." *International Psychogeriatrics*. Vol. 25, No. 9, pp. 1485-1492. doi: 10.1017/S104161021300077X.
- Willis, Eileen, Jenny Carryer, Clare Harvey, Maria Pearson, and Julie Henderson. (2017). "Austerity, New Public Management and Missed Nursing Care in Australia and New Zealand." *Journal of Advanced Nursing*. Vol. 73, No. 12, pp. 3102-3110. doi: 10.1111/jan.13380.
- Witman, Yolande. (2014). "What Do We Transfer in Case Discussions? The Hidden Curriculum in Medicine...." *Perspectives on Medical Education*. Vol. 3, No. 2, pp. 113. doi: 10.1007/s40037-013-0101-0.
- World Health Organisation (WHO). (2016). Z56: Problems Related to Employment or Unemployment. In *ICD-10*, edited by World Health Organisation. Online.
- World Medical Association. (1948). Declaration of Geneva (2006 Ver). In: World Medical Association.

Chapter 4 Insight into Work-As-done Versus Work-As-Imagined; Staff Perceptions of a Health Service's 'Leadership Rounding' Initiative

4.1 Introduction

This chapter presents an unpublished article manuscript, formatted as submitted to the *International Journal of Healthcare Management*. This article addresses the research question: *What are patient-facing hospital staff experiences of management-implemented strategies addressing the issue of employee stress as a result of an uncongenial workplace?* Chapter 4 presents a segment of data and analysis pertaining to participant experiences of health service leadership, and their interactions in the workplace.

4.2 Article

Insight Into Work-As-Done versus Work-As-Imagined; Staff Perceptions of a Health Service's 'Leadership Rounding' Initiative

Madeleine Kendrick^a and Kevin B. Kendrick^b

^aLa Trobe University, School of Psychology and Public Health, La Trobe University, Melbourne, Australia. ORCID: 0000-0002-2810-6419. Twitter: @MIKendrick94

^bWA Health, Perth, Australia

Corresponding author email: 19460000@students.ltu.edu.au / Kendrickmadeleine94@gmail.com

Word Counts

Abstract: 169

Article incl. references: 3727

Insight Into Work-As-Done versus Work-As-Imagined; Staff Perceptions of a Health Service's 'Leadership Rounding' Initiative

Background: A Leadership Rounding initiative was advertized as a success in the health service's annual report, however the publication did not specify how this was qualified.

Design: Semi-structured interviews with 73 staff, employed by the health service across 2 hospital sites and 3 clinical specialties, were handled using deductive thematic analysis. Staff were interviewed to see how they experienced the Leadership Rounding initiative.

Results: From the wider study, 17 individuals were identified to have directly discussed experiencing the Leadership Rounding initiative in their workplace. Of those 17, eight participants described directly interacting with executive-level management. The consensus of the 17 participants were that the Leadership Rounding initiative is a good theory, poorly implemented in practice.

Conclusions: This outcome is consistent with management and organisational behavior literature concerning communication channels and management culture in healthcare organisations, which often fails to connect with the priorities and values of patient-facing staff. For improved efficacy, we urge healthcare management to remove barriers to the systematic collection and regular incorporation of patient-facing staff feedback.

Key Words: Leadership, Work-As-Imagined, Management, Healthcare, Communication

Introduction

Many articles discuss new theoretical contributions to improve management and leadership practice. Less common are studies measuring how these theoretical contributions are used.

This gap can be conceptualized as 'work as imagined' versus 'work as done', which compares a theoretical activity with its implementation [1]. Addressing this gap is of key importance for successful strategy adoption, and translation of academic theory into practical recommendations [2].

McCarthy [3] recommends positive interpersonal relationships, and open communication channels, for successful management practice. Carmeli and Markman [4] discussed common strategies which successfully sustain organizations for multiple centuries. These strategies also involve interpersonal relationships and clear communication channels. As governance structures rely on accurate and timely communication for guidance on how to best direct an organization, and the reliability of the facilitators of that communication, usually management, focus on such factors to improve governance. Building on the work of authors such as Cândido and Santos [5] and Braithwaite, Wears [2], this article aims to address a current gap, concerning how organizational strategy is experienced by staff to reconcile work-as-done against how the work is imagined.

Background

The study centres on a large public health service in Australia. The health service's development can be traced across its annual reports. Reading publicly available annual reports over consecutive years affords an open-access way to track and evaluate strategic priority-setting and outcomes based on what the service chooses to showcase to stakeholders. One strategic priority, repeatedly mentioned across all of the service's annual reports, is the service's aim to engage with staff. To achieve this, the service began a leadership rounding initiative, where members of the Board and service executive visited frontline staff to collect feedback. The authors, one external researcher and an internally-employed research assistant, selected this initiative for further exploration in the article.

Theory

The theoretical framework underpinning this article's analysis and discussion are based on the works of Anderson, Ross [6], who study how work-as-done can differ from work-as-imagined. Their article acknowledges the interpersonal dynamics of professionals, and how the real needs of the working environment do not always match empirically measured

phenomena. Related to this phenomenon are the writings of Edwards, Sevdalis, Vincent & Holmes [7], who provide insight into how communication channels in healthcare operate.

In healthcare organisations, communication between management and clinicians can break down without negatively impacting patient care [8]. Clinical care teams can be self-directing, flexible, and present without the input of middle management personnel [9-11]. This has been noted with particular frustration by management scholars who unsuccessfully attempt to impose changes and administrative tasks onto staff. [5] How to improve the success rate of strategy implementation, and engagement with clinical staff, has been the topic of discussion in healthcare management for decades.

One of the many established influences on organizational performance is the efficacy of bi-directional communication channels. [12-14] Rapid communication of accurate feedback from the front lines of an organization, to relevant executive decision-makers, contribute to an organization's ability to survive large-scale crises and achieve resilient longevity, [4, 15] by ensuring that information can be rapidly fed back up the organisational hierarchy in the event of a crisis [16], the organization is better equipped to address that crisis in an effective manner. Establishing a direct communication channel between frontline staff and members of the board is thus a useful concept in theory. In addition to formal operational reports on performance, decision-makers would also have their own experiences to balance what reports they prioritize and what strategies to follow, as described in the service's leadership rounding program overview (citation redacted on request of the service). Therefore, the authors were interested in exploring if this is properly achieved, as a broken communication channel can feedback the wrong information, or no information at all. [13, 17]

Unique Contribution

This article aims to address a gap in work-as-done and work-as-imagined theory through the presentation of a real-world case. It examines the perspectives of frontline workers at the receiving end of an executive-driven strategy, which promoted a direct communication channel between frontline staff and governance executives in an Australian public hospital.

Method

The study used qualitative, deductive thematic analysis of documents [18], including archival and primary sources of data, to explore how the service's annual reports' Leadership Rounding initiative was perceived and experienced by staff. Archival sources involved open-access annual reports. Primary sources included semi-structured interviews with patient-facing staff in the service.

Human research ethics clearance (HREC) for a wider study was provided directly by the health service, with site access granted by the service's Chief Executive. The ethics clearance was validated by the first author's university. This article contributes a portion of the results from that exploratory research project.

As presented in the annual report, it appears that the leadership rounding initiative is successful from the perspective of members of the executive. However, a question remains: Do the publicly available descriptions of the leadership rounding initiative correspond to the perspectives of participating staff?

Sampling

As part of the wider exploratory study, the authors were granted access to three clinical departments within the service. The sample was limited to staff directly employed by the health service. The choice of three clinical departments across two hospital sites was partially access-based, designed to provide a range of perspectives from a variety of professional backgrounds. Data were collected between October 2018 and October 2019. Participants were recruited both directly through purposive sampling, and the use of word-of-mouth snowball sampling [19]. The authors aimed to gather interviews from staff at each level of the

patient-facing layer of the hospital organization, including junior and senior clinical staff, administrative personnel, and hybrid managers.

The service's annual reports are freely available to the public on the service's website, however these citations (and the actual name of the program) have been de-identified on the service's request.

Research Ethics and Sampling Clinical Practitioners

Three clinical directors who gave their consent for their departments to be included in the study formed the basis of the three clinical departments sampled. Participants were provided with both a typed and verbal explanation of the project aims and methods prior to the commencement of the interview, which began when the participant signed the consent form in the presence of the interviewer. Consent could have been rescinded at any point of the research project before the research census date [18].

Participants were volunteers, who contributed their perspectives confidentially and with knowledge that there was no compensation for their time. Participant confidentiality was a significant consideration for the researchers, as respecting the privacy of healthcare staff is a key requirement for researching in healthcare organisations [20]. Transcripts had names and personal information redacted prior to being made available to participants for review.

Data Analysis

The authors consisted of a management-trained academic researcher working externally from the organization (MK), and a clinically-trained research assistant who worked within the organisation (KK). Independent validation of study themes was provided by an academic supervisor from the first author's university.

The authors compared the service's latest annual report's description of the leadership rounding initiative with participant interviews on the same subject. For example, the annual report stated the health service's envisioned engagement with all staff. To identify what this

might mean in practice, the authors asked interview participants exploratory questions such as ‘Have you heard of the [health service’s] [Leadership Rounding] initiative?’, and ‘If so, what is your experience/impression of it?’. Interviews which discussed anecdotes relevant to the Leadership Rounding initiative were selected for the analysis presented in this article.

The resulting interview transcripts were coded semantically and latently by the two authors, using Braun, Clarke’s suggestions for reflexive, thematic coding. [21] Themes used for deductive coding came from literature on work-as-done and work-as-imagined theory [2, 6] and communication channels in healthcare. [7, 12]

Results

The wider project sampled a total of 73 patient-facing staff, located across two hospital campuses, from three clinical disciplines (Surgery, Emergency, and Psychiatry). Interviews averaged 40 minutes in length, in a private room at the discretion of the interviewee. As interviews were participant-led, not every participant elected to discuss every interview question in depth. Consequently, 17 participants were included in this article’s analysis (Participants 03, 06, 09, 11, 12, 17, 18, 24, 25, 37, 40, 42, 47, 50, 52, 63, & 65). These 16 participants responded that they had heard of the Leadership Rounding initiative, generally, when asked during their interview. Of these 17 participants, only eight (09, 11, 12, 17, 18, 25, 50, 52) participants responded that they believed to have interacted with members of the Board and/or members of the hospital executive directly.

The remaining 56 participants excluded from this article’s analysis had either never heard of the initiative or did not discuss having met any member of upper management, executive, or board-level hospital staff during their employment with the service.

Participant anecdotes of the Leadership Rounding initiative were consistent across the 16 included in this article. Their perspective, overall, was that the initiative was positive in theory, but lacked the desired impact due to its manner of implementation.

The Leadership Rounding Initiative

The purpose of a health service's annual report is to communicate performance outcomes to stakeholders. An often-overlooked aspect of annual reports are human performance factors, such as staff satisfaction and turnover, which are known to influence payroll costs. [22, 23]. One human performance factor mentioned in the service's annual reports is the Leadership Rounding initiative.

The intended purpose of the Leadership Rounding initiative was to facilitate direct feedback from frontline hospital staff to members of health service leadership, such as the Executive and visiting members of the Board.

Visits were described in official documents as being conducted by a clinical and non-clinical leadership member, for over an hour each visit. Outcomes reported in the program overview publication included staff engagement that was 'meaningful', with 'positive outcomes'.

Supplementing this description, the annual report described the Leadership Rounding initiative as 'extremely important' (citation redacted).

When the annual report described the Leadership Rounding visits as 'successful', there was no information provided to explain how this assessment was made.

Perspectives on the Leadership Rounding Initiative

Participants who heard of the Leadership Rounding initiative, and discussed their experiences of it, described the work-in-practice as; '...superficially making the effort to do the executive visit to the ward. [...] just like a walk through the ward, a smile and a wave' (Participant 42).

Participants discussed how the Leadership Rounding initiative would be perceived as making a meaningful difference to staff if they witnessed tangible, positive changes in their workplace. Participant examples of these changes would involve better rostering and working conditions. To support this perspective, other participants discussed how the Leadership Rounding initiative was perceived to be ineffective due to how the visits were conducted.

‘The walk and wave? Hah. (laughs) I mean, good on them for trying. Look, I’m not going to say it’s bad for trying. It’s a bit royal...’ *Participant is bemused* (Participant 71)

We're monitored and managed by self interest. So, the standards- we have management running after the key performance standards and telling staff to say things like parrots. [...] And then they can say they're doing a great job, and they'll never get fired. (Participant 11)

Complaints of the Leadership Rounding visits serving a performative purpose rather than contributing to actual service improvements were common among the seven respondents who had personally witnessed the event.

Things are different, people come down. They don't see the proper thing. It would be better if it was a total surprise [...] I would like them to see the stupid paperwork and have to sit and listen to [specific person] lecturing us. It should be a proper surprise, proper. They shouldn't let anyone know, we shouldn't even know they are board members. It is hard to say things when you are around patients, and your boss is checking- [...] - you know? (Participant 12)

Participant experiences of feeling ‘unheard’ and ‘ignored’ at work were frequently discussed.

Interviewer: The [Service]...when it publishes its annual report it dedicates some space to declaring that it values its staff. Do you feel valued?

Participant: No. Not at all.

I: Could you list why?

P: Because I’m not listened to (Participant 65).

Participants discussed at length their perceived lack of tangible improvement in frontline working conditions and felt ignored when requests and complaints were communicated. Examples were provided of how management priorities appeared to align

with presenting success, and meeting targets, rather than the wellbeing of staff and facilitating quality patient care.

Most of the (email) messages are about telling us how good they (middle-management) are. They say it is good for morale. It is not, it just makes me go, why are you doing that? You have too much time. *Dismissively* Go do some work (Participant 12).

Such management priorities were explained to extend to the curation of visits from accreditors, which would be led by these same management personnel.

‘...what the board wants is filtered down. They don't have the chance to see the real picture. When they come by, they're nice, but [management staff] knows they're coming so we're asked to put on a show’ (Participant 11).

Discussion

The Leadership Rounding initiative echoes the theory of ‘management by walking around’ [24], or clinical ‘rounding’ [25], however it does not appear to be achieved in practice. The reason for this is attributed to infrequent participant experience of the Leadership Rounding visits. The theoretical benefit of clinical rounding is associated with familiarity with the workplace’s normal order of operations as a result of visit frequency. [26]. Beard, Baernholdt & White [26] recommend that ‘Hospital units must consider the facilitators at the organisational level as well as at the individual level to achieve success’ (page 1147). Similarly, Tucker and Singer [24] discussed how ‘our study suggests that senior managers' physical presence in their organizations' front lines was not helpful unless it enabled active problem solving’ (page 253), a perspective which was consistent with that of this study’s participants. Participants who had witnessed a Leadership Rounding visit discussed their perception of the visits serving a superficial purpose of displaying a department’s successes, while hiding its weaknesses. These results can contribute to knowledge concerning work-as-

imagined versus work-as-done, as the theoretical benefits of the Leadership Rounding initiative as imagined by executive and Board-level hospital leadership do not appear to be received by frontline staff in practice.

The strengths of this exploratory project are demonstrated through the ability to explain potential reasoning behind why this work-as-imagined gap exists. A mis-matched perception between rounding leadership, and frontline staff, potentially results from the lack of true bi-directional communication channels, which was discussed by participants as regularly impacted by middle-management. Based on these discussions, it appears that the same influences on communication channel clarity within the health system's formal hierarchy (intended to be circumvented by the Leadership Rounding initiative) continue to control the information available to decision-makers even in-person. Thus, the specific gap between work-as-imagined, and the work-as-done, can be identified in the context of this initiative.

Despite not collecting a comprehensive sample across the entire health service, the study's participants consistent reporting of a superficial approach to staff feedback echoes a common theme in management literature (27). Scholars suggest that this might be the result of a management culture that punishes failures rather than framing failure as a learning opportunity [28]. In a punitive culture, it is not in the interest of a middle-manager to report their true performance to superiors, so negative feedback is suppressed. So, too, could staff communications be disregarded if they implied the existence of 'problems' directly linked to that manager.

If Leadership Rounding visits are guided through departments in the manner that patient-facing participants described, then visiting governance personnel experiences of ward visits are consistently curated. This may explain the positive outcomes published for the Leadership Rounding initiative in the service's annual report. Participant anecdotes of work

in the wards suggest that this is far from the reality experienced by staff. It is unclear whether this curation is deliberately obfuscatory or merely an attempt to portray the department in its most positive light. Either would impede the function of the initiative to gather accurate information.

After identifying this gap in work-as-done versus work-as-imagined as it pertains to the Leadership Rounding initiative, a few questions remain for future investigation: Firstly, Is the Board and Executive aware of their initiative's perceived ineffectiveness by staff? Secondly, what are the other impacts of what appears to be a broken communication channel through the formal hospital hierarchy? Thirdly, how is the lack of management response to requests for improved working conditions impacting patient-facing staff wellbeing long-term? And finally, are there any other factors that account for the discrepancy in the annual report's evaluation of success compared to staff descriptions of their experiences at work? The study findings were communicated directly to the health service's Chief Executive, and made available to all participants, following data collection and analysis.

At the conclusion of this study, the authors noted that staff-focused engagement strategies received an increased focus in the service's 2020 annual report, reflecting the continued development and improvements of the service. The increased attention given to employee wellbeing in the service's annual reports is a positive indicator of its growing importance to decision-makers in the service, which will ideally be reflected in future improvements for staff. It is not known to the authors whether the changes to the health service's annual report were a result of the study findings.

Practice Implications

Organisations should assess how their theories work in practice, to identify the true effectiveness of their initiatives [2]. Further research should be conducted to investigate why communication channels in the health service might be perceived as unresponsive to patient-

facing staff needs, with root-cause analysis to identify how (and where) the communication channel might be broken.

For the case organization, and health service managers looking to this article for guidance on how to avoid the situation described, the authors recommend reducing the ‘scripted’ element of Leadership Rounding visits, allowing governance officials to familiarize themselves with frontline working environments. With regular ‘management by walking around’ or ‘rounding’ to become familiar with the daily pace of work in patient-facing departments, the likelihood of capturing a realistic picture is increased as visits cannot be curated by management. Participants familiar with the Leadership Rounding initiative perceived that middle-management curation of visits negatively impacted their ability to properly communicate with executive and Board-level decision makers on the infrequent occasion they experienced a visit.

References

1. Mrayyan M. Theory in Practice. *Nurs Manag.* 2004;35(10):51.
2. Braithwaite J, Wears RL, Hollnagel E. Resilient health care. Volume 3, Reconciling Work-as Imagined and Work-as-Done. London: Boca Raton, Florida ; London, England ; New York : CRC Press; 2017.
3. McCarthy J. Why Managers Fail...And What To Do About It: McGraw-Hill; 1992.
4. Carmeli A, Markman GD. Capture, Governance, and Resilience: Strategy Implications From The History of Rome. *Strategic Manag J.* 2011;32(3):322-41.
5. Cândido C, Santos S. Strategy implementation: What is the Failure Rate? *J Manag and Organization.* 2015;21(2):237-62.
6. Anderson JE, Ross A, Jaye P. Modelling Resilience and Researching the Gap between Work-As-Imagined and Work-As-Done. In: Braithwaite J, Wears RL, Hollnagel E,

editors. Resilient Health Care Volume 3, Reconciling Work-as Imagined and Work-as-Done: Boca Raton, Florida; 2017.

7. Edwards R, Sevdalis N, Vincent C, Holmes A. Communication Strategies in Acute Health Care: Evaluation Within the Context of Infection Prevention and Control. *J Hospital Infection*. 2012;82(1):25-9.

8. McDermott A, Keating M. Managing Professionals: Exploring the Role of the Hospital HR Function. *J. Health Organization Manag*. 2011;25(6).

9. Jeanpierre L. Decentralized Decision-Making Technique for Dynamic Coalition of Resource-Bounded Autonomous Agents. *International J of Intell Computing and Cybernetics*. 2011;4(2):228-42.

10. Lipkin M, Jr. Medical Ground Zero: An Early Experience of the World Trade Center Disaster. *Annals of Intern Med*. 2002;136(9):704-7.

11. Khatri N, Gupta V, Varma A. The Relationship Between HR Capabilities and Quality of Patient Care: The Mediating Role of Proactive Work Behaviors. *Hum Resour Manag*. 2017;56(4):673-91.

12. Rowlands S, Callen J. A Qualitative Analysis of Communication Between Members of a Hospital-Based Multidisciplinary Lung Cancer Team. *Eur J Cancer Care*. 2013;22(1):20-31.

13. Glover L. Communication and Consultation in a Greenfield Site Company. *Per Rev*. 2001;30(3):297-317.

14. Michel L. A Failure to Communicate? Doctors and Nurses in American Hospitals. *J. of Health Politics, Policy & Law*. 2017;42(4):709-17.

15. Erkens DH, Hung M, Matos P. Corporate Governance in the 2007–2008 Financial Crisis: Evidence from Financial Institutions Worldwide. *J Corporate Finance*. 2012;18(2):389-411.

16. Fink S. *Crisis Communications: The Definitive Guide to Managing the Message*. 1 ed. New York: McGraw-Hill; 2013.
- Feuz C. The Role of the Keyworker in Breaking Down Professional Culture Barriers to Providing High-Quality Palliative Care: A Literature Review. *J Radiother Pract*. 2013;13(4):465-72.
18. Guest G, MacQueen KM, Namey EE. *Themes and Codes. Applied Thematic Analysis*. SAGE Publications, Inc. Thousand Oaks, CA: SAGE Publications, Inc.; 2012. 49-79 p.
19. Streeton R, Cooke M, Campbell J. Researching the Researchers: Using a Snowballing Technique. *Nurse Researcher*. 2004;12(1):35-46.
20. Franklin P, Rowland E, Fox R, Nicolson P. Research Ethics in Accessing Hospital Staff and Securing Informed Consent. *Qualitative Health Res*. 2012;22(12):1727-38.
21. Braun V, Clarke V, Hayfield N, Terry G. Thematic Analysis. In: Liamputtong P, editor. *Handbook of Research Methods in Health Social Sciences*. Singapore: Springer Singapore; 2019. p. 843-60.
22. Frederiksen A. Job Satisfaction and Employee Turnover: A Firm-Level Perspective. *German J of Human Resour Manag. / Z für Personalforschung*. 2017;31(2):132-61.
23. Pierce L, Snyder J. Unethical Demand and Employee Turnover. *J Bus Eth*. 2015;131(4):853-69.
24. Tucker A, Singer S. The Effectiveness of Management-By-Walking-Around: A Randomized Field Study. *Prod Operations Manag*. 2015;24(2):253.
25. Ybarra N. Daily Rounding for Patient Safety and Nursing Satisfaction. *J Obstetric, Gynecologic, & Neonatal Nurs*. 2015;44(s1):S32-S3.
26. Beaird G, Baernholdt M, White KR. Perceptions of Interdisciplinary Rounding Practices. *J Clin Nurs*. 2020;29(7-8):1141-50.

27. Agarwal R, Green R, Agarwal N, Randhawa K. Management Practices in Australian Healthcare: Can NSW Public Hospitals do Better? *J Health Organization and Manag.* 2016;30(3):331-53.
28. McCann L, Granter E, Hassard J, Hyde P. 'You Can't Do Both - Something Will Give' Limitations of the Targets Culture in Managing UK Health Care Workforces. *Human Resource Manag.* 2015;54(5):773.

Acknowledgements, to Professor Sandra Leggat, for their assistance during the research project.

The authors report there are no competing interests to declare.

This project was supported by an Australian Government RTP Scholarship.

Chapter 5 Qualitative Study of Western Australian Public Hospital Systems: A Crisis Escalation Model for Public Management

5.1 Introduction

This chapter presents an unpublished article manuscript, formatted for submission to *Public Management Review*. This article addresses the research question: *How effectively are Australian public health organisations managing the systemic crisis of employee stress reaction to a perceived uncongenial workplace?* Chapter 5 consolidates the findings of the previous papers and presents the project findings in a holistic crisis escalation model for public management. References to the published and unpublished material from the study cite the relevant chapter, which will be replaced with a full citation upon the article's publication.

5.2 Article

Qualitative Study of Western Australian Public Hospital Systems: A Crisis Escalation Model for Public Management

^aKendrick, M.I., ^bKendrick, K., ^aTaylor, N. F., & ^aLeggat, S.G.

^a*La Trobe University, Melbourne, Australia;* ^b*WA Health, Australia*

*corresponding author email: KendrickMadeleine94@gmail.com

alternate email: m.kendrick@ltu.edu.au

Abstract

Recent press suggested a public hospital crisis in Western Australia. A prodromal workplace crisis was identified through the analysis of interview data from a sample of health service staff in 2019. Aiming to explore the escalation of this prodromal crisis, this study analysed the content of recent news articles describing the crisis, and the reported workplace experiences of the healthcare workers. Crisis management and autonomous adaptation theories suggested how frontline staff perceptions of an uncongenial workplace, coupled with a negative external force, had the potential to escalate the prodromal crisis to an acute crisis. The findings can assist public sector managers to identify and resolve potential crises. This article is among the first to apply a crisis management theory framework to conceptualise how a healthcare crisis can progress. Our findings may be generalisable to other health services.

Introduction

Crises in public hospitals carry the serious risk of injury and death. A crisis can be defined as any situation that threatens loss of life, interruption to ordinary business, negative impacts to the organisation's bottom line or public standing, draws media scrutiny, or prompts a government inquiry (Fink, 1986). Pre-crisis conditions, referred to as prodromal crises, are situations that could escalate to a crisis if left unmitigated (Christensen et al., 2016; Drennan, 2014; Fink, 2013; Flanagan, 2012). While there are many organisational crisis case-studies in corporate contexts (Fischer, 1996; Ice, 1991; Yang, 2012), there is a knowledge gap on how

crises escalate in healthcare organisations (Amos, 2019).

Public health managers rely on the adaptive capacity of patient-facing workers to ensure seamless hospital operations despite the unpredictable nature of healthcare (Anderson et al., 2016; Anderson., Ross, & Jaye, 2017; Lawton, Taylor, Clay-Williams, & Braithwaite, 2014; Wears, 2015). The adaptive capacity of healthcare workers forms part of the system that facilitates a proactive approach to patient safety, known as Safety-II (Fairbanks et al., 2014; Hollnagel, 2017; Leggat, Balding, & Bish, 2021; Sujan, Huang, & Braithwaite, 2017). Some adaptations, like working in a tent hospital during 9/11, are thought to be enduring due to the short-term and unusual nature of the adaptation (Lipkin & Jr, 2002). However, a person using adaptations over a long period of time can become exhausted, making the adaptation no longer tenable (Shanafelt, Mungo, et al., 2016).

The negative impact of long-term adaptations may escalate a workplace prodromal crisis to a smouldering crisis (Millar and Heath (2003) that consists of slowly escalating internal issues with warning signs for early detection. Yet, whistle-blowing and risk reports of early warning signs do not always receive the management response required to mitigate a crisis (Cleary & Duke, 2019; Newdick & Danbury, 2015). As Millar and Heath (2003) pointed out,

‘Most crises are neither accidental nor sudden. Rather they reveal questionable, illegal, or unethical activity by someone within the organization frequently involving other members of the organization or people who routinely interact with organizational personnel. Not only does the problem exist, someone in the organization knows, or has neglected to learn, of its existence.’ (Millar & Heath, 2003 p. 28).

Millar and Heath's (2003) description of the most frequent origin of crises is consistent with other empirical studies that argue that management is often the cause of crisis escalation (Amos, 2019; De Jager, 2003; Dzau, Kirch, & Nasca, 2018; Ice, 1991; Kashmiri & Brower, 2016; Ketchen, 2014; Martin, Ozieranski, Leslie, & Dixon-Woods, 2019; Yang, 2012). There is growing evidence of management's exacerbation of prodromal crises in healthcare (Grima, Georgescu, & Prud'Homme, 2020) (Chapter 2). Despite the assertion that crises are neither accidental nor sudden, how healthcare managers fail to avert, or even contribute to a crisis is not fully understood.

The recent press suggesting a crisis among public health services in the state of Western Australia (WA) (Garvey, 2021) provided an opportunity to explore the development of a crisis in depth. A 2019 qualitative study of one WA health service, which uncovered a prodromal crisis (Chapter 2) was used to track the pathway from the prodromal crisis to the crisis currently reported in the media (Cross, 2021; de Kruijff, 2021; Elton, 2021; Garvey, 2021; Hastie, 2021a, 2021b; Juanola, 2021). The findings of the 2019 study were published in three articles (Chapters 2, 3 and 4), with additional data analysis to inform this paper.

This article presents a model depicting the factors that link public hospital management to an escalating prodromal crisis. The theories of crisis management and autonomous adaptation have been used to understand how crises escalate. While other crisis management models illustrate the general steps of crisis escalation, (Boin & Lagadec, 2000; O'Sullivan, Kuziemy, Toal-Sullivan, & Corneil, 2013; Topper & Lagadec, 2013) few publications address the context of healthcare in crisis management theory to answer the research question: How effectively are Australian public health organisations managing the systemic crisis of employee stress reaction to a perceived uncongenial workplace?

Crisis Management Theory: New application of an old concept

Crisis management theory (CMT) was introduced in the 1980's (Al-Dabbagh, 2020; Fink, 1986). Development of the theory in the West has been neglected, despite its relative popularity in Russia (Vašíčková, 2020; Журавлев, Варкова, & Журавлев, 2020; Мерзликина, Рыльщикова, & Дубинина, 2018). CMT is the proactive process recommended by Fink (1986) and his contemporaries to prevent or mitigate the damage that a crisis can have on an organisation (Al-Dabbagh, 2020; Boin & Lagadec, 2000; Drennan, 2014; Flanagan, 2012; Kapucu & Ustun, 2018; Paccione-Dyszlewski et al., 2012; Vašíčková, 2020). The theory offers indicators to assist management in identifying an early-stage, or prodromal crisis, and strategies to guide management approaches towards successful mitigation of crisis situations regardless of their scale (Al-Dabbagh, 2020; Boin & Lagadec, 2000; Drennan, 2014; Fink, 1986, 2013; Flanagan, 2012; Kapucu & Ustun, 2018; Liff & Erickson, 2017). Mitigation of crises can occur on a macro level, such as by executives or government officials to handle a disaster situation, or on a micro level such as by patient-facing healthcare workers managing risk through self-organisation (St.Pierre, 2011).

Recently, risk management, and organisational resilience theories, which both contain the shared goal of harm reduction, have received greater focus due to their less-controversial labels and 'blue-sky' appeal to managers (Horton, 2015). Nonetheless, CMT offers concrete and empirically validated recommendations for the handling of unforeseen issues, and a structured understanding of their wider impacts in the future (Liff & Erickson, 2017).

CMT principles have been used in many cultural contexts, industries, and time-frames, from the Union-Carbide chemical leak in Bhopal (Ice, 1991) to the Five-Mile-Island radiation crisis (Yang, 2012) and more recently various countries' handling of public health approaches to the COVID-19 pandemic (Blecher, Blashki, & Judkins, 2020). Therefore, use of CMT as a theoretical framework for understanding how and why issues escalate can offer

knowledge for monitoring and management of factors that could negatively impact patient safety, staff wellbeing, and the sustainability of public healthcare organisations.

Autonomous Adaptation

Autonomous adaptation is a discretionary decision made by an agent, in this case healthcare staff, to problem-solve a situation or issue beyond the limits of established protocols (Beer, Chiel, & Sterling, 1990; Jeanpierre, 2011). Frontline clinician adaptations may also result from a long-term pattern of tacit or evolved behaviour (Smith, Kearney, & Merlat, 1999). The work of a hospital clinician is described as autonomous due to their ability to ‘...respond locally to the intra- and extra-organisational forces (they) experience.’ (Smith et al., 1999 p. 157). Autonomous agents can work both collaboratively and in a solitary manner to problem-solve and find the ‘path of least resistance’ towards achieving their goal.

The hospital working environment has been described as ‘interdependent and built around multiple self-adjusting and interacting systems’ (Plsek & Greenhalgh, 2001 p. 625). Through the collaboration of multiple self-adjusting agents, each performing autonomous adaptation, independent yet intersecting professionals can work around obstacles to provide patient care in an efficient, effective, and safe manner. While this behaviour contributes to the complexity of a healthcare system, it also contributes to a wider adaptive capacity that allows for complex systems to function (McDaniel, Lanham, & Anderson, 2009; Nugus et al., 2010; Pype et al., 2017). Autonomous adaptation by healthcare staff can fulfil a Safety II approach, which, instead of focusing on preventing errors (Safety I), aims to ensure the right care at all times (Hollnagel, 2017). This adaptation is an important factor of resilience engineering underlying Safety II (Hollnagel, 2017; Wears, 2015). The facilitation of organisation-wide adaptations is recommended to ensure continued operations in the event of a disruption (Fairbanks et al., 2014; Haavik, Antonsen, Rosness, & Hale, 2016; Hollnagel, 2017; Sujan et al., 2017; Uema, Kitamura, & Nakajima, 2020).

When disruptions are continuous, or adaptations fail to adequately mitigate the disruption, healthcare workers experience increased levels of stress and exhaustion (Hutchinson & Purcell, 2010; McCann, Granter, et al., 2015; Newdick & Danbury, 2015; Petrakaki & Kornelakis, 2016). This may be attributed to the fact that some autonomous adaptations require additional effort to perform, such as working unpaid overtime to cover rostering deficits or increased workloads (McCann, Hassard, Granter, & Hyde, 2015; Scott, 2005). As Sujan et al. (2017) pointed out, increases in variability, such as multiple teams covering multiple gaps, can prompt a pattern of dysfunctionality that spreads and reinforces itself across a system. The long-term consequences of autonomous adaptation are not known, but authors hypothesise that patient safety may be at risk when adaptations deviate from hospital protocol (Anderson. et al., 2017; Braithwaite, 2015; Debono et al., 2013; Sujan et al., 2017). Therefore, autonomous adaptations by staff to the disturbances they perceive may be a contributing factor to healthcare crises.

An additional gap in the literature concerns how the healthcare hidden curriculum may inform autonomous adaptation, as a series of assumptions and knowledge shared between members of a group or team (Maynard, McGinn, & Knights, 2018). If patient-facing staff are self-adjusting agents who implement tacit or evolved behaviours (Smith et al., 1999), then it can be assumed that the hidden curriculum may play a role in determining which behaviours are reinforced. Thus, understanding the hidden curriculum in a healthcare team may inform knowledge of how, and why, patient-facing workers make adaptations in their workplace.

Materials and Methods

Secondary data were collected in 2021 from a retrospective sample of publicly accessible news articles spanning 2019 to April 2021. Following COREQ (Tong, Sainsbury & Craig, 2007), primary data were collected in 2018 and 2019, through semi-structured interviews

with patient-facing public healthcare workers from a single health service in Perth, Western Australia. A detailed description of the qualitative interview methods has been published elsewhere (Chapters 2, 3 and 4). A summary is provided here.

Secondary Sources Data Collection

Newspaper articles and transcripts of television news reports were systematically retrieved from open-access news outlets in Australia. The scope of the search included articles that reported on Western Australian hospitals between January 2019 and June 2021. The 30 news outlets sampled for these articles were a range of publishers, including online tabloid news sites such as News.com.au, and traditional print outlets such as the Sydney Morning Herald.

The search started with a broad search of ‘WA Hospitals’ in major news outlets, using databases such as Informit, and the newspaper websites directly. Search terms included ‘Crisis’, ‘Hospital’, ‘Perth’, ‘Western Australia’ and ‘WA’. All articles from 2019 to 2021 that addressed the topic of public hospitals in Western Australia were included. Duplicate articles, such as those cross-posted between news outlets, were excluded.

Interview Data Collection

Sampling was purposive and snowball, targeting teams of patient-facing workers in the Emergency, Surgery, and Psychiatry departments across two hospital sites. Some staff who participated also held contracts at other health services across the state. These participants suggested that their experiences were not unique to the service studied. Our approach aimed to collect perspectives from junior and senior, nursing, medical, allied health, and frontline administrative staff. Participation was voluntary, in accordance with the Human Research Ethics Approval granted by the health service. The interview questions relevant to this paper included structured prompts such as, ‘Please describe your workload’, ‘How reasonable is it?’, ‘How often do you have to ‘stay back’ or bring work home to complete it?’, and ‘If you can’t finish your tasks at work, what happens?’.

The two interviewers were an academic clinician (KK) and a management-trained researcher (MK). A third researcher (SL) independently checked their work for consistency.

Analysis

Analysis was multi-step and multi-layered, using an approach similar to Rasmussen, Muir-Cochrane, and Henderson (2012) for thematic document analysis of qualitative data. NVIVO Qualitative software was used to manage the interview transcripts and publicly available news articles.

Transcript coding was conducted on two levels, semantic and latent, to identify spoken and unspoken assumptions expressed during interviews (Braun, Clarke, Hayfield, & Terry, 2019). Transcript coding took two iterations; deductive, and inductive. The dual-iteration approach to coding allowed us to compare established theories to collected data, and to enable the exploratory project to potentially reveal links to new theories that might have been overlooked in the project's design. The data used in this paper were associated with CMT (Fink, 1986; Flanagan, 2012; Kapucu & Ustun, 2018), workarounds (Debono et al., 2013; Tucker, Zheng, Gardner, & Bohn, 2020), and indicators of personal resilience (Anderson, Ross, Macrae, & Wiig, 2020; Connor & Davidson, 2003; Smith et al., 2008). For example, CMT coding was used to first identify whether participant descriptions met the criteria of a crisis situation. Following this, the writings of Fink (1986), Millar and Heath (2003) and Lalonde and Roux-Dufort (2010) guided the more in-depth analysis of the crisis situation's escalation. Following the interview transcript coding, the inductively-generated codes for CMT were applied to the news articles and transcripts to identify if similar themes were reported by journalists.

Results

Media Analysis

The search for secondary sources of news media reporting on Western Australian Hospitals from 2019 to 2021 yielded 74 articles by journalists from The West Australian, ABC News, 7News, 9News, and WA Today. They contained frequent discussion on the efforts of patient-facing staff who worked in difficult conditions, and their concern over patient and worker safety at WA hospitals. The articles reported that risks had been communicated to the health service executive at a number of hospitals, requesting support for safe patient care and reduction of the burden of clinical overwork. The number of articles was low in 2019 (n = 2), and 2020 (n = 5), increasing substantially in 2021 (n=67). The presence of the high number of articles centred on Western Australian Hospitals in ‘crisis’ in 2021 satisfied the crisis indicator of ‘intense media scrutiny’ (Fink, 2013).

The news media reported the tragedy of a preventable patient death in March 2021, with healthcare staff from around the State staging a protest with the patient’s family to demand better support from their hospitals’ leadership (Hastie, 2021b). The volume of news articles focused on incidents of patient harm increased as families with similar stories came forward (Elton, 2021; Hastie, 2021a). Media reports suggested the death of the patient had shaken community faith in the public hospital system, evidenced by public calls for the State Health Minister to resign (National Indigenous Times Editorial Team, 2021).

The news media reported quotes from members of the community on the issues they believed were present in the State health system. A nurse told a reporter that, ‘We’ve predicted this exact scenario [the patient death], almost down to the last detail [...] and nobody listened... we’ve actually spoken to the executive for years, there’s a paper trail for years’ (Hastie, 2021b). In State parliament, the opposition health spokeswoman added to the discussion, commenting on the understaffing that was believed to contribute to the patient death saying, ‘we know our healthcare workers are already carrying an increased workload, with staff being asked to work multiple shifts to fill staff shortages to keep our public health

system working' (de Kruijff, 2021). The articles criticised the lack of action by hospital executives and the state government towards addressing understaffing and resource shortages that led to frequent bed block alerts, and long waits to receive medical attention in Emergency departments. Emergency medicine spokesman, Dr Mountain, was reported to say, '...for some reason, that seems to be acceptable to people who are maybe a bit more focused on budgets than they are on patient outcomes' (Cross, 2021). The level of conflict suggested by Dr Mountain was reinforced by the Australian Medical Association (AMA), which reported hospital executives to the Australian Health Practitioner Regulation Agency (AHPRA) for their role in the crisis (Australia Associated Press (AAP), 2021).

Analysis of Interview Transcripts

Patient-facing staff interviews totalled 73 by the close of data collection in October 2019. There was an even spread of participants from the Emergency and Psychiatry departments, with fewer participants volunteering from the Surgical department. Discussions often evolved from the prompts to discuss participant feelings about their workload, experiences of stress in the workplace, and discussions on how these experiences were perceived to impact co-workers and patients. Anecdotes of participants were consistent with the indicators of a crisis as written by Fink (1986), comprising 1) participating staff perceptions that management were unable or unwilling to address a prodromal crisis, 2) a prodromal situation escalating in intensity, and 3) the escalating risk of patient or staff harm. The data related to each of these indicators is outlined below.

1. Management unwilling or unable to address a prodromal crisis

Patient-facing clinical staff were dissatisfied with the action of middle managers. Middle managers were regularly perceived to be incompetent, and not fit for the needs of healthcare;

[Manager] was a f***ing moron who only got promoted because [they weren't] allowed to have clinical contact. You can quote me on that, the problem with the

hospital is rather than firing people when they f**k up, they move them to f***ing non clinical [roles] and then they become managers where they can seriously f**k the whole system. (Participant 39)

laughing No, [management] don't know what they're doing. (Participant 14)

I think that [management] ... want things to look good and justify their own jobs first. It's like- I think if anyone's job is mostly coordinating, then the job is probably just bulls**t. (Participant 12)

The negative perceptions of management were informed by clinical staff experiences of a lack of support for safe clinical work. Prodromal crises involving patient safety were reported as being dismissed by middle management, such as the near-miss cases that staff said they had reported to management;

So our [incident reports increased] ...and once that happened I started getting asked by management, 'what's going on with this?'. I got pulled in for a meeting with the directors. And they just brushed it off. [...] But, my plan was to have it documented somewhere, just to demonstrate if something major did happen one day, I had the evidence to suggest that it was an ongoing issue. It was more to protect *us* from what may eventually happen... (Participant 67)

Middle and executive management were described as motivated by cost-cutting strategies, rather than strategies with a long-term sustainability benefit for the service. One example provided was the routine removal of educational staff, which began to erode the availability of experienced staff in the Emergency department;

...they cut the education budget and we lost half our education staff [...] which was devastating. So the onus is then on the [seniors] to do the education. And it's also up to [seniors] to role-develop [...] Again, in a busy department...I love teaching. [...]

...but...I haven't got time to teach them. I haven't got time to run them through the procedures. If staff don't get educated then they don't rise up through the ranks as quickly as they should be, so when I'm trying to [perform role], I don't have skilled staff to put in those roles. The cut in education is something that directly impacts the knowledge bases. (Participant 21)

When participants were asked if their managers had given a rationale for staffing cuts, the response always returned to reducing the budget. In some instances, new workers were not actively recruited to fill a position despite staff requests, so that the workload would be distributed among remaining staff more affordably;

I kept being promised that the [clinician] position would be filled ...if you leave it open long enough, you lose it. They deliberately did that. I was horrified that it was even a strategy. Why would you do it? *Participant appeared mortified* (Participant 27)

Participants described that they felt their morale eroding as they understood that the budget-driven lack of access to staff and resources would require their additional efforts and adaptations to maintain safe patient care.

2. Prodromal situation escalating in intensity

The resource shortages and safety issues that clinical staff perceived to be ignored by middle and executive-level managers, required staff to increase their workload and hours worked. Over time, this added burden began to erode the employee's wellbeing as insufficient rest, heightened risk, and work stress became routine. Most participants discussed the risks of overwork and stress as a result of needing to cover staffing gaps for safe patient care;

There is a massive increase in unplanned leave and GP signed-off stress leave and worker's compensation for stress. (Participant 54)

We haven't got any more staff to deal with it. [...] We're down a nurse in [location] to deal with [another location] because it wasn't safe. It's an absolute mess.

(Participant 18)

Early indicators of clinical staff reaching the limits of their personal resilience was an increase in sick leave;

We have people off every shift...we're down. Either they're sick, or there's staffing issues. We can't get [temporary staff to fill in]. Then you go and ask if anyone can do overtime. [...] ... they work ridiculous hours. They're burnt out. So then they're the ones calling in sick, and everyone else is trying to cover. (Participant 21)

As discussed by Participant 21, increasing numbers of staff taking sick leave reduced the staff-to-patient ratio available on a shift. Yet, staff were taking increased sick leave because they were overworked; a situation exacerbated by understaffing and the stresses of working in a risky environment.

3. The escalating risk of patient and staff harm

Clinical staff explained that they understood the dangers of working while tired, which impacted their wellbeing, as well as patient safety;

We put our barriers up around us, it comes and goes, it keeps us sane. The incidents that come through; it's not often, but they get through when I'm tired. (Participant 15)

An end-state of staff withdrawal from the workplace involved an issue called work refusal, whereby a staff member who was rostered to work refused to attend their workplace.

Participant 20 offered some context to the issue;

...they can be very well-trained and very experienced...and then occasionally, something happens and they hit work refusal. [...] I know...probably four or five

people this has happened to. They just suddenly...relatively minor appears to happen and that's it. They won't come to work. They have this work refusal. ...they just sort of get overwhelmed by the potential risk of what they're doing... (Participant 20)

Unwilling to experience the consequences of working while fatigued and stressed, clinical staff described others as quitting their profession and seeking a new career. Senior clinicians who participated in the study recounted the erosion of experienced workers due to career attrition with disappointment, as they felt that the high levels of sick leave and employee turnover in their departments was preventable. Yet, they had little optimism that middle and executive management would take action to ensure adequate staffing and hospital resources to facilitate safe provision of patient care;

...it's so far past how long people are supposed to work it isn't funny. It's not even optional, everyone is supposed to do it. Look, someone is going to die from that sometime, some patient is going to be treated by a doctor who should be asleep. (Participant 38)

If you're not resilient, you're going to die. That's basically it. (Participant 50)

So many people say 'how soon until someone dies in a corridor before they give us more staff?', that's what they feel like is going to happen. (Participant 18)

Discussion

Media reports and interviews with patient-facing staff indicated that a crisis had developed in the studied public hospital system. Together with analyses reported in Chapters 2, 3, and 4 of a prodromal crisis, these findings are consistent with crisis management theory, suggesting that the crisis' development may have been predictable for a number of years.

The crisis was marked by repeated requests over several years, for management to address issues of understaffing and uncongenial work. Clinical staff discussed their concerns for patient safety on wards with insufficient numbers of experienced staff and high workload burden. Their relationships with middle management had become adversarial (Kendrick et. al., 2021) because of their perception that the health service's management were not adequately responding to their warnings (Chapters 3 and 4).

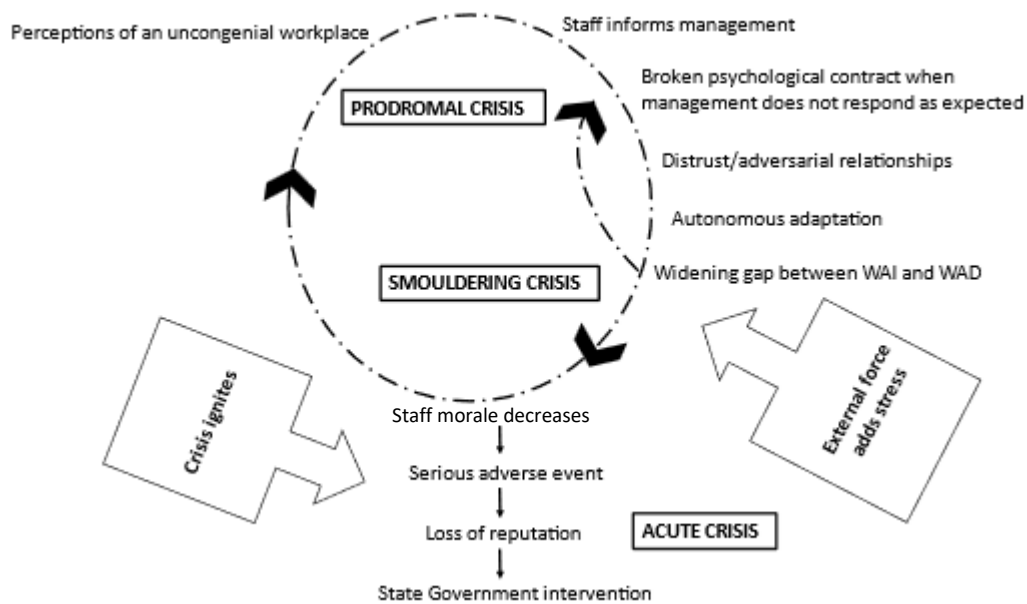
In 2021 a patient died in a WA health service, in circumstances similar to the preventable concerns (Mansfield & Perpetch, 2021) that study participants identified in 2019 (Chapter 2). These included frequent reports of hospitals at capacity, and staff and patient dissatisfaction with the quality of care provided (Hastie, 2021b; Mansfield & Perpetch, 2021).

This supported the propositions of Fink (1986) and Millar and Heath (2003) that few crises are a genuine surprise to the management of organisations. Often, the governance systems in place for co-ordination and communication of strategy will feedback the requisite information to intervene in a prodromal crisis situation (Bowie, 2010; Morag et al., 2012). However, action in response to this feedback is not frequent (Cleary & Duke, 2019; Millar & Heath, 2003). Our analysis identified the complex factors that may contribute to this phenomenon, such as inadequate managerial education and staff adaptation away from management influence in the workplace, which was reported in Kendrick et. al. (2021).

Based on our analysis we hypothesise that the journey from a prodromal crisis, through a smouldering crisis to an acute crisis reported in the media, may have been influenced by a series of escalations. Figure 1 outlines this hypothesised escalation and is discussed in detail below.

Figure 1 – The Crisis Escalation Model

WAI = Work-as-Imagined. WAD = Work-as-Done.



Progression from Prodromal, to Smouldering, to an Acute Crisis

1- Perceptions of an uncongenial workplace

The prodromal factor that initiated the crisis in the health service involved staff experiences of a normal stress reaction to an uncongenial work environment. Stressors additional to routine clinical work, such as clerical burden (Shanafelt, Dyrbye, Sinsky, et al., 2016) or negative interpersonal interactions (Brown et al. 2021), can be endured short-term (Lipkin & Jr, 2002). However, when they are present for an extended period, they can cause uncongeniality to become embedded in the working environment. Staff then report a normal stress reaction to an uncongenial workplace (Kendrick et. al., 2020). This stress was most common among patient-facing staff in the middle of the hierarchy, and this was largely a consequence of their perceived inability to provide the quality of care they felt they should be providing. These findings are consistent with current research that has found a relationship between episodes of missed care and powerlessness and stress among nurses (Kalisch, Landstrom, & Hinshaw, 2009; Ronnie, 2019).

2- *Middle management is informed of the uncongeniality*

Patient-facing staff indicated that they had attempted to communicate with their middle managers about the uncongeniality they experienced. As reported by Fink (1986) and Millar and Heath (2003), there are often clear warning signs at the prodromal crisis stage. It was apparent that the participating staff felt that they had offered the organisation advance warning of the crisis, but the managers were unwilling or unable to address the prodromal factors. These findings are consistent with a previous study that found a relationship between clinician perceptions of the lack of hospital management action, frustration among the clinicians, and a loss of management credibility (Moore & Buchanan, 2013). This lack of response was perceived to further add to the uncongeniality of the workplace.

3- *Staff perceive broken psychological contracts with middle management, who fail to address the reported uncongeniality.*

Patient-facing staff indicated that management did not respond to their communications as expected (Chapter 4). Middle management inaction following requests for assistance or resources was perceived to violate patient-facing staff psychological contracts. Hastie (2021b) suggested that communication is made with the expectation of a response to act and/or assist. Staff perceived that this lack of action limited their ability to provide patient care, and therefore was inconsistent with their psychological contract with the health service. This is consistent with studies which have identified that nurses experience major psychological contract breach with their organisation when overwhelmed by their workload (Pillay, 2009; Ronnie, 2019). Importantly, Ronnie (2019 p. 1435) found that these nurses reported that ‘their core purpose of serving the patient was undermined’ as a key aspect of their perceptions of broken psychological contracts. This is consistent with our findings that staff perceived that their middle managers did not support the provision

of safe, high-quality care, thereby violating their psychological contract with the organisation as outlined in Chapters 2, 3 and 4.

4- Staff distrust influences adversarial relationships between clinicians and their managers.

Following from the experience of management failing to act as expected on communicated warning signs, clinical staff reported the evolving hidden curriculums of their clinical teams (Kendrick et. al., 2021). This hidden curriculum comprised a general lack of respect for middle management, illustrated by the data outlining the perception that management was unwilling or unable to address the prodromal factors presented in this paper. Previous studies have suggested that employees make attributions about the cause of management inaction, deciding that management is either unwilling or unable to respond, and therefore cannot be trusted to do so in the future (Cole, Bruch, & Vogel, 2006; Stanley, Meyer, & Topolnytsky, 2005). Our data confirmed that patient-facing staff believed their managers lacked the ability, and therefore did not fit with the needs of the health service.

There is substantial evidence of adversarial relationships between clinicians and managers (Amos, 2019; Bunderson, 2001; McDermott & Keating, 2011). Our findings suggest that these relationship difficulties are related to a loss of trust, which has been similarly found by Donnelly (2012) and S. Hutchinson and Purcell (2010). It is at this point that the prodromal crisis began to smoulder, because of the growing staff distrust and lack of respect for middle management (Chapters 3 and 4).

5- Staff begin autonomously adapting away from middle management.

The phenomenon where clinical staff begin to autonomously adapt away from management is well evidenced in the literature (McDermott, Fitzgerald, Van Gestel, & Keating, 2015; McDermott & Keating, 2011; Uema et al., 2020). The establishment of self-directed clinical hierarchies, while helping to reduce staff stress from the perceived

uncongenialities, intensified the adversarial behaviour manifesting between clinicians and their middle managers (Kendrick et. al., 2021). Healthcare workers preferring to work to self-directed targets were similarly reported by Allard and Bleakley (2016) and Grima et al. (2020). Adaptation through self-directed hierarchies involved ignoring middle management communication, developing independent clinical protocols, and withholding information in the belief that focusing on patient care activity was the safest course of action amidst the experiences of uncongeniality (Kendrick et. al., 2021). Staff autonomous adaptation to focus on patient care activity to the exclusion of other organisational priorities may succeed for a time, fulfilling a Safety II approach (Hollnagel, 2017). However, as outlined below, this may increase the risk to safe patient care over time as frontline work deviates from expected policies and procedures.

6 - Widening gaps between work-as-imagined (WAI) and work-as-done (WAD).

Widening gaps between work-as-imagined by middle management that is informed by organisational policies and procedures, and work-as-done by patient-facing staff through their self-directed clinical hierarchies, can result in inappropriate decisions made by middle management. Furthermore, if staff practices become too distanced from organisational policies and procedures, patient-facing staff also risk inappropriate decision-making (Braithwaite, 2015; Kellogg & Fairbanks, 2018).

Effective safety II and crisis management strategies require clear communication and middle management familiarity with frontline activity (Bowers et al., 2017; Einwiller, Laufer, & Ruppel, 2017; Fink, 2013; Stark, 2014). The adversarial nature of the clinician and manager communication blockage suggests that middle managers may not have the necessary information on how the work is being done. For example, middle managers may erroneously assume that frontline healthcare workers can repeatedly absorb additional workload at short notice (McCann, Hassard, et al., 2015; Soliman & Saurin,

2020). By not understanding WAD and relying on WAI, middle managers do not have the knowledge needed to make efficacious staffing decisions. In healthcare, clinical teams comprise a range of specialities and skillsets, which cannot always be redistributed after downsizing (Donnelly, 2012; McCann, Hassard, et al., 2015; Soliman & Saurin, 2020). As a consequence of this gap between WAI and WAD, middle managers may be perceived to make decisions without adequate consultation (Clay-Williams, Ludlow, Testa, Li, & Braithwaite, 2017; Jacob, Sanchez-Vazquez, & Ivory, 2020; Wade, Elliott, & Hiller, 2014). This may further alienate staff, particularly if management decisions are also perceived to exacerbate the uncongenialities causing stress (Donnelly, 2012; Khasawneh, Malkawi, Ababneh, Al-Araidah, & Kremer, 2021). This process intensifies patient-facing staff's perception of their managers' poor-fit with their needs. A feedback loop may then begin, whereby adversarial behaviour increases the more middle managers violate psychological contracts with staff and prevents middle managers from making informed decisions which impact the front lines (Chapters 2, 3 and 4). It is at this point where a smouldering crisis may become embedded and an iterative process may cycle through the first six stages, intensifying each time the experience is repeated. Fink and others warn that an embedded crisis is more difficult to resolve than a prodromal crisis (Boin & Lagadec, 2000; Christensen et al., 2016; Fink, 1986; Fink et al., 1971; Ketchen, 2014; Marchal, Dedzo, & Kegels, 2010).

7- External forces add strain to the system, weakening staff ability to adapt.

When external forces add strain on the system, staff adaptations begin to falter (Kakemam, Chegini, Rouhi, Ahmadi, & Majidi, 2021; O'Donovan & McAuliffe, 2020; Shanafelt, Ripp, & Trockel, 2020; Shepherd, 2020). In the case of hospital systems in 2021, this strain took the form of an additional workload as the result of a global pandemic, and the additional understaffing arising from a loss of international workers

(Holton et al., 2021; Lasater et al., 2020; Man et al., 2020). This external stress has the potential to negatively impact any organisation, but likely had greater impact because of the existing prodromal crisis.

External forces do not have to be outside the organisation. They can be any force external to the self-directed hierarchy at the frontline, such as management-led change strategies (Basu, Harris, Mason, & Norman, 2019; DesRoches, Worzala, Joshi, Kralovec, & Jha, 2012). Teams or groups of employees create a local working environment, which can become destabilised by external forces (Becker, 2013; Hallier & Leopold, 1996). These external forces add stressors to those who attempt to adapt around existing uncongenialities.

8- *Staff morale decreases.*

As reported in Chapters 3 and 4 the perceptions of poor-fit management, stress from the perceived uncongenial workplace, and increased strain from the external forces, erodes the morale of staff. Lowered morale exhibits in increased turnover and rates of sick leave (Bunderson, 2001; Frederiksen, 2017; Pierce & Snyder, 2015; Shacklock et al., 2014).

Following the intensification of work strains, understaffing, and lowered morale, warnings of the risk to staff and patients are often escalated (Cleary & Duke, 2019; Kesselheim et al., 2011; Newdick & Danbury, 2015). Despite staff preference to work in self-directed clinical hierarchies that limit management communication (Kendrick et. al., 2021), as outlined in the data related to the escalating risk of patient and staff harm above, clinicians understand the risks of the situation and continued communicating warnings to middle management. Participants suggested these warnings were also a protective measure against blame from management if risk intensification later resulted in harm. Clinicians spoke as if they had lost faith in management's ability to respond in a way that would prevent patient harm (Chapter 4) and wanted a record of their attempts to address

the risk. Concerns such as *'how soon until someone dies in a corridor before they give us more staff?'*, become more frequent.

To reiterate the points of Fink (1986) and Millar and Heath (2003), crises are never unexpected, but often present with numerous warning signs. The media reported that this stage took the form of senior clinicians meeting directly with their hospital executive, which can be a means of last resort after extended periods of management inaction (Garvey, 2021).

9- *The smouldering crisis 'ignites', becoming acute.*

Without the requisite response from the executive to mitigate the uncongenialities causing risk to staff and patients, harm is likely to occur. This was exemplified in May 2021 when, in the months following the senior clinicians' reports to their executive, staffing levels were not improved (Hastie, 2021b). Unsupported junior staff were then unable to properly attend to a patient who rapidly deteriorated in an Emergency department (Mansfield & Perpetch, 2021). This is the acute crisis identified by loss of life, media scrutiny, and damage to reputation as per the indicators of a crisis written by Fink (1986).

10- *Reputation loss requiring crisis resolution effort from State government and hospital leadership*

Once a crisis situation escalates beyond local control, higher level leadership is required to intervene (Marchal et al., 2010; Pearson et al., 2007; Topper & Lagadec, 2013; Vanvactor, 2011). With similar issues identified by corroborating evidence across the State (Hastie, 2021a, 2021b), it is reasonable to categorise this crisis as beyond local control. In 2021 the State Minister for Health, the Premier, and the executives of the hospital made public statements responding to staff and union criticism of their leadership. Public criticism of their work during the smouldering stage of the crisis emphasised its preventable nature, and the community demands for its quick resolution

(Cross, 2021; Hastie & Cross, 2021; National Indigenous Times Editorial Team, 2021; Perpetch, 2021). The community and unions demanded immediate responses, requiring a quick response from State leadership. Fink (1986, 2013) has stressed that there is plenty of time for action at the prodromal stages, but this time is reduced once a crisis becomes acute.

Implications for Public Management

In response to the research question, this study suggests that the WA health system has not been effective in managing the crisis of patient-facing staff stress reactions to an uncongenial workplace. Of concern, the study has identified, from the perspectives of the frontline staff, the role the managers played in exacerbating the prodromal crisis. It would be difficult for managers to address the risks of patient and staff harm in their organisation when an antecedent factor concerns some of their own influences in the workplace. To address this antecedent factor, resilience engineering could be adopted as a management strategy (Anderson et al., 2020; Hollnagel, 2017), ensuring appropriate support for frontline staff within a complex adaptive system (Fink, 1986; Sujan et al., 2017). This involves active monitoring of frontline conditions, to reduce gaps between work-as-imaged and work-as-done, a no-blame safety culture for reporting incidents and near-misses, and pro-active intervention against prodromal crises before they escalate (Al-Dabbagh, 2020; Boin & Lagadec, 2000; Christensen et al., 2016; Kapucu & Ustun, 2018; Lalonde & Roux-Dufort, 2010). The model included in this article offers six points where a manager can intervene to stop the iterative cycles within a prodromal crisis to prevent escalation to a smouldering crisis. One such point potentially involves management comparing the data outlined in organisational performance and risk reports with the warnings of staff, to appropriately respond to their communications of risk. Intervening at this early stage of a crisis is consistent with other authors' perspectives, who have stressed the need for healthcare managers to

respond appropriately to communications made by their staff (Cleary & Duke, 2019; McCabe & Sambrook, 2013). A second example involves closing the gap between work-as-imagined and work-as-done, through clear consultation with frontline staff using activities such as effective ‘rounding’ exercises (Kelly, 1996).

The more a crisis situation escalates, the more challenging and therefore expensive it will be to resolve. If hospital leaders attempt to downplay or ignore an acute crisis, it can progress further to a chronic crisis, as defined by Fink (1986). The further the crisis is allowed to escalate, the greater the damage will be to the health service’s reputation, media presence, staff, and patients, than if addressed at any earlier point (Allen, 2011; Boin & Lagadec, 2000; Boin & McConnell, 2007; Christensen et al., 2016; Coombs & Laufer, 2018; Drennan, 2014; Erkens, Hung, & Matos, 2012). The crisis escalation model offers healthcare managers a reference to recognise, monitor and intervene to control a prodromal crisis in their organisations. With greater awareness of how a prodromal crisis may manifest, healthcare managers can take steps towards timely mitigation.

Limitations to this study concern the lack of a manager’s perspective towards the issues discussed in the paper. Thus, a key part of analysis which was based on patient-facing staff perceptions could be subject to bias. However, the use of secondary media sources triangulated with the qualitative findings increased the trustworthiness of the results. The components of our analysis are consistent with reports for health systems around the world, assisting with the generalisability of the results from a single public health system.

Conclusion

The WA public health system is reported to be in a crisis that has escalated over an extended period of time, marked by frontline staff warnings and management inaction. Although exacerbated by a global pandemic, data gathered in 2018 and 2019 identified a

prodromal crisis which suggested that the crisis of patient-facing staff stress reactions to an uncongenial workplace has not been effectively managed. The authors have developed an evidence-based crisis escalation model for identification of the stages of a developing crisis in public healthcare to assist in mitigating crises before they escalate. This model may help prevent future incidents of patient harm and improve staff morale through understanding the stages that lead to adversarial relationships between clinicians and managers, widening gaps between work-as-imagined and work-as-done, and the point where a smouldering crisis can ignite.

Acknowledgements

This study was funded by an Australian Government RTP Scholarship. The authors wish to express their gratitude to the individuals who participated in the project, many of whom continue to work in the studied health service.

Declaration of Interest Statement

The authors have no conflicts of interest to declare.

References

- Al-Dabbagh, Zeyad S. 2020. "The Role of Decision-maker in Crisis Management: A qualitative Study Using Grounded Theory (COVID-19 Pandemic Crisis as A Model)." *Journal of Public Affairs* 20 (4):n/a. doi: 10.1002/pa.2186.
- Allard, Jon, and Alan Bleakley. 2016. "What Would You Ideally Do if There Were No Targets? An Ethnographic Study of the Unintended Consequences of Top-Down Governance in Two Clinical Settings." *Theory and Practice* 21 (4):803-817. doi: 10.1007/s10459-016-9667-8.
- Allen, Julia. 2011. "Measures for Managing Operational Resilience." *EDPACS* 44 (6):1-6.
- Amos, Andrew. 2019. "Slow Crisis in the Emergency Department: Bed Block and Human Rights." *Australasian Psychiatry* 27 (1):6-7. doi: 10.1177/1039856218818316a.
- Anderson, J. E., A Ross, and P Jaye. 2017. "Modelling Resilience and Researching the Gap between Work-As-Imagined and Work-As-Done." In *Resilient health care. Volume 3, Reconciling work-as imagined and work-as-done*, edited by Jeffrey Braithwaite, Robert L. Wears and Erik Hollnagel. Boca Raton, Florida.
- Anderson, J. E., A. J. Ross, J. Back, M. Duncan, P. Snell, K. Walsh, and P. Jaye. 2016. "Implementing Resilience Engineering for Healthcare Quality Improvement Using the CARE Model: A Feasibility Study Protocol. (Report)." *Pilot and Feasibility Studies* 2 (1).
- Anderson, J. E., A. J. Ross, C. Macrae, and S. Wiig. 2020. "Defining Adaptive Capacity in Healthcare: A New Framework for Researching Resilient Performance." *Applied Ergonomics* 87:103111. doi: <https://doi.org/10.1016/j.apergo.2020.103111>.
- Australia Associated Press (AAP). 2021. "Unions Raise WA Hospital Stoush Tensions in Wake of Aishwarya Aswath's Death." *The West Australian*. <https://thewest.com.au/news/health/unions-raise-wa-hospital-stoush-tensions-c-2913210>.
- Basu, Subhashis, Angela Harris, Sue Mason, and Joseph Norman. 2019. "A Longitudinal Assessment of Occupational Stress in Emergency Department Nursing Staff." *Journal of Nursing Management* 28(1): 167-174. doi: 10.1111/jonm.12910.
- Becker, Wendy S. 2013. "Starting New Team Operations: Lessons from Greenfield Managers." *Team Performance Management: An International Journal* 19 (1/2):72-86.
- Beer, Randall D., Hillel J. Chiel, and Leon S. Sterling. 1990. "A Biological Perspective on Autonomous Agent Design." *Robotics and Autonomous Systems* 6 (1):169-186. doi: 10.1016/S0921-8890(05)80034-X.
- Blecher, Gabriel Elan, Grant A. Blashki, and Simon Judkins. 2020. "Crisis as Opportunity: How COVID-19 Can Reshape the Australian Health System." *Medical Journal of Australia* 213 (5):196-198.e1. doi: 10.5694/mja2.50730.
- Boin, Arjen, and Patrick Lagadec. 2000. "Preparing for the Future: Critical Challenges in Crisis Management." *Journal of Contingencies & Crisis Management* 8 (4):185.

- Boin, Arjen, and Allan McConnell. 2007. "Preparing for Critical Infrastructure Breakdowns: The Limits of Crisis Management and the Need for Resilience." *Journal of Contingencies & Crisis Management* 15 (1):50-59.
- Bowers, Melissa R., J. Reggie Hall, and Mandyam M. Srinivasan. 2017. "Organizational Culture and Leadership Style: The Missing Combination for Selecting the Right Leader for Effective Crisis Management." *Business Horizons*. 60(4), 551-563
- Bowie, Paul. 2010. "Reporting and Learning From Harmful Incidents." *Practice Nurse* 40 (9):38-41.
- Braithwaite, Jeffrey. 2015. "Bridging Gaps to Promote Networked Care Between Teams and Groups in Health Delivery Systems: A Systematic Review of Non-Health Literature." *BMJ Open* 5 (9). doi: 10.1136/bmjopen-2014-006567.
- Braun, Virginia, Victoria Clarke, Nikki Hayfield, and Gareth Terry. 2019. "Thematic Analysis." In *Handbook of Research Methods in Health Social Sciences*, edited by Pranee Liamputtong, 843-860. Singapore: Springer Singapore.
- Bunderson, J. Stuart. 2001. "How Work Ideologies Shape the Psychological Contracts of Professional Employees: Doctors' Responses to Perceived Breach." *Journal of Organizational Behavior* 22 (7):717-741. doi: 10.1002/job.112.
- Christensen, Tom, Per Laegreid, and Lise H. Rykkja. 2016. "Organizing for Crisis Management: Building Governance Capacity and Legitimacy." *Public Administration Review* 76 (6):887-897.
- Clay-Williams, Robyn, Kristiana Ludlow, Luke Testa, Zhicheng Li, and Jeffrey Braithwaite. 2017. "Medical Leadership, a Systematic Narrative Review: Do Hospitals and Healthcare Organisations Perform Better When Led by Doctors?" *BMJ Open* 7 (9):e014474-e014474. doi: 10.1136/bmjopen-2016-014474.
- Cleary, Sonja, and Maxine Duke. 2019. "Clinical Governance Breakdown: Australian Cases of Wilful Blindness and Whistleblowing." *Nursing Ethics* 26 (4):1039-1049. doi: 10.1177/0969733017731917.
- Cole, Michael S., Heike Bruch, and Bernd Vogel. 2006. "Emotion as Mediators of the Relations Between Perceived Supervisor Support and Psychological Hardiness on Employee Cynicism." *Journal of Organizational Behavior* 27 (4):463-484. doi: 10.1002/job.381.
- Connor, Kathryn M., and Jonathan R. T. Davidson. 2003. "Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC)." *Depression and Anxiety* 18 (2):76-82.
- Coombs, W. Timothy, and Daniel Laufer. 2018. "Global Crisis Management – Current Research and Future Directions." *Journal of International Management* 24 (3):199-203. doi: <https://doi.org/10.1016/j.intman.2017.12.003>.
- Cross, D. 2021. "'Delays Mean Deaths': Doctors Warn 'Disasterous' State of WA Hospitals Leading to Hundreds of Patients Dying." *WA Today*. <https://www.watoday.com.au/national/western-australia/delays-mean-deaths-doctors-warn-disastrous-state-of-wa-hospitals-leading-to-hundreds-of-patients-dying-20210325-p57e12.html>.

- De Jager, Peter. 2003. "Poor Management Is a Key Source of Stress." *ComputerWorld Canada* 19 (15)
- de Kruijff, P. 2021. "Burnout Warning In WA's Under-Pressure Hospitals as Staff Leave Blows Out." *WA Today*. <https://www.watoday.com.au/national/western-australia/burnout-warning-in-wa-s-under-pressure-hospitals-as-staff-leave-blows-out-20210609-p57zhh.html>.
- Debono, Deborah, David Greenfield, Joanne Travaglia, Janet Long, Deborah Black, Julie Johnson, and Jeffrey Braithwaite. 2013. "Nurses' Workarounds In Acute Healthcare Settings: A Scoping Review." *BMC Health Services Research* 13:175.
- DesRoches, Catherine M., Chantal Worzala, Maulik S. Joshi, Peter D. Kralovec, and Ashish K. Jha. 2012. "Small, Nonteaching, And Rural Hospitals Continue To Be Slow In Adopting Electronic Health Record Systems." *Health Affairs* 31 (5):1092-1099. doi: 10.1377/hlthaff.2012.0153.
- Donnelly, Tina. 2012. "'Boost Patient Outcomes by Giving Nurses the Time to Care'." *Nursing Times* 108 (42):7.
- Drennan, Lynn T. 2014. *Risk and Crisis Management in the Public Sector*. edited by Allan McConnell and Alastair Stark. Florence: Florence : Taylor and Francis.
- Dzau, Victor J., Darrell G. Kirch, and Thomas J. Nasca. 2018. "To Care Is Human — Collectively Confronting the Clinician-Burnout Crisis." *New England Journal of Medicine* 378 (4):312-314. doi: 10.1056/NEJMp1715127.
- Einwiller, Sabine A., Daniel Laufer, and Christopher Ruppel. 2017. "Believe Me, I Am One of You! The Role of Common Group Affiliation in Crisis Communication." *Public Relations Review* 43 (5):1007-1015. doi: <https://doi.org/10.1016/j.pubrev.2017.09.006>.
- Elton, C. 2021. "Rockingham General Hospital: Perth Couple Tori and Curtis Crawford Reveal Heartache After Baby Dies." *The West Australian*. <https://thewest.com.au/news/health/rockingham-general-hospital-perth-couple-tori-and-curtis-crawford-reveal-heartache-after-baby-dies-ng-b881892915z>.
- Erkens, David H., Mingyi Hung, and Pedro Matos. 2012. "Corporate Governance in the 2007–2008 Financial Crisis: Evidence from Financial Institutions Worldwide." *Journal of Corporate Finance* 18 (2):389-411.
- Fairbanks, Rollin J., Robert L. Wears, David D. Woods, Erik Hollnagel, Paul Plsek, and Richard I. Cook. 2014. "Resilience and Resilience Engineering in Health Care." *The Joint Commission Journal on Quality and Patient Safety* 40 (8):376-383. doi: [https://doi.org/10.1016/S1553-7250\(14\)40049-7](https://doi.org/10.1016/S1553-7250(14)40049-7).
- Fink, Stephen L., Joel Beak, and Kenneth Taddeo. 1971. "Organizational Crisis and Change." *The Journal of Applied Behavioral Science* 7 (1):15-37. doi: 10.1177/002188637100700103.
- Fink, Steven. 1986. *Crisis Management: Planning For The Inevitable*: American Management Association.
- Fink, Steven. 2013. *Crisis Communications: The Definitive Guide to Managing the Message*. 1 Edition.. ed. New York: McGraw-Hill.

- Fischer, Michael. 1996. "Union Carbide's Bhopal Incident: A Retrospective." *Journal of Risk and Uncertainty* 12 (2):257-269. doi: 10.1007/BF00055797.
- Flanagan, B. T. 2012. "Crisis Management in Acute Care Settings. Second Edition." *Anaesthesia and Intensive Care* 40 (6):1079.
- Forero, R., Nahidi, S., de Costa, J. *et al.* 2019. "Perceptions and Experiences of Emergency Department Staff During the Implementation of the Four-Hour Rule/National Emergency Access Target Policy in Australia: A Qualitative Social Dynamic Perspective." *BMC Health Services Research* 19(82). doi: 10.1186/s12913-019-3877-8
- Frederiksen, Anders. 2017. "Job Satisfaction and Employee Turnover: A Firm-Level Perspective." *German Journal of Human Resource Management / Zeitschrift für Personalforschung* 31 (2):132-161. doi: 10.1177/2397002216683885.
- Garvey, Paul. 2021. "Girl's Death Exposes Rising Health Staff Crisis." *The Australian*. <https://www.theaustralian.com.au/nation/girls-death-exposes-rising-health-staff-crisis/news-story/4bde9508a4d98785f039680bce0263c0>.
- Grima, François, Irène Georgescu, and Lionel Prud'Homme. 2020. "How Physicians Cope With Extreme Overwork: An Exploratory Study of French Public-Sector Healthcare Professionals." *Public Management Review* 22 (1):27-47. doi: 10.1080/14719037.2019.1638440.
- Haavik, Torgeir K., Stian Antonsen, Ragnar Rosness, and Andrew Hale. 2016. "HRO and RE: A Pragmatic Perspective." *Safety Science* 117: 479-489
- Hallier, Jerry, and John Leopold. 1996. "Creating and Replicating HRM on Greenfield Sites: Rhetoric or Reality?" *Employee Relations* 18 (5):46-65.
- Hastie, H. 2021a. "Peel Health Campus to Investigate Death of Man Who Was 'Sent Home With Painkillers'." *WA Today*. <https://www.watoday.com.au/national/western-australia/peel-health-campus-to-investigate-death-of-man-who-was-sent-home-with-painkillers-20210514-p57ryf.html>.
- Hastie, H. 2021b. "'We Begged and Begged': Nurses Speak Out As Hospital Tensions Hit Boiling Point." *WA Today*. <https://www.watoday.com.au/politics/western-australia/we-begged-and-begged-nurses-speak-out-as-hospital-tensions-hit-boiling-point-20210526-p57vbz.html>.
- Hastie, H., and D. Cross. 2021. "McGowan Moves Health Minister Out Of Firing Line, Rejects Staff Shortage As Cause of Girl's Death." *WA Today*. <https://www.watoday.com.au/national/western-australia/mcgowan-moves-health-minister-out-of-firing-line-rejects-staff-shortage-as-cause-of-girl-s-death-20210513-p57rot.html>.
- Hollnagel, E. 2017. *Safety-II in pPractice: Developing the Resilience Potentials*. New York: Routledge.
- Holton, Sara, Karen Wynter, Melody Trueman, Suellen Bruce, Susan Sweeney, Shane Crowe, Adrian Dabscheck, Paul Eleftheriou, Sarah Booth, Danielle Hitch, Catherine M. Said, Kimberley J. Haines, and Bodil Rasmussen. 2021. "Psychological Well-Being of Australian Hospital Clinical Staff During the COVID-19 Pandemic." *Australian Health Review* 45 (3):297-305. doi: <https://doi.org/10.1071/AH20203>.

- Horton, R 2015. "Editorial: The NHS in England: Blue Sky Aspirations and Earthly Tremors." *The Lancet* 386 (10001):1311-1311. doi: 10.1016/S0140-6736(15)00395-5.
- Hutchinson, Sue, and John Purcell. 2010. "Managing Ward Managers for Roles in HRM in the NHS: Overworked and Under-Resourced." *Human Resource Management Journal* 20 (4):357-374. doi: 10.1111/j.1748-8583.2010.00141.x.
- Ice, Richard. 1991. "Corporate Publics and Rhetorical Strategies: The Case of Union Carbide's Bhopal Crisis." *Management Communication Quarterly* 4 (3):341-362. doi: 10.1177/0893318991004003004.
- Jacob, Christine, Antonio Sanchez-Vazquez, and Chris Ivory. 2020. "Social, Organizational, and Technological Factors Impacting Clinicians' Adoption of Mobile Health Tools: Systematic Literature Review." *JMIR Mhealth Uhealth* 8 (2):e15935-e15935. doi: 10.2196/15935.
- Jeanpierre, Laurent. 2011. "Decentralized Decision-Making Technique for Dynamic Coalition of Resource-Bounded Autonomous Agents." *International Journal of Intelligent Computing and Cybernetics* 4 (2):228-242.
- Juanola. 2021. "Perth Hospital Staff Turn Down Shifts As Morale Continues To Fall." *WA Today*. <https://www.watoday.com.au/national/western-australia/perth-hospital-staff-turn-down-shifts-as-morale-continues-to-fall-20210609-p57zmg.html#:~:text=Morale%20at%20Perth's%20strained%20hospitals,options%20to%20staff%20the%20wards.>
- Kakemam, Edris, Zahra Chegini, Amin Rouhi, Forouzan Ahmadi, and Soheila Majidi. 2021. "Burnout and its Relationship to Self-Reported Quality of Patient Care and Adverse Events During COVID-19: A Cross-Sectional Online Survey Among Nurses." *Journal of Nursing Management*. doi: 10.1111/jonm.13359.
- Kalisch, Beatrice J., Gay L. Landstrom, and Ada Sue Hinshaw. 2009. "Missed Nursing Care: A Concept Analysis." *Journal of Advanced Nursing* 65 (7):1509-1517. doi: 10.1111/j.1365-2648.2009.05027.x.
- Kapucu, Naim, and Yusuf Ustun. 2018. "Collaborative Crisis Management and Leadership in the Public Sector." *International Journal of Public Administration* 41 (7):548-561. doi: 10.1080/01900692.2017.1280819.
- Kashmiri, Saim, and Jacob Brower. 2016. "Oops! I did it Again: Effect of Corporate Governance and Top Management Team Characteristics on the Likelihood of Product-Harm Crises." *Journal of Business Research* 69 (2):621-630.
- Kellogg, Kathryn M., and Rollin J. Fairbanks. 2018. "Approaching Fatigue and Error in Emergency Medicine: Narrowing the Gap Between Work as Imagined and Work as Really Done." *Annals of Emergency Medicine* 72 (2):181-183. doi: 10.1016/j.annemergmed.2018.02.030.
- Kelly, John G. 1996. "Management By Walking Around." *Management Matters (North York)* (16):1.
- Kendrick, M., Kendrick, K., Taylor, N. F., & Leggat, S. G. 2021. "A Qualitative Study of Hospital Clinical Staff Perceptions of Their Interactions with Healthcare Middle Managers". *Journal of Health Organization and Management*. 36(4), 428-447. doi: 10.1108/JHOM-06-2021-0216

- Kesselheim, Aaron S., Kathrin Cresswell, Shobha Phansalkar, David W. Bates, and Aziz Sheikh. 2011. "Clinical Decision Support Systems Could Be Modified To Reduce 'Alert Fatigue' While Still Minimizing The Risk Of Litigation." *Health Affairs* 30 (12):2310-2317. doi: 10.1377/hlthaff.2010.1111.
- Ketchen, David J. 2014. "How Penn State Turned a Crisis Into a Disaster: An Interview with Crisis Management Pioneer Steven Fink." *Business Horizons* 57 (5):667-675.
- Khasawneh, Aws, Hiba Malkawi, Shereen Ababneh, Omar Al-Araidah, and Gul Okudan Kremer. 2021. "Empirical Study on Mental Stress Among Healthcare Staffs and the Influencing Workplace Stressors." *Engineering Management in Production and Services* 13 (2):54-67. doi: 10.2478/emj-2021-0012.
- Lalonde, Carole, and Christophe Roux-Dufort. 2010. "Crisis Management in Institutional Healthcare Settings: From Punitive to Emancipatory Solutions." *Organization Development Journal* 28 (1):19-36.
- Lasater, Karen B., Linda H. Aiken, Douglas M. Sloane, Rachel French, Brendan Martin, Kyrani Reneau, Maryann Alexander, and Matthew D. McHugh. 2020. "Chronic Hospital Nurse Understaffing Meets COVID-19: An Observational Study." *BMJ quality & safety* 30: 639-647. doi: 10.1136/bmjqs-2020-011512.
- Lawton, Rebecca, Natalie Taylor, Robyn Clay-Williams, and Jeffrey Braithwaite. 2014. "Positive Deviance: A Different Approach to Achieving Patient Safety." *BMJ Quality & Safety* 23: 880-883.
- Leggat, Sandra G., Cathy Balding, and Melanie Bish. 2021. "Perspectives of Australian Hospital Leaders on the Provision of Safe Care: Implications for Safety I and Safety II." *Journal of Health Organization and Management* (ahead-of-print). doi: 10.1108/JHOM-10-2020-0398.
- Liff, Adam P., and Andrew S. Erickson. 2017. "From Management Crisis to Crisis Management? Japan's Post-2012 Institutional Reforms and Sino-Japanese Crisis (In)stability." *Journal of Strategic Studies* 40 (5):604-638. doi: 10.1080/01402390.2017.1293530.
- Lipkin, M., and Jr. 2002. "Medical Ground Zero: An Early Experience of the World Trade Center Disaster." *Annals of Internal Medicine* 136 (9):704-707.
- Man, Milena, Claudia Toma, Nicoleta Motoc, Octavia Necrelescu, Ana Chis, Andrei Lesan, Carmen Pop, Doina Todea, Elena Dantes, Ruxandra Puiu, and Ruxandra-Mioara Rajnoveanu. 2020. "Disease Perception and Coping with Emotional Distress During COVID-19 Pandemic: A Survey Among Medical Staff." *International Journal of Environmental Research and Public Health* 17 (13):4899. doi: 10.3390/ijerph17134899.
- Mansfield, E, and N Perpetch. 2021. "Aishwarya Aswath Report Finds 'Cascade of Missed Opportunities' at Perth Children's Hospital." *ABC News*.
<https://www.abc.net.au/news/2021-05-17/aishwarya-aswath-perth-childrens-hospital-death-report-released/100144052>.
- Marchal, Bruno, McDamien Dedzo, and Guy Kegels. 2010. "Turning Around an Ailing District Hospital: A Realist Evaluation of Strategic Changes at Ho Municipal Hospital (Ghana).(Research article)(Report)." *BMC Public Health* 10:787.

- Martin, Graham, Piotr Ozieranski, Myles Leslie, and Mary Dixon-Woods. 2019. "How Not to Waste a Crisis: A Qualitative Study of Problem Definition and its Consequences in Three Hospitals." *Journal of Health Services Research & Policy* 24 (3):145-154. doi: 10.1177/1355819619828403.
- Maynard, Henry, David McGinn, and Harry D. J. Knights. 2018. "Don't Forget the Hidden Curriculum." *Medical Teaching* 40 (1):105-106. doi: 10.1080/0142159X.2017.1369504.
- McCabe, T. J., and Sally Sambrook. 2013. "Psychological Contracts and Commitment Amongst Nurses and Nurse Managers: A Discourse Analysis." *International Journal of Nursing Studies* 50 (7):954-967. doi: 10.1016/j.ijnurstu.2012.11.012.
- McCann, Leo, Edward Granter, John Hassard, and Paula Hyde. 2015. "'You Can't Do Both - Something Will Give' Limitations of the Targets Culture in Managing UK Health Care Workforces." *Human Resource Management* 54 (5):773.
- McCann, Leo, John S. Hassard, Edward Granter, and Paula J. Hyde. 2015. "Casting the Lean Spell: The Promotion, Dilution and Erosion of Lean Management in the NHS." *Human Relations* 68 (10):1557-1577.
- McDaniel, Jr Reuben R., Holly Jordan Lanham, and Ruth A. Anderson. 2009. "Implications of Complex Adaptive Systems Theory for the Design of Research on Health Care Organizations." *Health Care Management Review* 34 (2):191-199. doi: 10.1097/HMR.0b013e31819c8b38.
- McDermott, Aoife, and Mary Keating. 2011. "Managing Professionals: Exploring the Role of the Hospital HR Function." *Journal of Health Organization and Management* 25 (6).
- McDermott, Aoife M., Louise Fitzgerald, Nicolette M. Van Gestel, and Mary A. Keating. 2015. "From Bipartite to Tripartite Devolved HRM in Professional Service Contexts: Evidence from Hospitals in Three Countries." *Human Resource Management* 54 (5):813-831. doi: <https://doi.org/10.1002/hrm.21728>.
- Millar, Dan Pyle, and Robert L. Heath. 2003. *Responding to Crisis : A Rhetorical Approach to Crisis Communication*. Mahwah, United States: Taylor & Francis Group.
- Moore, Cíara, and David A. Buchanan. 2013. "Sweat the Small Stuff: A Case Study of Small-Scale Change Processes and Consequences in Acute Care." *Health Services Management Research : an official journal of the Association of University Programs in Health Administration* 26 (1):9-17. doi: 10.1177/0951484813488060.
- Morag, Ido, Daniel Gopher, Avishag Spillinger, Yael Auerbach-Shpak, Neri Laufer, Yuval Lavy, Ariel Milwidsky, Rivka-Rita Feigin, Shimon Pollack, Itay Maza, Zaher S. Azzam, Hanna Admi, and Michael Soudry. 2012. "Human Factors–Focused Reporting System for Improving Care Quality and Safety in Hospital Wards." *Human Factors* 54 (2):195-213.
- National Indigenous Times Editorial Team. 2021. "Roger Cook Resignation Won't Fix Health System." *National Indigenous Times*. <https://nit.com.au/roger-cook-resignation-wont-fix-wa-health-system/>.
- Newdick, Christopher, and Christopher Danbury. 2015. "Culture, Compassion and Clinical Neglect: Probity in the NHS after Mid Staffordshire." *Journal of Medical Ethics* 41 (12):956-962. doi: 10.1136/medethics-2012-101048.

- Nugus, Peter, Katherine Carroll, David G. Hewett, Alison Short, Roberto Forero, and Jeffrey Braithwaite. 2010. "Integrated Care in the Emergency Department: A Complex Adaptive Systems Perspective." *Social Science & Medicine* 71 (11):1997-2004. doi: 10.1016/j.socscimed.2010.08.013.
- O'Donovan, Róisín, and Eilish McAuliffe. 2020. "A Systematic Review of Factors that Enable Psychological Safety in Healthcare Teams." *International Journal of Quality in Health Care* 32 (4):240-250. doi: 10.1093/intqhc/mzaa025.
- O'Sullivan, Tracey, Craig Kuziemsky, Darene Toal-Sullivan, and Wayne Corneil. 2013. "Unraveling the Complexities of Disaster Management: A Framework for Critical Social Infrastructure to Promote Population Health and Resilience." *Social Science & Medicine* 93:238.
- Paccione-Dyszlewski, Margaret R., Christine A. Conelea, Walter C. Heisler, Jodie C. Vilardi, and Henry T. Sachs. 2012. "A Crisis Management Quality Improvement Initiative in a Children's Psychiatric Hospital: Design, Implementation, and Outcome." *Journal of Psychiatric Practice* 18 (4):304.
- Pearson, C., C. Roux-Dufort, and J. Clair. 2007. *International Handbook of Organizational Crisis Management*: Sage Publishing.
- Perpitch, N. 2021. "Nurses Say They Warned of Perth Children's Hospital Staffing Crisis Before Seven-Year-Old's Death." *ABC News*. <https://www.abc.net.au/news/2021-04-06/nurses-warned-of-hospital-crisis-before-girls-death/100051412#:~:text=Nurses%20say%20they%20feared%20being,was%20%22overlooked%22%20before%20her%20death.>
- Petrakaki, Dimitra, and Andreas Kornelakis. 2016. "We Can Only Request What's in our Protocol': Technology and Work Autonomy in Healthcare." *New Technology, Work & Employment* 31 (3):223-237. doi: 10.1111/ntwe.12072.
- Pierce, Lamar, and Jason Snyder. 2015. "Unethical Demand and Employee Turnover." *Journal of Business Ethics* 131 (4):853-869. doi: 10.1007/s10551-013-2018-2.
- Pillay, Rubin. 2009. "Work Satisfaction of Professional Nurses in South Africa: A Comparative Analysis of the Public and Private Sectors." *Human Resources for Health* 7 (1):15-15. doi: 10.1186/1478-4491-7-15.
- Plsek, Paul E., and Trisha Greenhalgh. 2001. "The Challenge of Complexity in Health Care." *BMJ : British Medical Journal* 323 (7313):625-628.
- Pype, Peter, Demi Krystallidou, Myriam Deveugele, Fien Mertens, Sara Rubinelli, and Ignas Devisch. 2017. "Healthcare Teams as Complex Adaptive Systems: Focus on Interpersonal Interaction." *Patient Education and Counselling* 100 (11):2028-2034. doi: 10.1016/j.pec.2017.06.029.
- Rasmussen, Philippa, Eimear Muir-Cochrane, and Ann Henderson. 2012. "Document Analysis Using an Aggregative and Iterative Process." *International Journal of Evidence-Based Healthcare (Wiley-Blackwell)* 10 (2):142-145 4p.
- Ronnie, Linda. 2019. "Intensive Care Nurses in South Africa: Expectations and Experiences in a Public Sector Hospital." *Journal of Nursing Management* 27 (7):1431-1437. doi: 10.1111/jonm.12826.

- Scott, Helen. 2005. "Nurses Continue to Work Regular Unpaid Overtime." *British Journal of Nursing* 14 (7):357-357. doi: 10.12968/bjon.2005.14.7.17936.
- Shacklock, Kate, Yvonne Brunetto, Stephen Teo, and Rod Farr-Wharton. 2014. "The Role of Support Antecedents in Nurses' Intentions to Quit: The Case of Australia." *Journal of Advanced Nursing* 70 (4):811-822.
- Shanafelt, T. D., L. N. Dyrbye, C. Sinsky, O. Hasan, D. Satele, J. Sloan, and C. P. West. 2016. "Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction." *Mayo Clinic Proceedings* 91 (7):836-48. doi: 10.1016/j.mayocp.2016.05.007
10.1016/j.mayocp.2016.05.007. Epub 2016 Jun 27.
- Shanafelt, T. D., M. Mungo, J. Schmitgen, K. A. Storz, D. Reeves, S. N. Hayes, J. A. Sloan, S. J. Swensen, and S. J. Buskirk. 2016. "Longitudinal Study Evaluating the Association Between Physician Burnout and Changes in Professional Work Effort." *Mayo Clinic Proceedings* 91 (4):422-31. doi: 10.1016/j.mayocp.2016.02.001
10.1016/j.mayocp.2016.02.001.
- Shanafelt, Tait, Jonathan Ripp, and Mickey Trockel. 2020. "Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic." *JAMA*. doi: 10.1001/jama.2020.5893.
- Shepherd, Alison. 2020. "Covid-19: Frontline Doctors Continue PPE Fight." *BMJ (Clinical Research Education.)* 369: m2188-m2188. doi: 10.1136/bmj.m2188.
- Smith, Bruce W., Jeanne Dalen, Kathryn Wiggins, Erin Tooley, Paulette Christopher, and Jennifer Bernard. 2008. "The Brief Resilience Scale: Assessing the Ability to Bounce Back." *International Journal of Behavioral Medicine* 15 (3):194-200.
- Smith, R. E., P. J. Kearney, and W. Merlat. 1999. "Evolutionary Adaptation in Autonomous Agent Systems — A Paradigm for the Emerging Enterprise." *BT Technology Journal* 17 (4):157-167. doi: 10.1023/A:1009667613845.
- Soliman, Marlon, and Tarcisio Abreu Saurin. 2020. "Lean-As-Imagined Differs From Lean-As-Done: The Influence of Complexity." *Production Planning & Control*:1-18. doi: 10.1080/09537287.2020.1843729.
- St.Pierre, Michael. 2011. *Crisis Management in Acute Care Settings Human Factors, Team Psychology, and Patient Safety in a High Stakes Environment*. Edited by Michael St. Pierre, ProQuest, Gesine Hofinger, Cornelius Buerschaper and Robert Simon. 2nd ed.. ed. Berlin: Berlin : Springer Berlin Heidelberg.
- Stanley, David J., John P. Meyer, and Laryssa Topolnytsky. 2005. "Employee Cynicism and Resistance to Organizational Change." *Journal of Business and Psychology* 19 (4):429-459. doi: 10.1007/s10869-005-4518-2.
- Stark, Alastair. 2014. "Bureaucratic Values and Resilience: An Exploration of Crisis Management." *Public Administration* 92 (3):692.
- Sujan, Mark A., Huayi Huang, and Jeffrey Braithwaite. 2017. "Learning From Incidents in Health Care: Critique from a Safety-II Perspective." *Safety Science* 99:115-121. doi: 10.1016/j.ssci.2016.08.005.

- Topper, Benjamin, and Patrick Lagadec. 2013. "Fractal Crises - A New Path for Crisis Theory and Management." *Journal of Contingencies & Crisis Management* 21 (1):4-16. doi: 10.1111/1468-5973.12008.
- Tucker, Anita L., Sarah Zheng, John W. Gardner, and Roger E. Bohn. 2020. "When do Workarounds Help or Hurt Patient Outcomes? The Moderating Role of Operational Failures." *Journal of Operations Management* 66 (1-2):67-90. doi: 10.1002/joom.1015.
- Uema, Aoi, Harumi Kitamura, and Kazue Nakajima. 2020. "Adaptive Behavior of Clinicians in Response to an Over-Constrained Patient Safety Policy on the Administration of Concentrated Potassium Chloride Solutions." *Safety Science* 121:529-541. doi: <https://doi.org/10.1016/j.ssci.2019.09.023>.
- Vanvactor, Jerry. 2011. "Cognizant Healthcare Logistics Management: Ensuring Resilience During Crisis." *International Journal of Disaster Resilience in the Built Environment* 2 (3):245-255.
- Vašíčková, Veronika. 2020. "Crisis Management Process - A Literature Review and a Conceptual Integration." *Acta Oeconomica Pragensia* 27:61-77. doi: 10.18267/j.aop.628.
- Wade, Victoria A., Jaklin A. Elliott, and Janet E. Hiller. 2014. "Clinician Acceptance is the Key Factor for Sustainable Telehealth Services." *Qualitative Health Research* 24 (5):682-694. doi: 10.1177/1049732314528809.
- Wears, Robert L. 2015. *Resilient Health Care, Volume 2 : The Resilience of Everyday Clinical Work*. edited by Erik Hollnagel and Jeffrey Braithwaite: Boca Raton : CRC Press.
- Yang, L 2012. "Comparative Analysis of Nuclear Crisis Communication: 2011 Fukushima Nuclear Crisis and 1979 Three Mile Island Nuclear Crisis". Ann Arbor: Ann Arbor: ProQuest Dissertations & Theses.
- Журавлев, В В, Н Ю Варкова, and Н В Журавлев. 2020. "СОВЕРШЕНСТВОВАНИЕ СТРАТЕГИЧЕСКОГО УПРАВЛЕНИЯ УСТОЙЧИВЫМ РАЗВИТИЕМ УГЛЕДОБЫВАЮЩИХ ПРЕДПРИЯТИЙ ЯКУТИИ НА ОСНОВЕ ИНТЕГРАЦИИ МЕХАНИЗМОВ ПРИНЯТИЯ РЕШЕНИЙ И ЭКОЛОГО-ЭКОНОМИЧЕСКОЙ ОЦЕНКИ БИЗНЕСА. ЧАСТЬ 2." *IMPROVEMENT OF STRATEGIC MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF YAKUTIA COAL MINING COMPANIES ON THE BASIS OF INTEGRATION OF MECHANISMS FOR DECISION-MAKING AND ECO-ECONOMIC BUSINESS EVALUATION. PART 2*. 14 (4):138-145. doi: 10.14529/em200416.
- Мерзликина, Г С, С А Рыльщикова, and Н А Дубинина. 2018. "ОРГАНИЗАЦИОННЫЕ ИННОВАЦИИ КАК «НОВЫЙ СТАРЫЙ» ИНСТРУМЕНТ ПРЕВЕНТИВНОГО АНТИКРИЗИСНОГО УПРАВЛЕНИЯ ПРЕДПРИЯТИЕМ: РЕГИОНАЛЬНЫЙ АСПЕКТ." *ORGANIZATIONAL INNOVATIONS AS A "NEW OLD" TOOL OF CRISIS PREVENTIVE OPERATION OF BUSINESS: REGIONAL ASPECT*. (3):78-88. doi: 10.24143/2073-5537-2018-3-78-88.

Chapter 6 Discussion

6.1 Key Findings

The project underpinning this thesis aimed to address the following research question:

How do Australian public health organisations handle the systemic crisis of burnout?

To develop the response to the main research question, three sub-questions were:

1 - *What are patient-facing hospital staff experiences of burnout?*

As outlined in Chapter 2, the analysis suggested staff were not suffering from burnout, but a normal stress reaction to their perceptions of an uncongenial workplace. As a result, the remaining research questions were revised to replace ‘burnout’ with ‘employee stress reaction to a perceived uncongenial workplace’.

2 - *What are clinical hospital staff experiences of their interactions with management and their perceptions of workplace uncongeniality?*

and

3 - *How effectively are Australian public health organisations managing the systemic crisis of employee stress reaction to a perceived uncongenial workplace?*

Seventy-three participants were interviewed from one Australian public health service, with data from sub-groups of these interviewees contributing to the article findings. Article 1 (Chapter 2) addressed research question 1, finding that staff rarely described burnout, but stress borne of experiences of a perceived uncongenial workplace. Articles 2 and 3 (Chapters 3 and 4, respectively) addressed question 2, whereby management-implemented strategies that included both management and governing board activity were criticised by study participants for perceived ineffectiveness. The health service’s middle management and board were perceived as unable to meaningfully address issues related to the identified uncongenial workplace that had been communicated by patient-facing staff to their managers. Consistent with autonomous adaptation in complex adaptive systems (McDaniel et al., 2009;

Pype et al., 2017), patient-facing staff widened the gap between work-as-imagined by managers and work-as-done by patient-facing staff. The fourth article (Chapter 5) contributed insight into question 3. Using crisis management theory, this article explained the escalation of the crisis of a perceived uncongenial workplace to an issue of public interest to the media.

Overall, this thesis, presented as four articles, suggested middle manager behaviours in the public healthcare organisation studied were seen to be a poor fit for the needs of patient-facing staff which contributed to reported staff experiences of workplace uncongeniality and stress. The perceptions of poor fit were grounded in repeated experiences whereby middle managers failed to meet staff expectations. Staff reported adaptation away from formal governance hierarchies within the hospital. This suggested a prodromal crisis, as defined by Fink (1986). The flow-on effects of this situation, and avenues to rectify it, could be conceptualised with crisis management theory (Blecher et al., 2020; Boin & Lagadec, 2000; Christensen et al., 2016; Drennan, 2014; Fink, 1986; Fink et al., 1971). Each research question, and implications of the project's findings related to wider scholarship, are discussed in detail in the rest of this chapter.

6.2 Hospital Staff Report It's Not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment

Previous studies have reported a high prevalence of burnout among healthcare workers (Amiri et al., 2016; Bartholomew et al., 2018; Beckman, Reed, Shanafelt, & West, 2010; Cooke et al., 2013), yet few of the individual anecdotes in participant interviews matched descriptions of burnout. Instead, participants described feeling 'stressed' and 'fatigued' instead of Maslach's (1981) burnout indicators of 'depersonalisation' or 'emotional exhaustion'. These findings represent a contribution to the literature addressing the health of healthcare workers.

These findings are consistent with the perspective of psychiatric researchers who posit that burnout might be a mis-labelled phenomenon (Bianchi, Schonfeld, & Laurent, 2014; Coulehan, 2003; Danhof-Pont et al., 2011; Sandström, Rhodin, Lundberg, Olsson, & Nyberg, 2005; Sigsbee & Bernat, 2014) that is actually a sub-type of depression (Bianchi et al., 2015a). Researchers outside the psychiatric field are likely unaware of the similarities between depression and burnout (Bianchi, Schonfeld, & Laurent, 2015c), with psychiatrists suggesting that the popularity of the term burnout may be partially attributed to non-psychiatric perspectives on mental health in the workplace (Bianchi, Schonfeld, & Laurent, 2015b; Bianchi et al., 2021). Bianchi et al. (2014) argue that burnout should be labelled as a sub-type of atypical depression, after identifying similarities between the two conditions in clinical diagnosis and treatment:

We found that 90% of the teachers identified as burned out met diagnostic criteria for depression. Among them, 92% scored 15 or higher on the PHQ-9, a threshold at which active treatment with pharmacotherapy and/or psychotherapy is recommended (Bianchi et al., 2014 p. 307).

Bianchi et al. (2015a) and Kristensen et al. (2005) have hypothesised that the Maslach Burnout Inventory (Maslach, 1981) might not be sufficient to describe the variety of experiences impacting worker wellbeing. In consideration of this point, Bianchi et al. (2014) advocate for greater psychiatric involvement in burnout assessments to properly include atypical depression measures. Additionally, Kristensen et al. (2005) recommend culturally adapted burnout measures to reflect manifestations of burnout beyond a Western-centric lens. The lack of burnout identified in our study may support the inclusion of measures of stress for studies of staff experiences in the workplace, in addition to the recommendations of Bianchi et al. (2014) for the inclusion of atypical depression and Kristensen et al. (2005) for culturally adapted measures.

The perception of an uncongenial workplace (Chapter 2) was a key difference between our findings and the existing literature on burnout but may be consistent with some other papers (Bianchi et al., 2014; Brown, Couser, Morrison, & Agarwal, 2021; Lamontagne, Keegel, & Vallance, 2007). Issues discussed in the literature (such as physical workplace layout and administrative challenges that obstruct the capacity to effectively perform work) do not always include the word ‘uncongenial’. Instead, workers may describe obstructions (Dadich, Collier, Hodgins, & Crawford, 2018), discomfort (Montero-Marín et al., 2013), and stressors that are secondary to the pressures of the work itself, such as interpersonal relationships (Hartin, Birks, & Lindsay, 2020; Hutchinson & Jackson, 2013). This suggests that uncongenialities in the workplace, while not widely discussed using the label uncongenial, may be common.

Uncongenialities related to the physical structure of the working environment have been discussed as ergonomic factors (Arman, 2019). Human-factors ergonomics that focuses on interactions among humans and the systems in which they work, is considered to be a separate yet related field (Carayon, Wooldridge, Hose, Salwei, & Benneyan, 2018; Fernandes, Portela, Rotenberg, & Griep, 2013; Spurgeon, Sujan, Cross, & Flanagan, 2019). Human resource factors appeared to best fit the influences discussed by participants of this study. Psychological safety, staff engagement and motivation, workplace culture, and interpersonal relationships, which were described by our study participants, are examples of factors that fall into the domain of human resources management (Lengnick-Hall, Lengnick-Hall, Andrade, & Drake, 2009).

The degree to which an uncongeniality impacts a worker’s mental and physical wellbeing appears to depend on how quickly it can be resolved. The literature on the resilience of individuals suggests that short-term uncongenialities in the workplace can be accepted (Lipkin & Jr, 2002). One example is disaster medicine (Pruginin, Findley,

Isralowitz, & Reznik, 2017), where hospitals are equipped to handle large-scale trauma events, such as natural disasters, at short notice, (España-Schmidt, Ong, Frishman, Bergasa, & Chaudhari, 2013; Lipkin & Jr, 2002; Nebil, Masakatsu, Federica, & Andrew, 2014; O'Sullivan et al., 2013; Verni, 2012). Thus, a temporary surge of higher-acuity clinical work is considered within the bounds of acceptable additional uncongeniality accepted by healthcare workers. However, when exceptionally challenging circumstances become chronic, absorption of the strain can become unfeasible (Kalisch, Muller, & Tuscher, 2015; Taku, 2014). The expectation that workers can endure long periods of chronic stressors, such as those triggered by uncongenial work experiences in an already high-stress environment, results in a predictable strain on an individual's wellbeing (Brown et al., 2021; Lasater et al., 2020).

Although not often named as such, healthcare-specific uncongenialities with a human resource origin have been reported, such as long working hours and little opportunity for rest during shifts (Fernandes et al., 2013). These uncongenialities have existed for decades with marginal improvements made through legislation and professional advocacy activity (Australian Medical Association, 2016; Fernandes et al., 2013; Rosen et al., 2006; Veazey Brooks & Bosk, 2012). Stressors that are inherent to clinical work concern high-acuity patient care, such as emergency medicine and psychiatric crises (Berger, 2013; Larsen, Beier-Holgersen, Dieckmann, & Østergaard, 2018). Healthcare workers often report that additional stressors are the ones that cause the most psychological strain (Basu et al., 2019; Farquhar, 2017; Hart, 2015; Rosen et al., 2006; Shanafelt et al., 2020). Stressors additional to those inherent in clinical work include clerical burden (Shanafelt, Dyrbye, Sinsky, et al., 2016) and patient violence (Price, Baker, Bee, & Lovell, 2015). The more stressors and uncongenialities experienced by a healthcare worker, the higher the expected risk of burnout (Berger, 2013; Brewer et al., 2019; Chuang et al., 2016; West et al., 2016; West, Shanafelt, & Kolars, 2011).

However, burnout is not always experienced by healthcare workers, such as those sampled in this study. In fact, it is possible for practitioners in clinical specialties considered high-risk for burnout to experience career longevity (Alexander, Diefenbeck, & Brown, 2015; Ros & Scheper, 2009; Volpe et al., 2014). The attributes that allow individuals in careers at high risk of burnout to experience career longevity remain a gap in the literature.

The findings and analyses presented in Chapter 2 reinforce the perspective that future burnout research should assess the contributions of the workplace on worker stress, that is, considering the workplace as a social determinant of health. The benefits of reducing workplace uncongenialities are numerous, exhibited in private organisations that attract and develop in-demand talent through attractive employment benefits (Productivity Commission, 1999; Society for Human Resource Management, 2017). In industries that experience worker shortages and challenges with employee retention, workplace congeniality assessment may offer insight into the reasons behind employee turnover and lowered performance (Bunderson, 2001; Frederiksen, 2017; Kundu & Gahlawat, 2015; Wernick et al., 2016).

Response to research sub-question 1 – What are participant experiences of burnout?

In summary, the majority of patient-facing staff interviewed did not express burnout. Only three individuals in the sample described their experiences in a way that was consistent with the burnout criteria set by Maslach (1981) and Maslach and Leiter (2008). As the majority of participants described experiences of a normal stress reaction to a perceived uncongenial workplace instead of burnout, this became the focus of the research.

6.3 Hospital Clinical Staff Perceive Middle Management and Governing Board

Activities Do Not Live Up to Expectations

The specific mix of skills and training required for healthcare management is supported by empirical evidence (Leggat, Liang, & Howard, 2020; Liang, Leggat, Howard, & Koh, 2013), yet how to achieve such a mix of skills in practice is still to be demonstrated.

Taking into consideration management specialisations, such as healthcare management, this topic is contextualised in the potential benefit to patient outcomes (West, Guthrie, Dawson, Borrill, & Carter, 2006).

Healthcare management has a relatively brief and tense history compared to the centuries-old discipline of medicine (Ackroyd, 1996). First perceived as interlopers (Ackroyd, 1996; Garrick & Jeffery, 1987; Tevis & Kennedy, 2020), healthcare managers have evolved to become a necessary layer in the public hospital hierarchy for co-ordination and oversight of multiple clinical teams within a larger healthcare organisation (Caffrey, Ferlie, & McKevitt, 2019; Tevis & Kennedy, 2020; Verbeeten & Speklé, 2015). Yet, despite the acceptance of their place in healthcare, the evolution of the role of management appears to have progressed slowly. An example of this is found in articles discussing how evidence-based practice is rarely used by managers to inform decisions (Hamet & Maurer, 2017; Matter, 2006; Wright, Middleton, Greenfield, Williams, & Brazil, 2016).

The articles declaring gaps in knowledge to improve healthcare management capacity in practice suggests similar issues in healthcare organisations around the world (Baluch et al., 2013; Bartram, Stanton, Leggat, Casimir, & Fraser, 2007; Currie et al., 2015). While these findings are not new (McDermott & Keating, 2011), the implications are just beginning to be understood. For example, new public management (NPM) involves top-down communication to patient-facing staff (Verbeeten & Speklé, 2015). Yet, one of the adaptations made by patient-facing staff was the reduction of communication by ignoring management emails and announcements. As the adaptive behaviours of patient-facing staff away from management were covert, the adversarial nature of their activity might have escaped the notice of middle managers who were often described as absent, or physically removed from clinical areas. This emphasises the relevance of basic management theory, such as ‘management by walking

around’ (or ‘rounding’, as it is colloquially known by healthcare workers) (Davis, 1991; Hutton, 1841; Kelly, 1996; Tucker & Singer, 2015).

Managing staff psychological contracts through communication and fulfilment of expectations has implications for morale, trust, and turnover in the organisation (Bunderson, 2001; McCabe & Sambrook, 2013; McDermott, Conway, Rosseau, & Flood, 2013; Morgan & King, 2012). This is particularly the case in healthcare, where psychological contracts for the support of patient care involve the expectation of safety (Boland, 2013; Bowie, 2010; Burke et al., 2011; Cleary & Duke, 2019; Durani, Dias, Singh, & Taub, 2013; Hall et al., 2016; Mazurenko, Richter, Kazley, & Ford, 2019). Perceived violations of psychological contracts and repetition of negatively perceived experiences with middle managers appeared to be a direct contributor to the perceived uncongeniality described in Chapter 2. Similar issues were observed by De Jager (2003) for the information technology industry.

As outlined above, managers are often criticised for their lack of evidence-based practice (Hamet & Maurer, 2017; Martins & Isouard, 2015; Wright et al., 2016). An example of this criticism involves managers’ reliance on readily accessible blog articles and news media promoting the benefits of wellness initiatives (McCartney, 2015; Modi, 2018) instead of empirical evidence (Hamet & Maurer, 2017). Studies on worker productivity have identified the flaws in popular wellness initiatives, identifying that stress management techniques were less effective than structural improvements such as employing adequate numbers of staff to handle an increased workload (Aherne et al., 2016; Shanafelt, Dyrbye, Sinsky, et al., 2016; Shanafelt, Dyrbye, & West, 2017; Thomas et al., 2018; West et al., 2014; West et al., 2020). The focus on wellness and resilience puts the onus of burnout and stress prevention on the individual rather than the systems or organisations that are often the perpetrators of stressful environments (Lo, Wu, Chan, Chu, & Li, 2018; Montgomery, Panagopoulou, Esmail, Richards, & Maslach, 2019; Montgomery et al., 2011). Yet without

knowledge of the research of authors such as Lo et al. (2018) and Montgomery et al. (2011) that recommend organisational solutions, managers are unlikely to meaningfully address the issue.

Middle managers were viewed as culturally distinct from frontline management, such as clinical leaders and nurse unit-managers, even if they were promoted from a patient-facing role. Following their promotion to hybrid clinician-manager, clinicians may have difficulty assuming their management role because of insufficient management education and training (Gerard, 2019; Kreindler, Dowd, Star, & Gottschalk, 2012; McGivern, Currie, Ferlie, Fitzgerald, & Waring, 2015b). In lieu of management education, failed hybrid managers may attempt to absorb the ‘hidden curriculum’ of their new position. The hidden curriculum of management, while not often studied (Ottewill, McKenzie, & Leah, 2005), includes a focus on financial profit over humanistic measures of performance (Higgins, 2014; Jacobs, Swink, & Linderman, 2015; Sinaiko & Toloui, 2007). One example of a humanistic performance measure is staff perceptions of their wellbeing that has been linked to performance and intention to leave (Ang, Bartram, McNeil, Leggat, & Stanton, 2013; Bryson et al., 2017). Prioritising financial profit over humanistic measures may produce disappointing results, such as an over-reliance on key performance indicators (KPIs) without the understanding of how KPIs affect staff performance (McCann, Granter, et al., 2015; McCann, Hassard, et al., 2015). The lack of prioritisation of humanistic principles conflicts with the values of clinical work (Bourne, Pavlov, Franco-Santos, Lucianetti, & Mura, 2013; Burks & Kobus, 2012) and is a regularly criticised element of new public management that is perceived to negatively impact the congeniality of healthcare organisations for patient-facing staff (Grima et al., 2020; Newman & Lawler, 2009).

New public management, which aims to maximise efficiency (Shaw, 2012), intensifies managerialism in public service organisations such as hospitals (Dadich et al.,

2018; Newman & Lawler, 2009). Healthcare managers without management education and training may, “pretend to have advanced knowledge and know-how deemed necessary to the efficient running of organisations” (Klikauer, 2013 p. 1104). The management activities witnessed by the patient-facing staff in the thesis were perceived to be incongruent with their values and expectations of competence to support patient care. This is consistent with previous studies on the lack of education of healthcare managers (Leggat et al., 2020; Liang, 2008; Liang et al., 2018; Liang et al., 2013), and the limited humanistic principles exhibited in new public management organisations (Carney, 2011; Deshpande & Deshpande, 2014; Islam, Khan, Khawaja, & Ahmad, 2017; Khanna, Montgomery, & Klyushnenkova, 2020).

There are no formal standards of practice for healthcare management enforced in Australia (Australasian College of Health Service Management, 2021). There is no expectation of demonstrable competency, nor mandatory registration for healthcare managers with a governing agency to maintain quality of practice. This creates inconsistency, with no benchmarking or standards to place healthcare managers on equal professional footing with their clinical counterparts. In short, healthcare management lacks the necessary prerequisites to classify as a profession (Cruess, Johnston, & Cruess, 2004).

However, there is precedent for improving the healthcare management profession. The relatively recent development of psychologists as professionals (Bingham, 2015; Sutherland & Sharp, 1980) illustrates that the process of professionalising an industry of practitioners requires public advocacy, tertiary education, and professional registration with a governing body (Bingham, 2015; Gerard, 2019). Similar tasks would be required for healthcare managers to realise greater professional legitimacy. Evolving management to similar demonstrable standards of competency as clinical practitioners may reduce the likelihood of poor inter-professional relationships contributing to patient risk and staff stress (Agarwal, Green, Agarwal, & Randhawa, 2016b; Carlson & Greeley, 2010; Carney, 2004;

Donnelly, 2012; Kellner, Townsend, Wilkinson, Lawrence, & Greenfield, 2016; Veronesi, Kirkpatrick, & Vallascas, 2014). Clinicians in the thesis were highly educated. An undergraduate degree in a clinical field, with clinical experience, and professional registration are minimum requirements for employment that facilitates the expertise and autonomy expected of healthcare professionals (AHPRA, 2020; Australian Medical Association, 2011). Hybrid clinician-managers need management training to augment their clinical knowledge to effectively manage (McGivern et al., 2015b; Townsend, Wilkinson, & Bartram, 2011). If clinicians witnessed their middle managers engaging in evidence-based practice, this may improve the cohesion between clinical and middle management staff (Martins & Isouard, 2015; Matter, 2006; Millenson, 2013; Pielach & Schubert, 2018; Rapp et al., 2010; Wright et al., 2016).

Response to research sub question 2 - What are patient-facing hospital staff experiences of management-implemented strategies addressing the issue of employee stress reaction to a perceived uncongenial workplace?

Middle management and governing board activities were criticised by participants for their perceived ineffectiveness. Participants suggested there had been few management-implemented strategies aimed at addressing the issue of staff stress and general staff wellbeing. Those activities that were witnessed or experienced by the interview participants were described as failing to meaningfully address the issues directly communicated to management.

6.4 The Escalation from a Prodromal Crisis to an Acute Crisis

A prodromal crisis in a public health service can exist in a smouldering state for an extended period (Lalonde & Roux-Dufort, 2010; Nemeth et al., 2011; Sheaffer, Richardson, & Rosenblatt, 1998) that theoretically affords management time to successfully intervene (Al-Dabbagh, 2020; Boin & Lagadec, 2000; Bowers et al., 2017; Christensen et al., 2016;

Drennan, 2014; Einwiller et al., 2017). If a prodromal crisis is left to smoulder without intervention, it will eventually escalate to an acute crisis (Fink, 1986). If not addressed, an acute crisis can become embedded in a system (Cleary & Duke, 2019; Millar & Heath, 2003; Yang, 2012), that is, a systemic crisis (Kotz, 2009; Zattoni & Pugliese, 2021). Furthermore, addressing an acute crisis is more difficult and expensive than addressing the issue at its prodromal stage (Fletcher, Buffington, & Overcash, 2020; Lasater et al., 2020).

The thesis data suggested that the crisis had been prodromal since at least 2017, if not earlier (Kendrick et al., 2017). In addition, issues of morale and poor relationships between patient-facing staff and hospital executives in the Western Australian public health system have been reported in the news for a number of years (Hastie, 2021b; Sparvell, 2016).

This thesis' findings suggested that the prodromal crisis of perceived workplace uncongeniality included broken communication channels, adversarial clinician-middle manager relationships, and clinical staff autonomous adaptation into self-directed clinical hierarchies (Kendrick et. al., 2021). Based on previous research these circumstances are likely to lead to increasing gaps between work-as-imagined by managers, and work-as-done at the frontline (Anderson. et al., 2017; Kellogg & Fairbanks, 2018; Sujana et al., 2017), difficulty retaining and attracting staff (Shacklock et al., 2014), and poor staff wellbeing (Newdick & Danbury, 2015; Roch, Dubois, & Clarke, 2014). These would present as human resource outcomes such as unwanted turnover, staffing shortages, workloads for individual staff members increasing beyond their daily capacity and increased sick leave (Grima et al., 2020). As illustrated in Chapter 5, the prodromal phase becomes an acute crisis when these factors culminate in preventable harm, either to a staff member or to a patient, such as the recent case of a child's death in an understaffed children's Emergency department (Mansfield & Perpitch, 2021).

As outlined in Chapter 3, patient-facing staff developed a hidden curriculum within their teams that was covertly adversarial towards management but was perceived by them to be a correct course of action in the interest of preserving staff and patient safety. Sujan et al. (2017) wrote that:

An alternative, or complementary, way of thinking about safety is to regard safety not as the absence of something (i.e. incidents), but rather as the presence of something – the ability to make dynamic trade-offs and to adjust performance in order to meet changing demands and deal with disturbances and surprises (p. 118).

Interview participants explained their use of dynamic trade-offs, omitting communication with middle management and prioritising patient care through the establishment of their own clinical guidelines (Chapter 3). Notably, Leggat et al. (2021) recently reported similar findings, with a large gap between management expectations for quality and safety and patient-facing staff actions in a large sample of Australian health services.

There are limits to individual's reserves of personal resilience, and capacity to adapt (Aburn, Hoare, Adams, & Gott, 2020; Kalisch et al., 2015; Pruginin et al., 2017). This was discussed in Chapter 5, whereby participants began to withdraw from engagement in the workplace for self-preservation. Consistent with these findings, news reports presented anecdotes of clinical teams who were unable to focus on patient care due to the lack of senior clinicians available to provide a leadership role in the Emergency department (Garvey, 2021; Mansfield & Perpetch, 2021).

The unusual circumstance of four doctors in one team calling in sick on one shift reported in the news (Perpetch, 2021) might be associated with the thesis' findings of the prodromal crisis of an uncongenial workplace. To protect themselves from the uncongeniality, patient-facing staff began making adaptations for their self-preservation, such

as work-refusal as identified by other authors (Beardwood & Kainer, 2015; Juanola, 2021). Unfortunately, as predicted by Perpetch (2019), this adaptation intensified the effects of understaffing and may escalate the prodromal crisis (Chapter 5).

Response to sub-question 3 - How effectively are Australian public health organisations managing the systemic crisis of employee stress reaction to a perceived uncongenial workplace?

The prodromal crisis of an employee stress reaction to perceived workplace uncongeniality in Western Australian public services appears to have escalated to an acute crisis, risking patient and staff safety. The acute crisis was reported in news media in 2020 and 2021. Fink (1986) Millar and Heath (2003) promote the need for management intervention to mitigate a prodromal crisis before it becomes acute. The health service management did not intervene at the prodromal stage. Middle managers were perceived to have failed to fulfil staff psychological contract expectations for safe patient care. Additionally, both management and the health service board were perceived to have ignored the warnings of patient-facing staff at the prodromal stage (Chapters 3 and 4). This suggests that the systemic crisis of employee stress as a result of an uncongenial workplace had not been managed effectively.

6.5 Overall Implications

This section focuses on the overarching research question, ‘How do Australian public health organisations handle the systemic crisis of burnout?’, or as our findings suggested, ‘...the systemic crisis of the normal stress reaction to a perceived uncongenial workplace?’ Both theoretical and practical implications are discussed.

6.5.1 Theoretical Implications

6.5.1.1 Crisis Management Theory. The situation illustrated in the sampled public health service matched the descriptors of a prodromal crisis as defined by Fink (1986). In Chapter 1 a systemic crisis was defined as one which is embedded into a system (Kotz, 2009;

Zattoni & Pugliese, 2021). This definition applies to a crisis that spans multiple health services and hospitals in the same State health system, such as those identified in this thesis. Crisis management theory (CMT) can be used to identify potential solutions to a systemic crisis (Bowers et al., 2017; Christensen et al., 2016; Drennan, 2014; Einwiller et al., 2017; Fink, 2013).

CMT is rarely used in healthcare management research. This is because the theory is not well known, due in part to the development of the theory in non-English publications (Zubareva, 2018; Журавлев et al., 2020; Мерзликина et al., 2018)), and because managers often lack the requisite skills to handle unpredictable changes (Cleary & Duke, 2019; Topper & Lagadec, 2013). Furthermore, the term ‘crisis’ carries negative social and political connotations, making it less appealing than alternate approaches, such as risk management (Aven & Krohn, 2014; Drennan, 2014).

CMT is a useful framework for understanding staff perspectives on management described in this thesis. Even without the formal knowledge of crisis management theory, the practice and actions of patient-facing staff were aimed at preventing a crisis (Chapters 3 and 5). Risk monitoring, and rapidly adapting to changing conditions before they escalate is a skill of frontline clinicians (Drennan, 2014; Paccione-Dyszlewski et al., 2012). When managers, particularly hybrid clinical managers, fail to demonstrate these skills staff perceive a broken psychological contract (Kendrick et. al., 2021), as also found by (Bunderson, 2001). Patient-facing staff, including frontline managers, engaged in the vigilance, proactivity, and involvement that researchers have suggested are required for effective crisis management (Christensen et al., 2016; Drennan, 2014; Einwiller et al., 2017; Flanagan, 2012), in the context of patient care in their self-directed clinical hierarchies. Thus, patient-facing staff appeared to view their workplace consistent with a crisis management theory paradigm (Fink, 1986; Topper & Lagadec, 2013). However, without the intervention of management the crisis

management activities of patient-facing staff were not enough to circumvent the escalation of the prodromal crisis.

CMT can be used to explain a prodromal crisis that became smouldering, and then escalated to an acute crisis. Prodromal crises escalate slowly but may be missed due to the lack of perceived risk (Millar & Heath, 2003; Topper & Lagadec, 2013). The ability to identify the factors behind an issue that escalates over a prolonged period of time before igniting is a worthwhile contribution to CMT.

This thesis shows that CMT can be applied to address the gaps in risk management theory and practice, such as activities for monitoring and adapting to risks that could not be foreseen (Topper & Lagadec, 2013), or risks that escalate so slowly that they would not ordinarily prompt a managerial response (Millar & Heath, 2003). An example of this is the risk of stressed workers reacting to their perceptions of an uncongenial workplace. Workplace uncongeniality may be considered a minor risk under risk management principles in that work that is a bit stressful to do may not be inherently risky. However, these risk management principles do not account for smouldering conditions that can ignite later.

In future research CMT could be used to understand the cultural differences between patient-facing clinicians and their middle managers. In particular, CMT can be used to identify issues and suggest interventions that may have escaped the notice of middle management, executives, and state government that are prodromal crises.

6.5.1.2 Complex Adaptive Systems. Complex adaptive systems (CAS) theory has recognised the need for worker adaptations because of the complex nature of the work (Lawton et al., 2014; Nugus et al., 2010). The findings of this thesis lend support to CAS theory by illustrating how patient-facing staff adjust to workplace uncongeniality while maintaining patient safety. In fact, recent research has suggested that CAS, such as hospitals, require rethinking about how high quality, safe care is delivered (Braithwaite, Wears, &

Hollnagel, 2017; Hollnagel, 2017; Leggat et al., 2021; McDaniel et al., 2009; Sujan et al., 2017; Uema et al., 2020). A Safety I approach that counts mistakes has not led to the expected improvements in patient safety given the resources involved (Leggat et al., 2021). Safety II requires a change in focus towards ensuring how care is delivered correctly and consistently, including the ability to recognise mistakes averted (Hollnagel, 2017; Sujan et al., 2017). This thesis has shown how CMT can assist understanding of how Safety II activity is implemented on the frontlines of a hospital CAS.

CAS theory suggests that in hospitals, managers need to understand how care is delivered (Anderson. et al., 2017; Hollnagel, 2017; Wears, 2015). This does not happen when clinical staff do not respect their managers (McDermott & Keating, 2011) and reduce their communication as illustrated in this thesis. How managers manage impacts frontline work (Hamet & Maurer, 2017) and therefore, managers need to be aware of how their actions influence the delivery of patient care (Agarwal et al., 2016a; Bartram et al., 2007; Carlson & Greeley, 2010). CMT can be used to bridge the gap between work-as-imagined and work-as-done in CAS by promoting a management paradigm-shift away from absentee managers (Klikauer, 2013) towards genuine knowledge of organisational needs through direct monitoring of frontline conditions.

Industrial production methods advocated by new public management (Newman & Lawler, 2009; Shaw, 2012; Siltala, 2013), such as checklists and audits, may not work in CAS organisations with craft production (Leggat, Bartram, Stanton, Bamber, & Sohal, 2015). Managers may experience difficulties matching the variability of daily clinical practice with the expectations of new public management (McCann, Granter, et al., 2015; Shanafelt, Dyrbye, Sinsky, et al., 2016), despite medicine's highly regulated and standardised approach to patient care (Aburn et al., 2020; Allard & Bleakley, 2016; Avgar, Givan, & Liu, 2011; Bates, 2005; Clay-Williams et al., 2017; Fukuda, Okuma, & Imanaka, 2014; Ginsburg &

Phillips, 2018). The ability to balance standardised clinical practice with patient-centred clinical craft practices in a CAS require managers to know when to apply a checklist, and when to use discretion (Finkelstein & Hambrick, 1990; Offstein, Harrell-Cook, & Tootoonchi, 2005). This requirement echoes the earlier point recommending greater management competency, which would facilitate managers' agility in using approaches best suited for the situations they experience.

6.5.1.3 Stress and the Social Determinants of Health. Social determinants of health have been recognised as non-medical factors, such as housing, education and working life conditions, that have a large influence on the health of individuals and populations (World Health Organization (WHO), 2021). One of the social determinants of health recognised by the World Health Organization is working life conditions that directly relate to work congeniality, associated with factors such as relationships with management, stress, and safety (World Health Organization (WHO), 2016). Workplaces that are stressful, perceived to be unsafe, and contain poor relationships with management, are uncongenial (Badayai, 2012) (Chapter 2). The World Health Organization has suggested there is insufficient evidence on how best to address the social determinants of health (World Health Organization (WHO), 2021). This thesis adds to the theory of the workplace as a social determinant of health by illustrating how workplace uncongeniality can impact staff stress and patient care.

A workplace that supports worker health and long-term wellbeing contributes to career longevity (Alexander et al., 2015; Bartram et al., 2020; Ros & Scheper, 2009), as well as safe healthcare delivery. This thesis provides in-depth information to assist healthcare managers to understand how patient-facing staff perceive their workplace and their experiences with management. Our findings support previous research that has confirmed workplace health has to be expanded beyond individually focused resilience-building programs, towards integrative workplace health promotion (Pham et al., 2020). As outlined

by the World Health Organization (WHO) (2010), integrative workplace health promotion requires equal attention not only to individual worker characteristics but also to the physical work environment, the psychological work environment, and the community involvement of the organisation. Studies on the mitigation of stress in other contexts, such as aged care and childcare, identified the importance of an individual's social network and the community around them (Gyasi, Phillips, & Abass, 2019; Han, Li, & Whetung, 2021; Small, Jacobs, & Massengill, 2008). As in the context of childcare provision and the provision of aged care, socialisation and access to necessary resources has a significant impact on an individual's wellbeing in the workplace (Berlin, Shdaimah, Goodman, & Slopen, 2020; Corvo, Fontefrancesco, & Maticena, 2020; Georganta & Montgomery, 2016). Looking beyond the physical work environment to the impacts of an employee's social environment may allow for improved approaches to integrative workplace health promotion.

6.5.2 Implications for Management Practice

Important findings of the thesis included participant perceptions of the incompetence of middle management, and the lack of fit with their clinical needs. The lack of requirements for healthcare managers to achieve or maintain competency in Australia should be addressed with mandatory registration with an association such as Australasian College of Health Service Management (ACHSM), or the Royal Australasian College of Medical Administrators (RACMA). The recommendations outlined in Chapters 3 and 5, involving professional registration and closer monitoring of work-as-done, should be a foundational step towards greater capacity and legitimacy for managers, and could also improve their influence on Australian public health organisations. The research described in this thesis suggests that there is a need for healthcare managers, especially hybrid clinical managers, to have management education focused on managing the craft production that characterises clinical care in a highly regulated CAS. Craft production management is a major gap in

management literature that requires further study. Craft production is described as, “a process, the quality of whose result is always at risk”, with craftspeople needing to respond to “variability rather than uniformity” (Dornan & Nestel, 2013 p. 35). Dornan and Nestel (2013) describe medicine as a ‘craft’ because each patient has different needs, and adjustments to treatment are required as a result. They argue that the routine training of clinicians, such as surgeons, overlooks this variability, focusing instead on uniformity as a means of quality control. Clinical uniformity, while evidence-based (Fukuda et al., 2014; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996), can miss the soft skills of patient interaction which are also required in healthcare (sometimes referred to as ‘bedside manner’) (Abuqayyas, Yurosko, Ali, Rymer, & Stoller, 2021; Benatar & Daneman, 2020). The deficit in social skills also appear to be shared by healthcare managers (Gibiino, Rugo, Maffoni, & Giardini, 2020). Derived from industrial revolution factories and workhouses which sought to maximise the efficiency of mass production techniques (Jervis, 1974; Ottaway, 2020), modern management focus on the financial ‘bottom line’ may skew management away from humanistic principles (Pirson, 2017). Further research on craft production techniques and management in healthcare may shed some light on this phenomenon, and its remedy, for the development of healthcare management theory.

Clinical staff care deeply about their work and workplace, and will try to work with management to fix it (Chapter 3) – but at some point may give up and withdraw for their wellbeing (Chapter 5). Management needs to address perceived uncongenialities in the workplace to prevent staff from withdrawing. This suggests the need for greater focus on effective people management by middle managers. The thesis suggested that little appears to have been done to make the workplace more congenial within the controls of middle management. There are strategies recommended by participants, such as: listening to staff feedback and communicating truthfully about whether feedback is being incorporated

(Chapter 4); ensuring that staff get access to their leave entitlements (Chapter 2); middle managers working with patient-facing staff to ensure that risk reports are adequately escalated for executive/state-level attention (Chapters 3 and 5) and understanding work-as-done (Chapters 3 and 4). The combination of these strategies would contribute to improved congeniality of the clinical workplace for patient-facing staff. Thus, these strategies could assist with ensuring that senior clinicians are retained until junior clinicians can be trained.

Healthcare organisations should also ensure an integrated health promotion organisational response (World Health Organization (WHO), 2010) to stress as a workplace social determinant of health. This would include a focus on the physical work environment, such as reasonable shift length and the provision of adequate staffing to ensure breaks; the psychological work environment, such as honouring psychological contracts, and the community, such as facilitating patient and community feedback. Achievement of the WHO recommendations for integrated workplace health promotion (World Health Organization (WHO), 2010) would be in addition to existing approaches that rely on increasing the resilience of individuals working in the system.

One element of the integrated health promotion organisational response recommended by the WHO (2021) is workplace safety. Making the healthcare workplace safer for workers is a challenge, given the many factors involved. These factors include adequate staffing (Hudson & Shen, 2015; Weigl, Schmuck, Heiden, Angerer, & Müller, 2019), adequate rest (Farquhar, 2017; Fletcher et al., 2020), and positive interpersonal relationships (Liao, Hu, Chung, & Chen, 2017; Stinglhamber et al., 2015; Zhong, Lam, & Chen, 2011). With regards to ensuring adequate staffing and rest, a hospital cannot simply hire more nurses, as newly-graduated nursing staff are not experienced enough to take on the full responsibility of their job immediately (Larsen et al., 2018; Price et al., 2015; Spivak, Smith, & Logsdon, 2011). Time to train junior staff is required before those workers can safely fill patient-facing roles

(Altmiller, 2011; Benatar & Daneman, 2020; Durani et al., 2013; Hunter & Cook, 2018). The constant evolution of juniors to trained staff is required to ensure continuity of the workforce (Barrette, 2015; Janes, 2014). However, training junior staff temporarily places increased strain on experienced workers who are expected to maintain patient care activity in addition to providing practical education (Armstrong et al., 2010). Improper management of the balance between junior and senior staff has negative impacts on both employee groups. A lack of adequate clinical supervision can cause stress among junior staff in situations that places them and their patients at risk (Gander, Purnell, Garden, & Woodward, 2007; Lawton et al., 2019). The strains of a high workload burden, including the need to supervise juniors, has been found to increase the fatigue of supervisors regardless of organisational context (Åkerstedt et al., 2004). Furthermore, working in situations that create moral injury, such as a consistent experience of shifts with inadequate staffing ratios put patients and staff at risk, is linked with increased burnout (Khandelwal, Mehta, Lilly, & Velagapudi, 2020). Thus, managers in the workplace need to be aware of the impact of the workplace as a social determinant of health to prevent experienced staff being lost faster than they can be replaced (Day et al., 2007; Frederiksen, 2017; McHugh et al., 2011; Pierce & Snyder, 2015; Wernick et al., 2016; Yanchus, Carameli, Ramsel, & Osatuke, 2020).

With regards to the need for positive interpersonal relationships, it has been suggested that new public management in Australian public hospitals takes the form of management-at-arm's-length that does not suit the humanistic requirements of healthcare (Benatar & Daneman, 2020; Karimi et al., 2019; Pirson, 2017; Rider et al., 2018), and does not enable managers to understand how care is delivered. Effective new public management approaches could achieve cost efficiency without sacrificing humanistic management through the use of evidence-based-management practice, with management-by-walking-around as one example (Kelly, 1996; Tucker & Singer, 2015). By reducing the physical and power distance between

managers and their patient-facing staff, managers can increase the direct consultation and first-hand familiarity with the working environment necessary for effective management in CAS (Kelly, 1996; Tucker & Singer, 2015).

CMT calls users to be vigilant, proactive, and involved in frontline activity to circumvent issues before they escalate (Fink, 1986; Flanagan, 2012). This conflicts with the current, managerialist, new public management approaches for healthcare performance monitoring (Donnelly, 2012; Verbeeten & Speklé, 2015) that focuses on monitoring activity using organisational data, that by definition is out-of-date, instead of incorporating temporal first-hand experiences (Grima et al., 2020; Mills, Bradley, & Keast, 2021; Patrick, Helen, Simon, & Jane, 2006; Verbeeten & Speklé, 2015). While healthcare managers may use activity data (Almunawar, Anshari, Younis, & Kisa, 2015; Aragon Penoyer et al., 2014; Barbieri & Bolin, 2017; Bonnet, 2010), knowledge of how to gather contextual evidence in-person, and why this information is useful, may be lacking (Klikauer, 2013). In essence, the use of CMT requires managers to increase their skills in identifying prodromal crises through proven management practices such as management-by-walking-around (Tucker & Singer, 2015) and greater use of evidence-based practice (Liang, Leggat, Howard, & Koh, 2013; Martins & Isouard, 2015).

6.6 Strengths and Limitations

6.6.1 Limitations

6.6.1.1 Sampling and bias. The thesis experienced limitations that are common in voluntary research populations, such as the potential for self-selection bias. There was the risk of disgruntled, unhappy employees being the overwhelming majority of those who consented to participate. The risk of a skewed sample was partially mitigated by the dual-approach snowball and direct purposive sampling aimed at entire patient care teams. There was also a similar number of volunteers who participated across two separate clinical

departments, and across clinical professions. While middle and executive managers were invited to participate, they chose not to, which limited the sample to patient-facing staff and managers.

The perspective of patient-facing staff addressed a gap identified in the literature. Management studies in healthcare settings currently under-represents patient-facing staff experiences in their healthcare organisations. As the lynch pins of the health care system – the providers of clinical care, and the human interface between management and patients – patient-facing staff experience the healthcare organisation distinctly from managers and patients. The thesis' focus on patient-facing staff provided useful data but including middle and executive managers and patients could have added different perspectives for analysis. The addition of these viewpoints could have afforded the opportunity to triangulate data for deeper insights into the subjective experiences of patient-facing staff, as well as the impacts of patient-facing staff activity on patient wellbeing and safety. The limitation of the study sample also extends to the generalisability of the study, which may be impacted by drawing the sample from two clinical departments.

By the close of data collection, at least two entire patient-care teams from Psychiatry and Emergency had been interviewed providing trustworthy data. The volunteer response rate was lower for those who worked in Surgery, limiting the trustworthiness of the Surgery department data. The Pharmacy and Geriatrics departments were also approached but declined to participate. Replication of this study could benefit from a broader range of clinical departments for analysis.

6.6.1.2 Limitations of conducting research in the field. There is a known challenge involved with fieldwork, such as the ever-changing environment beyond the control of the researcher (Furniss, 2014). An example of this involves the potential introduction of new legislation and healthcare policy during the collection of the data. There

were no identified major changes during the data collection, but shortly after the completion of the data collection the health system was negatively affected by a global pandemic.

6.6.1.3 Personal reflections on the challenge of working as an independent researcher in a hospital. A challenge experienced during the study involved the author's relationship as a researcher with the health service's middle and senior managers over the course of the study. Despite both organisational human research ethics approval and organisational approval to conduct the study, over time it became more difficult to engage with middle and senior managers. They chose not to participate in the study but did not communicate why.

The author's professional relationship with the health service executive managers deteriorated over the course of the research project, particularly once the research findings began to point towards an issue with middle management fit with staff needs. At first, the author was invited to meet with the health service's Chief Executive Officer (CEO) at regular intervals throughout the research project to discuss progress and publications (approximately every 6 months). Both the CEO and an Executive Director discussed their interest in an empirical project addressing burnout in their service, as media and union reports were perceived to be negatively biased against the health service. In response to this interest, the author communicated the research activity and progress throughout the project. As the author began to discuss early manuscript drafts, which identified patterns and trends based on early analyses, emails to the CEO no longer resulted in invitations to meet. Analysis such as the patient-facing staff perception that middle management contributed to the uncongeniality of the workplace, and staff stress, conflicted with the perspective of the CEO from earlier conversations where the CEO had dismissed union publications reporting similar findings (AMA, 2017). As requested by the organisation, draft articles were provided for review

before publication at which time the organisation requested that it not be identified in publications.

It was through the CEO that the author gained consent to conduct the research project, and personal introduction to the members of the health service executive. The CEO consented for research to be conducted with staff at the hospitals outlined in the ethics application, on the premise that the heads of each department also provided their consent for access to those staff. As the CEO was the head of the executive, the author enquired whether the executive staff could be approached for interview. This was not allowed. The Head of Department for the Surgery, Emergency, and Psychiatry departments gave their consent for research activity, including participation by the Surgical and Emergency Clinical Directors. The Psychiatry Clinical Director did not participate in the study.

6.6.2 Strengths

6.6.2.1 Strengths of qualitative research. The thesis has limitations inherent to qualitative research, such as the inability to confirm causative relationships. However, the key benefit of qualitative research, particularly exploratory research, is the ability to explain ‘how’ and ‘why’ associated with earlier statistical reports of empirical phenomena. In the case of this thesis, quantitative investigations of burnout (Dyrbye et al., 2013) structured the author’s initial interest in exploring the topic. However, when asking participants about their workplace experiences, the author was given more complex, richer descriptions than burnout. The author was able to learn about the factors staff perceived led to their stress reaction to an uncongenial workplace. This nuance might have been missed with quantitative methods.

To the author’s knowledge, this study is one of the largest healthcare qualitative studies, consisting of 73 interviews each averaging 45 minutes. Collecting large amounts of data ensured that clear themes emerged, and that data saturation was achieved. The comparative breadth of the sample and richness of the data, including junior and senior

clinicians, and a range of clinical professionals, offered variety for direct comparison and contrast during coding and analysis.

An added strength of the thesis was the ethnographic approach to project design and analysis. Ethnographic approaches to research design by a researcher who is outside the studied community are uncommon (Creswell, 2018; Dadich et al., 2018; Lassiter, 2005; Pozzebon, 2017). However, research on healthcare organisations by non-healthcare researchers may miss cultural nuances and insights if it is not conducted with cultural humility (de Koning, Meyer, Moors, & Pels, 2019; Lassiter, 2005). An important consideration for the thesis' success in collecting honest and open anecdotes was to ensure that participants trusted the researcher. This involved processes to embed the researcher in the research site. To achieve embeddedness, the author participated in shared routines around the hospital to become a familiar face, and someone who looked like they fit the environment. These shared routines often took the form of casual interactions, such as having lunch in the staff break room between interviews, which also afforded the opportunity to recruit potential participants. Gaining trust also required stringent ethical conduct. The author's ethical conduct was demonstrated through their adherence to participant confidentiality during the interview transcription process, using professional discretion to avoid interrupting patient care activity, and preventing conflicts of interest. Clinical stakeholders were consulted at every stage of the project to mitigate researcher bias and promote reflexivity. This process was part of the ethnographic approach used to guide the thesis' direction during its design stage. Methods that enabled the thesis to be guided by those in the healthcare community, instead of the more traditional approach whereby an academic set the focus of the project (Tucker & Parker, 2014), contributed to the robustness and validity of the findings.

The strengths of the thesis extended to various types of generalisabilities applicable to qualitative research. To quote Guenther and Falk (2019) on the subject:

...the iterative nature of qualitative research lends itself well to theory development, and confirmation or rejection of normative truth statements-and the more this occurs, the greater the probability that those truth statements will hold generally, not just to the particular. (p. 1028)

Through the collection and recording of patient-facing staff experiences, this thesis' data contributes to the international dialogue on healthcare workplace experiences for the development of future theory. While this thesis may not have generated theory itself, its place in the growing literature on stress, workplace uncongeniality, and crises in healthcare can add to the foundation on which other scholars may build.

The perspective of Guenther and Falk (2019) mirror the statements of Smith (2018), who discussed how generalisability in qualitative research can present, "...when the research resonates with the reader's personal engagement in life's affairs or vicarious, often tacit, experiences" (p. 140), in the form of naturalistic generalisability. As suggested by Smith (2018) the discovery of anecdotes in public news media which echoed the sentiments of the study participants, and the literature, supported the generalisability of the analysis. Both Smith (2018) and Guenther & Falk (2019) counter the concerns of quantitative researchers by arguing that qualitative research can be generalised (Smith, 2018), and used to support a generalisable theory (Guenther & Falk, 2019). As illustrated in Chapter 5, the analysis confirmed consistency among patient-facing staff experiences, and secondary data sources that can inform more robust approaches to staff wellbeing and the prevention of stress.

The effectiveness of the semi-structured interview schedule was demonstrated when participants would pre-empt researcher questions through their own, unprompted discussion. This was how the study was able to reach data saturation within the first 10 participants and succeeded in exploring topics not explicitly planned for analysis.

An added strength of the study was the interdisciplinary nature of the research team, enabling reflexive and thoughtful analysis of phenomena. The addition of a consultant psychiatrist, a clinical research assistant, and two professors with clinical and academic backgrounds and experience in qualitative research afforded a cross-disciplinary perspective. Without the guidance and assistance of these professionals, this thesis may have risked researcher bias and inaccurate interpretation of clinician anecdotes from a management background.

6.7 Future Research

The articles included in this thesis and the key points discussed in this chapter offer many avenues for further study. Avenues for future projects involve the exploration of our finding that staff were not reporting burnout and the perspectives of Bianchi et al. (2014), to identify whether the focus of burnout research could be adjusted to assess the overlap with depression. Additionally, addressing workplace uncongeniality and its impact on workers, developing a psycho-social model of workplace congeniality in healthcare, using a healthcare management competency framework to explore an uncongenial workplace, and implementation studies based on patient-facing staff feedback on ideal healthcare management activity, are some examples.

As this thesis was qualitative in nature, future projects could build on the study's foundations with other methods such as quantitative analysis, or mixed methods research into work-related stress responses. The next steps for advancement in CMT, and research into managing a healthcare CAS, would be to expand on this research. Identifying different methods of crisis management in a variety of healthcare contexts could add greater nuance to the discussion presented in this thesis. An example of this research could involve a project which studies the public health organisations that successfully retained staff during and after

the COVID-19 pandemic, or studies capturing the patient perspective on staffing and workplace congeniality for clinicians.

Furthermore, additional exploration of topics that could not be fully addressed by this study would be useful. Some of these topics involve the working culture and hidden curriculum of healthcare management, existing barriers to middle management education and professional registration, and healthcare workforce planning to ensure adequate staffing at all levels of the patient-facing layer of the public hospital hierarchy. Case studies of successful hybrid management and feedback from their staff would also benefit the profession.

6.8 Conclusion

This thesis did not find a systemic crisis of burnout. Instead, analysis identified that patient-facing staff perceived an uncongenial workplace that resulted in normal stress reactions.

One of the largest contributors to patient-facing staff experiences of workplace uncongeniality and stress was their perceptions of the poor fit of their middle managers for patient care. Staff perceptions of poor fit were grounded in repeated experiences whereby hospital leaders failed to meet staff expectations. Staff adapted to this by ignoring management communication and constructing self-directed clinical hierarchies, disrupting the governance capacity of new public management in this Australian public health organisation. Patient-facing staff made these adaptations due to the perceived safety benefit it created for themselves, and their patients.

The slow-developing, internal situation of poor manager fit and covert adversarial relationships between clinicians and managers is a prodromal crisis. The flow-on effects of this situation, and avenues to rectify it, could therefore be conceptualised with crisis management theory. Staff perceived the managers were unable to respond to the prodromal warning signs, enabling the prodromal crisis to smoulder in an intensifying, iterative cycle. A

substantial external force was instrumental in igniting the smouldering crisis, with a health system crisis linked to a severe adverse event identified in the news, demanding attention from the State health department. Management had the opportunity to intervene at the prodromal and smouldering stages of the crisis, but did not, which made the resolution of the acute crisis more difficult and may have contributed to preventable patient harm.

Appendix 1 University Ethics Approval



19 September 2018

Research Office

To	Sandra Leggat
From	University Human Ethics Committee
Reference Number	[REDACTED] RGS0000000966
Project title	Organisational Governance and Patient-Facing Staff Well-Being
Subject	Externally Approved Project
Date	19 September 2018

The externally approved project submitted above was reviewed and **noted** by the University Human Ethics Committee Chair.

Please note that all requirements and conditions of the original ethical approval for this project still apply.

Should you require any further information, please contact the Human Research Ethics Team on: T: +61 3 9479 1443 | E: humanethics@latrobe.edu.au.

Warm regards,

David Finlay
Chair, University Human Ethics Committee

Appendix 2 Statement of Authorship

Paper 1

Statement from the authors confirming the authorship contribution of the PhD candidate.

"as co-authors of the paper, 'Kendrick, M., Kendrick, K., Morton, P., Taylor, N. F., & Leggat, S. G. (2020). Hospital Staff Report It Is Not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study. *International Journal of Environmental Research and Public Health*, 17(11), 4107. Retrieved from <http://dx.doi.org/10.3390/ijerph17114107>', we confirm that Madeleine Kendrick made the following contributions:

- Conception and design of the research
- Collection of the data
- Analysis and interpretation of the findings
- Writing the paper, critical appraisal of content, and response to reviewers"

Dr Kevin Kendrick

Dr Peter Morton

Professor Nicholas Taylor

Professor Sandra Leggat



13/12/2021

7/12/2021

7/12/2021

Paper 2

Statement from the authors confirming the authorship contribution of the PhD candidate.
"as co-authors of the paper, 'Kendrick, M., Kendrick, K., Taylor, N. F., & Leggat, S.,
G. (Unpublished) A Qualitative Study of Hospital Clinical Staff Perceptions of Their
Interactions with Healthcare Middle Managers', we confirm that Madeleine Kendrick made
the following contributions:

- Conception and design of the research
- Collection of the data
- Analysis and interpretation of the findings
- Writing the paper, critical appraisal of content, and response to reviewers"

Dr Kevin Kendrick
Professor Nicholas Taylor
Professor Sandra Leggat



13/12/2021
7/12/2021
6/12/2021

Paper 3

Statement from the authors confirming the authorship contribution of the PhD candidate.

“as co-author of the paper, ‘Kendrick, M., & Kendrick, K (Unpublished) Insight into work-as-done Versus work-as-Imagined; Staff Perceptions of a Health Service’s ‘Leadership Rounding’ Initiative’, I confirm that Madeleine Kendrick made the following contributions:

- Conception and design of the research
- Collection of the data
- Analysis and interpretation of the findings
- Writing the paper, critical appraisal of content, and response to reviewers”

Dr Kevin Kendrick



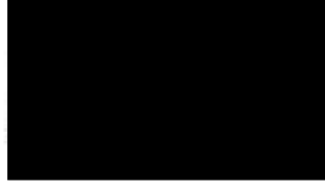
13/12/2021

Paper 4

Statement from the authors confirming the authorship contribution of the PhD candidate.
"as co-authors of the paper, 'Kendrick, M., Kendrick, K., Taylor, N., F., & Leggat, S.,
G. (Unpublished) Qualitative Study of Western Australian Public Hospital Systems: A Crisis,
Escalation model for Public Management', we confirm that Madeleine Kendrick made the
following contributions:

- Conception and design of the research
- Collection of the data
- Analysis and interpretation of the findings
- Writing the paper, critical appraisal of content, and response to reviewers"

Dr Kevin Kendrick
Professor Nicholas Taylor
Professor Sandra Leggat



13/12/2021
7/12/2021
6/12/2021

Appendix 3 Data Collection Tools

Interview Schedule – Frontline Patient-Facing Staff

Approx. 45 minutes to enable participant availability

> Check consent form, verbal consent, start recording if able

Q1: How do you feel when you're at work? (RQ2&3)

> How is this different to how you feel when not at work?

Why?

Q2: How does your emotional and physical wellbeing change as the work day progresses? (RQ2)

> Why?

Q3: Can you recall how work used to be when you first started your career? (Your early days as [current role]) (RQ 1, 2 & 3)

> How is it different now?

> Why might things have changed since you began?

Q4: Please describe your workload. (RQ2)

> How reasonable is it?

> How often do you have to 'stay back' or bring work home to complete it?

> If you can't finish your tasks at work, what happens?

Q5: How would you describe the culture of your team? (RQ 1 & 3) (Positive? Collegial? Cameraderie? Feel valued? Team = immediate circle of professionals that the participant works with daily).

> How was your team culture created?

> How does your team culture impact your work?

> How does the team culture impact safety at work? (Safe to report dangers)

> Is your team culture the same as the culture in the rest of the hospital?

> > Why?

Q6: What experiences have you had with burnout? (Yourself or in others?) (RQ 2 & 3)

> Do you consider yourself to be burnt-out? (*Prompt participant to explain how they know they're burnt out if they respond 'yes' – describe how they feel, etc*)

> What impact do you think burnout has on performance (or patient care, if the employee is in a patient-care role)?

Q7: What activities do hospital management undertake that impacts your wellbeing, positively or negatively? (RQ 1,2 & 3)

> Make sure that you focus on positive AND negative. Let the participant lead their preference, but check for positive if only negative was provided, etc.

Q8: Are there any things that hospital management has done that positively or negatively impacts your ability to do your job? (RQ 1 & 3)

> How effective are those activities? (RQ 1&3)

Q9: Please describe what occurred during the most recent interaction you had with hospital management/leadership. (RQ 1 & 3)

(Most recent interaction – the last time you interacted with management personnel)

> what was your most recent interaction with hospital management/leadership?

>When was this? How did it make you feel?

(Any email communication that had significant effects?)

Q10: Do you believe your current job has changed your ability to adapt to stress and crises? (RQ 1, 2 & 3)

> Do you think your medical specialty is more or less stressful than other medical specialties?

(If you're in Surgery, would you suppose Psychiatry is different? etc)

>> Why?

Q11: What is your experience with hospital-sponsored wellness programs/employee support, if any? (RQ 1, 2 & 3)

> Has it helped you?

Q12: What are the main changes you feel management could make to create a better working environment for hospital staff? (RQ 1 & 3)

Q13: The last time you were under significant workplace stress, what methods did you use to cope? (RQ 2)

> What are your coping strategies after work? How do you 'decompress' at the end of the day? How many of your coping strategies do you think are healthy?

Q14: The last time you were under significant workplace stress, what methods did you use to recover? (RW 2)

> What resources and/or social supports do you have to better handle issues in the future?

Q15: What is the main cause of fatigue, emotional or physical, at your workplace? (RQ 1, 2 & 3)

> Do you know of any policies/programs in place that address fatigue and staff wellbeing in your hospital?

Q16: How important is team camaraderie to you in coping with stress and your workload? (RQ 1, 2 & 3)

> Does your boss/team members make your workload easier/easier to handle?

Q17: How important is the role of senior leadership, as opposed to management, in maintaining the work environment? (Senior leadership = consultant clinician and/or head of service) (RQ 1 & 3)

Q18: What strategies does the [Service] have for improving quality of patient care? (RQ 1&3)

> Can you list any strategies that the Health Service has?

> Are you ever consulted or been able to comment on strategies set by the health system for your service?

> Do you know how the Board prioritises staff wellbeing?

> Have you seen any emails, notices, flyers, pamphlets, handouts or meetings about staff wellbeing?

Q19: What does personal resilience mean to you? (RQ 2)

Q20: If you were to suffer from a significant loss of resilience, how much would this affect patient care? (RQ 2)

> What support networks are available to you, should you need them? (RQ 1 & 3)

Q21: What are your personal experiences with senior leadership and/or management? (RQ 1 & 3)

> Ask about the Executive

> Do you feel that they care about your wellbeing?

> Do you feel that their role/activities are effective?

> How often do you interact with hospital management (formal management/HR training, access to holiday leave and/or benefits, professional development, roster changes)

Prompt the participant to contribute any additional information that they feel would be relevant to the topics just discussed. Example prompt;

“Do you feel that I’ve missed anything that you would like to comment on today?” or

“That’s all the questions I have for you, do you have anything that you would like to add?”

Notes for the interviewer:

Provide a safe space for participants in distress to regulate before they’re expected to leave the room. Offer to stop the recording if they wish to debrief off-the-record.

If audio recording, try to keep note-taking to a minimum. Sit facing the participant directly, with minimal furniture between you (unless the participant seems more comfortable with a table or desk in between). Provide water and tissues if necessary. Use silence to prompt the participant filling the space with information.

If the participant appears distressed mid-interview, offer to stop the recording. Participant wellbeing is more important than a data point – keep the withdrawal of consent form on the

table throughout the interview so participants feel safe to change their mind at any point. Ensure the participant takes the withdrawal of consent form with them when they leave.

Notes on protecting participant confidentiality

Try to space interviews at least two hours apart so that transcription can begin immediately. De-identify all names and identifying details during transcription. Offer for the participant to review the transcript before use. Delete the audio recording as soon as approval is provided for the transcript.

Use the clinical document shredder at the hospital to dispose of participant signatures made in error, and identifying documents not related to the study. Do not keep participant consent forms in the folder beyond the day they were collected – deposit immediately into personal office for filing and storage. Ensure that the signed consent form folder is visible during on-site data collection at all times. Explain the study protocol to participants on request.

References

- Aasland, O. G. (2013). Physician Suicide—Why? *General Hospital Psychiatry*, 35, 1-2. doi:10.1016/j.genhosppsych.2012.09.005
- Abuqayyas, S., Yurosko, C., Ali, A., Rymer, C., & Stoller, J. K. (2021). Bedside Manner 2020: An Inventory of Best Practices. *Southern Medical Journal*, 114(3), 156-160. doi:10.14423/SMJ.0000000000001216
- Aburn, G., Hoare, K., Adams, P., & Gott, M. (2020). Connecting Theory with Practice: Time to Explore Social Reality and Rethink Resilience Among Health Professionals. *International Journal of Nursing Practice*, 26(6), e12893-n/a. doi:10.1111/ijn.12893
- Ackroyd, S. (1996). Organization Contra Organizations: Professional and Organizational Change in the United Kingdom. *Organization Studies*, 17(4), 23.
- Aebi, V., Sabato, G., & Schmid, M. (2011). Risk Management, Corporate Governance, and Bank Performance in the Financial Crisis. *Journal of Banking and Finance*.
- Agarwal, R., Green, R., Agarwal, N., & Randhawa, K. (2016a). Benchmarking Management Practices in Australian Public Healthcare. *Journal of Health Organization and Management*, 30(1), 31-56.
- Agarwal, R., Green, R., Agarwal, N., & Randhawa, K. (2016b). Management Practices in Australian Healthcare: can NSW Public Hospitals do Better? *Journal of Health Organization and Management*, 30(3), 331-353.
- Aherne, D., Farrant, K., Hickey, L., Hickey, E., McGrath, L., & McGrath, D. (2016). Mindfulness Based Stress Reduction for Medical Students: Optimising Student Satisfaction and Engagement.(Report). *BMC Medical Education*, 16(1).
- AHPRA. (2020). 'What We Do'. Retrieved from <https://www.ahpra.gov.au/About-AHPRA/What-We-Do.aspx>
- Åkerstedt, T., Knutsson, A., Westerholm, P., Theorell, T., Alfredsson, L., & Kecklund, G. (2004). Mental Fatigue, Work and Sleep. *Journal of Psychosomatic Research*, 57(5), 427-433. doi:10.1016/j.jpsychores.2003.12.001
- Akgün, A. E., & Keskin, H. (2014). Organisational Resilience Capacity and Firm Product Innovativeness and Performance. *International Journal of Production Research*, 52(23), 6918-6937.
- Al-Dabbagh, Z. S. (2020). The Role of Decision-Maker in Crisis Management: A Qualitative Study Using Grounded Theory (COVID-19 Pandemic Crisis as A Model). *Journal of Public Affairs*, 20(4), e2186. doi:10.1002/pa.2186
- Alexander, R. K., Diefenbeck, C. A., & Brown, C. G. (2015). Career Choice and Longevity in U.S. Psychiatric-Mental Health Nurses. *Issues in Mental Health Nursing*, 36(6), 447-454. doi:10.3109/01612840.2014.994078
- Allard, J., & Bleakley, A. (2016). What Would You Ideally Do If There Were No Targets? An Ethnographic Study of the Unintended Consequences of Top-down Governance in Two Clinical Settings. *Theory and Practice*, 21(4), 803-817. doi:10.1007/s10459-016-9667-8
- Allen, J. (2011). Measures for Managing Operational Resilience. *EDPACS*, 44(6), 1-6.
- Almunawar, M. N., Anshari, M., Younis, M. Z., & Kisa, A. (2015). Electronic Health Object: Transforming Health Care Systems From Static to Interactive and Extensible. *Inquiry* (00469580), 52, 1-10. doi:10.1177/0046958015618665
- Altmiller, G. (2011). Teaching Clinical Nurse Specialist Students to Resolve Conflict: Strategies That Promote Effective Communication and Teamwork. *Clinical Nurse Specialist*, 25(5), 260-262.
- AMA, WA. (2017). Money Over Morale. *Medicus*, 57(9), 19-29.

- Amiri, M., Khosravi, A., Eghtesadi, A. R., Sadeghi, Z., Abedi, G., Ranjbar, M., & Mehrabian, F. (2016). Burnout and Its Influencing Factors Among Primary Health Care Providers in the North East of Iran. *PLoS One*, 11(12), e0167648-e0167648. doi:10.1371/journal.pone.0167648
- Amos, A. (2019). Slow Crisis in the Emergency Department: Bed Block and Human Rights. *Australasian Psychiatry*, 27(1), 6-7. doi:10.1177/1039856218818316a
- Anderson, Ross, A. J., Back, J., Duncan, M., Snell, P., Walsh, K., & Jaye, P. (2016). Implementing Resilience Engineering for Healthcare Quality Improvement Using the CARE Model: A Feasibility Study Protocol.(Report). *Pilot and Feasibility Studies*, 2(1).
- Anderson, Ross, A. J., Macrae, C., & Wiig, S. (2020). Defining Adaptive Capacity in Healthcare: A New Framework for Researching Resilient Performance. *Applied Ergonomics*, 87, 103111. doi:https://doi.org/10.1016/j.apergo.2020.103111
- Anderson, E. (2013). *Business Risk Management Models and Analysis*. In E. J. Anderson (Ed.), (1st ed.). Oxford: Wiley.
- Anderson., Ross, A., & Jaye, P. (2017). Modelling Resilience and Researching the Gap Between Work-As-Imagined and Work-As-Done. In J. Braithwaite, R. L. Wears, & E. Hollnagel (Eds.), *Resilient Health Care. Volume 3, Reconciling Work-A-Imagined and Work-As-Done*: Boca Raton, Florida.
- Ang, S. H., Bartram, T., McNeil, N., Leggat, S. G., & Stanton, P. (2013). The Effects of High-Performance Work Systems on Hospital Employees' Work Attitudes and Intention to Leave: A Multi-Level and Occupational Group Analysis. *International Journal of Human Resource Management*, 24(16), 3086-3114.
- Appiah, K., Amos, K., Bashiru, J., Drammeh, P., & Tuffour, S. (2017). Corporate Governance and Records Management in Private and Public Hospitals in Ghana. *Records Management Journal*, 27(1), 42-56.
- Aragon Penoyer, D., Cortelyou-Ward, K. H., Noblin, A. M., Bullard, T., Talbert, S., Wilson, J., . . . Briscoe, J. G. (2014). Use of Electronic Health Record Documentation by Healthcare Workers in an Acute Care Hospital System. *Journal of Healthcare Management*, 59(2), 130-144. doi:10.1097/00115514-201403000-00008
- Arena, M., Arnaboldi, M., & Azzone, G. (2010). The Organizational Dynamics of Enterprise Risk Management. *Accounting, Organizations and Society*, 35(7), 659-675.
- Arman, S. E. (2019). Are Ergonomic Interventions Effective for Prevention of Upper Extremity Work-Related Musculoskeletal Disorders Among Office Workers? A Cochrane Review Summary With Commentary. *Musculoskeletal Science & Practice*, 45, 102062-102062. doi:10.1016/j.msksp.2019.102062
- Armon, G. (2014). Type D Personality and Job Burnout: The Moderating Role of Physical Activity. *Personality and Individual Differences*, 58, 112-115. doi:10.1016/j.paid.2013.10.020
- Armstrong, P. A. R., White, A. L., & Thakore, S. (2010). Reduced Productivity Among Junior Trainees in the Emergency Department and the Impact on Senior Clinicians. *Emergency Medicine Journal*, 27(2), 97-99. doi:10.1136/emj.2008.071431
- Australasian College of Health Service Management. (2021). Membership/Why Join? Retrieved from <https://www.achsm.org.au/membership/why-join>
- Australia Associated Press (AAP). (2021). Unions Raise WA Hospital Stoush Tensions in Wake of Aishwarya Aswath's Death. *The West Australian*. Retrieved from <https://thewest.com.au/news/health/unions-raise-wa-hospital-stoush-tensions-c-2913210>
- Australia's Future Health Workforce – Psychiatry*. (2016). Online: Commonwealth of Australia Retrieved from

- [https://www1.health.gov.au/internet/main/publishing.nsf/Content/597F2D320AF16FDBCA257F7C0080667F/\\$File/AFHW%20Psychiatry%20Report.pdf](https://www1.health.gov.au/internet/main/publishing.nsf/Content/597F2D320AF16FDBCA257F7C0080667F/$File/AFHW%20Psychiatry%20Report.pdf)
- Australian Bureau of Statistics. (2016). *2016 Census Quickstats - Greater Perth*. Online Retrieved from https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/5GPER
- Australian Bureau of Statistics. (2018). *National Health Survey: State and territory findings*. Online Retrieved from <https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey-state-and-territory-findings/latest-release>
- Australian Government. (2021). *Area of Australia - States and Territories*. Online. Retrieved from <https://www.ga.gov.au/scientific-topics/national-location-information/dimensions/area-of-australia-states-and-territories>
- Australian Medical Association. (2011). *Role of the Doctor - 2011*. Retrieved from <https://ama.com.au/position-statement/role-doctor-2011>
- Australian Medical Association. (2016). *National Code of Practice – Hours of Work, Shiftwork, and Rostering for Hospital Doctors*. Online: The Australian Medical Association. Retrieved from <https://www.ama.com.au/articles/national-code-practice-hours-work-shiftwork-and-rostering-hospital-doctors>
- Aven, T., & Krohn, B. S. (2014). A New Perspective On How To Understand, Assess and Manage Risk and the Unforeseen. *Reliability Engineering and System Safety*, 121, 1-10.
- Avgar, A. C., Givan, R. K., & Liu, M. (2011). Patient-Centred But Employee Delivered: Patient Care Innovation, Turnover Intentions, and Organizational Outcomes In Hospitals. *Industrial and Labor Relations Review*, 64(3), 423-440.
- Axisa, Nash, L., Kelly, P., & Willcock, S. (2020). Psychiatric morbidity, burnout and distress in Australian physician trainees. *Australian Health Review*, 44(1), 31–38. doi: 10.1071/AH18076
- Back, A. L., Steinhäuser, K. E., Kamal, A. H., & Jackson, V. A. (2016). Building Resilience for Palliative Care Clinicians: An Approach to Burnout Prevention Based on Individual Skills and Workplace Factors. *Journal of Pain and Symptom Management*, 52(2), 284-291.
- Badayai, A. R. A. (2012). A Theoretical Framework and Analytical Discussion on Uncongenial Physical Workplace Environment and Job Performance Among Workers in Industrial Sectors. *Procedia - Social and Behavioral Sciences*, 42(C), 486-495. doi:10.1016/j.sbspro.2012.04.214
- Baigent, M., & Baigent, R. (2018). Burnout In the Medical Profession: Not a Rite Of Passage. *Medical Journal of Australia*, 208(11), 471-472. doi:10.5694/mja17.00891
- Bakalikwira, L., Bananuka, J., Kaawaase Kigongo, T., Musimenta, D., & Mukyala, V. (2017). Accountability In the Public Health Care Systems: A Developing Economy Perspective. *Cogent Business & Management*, 4(1).
- Baluch, A. M., Salge, T. O., & Piening, E. P. (2013). Untangling the Relationship Between HRM and Hospital Performance: The Mediating Role of Attitudinal and Behavioural HR Outcomes. *International Journal of Human Resource Management*, 24(16), 3038-3061.
- Barbieri, P. N., & Bolin, K. (2017). Digitalizing and Collecting Health Data in Sweden. *Pharmaceuticals Policy & Law*, 19(3/4), 235-245. doi:10.3233/PPL-180452
- Barrette, J. (2015). Workforce Analytics: Achieving the Action Reaction. *Workforce Solutions Review*, 6(5), 11-14. Retrieved from <http://ez.library.latrobe.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=111478872&site=ehost-live&scope=site>

- Bartholomew, A. J., Houk, A. K., Pulcrano, M., Shara, N. M., Kwagyan, J., Jackson, P. G., & Sosin, M. (2018). Meta-Analysis of Surgeon Burnout Syndrome and Specialty Differences. *Journal of Surgical Education*, 75(5), 1256-1263. doi:10.1016/j.jsurg.2018.02.003
- Bartram, T., Casimir, G., Djurkovic, N., Leggat, S., & Stanton, P. (2012). Do Perceived High Performance Work Systems Influence the Relationship between Emotional Labour, Burnout and Intention to Leave? A Study of Australian Nurses. *Journal of Advanced Nursing*, 68(7), 1567.
- Bartram, T., Stanton, P., Bamber, G. J., Leggat, S. G., Ballardie, R., & Gough, R. (2020). Engaging Professionals in Sustainable Workplace Innovation: Medical Doctors and Institutional Work. *British Journal of Management*, 31(1), 42-55. doi:10.1111/1467-8551.12335
- Bartram, T., Stanton, P., Leggat, S., Casimir, G., & Fraser, B. (2007). Lost In Translation: Exploring the Link Between HRM and Performance In Healthcare. *Human Resource Management Journal*, 17(1), 21-41.
- Basu, S., Harris, A., Mason, S., & Norman, J. (2019). A Longitudinal Assessment of Occupational Stress in Emergency Department Nursing Staff. *Journal of Nursing Management*, 28(1), 167-174. doi:10.1111/jonm.12910
- Bates, D. W. (2005). Physicians And Ambulatory Electronic Health Records. *Health Affairs*, 24(5), 1180-1189. doi:10.1377/hlthaff.24.5.1180
- Beardwood, B. A., & Kainer, J. M. (2015). Exploring Risk in Professional Nursing Practice: An Analysis of Work Refusal and Professional Risk. *Nursing Inquiry*, 22(1), 50-63. doi:10.1111/nin.12048
- Beasley, B. W. (2018). How 'Alert Fatigue' Truly Exhausts Us. *Physician Leadership Journal*, 5(6), 60-61. Retrieved from <http://ez.library.latrobe.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=132845853&site=ehost-live&scope=site>
- Beattie, A. (2015). Fiona Stanley Hospital Patients Injured, Not Fed, Left In Dirty Beds: Review. *WA Today*. Retrieved from <http://www.watoday.com.au/wa-news/fiona-stanley-hospital-patients-injured-not-fed-left-in-dirty-beds-review-20150723-ggisbo.html>
- Becker, W. S. (2013). Starting New Team Operations: Lessons From Greenfield Managers. *Team Performance Management: An International Journal*, 19(1/2), 72-86.
- Beckman, T. J., Reed, D. A., Shanafelt, T. D., & West, C. P. (2010). Impact of Resident Well-Being and Empathy on Assessments of Faculty Physicians. *Journal of General Internal Medicine*, 25(1), 52-56. doi:10.1007/s11606-009-1152-0 10.1007/s11606-009-1152-0. Epub 2009 Oct 31.
- Beer, Chiel, H. J., & Sterling, L. S. (1990). A Biological Perspective on Autonomous Agent Design. *Robotics and Autonomous Systems*, 6(1), 169-186. doi:10.1016/S0921-8890(05)80034-X
- Beer, M. D. (2009). History of Psychiatry and the Psychiatric Profession. *Current Opinions in Psychiatry*, 22(6), 594-600. doi:10.1097/YCO.0b013e328330c3c2
- Benatar, S., & Daneman, D. (2020). Disconnections Between Medical Education and Medical Practice: A Neglected Dilemma. *Global Public Health*, 15(9), 1292-1307. doi:10.1080/17441692.2020.1756376
- Berger, E. (2013). Physician Burnout: Emergency Physicians See Triple Risk of Career Affliction. *Annals of Emergency Medicine*, 61(3), A17-A19. doi:10.1016/j.annemergmed.2013.01.001
- Berlin, L. J., Shdaimah, C. S., Goodman, A., & Slopen, N. (2020). "I'm Literally Drowning": A Mixed-Methods Exploration of Infant-Toddler Child Care Providers' Wellbeing.

- Early Education and Development*, 31(7), 1071-1088.
doi:10.1080/10409289.2020.1766915
- BeyondBlue. (2013). National Mental Health Survey of Doctors and and Medical Students. In. Online: Beyond Blue. Retrieved from <https://medicine.uq.edu.au/files/42088/Beyondblue%20Doctors%20Mental%20health.pdf>
- Bhamra, R. (2015). *Organisational Resilience: Concepts, Integration, and Practice*. Boca Raton, CRC Press.
- Bianchi, R., Schonfeld, I. S., & Laurent, E. (2014). Is Burnout a Depressive Disorder? A Reexamination with Special Focus on Atypical Depression. *International Journal of Stress Management*, 21(4), 307.
- Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015a). Burnout–Depression Overlap: A Review. *Clinical Psychology Review*, 36, 28-41.
doi:<https://doi.org/10.1016/j.cpr.2015.01.004>
- Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015b). Is Burnout Separable from Depression in Cluster Analysis? A Longitudinal Study. *Social Psychiatry and Psychiatric Epidemiology*, 50(6), 1005-1011. doi:10.1007/s00127-014-0996-8
- Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015c). Is it Time to Consider the “Burnout Syndrome” a Distinct Illness? *Frontiers in Public Health*, 3(158).
doi:10.3389/fpubh.2015.00158
- Bianchi, R., Verkuilen, J., Schonfeld, I. S., Hakanen, J. J., Jansson-Fröjmark, M., Manzano-García, G., . . . Meier, L. L. (2021). Is Burnout a Depressive Condition? A 14-Sample Meta-Analytic and Bifactor Analytic Study. *Clinical Psychological Science*, 216770262097959. doi:10.1177/2167702620979597
- Bingham, R. P. (2015). The Role of University and College Counseling Centers in Advancing the Professionalization of Psychology. *American Psychology*, 70(8), 792-796. doi:10.1037/a0039638
- Bismark, M., Walter, S., & Studdert, D. (2013). The Role of Boards in Clinical Governance: Activities and Attitudes Among Members of Public Health Service Boards in Victoria. *Australian Health Review*, 37(5), 682-687.
- Blecher, G. E., Blashki, G. A., & Judkins, S. (2020). Crisis as Opportunity: How COVID-19 Can Reshape the Australian Health System. *Medical Journal of Australia*, 213(5), 196-198.e191. doi:10.5694/mja2.50730
- Boin, A., & Lagadec, P. (2000). Preparing for the Future: Critical Challenges in Crisis Management. *Journal of Contingencies & Crisis Management*, 8(4), 185.
- Boin, A., & McConnell, A. (2007). Preparing for Critical Infrastructure Breakdowns: The Limits of Crisis Management and the Need for Resilience. *Journal of Contingencies & Crisis Management*, 15(1), 50-59.
- Boland, B. (2013). Rather Than emulate Ofsted's Culture of Fear, the UK Care Regulator Must Engage Clinicians to Improve Standards. *BMJ*, 347(f4611).
- Boland, B., & Bremner, S. (2013). Squaring the Circle: Developing Clinical Risk Management Strategies in Mental Healthcare Organisations. *Advances in Psychiatric Treatment*, 19(2), 153-159.
- Bolton, G. (1982). *History of Royal Perth Hospital* (P. Johske Ed.). Crawley, Perth: University of Western Australia Press.
- Bonner, G., & McLaughlin, S. (2014). Leadership Support for Ward Managers in Acute Mental Health Inpatient Settings. *Nursing Management*, 21(2), 26.
- Bonnet, B. (2010). Compliance Risk Areas Associated with Implementation of Electronic Health Records. *Journal of Health Care Compliance*, 12(5), 5-14.

- Bourne, M., Pavlov, A., Franco-Santos, M., Lucianetti, L., & Mura, M. (2013). Generating Organisational Performance: The Contributing Effects of Performance Measurement and Human Resource Management Practices. *International Journal of Operations & Production Management*, 33(11/12), 1599-1622. doi:10.1108/IJOPM-07-2010-0200
- Bowers, M. R., Hall, J. R., & Srinivasan, M. M. (2017). Organizational Culture and Leadership Style: The Missing Combination for Selecting the Right Leader for Effective Crisis Management. *Business Horizons*.
- Bowie, P. (2010). Reporting and Learning from Harmful Incidents. *Practice Nurse*, 40(9), 38-41. Retrieved from <http://ez.library.latrobe.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=57086559&site=ehost-live&scope=site>
- Boyle, L., Mackay, M., & Stockman, K. (2021). Ambulance ramping, system pressure, and hospitals in crisis: what do the data tell us? *Medical Journal of Australia*, 215(11), 526-527. <https://doi.org/10.5694/mja2.51335>
- Braithwaite, J. (2015). Bridging Gaps to Promote Networked Care Between Teams and Groups in Health Delivery Systems: A Systematic Review of Non-Health Literature. *BMJ Open*, 5(9). doi:10.1136/bmjopen-2014-006567
- Braithwaite, J., Wears, R. L., & Hollnagel, E. (2017). *Resilient Health Care. Volume 3, Reconciling Work-As-Imagined and Work-As-Done*. London: Boca Raton, Florida ; London, England ; New York : CRC Press.
- Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic Analysis. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences* (pp. 843-860). Singapore: Springer Singapore.
- Brewer, K. C., Oh, K. M., Kitstantas, P., & Zhao, X. (2019). Workplace Bullying Among Nurses and Organizational Response: An Online Cross-Sectional Study. *Journal of Nursing Management*, 28(1), 148-156. doi:10.1111/jonm.12908
- Brown, A. O., Couser, G. P., Morrison, D. E., & Agarwal, G. (2021). The Stressful, Hostile, and Toxic Workplace: An Advanced Understanding of a Common Clinical Complaint. *Psychiatric Annals*, 51(2), 70-75. doi:http://dx.doi.org/10.3928/00485713-20210107-01
- Brunetto, Y., & Teo, S. (2013). Retention, Burnout and the Future of Nursing. *Journal of Advanced Nursing*, 69, 2772. doi:10.1111/jan.12309
- Bryson, A., Forth, J., & Stokes, L. (2017). Does Employees' Subjective Well-Being Affect Workplace Performance? *Human Relations*, 70(8), 1017-1037.
- Büchner, V. A., Schreyögg, J., & Schultz, C. (2014). The Impact of the Board's Strategy-Setting Role on Board-Management Relations and Hospital Performance. *Health Care Management Review*, 39(4), 305.
- Bunderson, J. S. (2001). How Work Ideologies Shape the Psychological Contracts of Professional Employees: Doctors' Responses to Perceived Breach. *Journal of Organizational Behavior*, 22(7), 717-741. doi:10.1002/job.112
- Burgess, N., & Currie, G. (2013). The Knowledge Brokering Role of the Hybrid Middle Level Manager: the Case of Healthcare. *British Journal of Management*, 24(S1), S132-S142. doi:10.1111/1467-8551.12028
- Burke, R., Koyuncu, M., & Fiksenbaum, L. (2011). Hospital Culture, Work Satisfaction and Psychological Well-Being. *Europe's Journal of Psychology*, 7(4), 624.
- Burks, D. J., & Kobus, A. M. (2012). The Legacy of Altruism in Health Care: The Promotion of Empathy, Prosociality and Humanism. *Medical Education*, 46(3), 317-325. doi:10.1111/j.1365-2923.2011.04159.x
- Caesar, B., Barakat, A., Bernard, C., & Butler, D. (2020). Evaluation of Physician Burnout at a Major Trauma Centre Using the Copenhagen Burnout Inventory: Cross-Sectional

- Observational Study. *Irish Journal of Medical Science*, 189(4), 1451-1456.
doi:10.1007/s11845-020-02223-5
- Caffrey, L., Ferlie, E., & McKevitt, C. (2019). The Strange Resilience of New Public Management: The Case of Medical Research in the UK's National Health Service. *Public Management Review*, 21(4), 537-558. doi:10.1080/14719037.2018.1503702
- Cândido, C., & Santos, S. (2015). Strategy Implementation: What is the Failure Rate? *Journal of Management and Organization*, 21(2), 237-262.
- Carayon, P., Wooldridge, A., Hose, B.-Z., Salwei, M., & Benneyan, J. (2018). Challenges And Opportunities for Improving Patient Safety Through Human Factors and Systems Engineering. *Health Affairs (Project Hope)*, 37(11), 1862.
doi:10.1377/hlthaff.218.0723
- Carlson, G., & Greeley, H. (2010, 2010 May-June). Is the Relationship Between Your Hospital and Your Medical Staff Sustainable? *Journal of Healthcare Management*, 55(3), 158+. Retrieved from
<https://link.gale.com/apps/doc/A228331001/AONE?u=latrobe&sid=AONE&xid=273f5373>
- Carmeli, A., & Markman, G. D. (2011). Capture, Governance, and Resilience: Strategy Implications From the History of Rome. *Strategic Management Journal*, 32(3), 322-341.
- Carney. (2004). Perceptions of Professional Clinicians and Non-Clinicians on Their Involvement in Strategic Planning in Health Care Management: Implications for Interdisciplinary Involvement. *Nursing & Health Sciences*, 6(4), 321-328.
- Carney. (2011). Influence of Organizational Culture on Quality Healthcare Delivery. *International Journal of Health Care Quality Assurance*, 24(7), 523-539.
- Carvalhana, V., & Flak, E. (2009). Role of the Pharmacist on a Multidisciplinary Psychiatry Team: Impact on Medication Adherence in a Community Setting. *Journal of Pharmacy Technology*, 25(3), 155-158. doi:10.1177/875512250902500302
- Cassian, J. (2000). *The Institutes* (B. Ramsey, Trans. First Edition ed.): Newman Press.
- Christensen, T., Laegreid, P., & Rykkja, L. H. (2016). Organizing for Crisis Management: Building Governance Capacity and Legitimacy. *Public Administration Review*, 76(6), 887-897.
- Chuang, C.-H., Tseng, P.-C., Lin, C.-Y., Lin, K.-H., & Chen, Y.-Y. (2016). Burnout in the Intensive Care Unit Professionals: A Systematic Review. *Medicine*, 95(50), e5629-e5629. doi:10.1097/MD.00000000000005629
- City of Perth. (2021). *Future Perth*. Online Retrieved from <https://perth.wa.gov.au/en/future-perth>
- Clay-Williams, R., Ludlow, K., Testa, L., Li, Z., & Braithwaite, J. (2017). Medical Leadership, a Systematic Narrative Review: Do Hospitals and Healthcare Organisations Perform Better When Led by Doctors? *BMJ Open*, 7(9), e014474-e014474. doi:10.1136/bmjopen-2016-014474
- Cleary, S., & Duke, M. (2019). Clinical Governance Breakdown: Australian Cases of Wilful Blindness and Whistleblowing. *Nursing Ethics*, 26(4), 1039-1049.
doi:10.1177/0969733017731917
- Clouser, J. M., Vundi, N. L., Cowley, A. M., Cook, C., Williams, M. V., McIntosh, M., & Li, J. (2020). Evaluating the Clinical Dyad Leadership Model: A Narrative Review. *Journal of Health Organization and Management*, 34(7), 725-741.
doi:10.1108/JHOM-06-2020-0212
- Cole, M. S., Bruch, H., & Vogel, B. (2006). Emotion as Mediators of the Relations Between Perceived Supervisor Support and Psychological Hardiness on Employee Cynicism. *Journal of Organizational Behaviour*, 27(4), 463-484. doi:10.1002/job.381

- ColinTaylorMD (Producer). (2018, 28/05/18). "Dear "System", your support around #PhysicianBurnout is appreciated, but at this point in time, we're looking for more - for progressive changes. We fully realize that you'll never be able to change enough to meet all our individual needs, so we'll have to #bethechange ourselves." [TWITTER POST] Retrieved from <https://twitter.com/ColinTaylorMD/status/1000962230848909312>
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82.
- Cooke, G. P. E., Doust, J. A., & Steele, M. C. (2013). A Survey of Resilience, Burnout, and Tolerance of Uncertainty in Australian General Practice Registrars. *BMC Medical Education*, 13(1), 2.
- Coombs, W. T., & Laufer, D. (2018). Global Crisis Management – Current Research and Future Directions. *Journal of International Management*, 24(3), 199-203. doi:<https://doi.org/10.1016/j.intman.2017.12.003>
- Corvo, P., Fontefrancesco, M. F., & Matacena, R. (2020). Eating at Work: The Role of the Lunch-Break and Canteens for Wellbeing at Work in Europe. *Social Indicators Research*, 150(3), 1043-1076. doi:10.1007/s11205-020-02353-4
- Coulehan, J. (2003). End of the Line: Depression and Burnout in Ward No. 6. In D. Steinberg (Ed.), *Biomedical Ethics: A Multidisciplinary Approach to Moral Issues in Medicine and Biology*: University Press of New England.
- Creedy, D.K., Sidebotham, M., Gamble, J., Pallant, J., & Fenwick, J. (2017). Prevalence of burnout, depression, anxiety and stress in Australian midwives: a cross-sectional survey. *BMC Pregnancy and Childbirth*. 17(13). doi: 10.1186/s12884-016-1212-5
- Creswell, J. W. (2018). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches* (Fourth edition.. ed.): Los Angeles SAGE.
- Cross, D. (2021). 'Delays Mean Deaths': Doctors Warn 'Disastrous' State of WA Hospitals Leading to Hundreds of Patients Dying. *WA Today*. Retrieved from <https://www.watoday.com.au/national/western-australia/delays-mean-deaths-doctors-warn-disastrous-state-of-wa-hospitals-leading-to-hundreds-of-patients-dying-20210325-p57e12.html>
- Crotty, B. H., Tamrat, Y., Mostaghimi, A., Safran, C., & Landon, B. E. (2014). Patient-To-Physician Messaging: Volume Nearly Tripled As More Patients Joined System, But Per Capita Rate Plateaued. *Health Affairs*, 33(10), 1817-1822. doi:10.1377/hlthaff.2013.1145
- Cruess, S. R., Johnston, S., & Cruess, R. L. (2004). "Profession": A Working Definition for Medical Educators. *Teaching and Learning in Medicine*, 16(1), 74-76. doi:10.1207/s15328015t1601_15
- Currie, G., Burgess, N., & Hayton, J. C. (2015). HR Practices and Knowledge Brokering by Hybrid Middle Managers in Hospital Settings: The Influence of Professional Hierarchy. *Human Resource Management*, 54(5).
- Dadich, A., Collier, A., Hodgins, M., & Crawford, G. (2018). Using Positive Organizational Scholarship in Healthcare and Video Reflexive Ethnography to Examine Positive Deviance to New Public Management in Healthcare. *Qualitative Health Research*, 28(8), 1203-1216. doi:10.1177/1049732318759492
- Danhof-Pont, M. B., van Veen, T., & Zitman, F. G. (2011). Biomarkers in Burnout: A Systematic Review. *Journal of Psychosomatic Research*, 70(6), 505-524. doi:<https://doi.org/10.1016/j.jpsychores.2010.10.012>

- Daverth, G., Hyde, P., & Cassell, C. (2015). Uptake of Organisational Work– Life Balance Opportunities: The Context of Support. *The International Journal of Human Resource Management*, 27(15), 1-20.
- Davis. (2021). Why You Can't Yoga Your Way Out Of Burnout. *Forbes*. Retrieved from <https://www.forbes.com/sites/pauladavis/2021/03/02/why-you-cant-yoga-your-way-out-of-burnout/?sh=2e4b016c4aa1>
- Davis, E., & Beale, N. (2015). It's Time: The Poor Culture Regarding Safety and Quality in Australian Hospitals Must be Addressed! *Asia Pacific Journal of Health Management*, 10(3), GS36-GS41.
- Davis, J. (2018). Physician, Heal Thyself. *Physician Leadership Journal*, 5(1), 26-29.
- Davis, R. C. (1991). *Shipbuilders of the Venetian Arsenal : Workers and Workplace in the Preindustrial City*. Baltimore: Baltimore, : Johns Hopkins University Press.
- Day, G., Minichiello, V., & Madison, J. (2007). Self-Reported Perceptions of Registered Nurses Working in Australian Hospitals. *Journal of Nursing Management*, 15(4), 403-413. doi:10.1111/j.1365-2834.2007.00681.x
- De Jager, P. (2003). Poor Management is a Key Source of Stress. *ComputerWorld Canada*, 19(15)
- de Koning, M., Meyer, B., Moors, A., & Pels, P. (2019). Guidelines for Anthropological Research: Data Management, Ethics, and Integrity. *Ethnography*, 20(2), 170-174. doi:10.1177/1466138119843312
- de Kruijff, P. (2021). Burnout Warning in WA's Under-Pressure Hospitals as Staff Leave Blows Out. *WA Today*. Retrieved from <https://www.watoday.com.au/national/western-australia/burnout-warning-in-wa-s-under-pressure-hospitals-as-staff-leave-blows-out-20210609-p57zhh.html>
- Debono, D., Greenfield, D., Travaglia, J., Long, J., Black, D., Johnson, J., & Braithwaite, J. (2013). Nurses' workarounds in acute healthcare settings: a scoping review. *BMC Health Services Research*, 13, 175.
- Department of Employment. (2017). *Health Professions - Australia*. Online: Australian Government
- Deshpande, S. P., & Deshpande, S. S. (2014). Antecedents of Care by Physicians. *The Health Care Manager*, 33(1), 38.
- DesRoches, C. M., Worzala, C., Joshi, M. S., Kralovec, P. D., & Jha, A. K. (2012). Small, Nonteaching, And Rural Hospitals Continue To Be Slow In Adopting Electronic Health Record Systems. *Health Affairs*, 31(5), 1092-1099. doi:10.1377/hlthaff.2012.0153
- Dionne, G. (2013). Risk Management: History, Definition, and Critique. *Risk Management and Insurance Review*, 16(2), 147-166. doi:10.1111/rmir.12016
- Dishon-Berkovits, M. (2014). Burnout: Contributing and Protecting Factors Within the Work-Family Interface. *Journal of Career Development*, 41(6), 467-486. doi:10.1177/0894845313512181
- Docs4Docs (Producer). (2018). "Have you ever considered to what degree #burnout impacts the way a physician communicates with colleagues, members of the healthcare team and patients? Maybe someone who is curt, gruff or unkind should be asked, "is everything okay?" or "anything you want to talk about?". [TWEET] Retrieved from <https://twitter.com/docs4docs/status/997311686825537536>
- Donnelly, T. (2012). 'Boost Patient Outcomes by Giving Nurses the Time to Care'. *Nursing Times*, 108(42), 7.
- Dornan, T., & Nestel, D. (2013). Talking, Touching, and Cutting: The Craft of Medicine. *The Journal of Modern Craft*, 6(1), 35-48. doi:10.2752/174967813X13535106841647

- Drennan, L. T. (2014). *Risk and Crisis Management in the Public Sector*. In A. McConnell & A. Stark (Eds.), (2nd ed.. ed.). Florence: Florence : Taylor and Francis.
- Duckett, S., & Willcox, S. (2015). *The Australian Health Care System* (5th edition.) South Melbourne: Oxford University Press.
- Durani, P., Dias, J., Singh, H. P., & Taub, N. (2013). Junior Doctors and Patient Safety: Evaluating Knowledge, Attitudes and Perception of Safety Climate. *BMJ Quality & Safety*, 22(1), 65.
- Dwyer, A., & McNeil, J. (2016). Are Clinical Registries Actually Used?: The Level of Medical Staff Participation in Clinical Registries and Reporting Within a Major Tertiary Teaching Hospital. *Asia Pacific Journal of Health Management*, 11(1), 56-64.
- Dyrbye, L., Trockel, M., Frank, E., Olson, K., Linzer, M., Lemaire, J., . . . Sinsky, C. (2017). Development of a Research Agenda to Identify Evidence-Based Strategies to Improve Physician Wellness and Reduce Burnout. *Annals of Internal Medicine*, 166(10), 743.
- Dyrbye, L. N., & Shanafelt, T. D. (2011). Physician Burnout: A Potential Threat to Successful Health Care Reform. *JAMA*, 305(19), 2009-2010. doi:10.1001/jama.2011.652 10.1001/jama.2011.652.
- Dyrbye, L. N., Shanafelt, T. D., Werner, L., Sood, A., Satele, D., & Wolanskyj, A. P. (2017). The Impact of a Required Longitudinal Stress Management and Resilience Training Course for First-Year Medical Students. *Journal of General Internal Medicine*, 32(12), 1309-1314. doi:10.1007/s11606-017-4171-2
- Dyrbye, L. N., Trockel, M., Frank, E., Olson, K., Linzer, M., Lemaire, J., . . . Sinsky, C. A. (2017). Development of a Research Agenda to Identify Evidence-Based Strategies to Improve Physician Wellness and Reduce Burnout. *Annals of Internal Medicine*, 166(10), 743-744. doi:10.7326/m16-2956 10.7326/M16-2956. Epub 2017 Apr 18.
- Dyrbye, L. N., Varkey, P., Boone, S. L., Satele, D. V., Sloan, J. A., & Shanafelt, T. D. (2013). Physician Satisfaction and Burnout at Different Career Stages. *Mayo Clinic Proceedings*, 88(12), 1358-1367. doi:10.1016/j.mayocp.2013.07.016 10.1016/j.mayocp.2013.07.016.
- Dzau, V. J., Kirch, D. G., & Nasca, T. J. (2018). To Care Is Human — Collectively Confronting the Clinician-Burnout Crisis. *New England Journal of Medicine*, 378(4), 312-314. doi:10.1056/NEJMp1715127
- Edward, K.-l. (2005). The Phenomenon of Resilience in Crisis Care Mental Health Clinicians. *International Journal of Mental Health Nursing*, 14(2), 142-148. doi:10.1111/j.1440-0979.2005.00371.x
- Einwiller, S. A., Laufer, D., & Ruppel, C. (2017). Believe Me, I Am One of You! The Role of Common Group Affiliation in Crisis Communication. *Public Relations Review*, 43(5), 1007-1015. doi: 10.1016/j.pubrev.2017.09.006
- Elton, C. (2021). Rockingham General Hospital: Perth Couple Tori and Curtis Crawford Reveal Heartache After Baby Dies. *The West Australian*. Retrieved from <https://thewest.com.au/news/health/rockingham-general-hospital-perth-couple-tori-and-curtis-crawford-reveal-heartache-after-baby-dies-ng-b881892915z>
- Erkens, D. H., Hung, M., & Matos, P. (2012). Corporate Governance in the 2007–2008 Financial Crisis: Evidence From Financial Institutions Worldwide. *Journal of Corporate Finance*, 18(2), 389-411.
- Espana-Schmidt, C., Ong, E. C., Frishman, W., Bergasa, N. V., & Chaudhari, S. (2013). Medical Residency Training and Hospital Care During and After a Natural Disaster: Hurricane Sandy and Its Effects. *The American Journal of Medicine*, 126(11), 944-945.

- Everett, C., Thorpe, C., Palta, M., Carayon, P., Bartels, C., & Smith, M. A. (2013). Physician Assistants And Nurse Practitioners Perform Effective Roles On Teams Caring For Medicare Patients With Diabetes. *Health Affairs*, 32(11), 1942-1948. doi:10.1377/hlthaff.2013.0506
- Fairbanks, R. J., Wears, R. L., Woods, D. D., Hollnagel, E., Plsek, P., & Cook, R. I. (2014). Resilience and Resilience Engineering in Health Care. *The Joint Commission Journal on Quality and Patient Safety*, 40(8), 376-383. doi:https://doi.org/10.1016/S1553-7250(14)40049-7
- Fan, D., Cui, L., Zhang, M. M., Zhu, C. J., Härtel, C. E. J., & Nyland, C. (2014). Influence of High Performance Work Systems on Employee Subjective Well-Being and Job Burnout: Empirical Evidence From the Chinese Healthcare Sector. *The International Journal of Human Resource Management*, 25(7), 931-950.
- Farquhar, M. (2017). For Nature Cannot be Fooled. Why We Need to Talk About Fatigue. *Anaesthesia*, 72(9), 1055 - 1058.
- Fernandes, J. d. C., Portela, L. F., Rotenberg, L., & Griep, R. H. (2013). Working Hours and Health Behaviour Among Nurses at Public Hospitals. *Revista Latino-Americana de Enfermagem*, 21(5), 1104-1111. doi:10.1590/S0104-11692013000500013
- Fink, S. (1986). *Crisis Management: Planning For The Inevitable*: American Management Association.
- Fink, S. (2013). *Crisis communications: The Definitive Guide to Managing the Message* (1 Edition. ed.). New York: New York: McGraw-Hill.
- Fink, S. L., Beak, J., & Taddeo, K. (1971). Organizational Crisis and Change. *The Journal of Applied Behavioral Science*, 7(1), 15-37. doi:10.1177/002188637100700103
- Finkelstein, S., & Hambrick, D. C. (1990). Top-Management-Team Tenure and Organizational Outcomes: The Moderating Role of Managerial Discretion. *Administrative Science Quarterly*, 35(3), 484.
- Fischer, M. (1996). Union Carbide's Bhopal Incident: A Retrospective. *Journal of Risk and Uncertainty*, 12(2), 257-269. doi:10.1007/BF00055797
- Flanagan, B. T. (2012). Crisis Management in Acute Care Settings. Second Edition. *Anaesthesia and Intensive Care*, 40(6), 1079.
- Fletcher, L., Buffington, B., & Overcash, J. (2020). Chronic and Acute Fatigue and Intershift Recovery in Undergraduate Nursing Students Working 12 or 6-hour Faculty-Supervised Clinical Shifts. *Nursing Forum*, 55(3), 491-496. doi:10.1111/nuf.12454
- Forman, S., & Napier, R. (1596-1634). CASE 21925. In L. Kassell, Hawkins, M., Ralley, R., Young, J., Edge, J., Martin-Portugues, J Y., Kaoukji, N., (Ed.), *The Casebooks of Simon Forman and Richard Napier, 1596–1634: A Digital Edition*. Online: University of Cambridge.
- Frederiksen, A. (2017). Job Satisfaction and Employee Turnover: A Firm-Level Perspective. *German Journal of Human Resource Management / Zeitschrift für Personalforschung*, 31(2), 132-161. doi:10.1177/2397002216683885
- Freudenberger, H. (1974). *Burnout: The High Cost of High Achievement*. Cornerstone.
- Fu, X., Svoboda, M., Tang, Z., Dai, Z., & Wu, J. (2013). An Overview of US State Drought Plans: Crisis or Risk Management? *Natural Hazards*, 69(3), 1607-1627.
- Fukuda, H., Okuma, K., & Imanaka, Y. (2014). Can Experience Improve Hospital Management? *PLoS One*, 9(9), e106884.
- Furniss, D. (2014). *Fieldwork for Healthcare: Case Studies Investigating Human Factors in Computing Systems*: San Rafael, California 1537 Fourth Street, San Rafael, CA 94901 USA : Morgan & Claypool.
- Gabel, S. (2012). Power, Leadership and Transformation: The Doctor's Potential for Influence. *Medical Education*, 46(12), 1152. doi:10.1111/medu.12036

- Gander, P., Purnell, H., Garden, A., & Woodward, A. (2007). Work Patterns and Fatigue-Related Risk among Junior Doctors. *Journal of Occupational and Environmental Medicine*, 64(11), 733-738. doi:10.1136/oem.2006.030916
- Garrick, P., & Jeffery, C. (1987). *Fremantle Hospital: A Social History to 1987*: University of Western Australia.
- Garvey, P. (2021). Girl's Death Exposes Rising Health Staff Crisis. *The Australian*. Retrieved from <https://www.theaustralian.com.au/nation/girls-death-exposes-rising-health-staff-crisis/news-story/4bde9508a4d98785f039680bce0263c0>
- Geelhoed, G., & de Klerk, N. (2012). Emergency Department Overcrowding, Mortality, and the 4-Hour Rule in Western Australia. *Medical Journal of Australia*, 196(2), 122-126.
- Georganta, K., & Montgomery, A. (2016). Exploring Fun as a Job Resource: The Enhancing and Protecting Role of a Key Modern Workplace Factor. *International Journal of Applied Positive Psychology*, 1(1), 107-131. doi:10.1007/s41042-016-0002-7
- Gerard, N. (2019). Perils of Professionalization: Chronicling a Crisis and Renewing the Potential of Healthcare Management. *Health Care Analysis* 27, 269–288. doi:10.1007/s10728-019-00368-8
- Gibiino, G., Rugo, M., Maffoni, M., & Giardini, A. (2020). Back to the Future: Five Forgotten Lessons for the Healthcare Managers of Today. *International Journal of Quality in Health Care*, 32(4), 275-277. doi:10.1093/intqhc/mzaa021
- Ginsburg, S.G. (1974). The Problem of the Burned Out Executive. *Personnel Journal*, 53(8), 598.
- Ginsburg, & Phillips, K. A. (2018). Precision Medicine: From Science To Value. *Health Affairs*, 37(5), 694-701. doi:10.1377/hlthaff.2017.1624
- Goodall, A. H., Bastiampillai, T., Nance, M., Roeger, L., & Allison, S. (2015). Expert Leadership: Doctors Versus Managers for the Executive Leadership of Australian Mental Health. *Australian and New Zealand Journal of Psychiatry*, 49(5), 409-411. doi:10.1177/0004867415576977
- Government of Western Australia. (2021a). *About Us*. Online Retrieved from <https://ww2.health.wa.gov.au/About-us>
- Government of Western Australia. (2021b). *WA Country Health Service: Overview*. Online Retrieved from <https://www.wacountry.health.wa.gov.au/About-us/Overview>
- Government of Western Australia. (2021c). *Western Australia's Agriculture and Food Sector*. Online Retrieved from <https://www.agric.wa.gov.au/western-australias-agriculture-and-food-sector>
- Grima, F., Georgescu, I., & Prud'Homme, L. (2020). How Physicians Cope with Extreme Overwork: An Exploratory Study of French Public-Sector Healthcare Professionals. *Public Management Review*, 22(1), 27-47. doi:10.1080/14719037.2019.1638440
- Guenther, J., & Falk, I. (2019). Generalising from Qualitative Research : A New Old Approach. *Qualitative Report*, 24(5), 1012-1033.
- Gull, I., Khan, A., & Sheikh, A. (2020). Employee Engagement-Performance Relationship Through Innovative Work Behaviour and Intention to Stay. *International Journal of Information, Business and Management*, 12(4), 79-87.
- Gyasi, R. M., Phillips, D. R., & Abass, K. (2019). Social Support Networks and Psychological Wellbeing in Community-Dwelling Older Ghanaian Cohorts. *International Psychogeriatrics*, 31(7), 1047-1057. doi:10.1017/S1041610218001539
- Haavik, T. K., Antonsen, S., Rosness, R., & Hale, A. (2016). HRO and RE: A Pragmatic Perspective. *Safety Science*. 117, 479-489
- Hall, J. (2015). Australian Health Care — The Challenge of Reform in a Fragmented System. *The New England Journal of Medicine*, 373(6), 493–497. <https://doi.org/10.1056/NEJMp1410737>

- Hall, L. H., Johnson, J., Watt, I., Tsipa, A., & O'Connor, D. B. (2016). Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review. (Report). *PLoS One*, 11(7). doi:10.1371/journal.pone.0159015
- Hallier, J., & Leopold, J. (1996). Creating and Replicating HRM on Greenfield Sites: Rhetoric or Reality? *Employee Relations*, 18(5), 46-65.
- Hamet, J., & Maurer, F. (2017). Is Management Research Visible Outside the Academic Community? *M@n@gement*, 20(5), 492-516.
- Han, W.-J., Li, Y., & Whetung, C. (2021). Who We Live With and How We Are Feeling: A Study of Household Living Arrangements and Subjective Well-Being Among Older Adults in China. *Research on Aging*, 43(9-10), 388-402. doi:10.1177/0164027520961547
- Hansen, V., & Girgis, A. (2010). Can a Single Question Effectively Screen for Burnout in Australian Cancer Care Workers? *BMC Health Services Research*, 10.
- Hart, J. (2015). Clinician Wellness: Taking Action for Healthier Work–Life Balance. *Alternative and Complementary Therapies*, 21(6), 266-268.
- Hartin, P., Birks, M., & Lindsay, D. (2020). Bullying in Nursing: How Has it Changed Over 4 Decades? *Journal of Nursing Management*, 28(7). doi:10.1111/jonm.13117
- Hastie. (2021a). Peel Health Campus to Investigate Death of Man who was 'Sent Home with Painkillers'. *WA Today*. Retrieved from <https://www.watoday.com.au/national/western-australia/peel-health-campus-to-investigate-death-of-man-who-was-sent-home-with-painkillers-20210514-p57ryf.html>
- Hastie. (2021b). 'We Begged and Begged': Nurses Speak Out As Hospital Tensions Hit Boiling Point. *WA Today*. Retrieved from <https://www.watoday.com.au/politics/western-australia/we-begged-and-begged-nurses-speak-out-as-hospital-tensions-hit-boiling-point-20210526-p57vbz.html>
- Hastie, H., & Cross, D. (2021). McGowan Moves Health Minister Out Of Firing Line, Rejects Staff Shortage As Cause of Girl's Death. *WA Today*. Retrieved from <https://www.watoday.com.au/national/western-australia/mcgowan-moves-health-minister-out-of-firing-line-rejects-staff-shortage-as-cause-of-girl-s-death-20210513-p57rot.html>
- Health Workforce Australia. (2014). *Australia's Future Health Workforce - Doctors*. Online: Government of Australia Retrieved from [https://www1.health.gov.au/internet/main/publishing.nsf/Content/F3F2910B39DF55FDCA257D94007862F9/\\$File/AFHW%20-%20Doctors%20report.pdf](https://www1.health.gov.au/internet/main/publishing.nsf/Content/F3F2910B39DF55FDCA257D94007862F9/$File/AFHW%20-%20Doctors%20report.pdf)
- Higgins, J. (2014). Bringing HR and Finance Together with Analytics. *Workforce Solutions Review*, 5(2), 11-13.
- Hollnagel, E. (2017). *Safety-II in Practice: Developing the Resilience Potentials*. Routledge. New York.
- Holton, S., Wynter, K., Trueman, M., Bruce, S., Sweeney, S., Crowe, S., . . . Rasmussen, B. (2021). Psychological Well-Being of Australian Hospital Clinical Staff During the COVID-19 Pandemic. *Australian Health Review*, 45(3), 297-305. doi:https://doi.org/10.1071/AH20203
- Horton, R. (2015). Editorial: The NHS in England: Blue Sky Aspirations and Earthly Tremors. *The Lancet*, 386(10001), 1311-1311. doi:10.1016/S0140-6736(15)00395-5
- Hudson, C. K., & Shen, W. (2015). Understaffing: An Under-Researched Phenomenon. *Organizational Psychology Review*, 5(3), 244-263. doi:10.1177/2041386615576016
- Huggard, P., & Dixon, R. (2011). "Tired of Caring": The Impact of Caring on Resident Doctors. *Australasian Journal of Disaster and Trauma Studies*, 2011(3), 105.

- Hunter, K., & Cook, C. (2018). Role-Modelling and the Hidden Curriculum: New Graduate Nurses' Professional Socialisation. *Journal of Clinical Nursing*, 27(15-16), 3157-3170. doi:10.1111/jocn.14510
- Hutchinson, & Jackson, D. (2013). Hostile Clinician Behaviours in the Nursing Work Environment and Implications for Patient Care: A Mixed-Methods Systematic Review. *BMC Nursing*, 12, 25.
- Hutchinson, S., & Purcell, J. (2010). Managing Ward Managers for Roles in HRM in the NHS: Overworked and Under-Resourced. *Human Resource Management Journal*, 20(4), 357-374. doi:10.1111/j.1748-8583.2010.00141.x
- Hutton, W. (1841). The Derby Silk Mill, One Hundred and Twenty Years Ago. *Examiner (London, England: 1808)*(1732), 236-236.
- Ice, R. (1991). Corporate Publics and Rhetorical Strategies: The Case of Union Carbide's Bhopal Crisis. *Management Communication Quarterly*, 4(3), 341-362. doi:10.1177/0893318991004003004
- Ilie, V., Van Slyke, C., Parikh, M. A., & Courtney, J. F. (2009). Paper Versus Electronic Medical Records: The Effects of Access on Physicians' Decisions to Use Complex Information Technologies. *Decision Sciences*, 40(2), 213-241. doi:10.1111/j.1540-5915.2009.00227.x
- Islam, T., Khan, M. M., Khawaja, F. N., & Ahmad, Z. (2017). Nurses' Reciprocation of Perceived Organizational Support: The Moderating Role of Psychological Contract Breach. *International Journal of Human Rights in Healthcare*, 10(2), 123-131. doi:10.1108/IJHRH-12-2016-0023
- Jacob, C., Sanchez-Vazquez, A., & Ivory, C. (2020). Social, Organizational, and Technological Factors Impacting Clinicians' Adoption of Mobile Health Tools: Systematic Literature Review. *JMIR Mhealth Uhealth*, 8(2), e15935-e15935. doi:10.2196/15935
- Jacobs, B. W., Swink, M., & Linderman, K. (2015). Performance Effects of Early and Late Six Sigma Adoptions. *Journal of Operations Management*, 36, 244-257.
- Janes, L. (2014). Many Nursing Errors are Down to Overwork and Understaffing. *Nursing Standard*, 28(20), 32-33. doi:10.7748/ns2014.01.28.20.32.s42
- Jeanpierre, L. (2011). Decentralized Decision-Making Technique for Dynamic Coalition of Resource-Bounded Autonomous Agents. *International Journal of Intelligent Computing and Cybernetics*, 4(2), 228-242.
- Jervis, F. R. J. (1974). *Bosses in British Business: Managers and Management from the Industrial Revolution to the Present Day*. London. Boston: Routledge and K. Paul.
- Johnson, J., Hall, L.H., Berzins, K., Baker, J., Melling, K. and Thompson, C. (2018), Mental healthcare staff well-being and burnout: A narrative review of trends, causes, implications, and recommendations for future interventions. *International Journal of Mental Health Nursing*, 27, 20-32. <https://doi-org.ez.library.latrobe.edu.au/10.1111/inm.12416>
- Juanola. (2021). Perth Hospital Staff Turn Down Shifts As Morale Continues To Fall. *WA Today*. Retrieved from <https://www.watoday.com.au/national/western-australia/perth-hospital-staff-turn-down-shifts-as-morale-continues-to-fall-20210609-p57zmg.html#:~:text=Morale%20at%20Perth's%20strained%20hospitals,options%20to%20staff%20the%20wards.>
- Kagi, J. (2015). Fiona Stanley Hospital Review Finds Series of Failures, High Demand for Emergency Services. *ABC News*. Retrieved from <http://www.abc.net.au/news/2015-07-22/fiona-stanley-hospital-review-finds-series-of-failures/6640868>
- Kakemam, E., Chegini, Z., Rouhi, A., Ahmadi, F., & Majidi, S. (2021). Burnout and its Relationship to Self-Reported Quality of Patient Care and Adverse Events During

- COVID-19: A Cross-Sectional Online Survey Among Nurses. *Journal of Nursing Management*. doi:10.1111/jonm.13359
- Kalisch, Landstrom, G. L., & Hinshaw, A. S. (2009). Missed Nursing Care: A Concept Analysis. *Journal of Advanced Nursing*, 65(7), 1509-1517. doi:10.1111/j.1365-2648.2009.05027.x
- Kalisch, Muller, & Tuscher. (2015). Toward a Translational Neuropsychiatry of Resilience. *Behavioral and Brain Sciences*, 38, n/a.
- Kapucu, N., & Ustun, Y. (2018). Collaborative Crisis Management and Leadership in the Public Sector. *International Journal of Public Administration*, 41(7), 548-561. doi:10.1080/01900692.2017.1280819
- Karimi, L., Dadich, A., Fulop, L., Leggat, S. G., Eljiz, K., Fitzgerald, J. A., . . . Kippist, L. (2019). Brilliant Health Service Management: Challenging Perceptions and Changing HR Practices in Health Services. *Asia Pacific Journal Of Human Resources*, 57(2), 174-190. doi:10.1111/1744-7941.12189
- Kashmiri, S., & Brower, J. (2016). Oops! I Did it Again: Effect of Corporate Governance and Top Management Team Characteristics on the Likelihood of Product-Harm Crises. *Journal of Business Research*, 69(2), 621-630.
- Kellner, A., Townsend, K., Wilkinson, A., Lawrence, S. A., & Greenfield, D. (2016). Learning to Manage: Development Experiences of Hospital Frontline Managers. *Human Resource Management Journal*, 26(4), 505-522.
- Kellogg, K. M., & Fairbanks, R. J. (2018). Approaching Fatigue and Error in Emergency Medicine: Narrowing the Gap Between Work as Imagined and Work as Really Done. *Annals of Emergency Medicine*, 72(2), 181-183. doi:10.1016/j.annemergmed.2018.02.030
- Kelly, J. G. (1996). Management By Walking Around. *Management Matters (North York)* 16, 1.
- Kendrick, M. I., Bartram, T., Cavanagh, J., & Burgess, J. (2017). Role of Strategic Human Resource Management in Crisis Management in Australian Greenfield Hospital Sites: A Crisis Management Theory Perspective. *Australian Health Review : a publication of the Australian Hospital Association*. 43(2), 157-164. doi: 10.1071/AH17160
- Kendrick, M., Kendrick, K., Morton, P., Taylor, N. F., & Leggat, S. G. (2020). Hospital Staff Report it is not Burnout, but a Normal Stress Reaction to an Uncongenial Work Environment: Findings from a Qualitative Study. *International Journal of Environmental Research and Public Health*, 17(11), 4107. doi: 10.3390/ijerph17114107
- Kendrick, M., Kendrick, K., Taylor, N. F., & Leggat, S. G. (2021) A Qualitative Study of Hospital Clinical Staff Perceptions of Their Interactions with Healthcare Middle Managers. *Journal of Health Organization and Management*. 36(4), 428-447. doi: 10.1108/JHOM-06-2021-0216
- Kesselheim, A. S., Cresswell, K., Phansalkar, S., Bates, D. W., & Sheikh, A. (2011). Clinical Decision Support Systems Could Be Modified To Reduce 'Alert Fatigue' While Still Minimizing The Risk Of Litigation. *Health Affairs*, 30(12), 2310-2317. doi:10.1377/hlthaff.2010.1111
- Ketchen, D. J. (2014). How Penn State Turned a Crisis into a Disaster: An Interview With Crisis Management Pioneer Steven Fink. *Business Horizons*, 57(5), 667-675.
- Khandelwal, A., Mehta, L., Lilly, S., & Velagapudi, P. (2020). The Imperative of Addressing Clinician Well-Being. *Journal of the American College of Cardiology*, 75(1), 118-121. doi:10.1016/j.jacc.2019.12.001
- Khanna, N., Montgomery, R., & Klyushnenkova, E. (2020). Joy in Work for Clinicians and Staff: Identifying Remedial Predictors of Burnout from the Mini Z Survey. *Journal of*

- the American Board of Family Medicine*, 33(3), 357-367.
doi:10.3122/jabfm.2020.03.190458
- Khasawneh, A., Malkawi, H., Ababneh, S., Al-Araidah, O., & Kremer, G. O. (2021). Empirical Study on Mental Stress Among Healthcare Staffs and the Influencing Workplace Stressors. *Engineering Management in Production and Services*, 13(2), 54-67. doi:10.2478/emj-2021-0012
- Kind, A. J. H., Jensen, L., Barczy, S., Bridges, A., Kordahl, R., Smith, M. A., & Asthana, S. (2012). Low-Cost Transitional Care With Nurse Managers Making Mostly Phone Contact With Patients Cut Rehospitalization At A VA Hospital. *Health Affairs*, 31(12), 2659-2668. doi:10.1377/hlthaff.2012.0366
- Kippist, L., & Fitzgerald, A. (2009). Organisational Professional Conflict and Hybrid Clinician Managers: The Effects of Dual Roles in Australian Health Care Organizations. *Journal of Health Organization and Management*, 23(6), 642-655. doi:10.1108/14777260911001653
- Klikauer, T. (2013). What Is Managerialism? *Critical Sociology*, 41(7-8), 1103-1119. doi:10.1177/0896920513501351
- Kotz, D. M. (2009). The Financial and Economic Crisis of 2008: A Systemic Crisis of Neoliberal Capitalism. *The Review of Radical Political Economics*, 41(3), 305-317. doi:10.1177/0486613409335093
- Kreindler, S., Dowd, D., Star, N. D., & Gottschalk, T. (2012). Silos and Social Identity: The Social Identity Approach as a Framework for Understanding and Overcoming Divisions in Health Care. *The Milbank Quarterly*, 90(2), 347-374. doi:10.1111/j.1468-0009.2012.00666.x
- Krieger, K. (2013). The Limits and Variety of Risk-Based Governance: The Case of Flood Management in Germany and England. *Regulation & Governance*, 7(2), 236-257. doi:10.1111/rego.12009
- Kristensen, T., Borritz, M., Villadsen, E., & Christensen, K. (2005). The Copenhagen Burnout Inventory: A New Tool for the Assessment of Burnout. *Work and Stress*, 19(3), 192-207. doi:10.1080/02678370500297720
- Kundu, S., & Gahlawat, N. (2015). Socially Responsible HR Practices and Employees' Intention to Quit: The Mediating Role of Job Satisfaction. *Human Resource Development International*, 18(4), 387-406.
- Kutney-Lee, W. A., Stimpfel, M. A., Sloane, P. D., Cimiotti, W. J., Quinn, H. L., & Aiken, H. L. (2015). Changes in Patient and Nurse Outcomes Associated With Magnet Hospital Recognition. *Medical Care*, 53(6), 550-557.
- Lalonde, C., & Roux-Dufort, C. (2010). Crisis Management in Institutional Healthcare Settings: From Punitive to Emancipatory Solutions. *Organization Development Journal*, 28(1), 19-36.
- Lamontagne, A. D., Keegel, T., & Vallance, D. (2007). Protecting and Promoting Mental Health in the Workplace: Developing a Systems Approach to Job Stress. *Health Promotion Journal of Australia*, 18(3), 221-228. doi:10.1071/HE07221
- Lampel, J., Bhalla, A., & Jha, P. P. (2014). Does Governance Confer Organisational Resilience? Evidence From UK Employee Owned Businesses. *European Management Journal*, 32(1), 66-72.
- Larsen, T., Beier-Holgersen, R., Dieckmann, P., & Østergaard, D. (2018). Conducting the Emergency Team: A Novel Way to Train the Team-Leader for Emergencies. *Heliyon*, 4(9). doi:10.1016/j.heliyon.2018.e00791
- Lasater, K. B., Aiken, L. H., Sloane, D. M., French, R., Martin, B., Reneau, K., . . . McHugh, M. D. (2020). Chronic Hospital Nurse Understaffing Meets COVID-19: An

- Observational Study. *BMJ Quality & Safety*, 30, 639-647. doi:10.1136/bmjqs-2020-011512
- Lassiter, L. (2005). Collaborative Ethnography and Public Anthropology. *Current Anthropology*, 46(1), 83-106. doi:10.1086/425658
- Lawton, R., Robinson, O., Harrison, R., Mason, S., Conner, M., & Wilson, B. (2019). Are More Experienced Clinicians Better Able to Tolerate Uncertainty and Manage Risks? A Vignette Study of Doctors in Three NHS Emergency Departments in England. *BMJ Quality & Safety*, 28(5), 382-388. doi:10.1136/bmjqs-2018-008390
- Lawton, R., Taylor, N., Clay-Williams, R., & Braithwaite, J. (2014). Positive Deviance: A Different Approach to Achieving Patient Safety. *BMJ Quality & Safety*, 23, 880-883
- Learner, S. (2011). Doctors and Mental Health. *Online: BMJ Careers*, 342, d1708
- Leggat, S. G., Balding, C., & Bish, M. (2021). Perspectives of Australian Hospital Leaders on the Provision of Safe Care: Implications for Safety I and Safety II. *Journal of Health Organization and Management*, (ahead-of-print). doi:10.1108/JHOM-10-2020-0398
- Leggat, S. G., Bartram, T., Stanton, P., Bamber, G. J., & Sohal, A. S. (2015). Have Process Redesign Methods, Such as Lean, Been Successful in Changing Care Delivery in Hospitals? A Systematic Review. *Public Money & Management*, 35(2), 161-168. doi:10.1080/09540962.2015.1007714
- Leggat, S. G., Liang, Z., & Howard, P. F. (2020). Differentiating Between Average and High-Performing Public Healthcare Managers: Implications for Public Sector Talent Management. *Australian Health Review*, 44(3), 434-442. doi:10.1071/AH19087
- Lemaire, J. B., & Wallace, J. E. (2017). Burnout Among Doctors. *BMJ*, 358(j3360). doi:10.1136/bmj.d1708
- Lempp, H., & Seale, C. (2004). The Hidden Curriculum in Undergraduate Medical Education: Qualitative Study of Medical Students' Perceptions of Teaching. *BMJ*, 329(7469), 770.
- Lengnick-Hall, M., Lengnick-Hall, C., Andrade, L., & Drake, B. (2009). Strategic Human Resource Management: The Evolution of the Field. *Human Resource Management Review*, 19(2), 64-85.
- Levi, E. (2018). Broken Doctors, Broken Systems. Retrieved from <https://ericlevi.com/2018/05/13/broken-doctors-broken-systems/>
- Liang, Z. (2008). *Health Reforms and Australian Senior Health Executive Workforce Characteristics: Competencies and Challenges*. Germany: VDM Velag Dr Muller.
- Liang, Blackstock, F. C., Howard, P. F., Briggs, D. S., Leggat, S. G., Wollersheim, D., . . . Rahman, A. (2018). An Evidence-Based Approach to Understanding the Competency Development Needs of the Health Service Management Workforce in Australia. *BMC Health Services Research*, 18(1), 976-976. doi:10.1186/s12913-018-3760-z
- Liang, Leggat, Howard, & Koh. (2013). What Makes a Hospital Manager Competent at the Middle and Senior Levels? *Australian Health Review*, 37(5), 566-573. doi:10.1071/AH12004
- Liao, S.-S., Hu, D.-C., Chung, Y.-C., & Chen, L.-W. (2017). LMX and Employee Satisfaction: Mediating Effect of Psychological Capital. *Leadership & Organization Development Journal*, 38(3), 433-449. doi:10.1108/LODJ-12-2015-0275
- Liff, A. P., & Erickson, A. S. (2017). From Management Crisis to Crisis Management? Japan's Post-2012 Institutional Reforms and Sino-Japanese Crisis (In)Stability. *Journal of Strategic Studies*, 40(5), 604-638. doi:10.1080/01402390.2017.1293530
- Lindvig, K. (2018). The Implied PhD Student of Interdisciplinary Research Projects Within Monodisciplinary Structures. *Higher Education Research and Development*, 37(6), 1171-1185. doi:10.1080/07294360.2018.1474343

- Lipkin, M., & Jr. (2002). Medical Ground Zero: An Early Experience of the World Trade Center Disaster. *Annals of Internal Medicine*, 136(9), 704-707.
- Llewellyn, S. (2001). 'Two-way Windows': Clinicians as Medical Managers*. *Organisational Studies*, 22(4), 30.
- Lo, D., Wu, F., Chan, M., Chu, R., & Li, D. (2018). A Systematic Review of Burnout Among Doctors in China: A Cultural Perspective. *Asia Pacific Family Medicine*, 17(1), 3-3. doi:10.1186/s12930-018-0040-3
- MacLaren, G. (1938). *Morally We Roll Along*. California: Brown Little, University of California.
- Macmillan, J., & Strutt, J. (2015). Fiona Stanley Hospital Problems 'More Than Teething', WA Premier concedes. *ABC News*. Retrieved from <http://www.abc.net.au/news/2015-07-14/fiona-stanley-hospital-problems-more-than-teething-premier-says/6619300>
- Man, M., Toma, C., Motoc, N., Necrelescu, O., Chis, A., Lesan, A., . . . Rajnoveanu, R.-M. (2020). Disease Perception and Coping with Emotional Distress During COVID-19 Pandemic: A Survey Among Medical Staff. *International Journal of Environmental Research and Public Health*, 17(13), 4899. doi:10.3390/ijerph17134899
- Mannion, R., & Davies, H. (2018) Understanding Organisational Culture for Healthcare Quality Improvement. *BMJ*. 363, k4907. doi:10.1136/bmj.k4907
- Mansfield, E., & Perpitch, N. (2021). Aishwarya Aswath Report Finds 'Cascade of Missed Opportunities' at Perth Children's Hospital. *ABC News*. Retrieved from <https://www.abc.net.au/news/2021-05-17/aishwarya-aswath-perth-childrens-hospital-death-report-released/100144052>
- Marchal, B., Dedzo, M., & Kegels, G. (2010). Turning Around an Ailing District Hospital: A Realist Evaluation of Strategic Changes at Ho Municipal Hospital (Ghana).(Research article)(Report). *BMC Public Health*, 10, 787.
- Martin, G., Ozieranski, P., Leslie, M., & Dixon-Woods, M. (2019). How Not to Waste a Crisis: A Qualitative Study of Problem Definition and its Consequences in Three Hospitals. *Journal of Health Services Research & Policy*, 24(3), 145-154. doi:10.1177/1355819619828403
- Martins, J., & Isouard, G. (2015). An Evidence-Based Framework: Competencies and Skills for Managers in Australian Health Services. *Asia Pacific Journal of Health Management*, 10(2).
- Maslach, C. (1981). *Maslach Burnout Inventory: manual* (Research ed.. ed.). Palo Alto: Consulting Psychologists Press.
- Maslach, C., & Leiter, M. P. (2008). Early Predictors of Job Burnout and Engagement. *Journal of Applied Psychology*, 93(3), 498-512. doi:10.1037/0021-9010.93.3.498
- Matter, S. (2006). Empower nurses with evidence-based knowledge. *Nursing Management*, 37(12), 34-37. doi:10.1097/00006247-200612000-00011
- Maynard, H., McGinn, D., & Knights, H. D. J. (2018). Don't Forget the Hidden Curriculum. *Medical Teacher*, 40(1), 105-106. doi:10.1080/0142159X.2017.1369504
- Mazurenko, O., Richter, J., Kazley, A. S., & Ford, E. (2019). Examination of the Relationship Between Management and Clinician Perception of Patient Safety Climate and Patient Satisfaction. *Health Care Management Review*, 44(1).
- McCabe, T. J., & Sambrook, S. (2013). Psychological Contracts and Commitment Amongst Nurses and Nurse Managers: A Discourse Analysis. *International Journal of Nursing Studies*, 50(7), 954-967. doi:10.1016/j.ijnurstu.2012.11.012
- McCann, L., Granter, E., Hassard, J., & Hyde, P. (2015). 'You Can't Do Both - Something Will Give' Limitations of the Targets Culture in Managing UK Health Care Workforces. *Human Resource Management*, 54(5), 773.

- McCann, L., Hassard, J. S., Granter, E., & Hyde, P. J. (2015). Casting the Lean Spell: The Promotion, Dilution and Erosion of Lean Management in the NHS. *Human Relations*, 68(10), 1557-1577.
- McCarthy, J. (1992). *Why Managers Fail...And What To Do About It*: McGraw-Hill.
- McCartney, J. (2015). The Cult of 'Wellness': Our Desperation to Believe in Power of Lifestyle Change Makes us Vulnerable to Charlatans. *Spectator*, 327(9735), 18.
- McDaniel, J. R. R., Lanham, H. J., & Anderson, R. A. (2009). Implications of Complex Adaptive Systems Theory for the Design of Research on Health Care Organizations. *Health Care Management Review*, 34(2), 191-199.
doi:10.1097/HMR.0b013e31819c8b38
- McDermott, Conway, E., Rosseau, D., & Flood, P. (2013). Promoting Effective Psychological Contracts Through Leadership: The Missing Link Between HR Strategy and Performance. *Human Resource Management*, 52(2), 289-310.
- McDermott, Fitzgerald, L., Van Gestel, N. M., & Keating, M. A. (2015). From Bipartite to Tripartite Devolved HRM in Professional Service Contexts: Evidence from Hospitals in Three Countries. *Human Resource Management*, 54(5), 813-831.
doi:https://doi.org/10.1002/hrm.21728
- McDermott, & Keating, M. (2011). Managing Professionals: Exploring the Role of the Hospital HR Function. *Journal of Health Organization and Management*, 25(6).
- McGivern, Currie, Ferlie, Fitzgerald, & Waring, J. (2015a). Hybrid Manager-Professionals' Identity Work: The Maintenance and Hybridization of Medical Professionalism in Managerial Contexts.. *Public Administration*, 93(2), 412-432.
doi:10.1111/padm.12119
- McGivern, Currie, G., Ferlie, E., Fitzgerald, L., & Waring, J. (2015b). Hybrid Manager-Professionals' Identity Work: The Maintenance and Hybridization of Medical Professionalism in Managerial Contexts. *Public Administration*, 93(2), 412-432.
doi:10.1111/padm.12119
- McHugh, M. D., Kutney-Lee, A., Cimiotti, J. P., Sloane, D. M., & Aiken, L. H. (2011). Nurses' Widespread Job Dissatisfaction, Burnout, And Frustration With Health Benefits Signal Problems For Patient Care. *Health Affairs*, 30(2), 202-210.
- Mihail, D. M., & Kloutsiniotis, P. V. (2016). The Effects of High-Performance Work Systems on Hospital Employees' Work-Related Well-Being: Evidence from Greece. *European Management Journal*, 34(4), 424-438.
- Millar, D. P., & Heath, R. L. (2003). *Responding to Crisis : A Rhetorical Approach to Crisis Communication*. Mahwah, United States: Taylor & Francis Group.
- Millenson, M. L. (2013). The Long Wait For Medical Excellence. *Health Affairs*, 32(10), 1757-1760. doi:10.1377/hlthaff.2013.0567
- Mills, D. E., Bradley, L., & Keast, R. (2021). NPG and Stewardship theory: Remedies for NPM Privatization Prescriptions. *Public Management Review*, 23(4), 501-522.
doi:10.1080/14719037.2019.1695883
- Modi, R. (2018). Doctors are Burning Out and Trite 'Wellness' Measures Aren't Helping. Center for Health Journalism. Retrieved from
<https://www.centerforhealthjournalism.org/2018/05/15/doctors-are-burning-out-and-trite-wellness-measures-aren-t-helping>
- Moenkemeyer, G., Hoegl, M., & Weiss, M. (2012). Innovator Resilience Potential: A Process Perspective of Individual Resilience as Influenced by Innovation Project Termination. *Human Relations*, 65(5), 627-655.
- Montero-Marín, J., Prado-Abril, J., Carrasco, J. M., Asensio-Martínez, Á., Gascón, S., & García-Campayo, J. (2013). Causes of Discomfort in the Academic Workplace and

- Their Associations with the Different Burnout Types: A Mixed-Methodology Study. *BMC Public Health*, 13, 1240. doi:10.1186/1471-2458-13-1240
- Montgomery, A., Panagopoulou, E., Esmail, A., Richards, T., & Maslach, C. (2019). Burnout in Healthcare: The Case for Organisational Change. *BMJ*, 366, 14774. doi:10.1136/bmj.14774
- Montgomery, A., Panagopoulou, E., Kehoe, I., & Valkanos, E. (2011). Connecting Organisational Culture and Quality of Care in the Hospital: Is job Burnout the Missing Link? *Journal of Health Organisation Management*, 25(1), 108-23. doi: 10.1108/14777261111116851.
- Moore, C., & Buchanan, D. A. (2013). Sweat the Small Stuff: A Case Study of Small-Scale Change Processes and Consequences in Acute Care. *Health Services Management Research: an official journal of the Association of University Programs in Health Administration*, 26(1), 9-17. doi:10.1177/0951484813488060
- Morag, I., Gopher, D., Spillinger, A., Auerbach-Shpak, Y., Laufer, N., Lavy, Y., . . . Soudry, M. (2012). Human Factors–Focused Reporting System for Improving Care Quality and Safety in Hospital Wards. *Human Factors*, 54(2), 195-213.
- Morgan, W. B., & King, E. B. (2012). Mothers' Psychological Contracts: Does Supervisor Breach Explain Intention to Leave the Organization? *Human Resource Management*, 51(5), 629-649. doi:10.1002/hrm.21492
- Morris, P. (2006). The Australian mental health crisis: a system failure in need of treatment. *Australasian Psychiatry: Bulletin of the Royal Australian and New Zealand College of Psychiatrists*, 14(3), 332–333. https://doi.org/10.1111/j.1440-1665.2006.02300_1.x
- Mosaly, P. R., Mazur, L. M., Yu, F., Guo, H., Derek, M., Laidlaw, D. H., . . . Mostafa, J. (2018). Relating Task Demand, Mental Effort and Task Difficulty with Physicians' Performance during Interactions with Electronic Health Records (EHRs). *International Journal of Human-Computer Interaction*, 34(5), 467-475. doi:10.1080/10447318.2017.1365459
- National Indigenous Times Editorial Team. (2021). Roger Cook Resignation Won't Fix Health System. *National Indigenous Times*. Retrieved from <https://nit.com.au/roger-cook-resignation-wont-fix-wa-health-system/>
- Nebil, A., Masakatsu, M., Federica, P., & Andrew, D. F. P. (2014). Hospital Resilience to Natural Hazards: Classification and Performance of Utilities. *Disaster Prevention and Management*, 23(1), 40-52.
- Nemeth, C., Wears, R., Patel, S., Rosen, G., & Cook, R. (2011). Resilience is not Control: Healthcare, Crisis Management, and ICT. *Cognition, Technology & Work*, 13(3), 189-202.
- Newdick, C., & Danbury, C. (2015). Culture, Compassion and Clinical Neglect: Probity in the NHS after Mid Staffordshire. *Journal of Medical Ethics*, 41(12), 956-962. doi:10.1136/medethics-2012-101048
- Newman, S., & Lawler, J. (2009). Managing Health Care under New Public Management: A Sisyphean Challenge for Nursing [Paper in Special issue: Neoliberalism, New Public Management and the Human Services Professions. Connell, Raewyn Fawcett, Barbara and Meagher, Gabrielle (eds).]. *Journal of Sociology (Melbourne, Vic.)*, 45(4), 419-432. doi:10.1177/1440783309346477
- Nugus, P., Carroll, K., Hewett, D. G., Short, A., Forero, R., & Braithwaite, J. (2010). Integrated Care in the Emergency Department: A Complex Adaptive Systems Perspective. *Social Science & Medicine*, 71(11), 1997-2004. doi:10.1016/j.socscimed.2010.08.013
- Numbeo. (2021). Cost of Living in Perth. In. Online. Retrieved 15th November 2021 from; <https://www.numbeo.com/cost-of-living/in/Perth>

- O'Donnell, D. M., Livingston, P. M., & Bartram, T. (2012). Human Resource Management Activities on the Front Line: A Nursing Perspective. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 41(2), 198-205.
- O'Donovan, R., & McAuliffe, E. (2020). A Systematic Review of Factors that Enable Psychological Safety in Healthcare Teams. *International Journal for Quality in Health Care*, 32(4), 240-250. doi:10.1093/intqhc/mzaa025
- O'Sullivan, T., Kuziemsky, C., Toal-Sullivan, D., & Corneil, W. (2013). Unraveling the Complexities of Disaster Management: A Framework for Critical Social Infrastructure to Promote Population Health and Resilience. *Social Science & Medicine*, 93, 238.
- Offstein, E. H., Harrell-Cook, G., & Tootoonchi, A. (2005). Top Management Team Discretion and Impact Drivers of a Firm's Competitiveness. *Competitiveness Review*, 15(2), 82-91. doi:10.1108/cr.2005.15.2.82
- Olson, K., Kemper, K. J., & Mahan, J. D. (2015). What Factors Promote Resilience and Protect Against Burnout in First-Year Pediatric and Medicine-Pediatric Residents? *Journal of Evidence-Based Complementary & Alternative Medicine*, 20(3), 192-198.
- Omar, A., Elmaraghi, S., Mahmoud, M., Khalil, M., Singh, R., & Ostrowski, P. (2015). Impact of Leadership on ICU Clinicians' Burnout. *Intensive Care Medicine*, 41(11), 2016-2017. doi:10.1007/s00134-015-4008-6
- Ottaway, S. (2020). "A Very Bad Presidente in the House": Workhouse Masters, Care, and Discipline in the Eighteenth-Century Workhouse. *Journal of Social History*. doi:10.1093/jsh/shaa016
- Ottewill, R., McKenzie, G., & Leah, J. (2005). Integration and the Hidden Curriculum in Business Education. *Education & Training (London)*, 47(2), 89-97. doi:10.1108/00400910510586515
- Paccione-Dyszlewski, M. R., Conelea, C. A., Heisler, W. C., Vilardi, J. C., & Sachs, H. T. (2012). A Crisis Management Quality Improvement Initiative in a Children's Psychiatric Hospital: Design, Implementation, and Outcome. *Journal of Psychiatric Practice*, 18(4), 304.
- Patrick, D., Helen, M., Simon, B., & Jane, T. (2006). New Public Management Is Dead: Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory*, 16(3), 467-494. doi:10.1093/jopart/mui057
- Pearson, C., Roux-Dufort, C., & Clair, J. (2007). *International Handbook of Organizational Crisis Management*: Sage Publishing.
- Perpitch, N. (2019). Sir Charles Gairdner Hospital Emergency Chief Warns of 'Avoidable Deaths' Due to Staff Shortages. *ABC News*. Retrieved from <https://www.abc.net.au/news/2019-03-12/doctor-raises-staff-shortages-at-sir-charles-gairdner-emergency/10890852>
- Perpitch, N. (2021). Nurses Say They Warned of Perth Children's Hospital Staffing Crisis Before Seven-Year-Old's Death. *ABC News*. Retrieved from <https://www.abc.net.au/news/2021-04-06/nurses-warned-of-hospital-crisis-before-girls-death/100051412#:~:text=Nurses%20say%20they%20feared%20being,wass%20%22%20before%20her%20death>
- Petrakaki, D., & Kornelakis, A. (2016). 'We Can Only Request What's in our Protocol': Technology and Work Autonomy in Healthcare. *New Technology, Work & Employment*, 31(3), 223-237. doi:10.1111/ntwe.12072
- Pettersen, I. J., Nyland, K., & Kaarboe, K. (2012). Governance and the Functions of Boards: An Empirical Study of Hospital Boards in Norway. *Health Policy*, 107(2-3), 269-275.

- Pham, C. T., Lee, C. B., Nguyen, T. L. H., Lin, J.-D., Ali, S., & Chu, C. (2020). Integrative Settings Approach to Workplace Health Promotion to Address Contemporary Challenges for Worker Health in the Asia-Pacific. *Global Health Promotion*, 27(2), 82-90. doi:10.1177/1757975918816691
- Phelan, D. R. (2013). The Pros and Cons of Interdisciplinary Structured PhDs in European Studies. *European Journal of Higher Education*, 3(4), 402-405. doi:10.1080/21568235.2013.825073
- Pielach, M., & Schubert, H.-J. (2018). Competency Requirements for Executives in Healthcare and Social Services Organizations: Results of a Delphi Study. *Zeitschrift für Evidenz, Fortbildung und Qualität im Gesundheitswesen*, 134, 35-41. doi:10.1016/j.zefq.2018.01.007
- Pierce, L., & Snyder, J. (2015). Unethical Demand and Employee Turnover. *Journal of Business Ethics*, 131(4), 853-869. doi:10.1007/s10551-013-2018-2
- Pillay, R. (2009). Work Satisfaction of Professional Nurses in South Africa: A Comparative Analysis of the Public and Private Sectors. *Human Resources for Health*, 7(1), 15-15. doi:10.1186/1478-4491-7-15
- Pirson, M. A. (2017). What Human in Management Theory? Ontological Considerations for Humanistic Management Theory. *Academy of Management Annual Meeting Proceedings*, 2017(1), 1-1. doi:10.5465/AMBPP.2017.12952abstract
- Plsek, P. E., & Greenhalgh, T. (2001). The Challenge of Complexity in Health Care. *BMJ : British Medical Journal*, 323(7313), 625-628.
- Porter, L. W. (2008). Organizational Psychology: A Look Backward, Outward, and Forward. *Journal of Organizational Behavior*, 29(4), 519-526. doi:10.1002/job.531
- Pozzebon, M. (2017). Beyond Positivist Qualitative Research. *Revista de Administração de Empresas*, 57(4), 415.
- Price, O., Baker, J., Bee, P., & Lovell, K. (2015). Learning and Performance Outcomes of Mental Health Staff Training in De-Escalation Techniques for the Management of Violence and Aggression. *The British Journal of Psychiatry : the Journal of Mental Science*, 206(6), 447-455. doi:10.1192/bjp.bp.114.144576
- Productivity Commission. (1999). *Private Hospitals in Australia*. Online. Retrieved from <https://www.pc.gov.au/research/completed/private-hospitals/privatehospitals.pdf>
- Pruginin, I., Findley, P., Isralowitz, R., & Reznik, A. (2017). Adaptation and Resilience Among Clinicians Under Missile Attack: Shared Traumatic Reality. *International Journal of Mental Health and Addiction*, 15(3), 684-700. doi:10.1007/s11469-017-9748-9
- Pype, P., Krystallidou, D., Deveugele, M., Mertens, F., Rubinelli, S., & Devisch, I. (2017). Healthcare Teams as Complex Adaptive Systems: Focus on Interpersonal Interaction. *Patient Education and Counselling*, 100(11), 2028-2034. doi:10.1016/j.pec.2017.06.029
- Quartz-Topp, J., Sanne, J. M., & Pöstges, H. (2018). Hybrid Practices as a Means to Implement Quality Improvement: A Comparative Qualitative Study in a Dutch and Swedish Hospital. *Health Care Management Review*, 43(2), 148.
- Rapp, C. A., Etzel-Wise, D., Marty, D., Coffman, M., Carlson, L., Asher, D., . . . Holter, M. (2010). Barriers to Evidence-Based Practice Implementation: Results of a Qualitative Study. *Community Mental Health Journal*, 46(2), 112-118.
- Rasmussen, P., Muir-Cochrane, E., & Henderson, A. (2012). Document Analysis Using an Aggregative and Iterative Process. *International Journal of Evidence-Based Healthcare (Wiley-Blackwell)*, 10(2), 142-145 144p.
- Reid, M., Daube, M., Langoulant, J., Saffioti, R., Cloghan, D. (2004). *A Healthy Future for Western Australians: Report of the Health Reform Committee*. Online: Western

- Australian Department of Health. Retrieved from https://ww2.health.wa.gov.au/~media/Files/Corporate/Reports%20and%20publications/PDF/Report_of_the_Health_Reform_Committee.ashx
- Rider, E. A., Gilligan, M. C., Osterberg, L. G., Litzelman, D. K., Plews-Ogan, M., Weil, A. B., . . . Branch, W. T. (2018). Healthcare at the Crossroads: The Need to Shape an Organizational Culture of Humanistic Teaching and Practice. *Journal of General Internal Medicine*, 33(7), 1092–1099doi:10.1007/s11606-018-4470-2
- Roch, G., Dubois, C.-A., & Clarke, S. P. (2014). Organizational Climate and Hospital Nurses' Caring Practices: A Mixed-Methods Study. *Research in Nursing & Health*, 37(3), 229.
- Ronnie, L. (2019). Intensive Care Nurses in South Africa: Expectations and Experiences in a Public Sector Hospital. *Journal of Nursing Management*, 27(7), 1431-1437. doi:10.1111/jonm.12826
- Ros, S. P., & Scheper, R. (2009). Career Longevity in Clinical Pediatric Emergency Medicine. *Pediatric Emergency Care*, 25(8), 487-488. doi:10.1097/PEC.0b013e3181b09d19
- Rosen, M. I., Gimotty, A. P., Shea, A. J., & Bellini, M. L. (2006). Evolution of Sleep Quantity, Sleep Deprivation, Mood Disturbances, Empathy, and Burnout among Interns. *Academic Medicine*, 81(1), 82-85.
- Sackett, D. L., Rosenberg, W. M. C., Gray, J. A. M., Haynes, R. B., & Richardson, W. S. (1996). Evidence Based Medicine: What It Is and What It Isn't. *BMJ*, 312(7023), 71. doi:10.1136/bmj.312.7023.71
- Salyers, M. P., Flanagan, M. E., Firmin, R., & Rollins, A. L. (2015). Clinicians' Perceptions of How Burnout Affects Their Work. *Psychiatric Services (Washington, D.C.)*, 66(2), 204. doi:10.1176/appi.ps.201400138
- Salyers, Bonfils, K. A., Luther, L., Firmin, R. L., White, D. A., Adams, E. L., & Rollins, A. L. (2016). The Relationship Between Professional Burnout and Quality and Safety in Healthcare: A Meta-Analysis. *Journal of General Internal Medicine: JGIM*, 32(4), 475–482. doi:10.1007/s11606-016-3886-9
- Sandström, A., Rhodin, I. N., Lundberg, M., Olsson, T., & Nyberg, L. (2005). Impaired Cognitive Performance in Patients With Chronic Burnout Syndrome. *Biological Psychology*, 69(3), 271-279. doi:https://doi.org/10.1016/j.biopsycho.2004.08.003
- Schneider, E. C., Shah, A., Doty, M. M., Tikkanen, R., Fields, K., & Williams II, R. D. (2021). *Reflecting Poorly: Health Care in the US Compared to Other High-Income Countries*. Commonwealth Fund Report. August. https://heatinformatics.com/sites/default/files/images-videos/FileContent/Schneider_Mirror_Mirror_2021.pdf
- Scott, H. (2005). Nurses Continue to Work Regular Unpaid Overtime. *British Journal of Nursing*, 14(7), 357-357. doi:10.12968/bjon.2005.14.7.17936
- Shacklock, K., Brunetto, Y., Teo, S., & Farr-Wharton, R. (2014). The Role of Support Antecedents in Nurses' Intentions to Quit: The Case of Australia. *Journal of Advanced Nursing*, 70(4), 811-822.
- Shanafelt, Dyrbye, L. N., Sinsky, C., Hasan, O., Satele, D., Sloan, J., & West, C. P. (2016). Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction. *Mayo Clinic Proceedings*, 91(7), 836-848. doi:10.1016/j.mayocp.2016.05.007 10.1016/j.mayocp.2016.05.007. Epub 2016 Jun 27.
- Shanafelt, Dyrbye, L. N., & West, C. P. (2017). Addressing Physician Burnout: The Way Forward. *JAMA*, 317(9), 901-902. doi:10.1001/jama.2017.0076

- Shanafelt, Dyrbye, L. N., West, C. P., & Sinsky, C. A. (2016). Potential Impact of Burnout on the US Physician Workforce. *Mayo Clinic Proceedings*, 91(11), 1667-1668. doi:10.1016/j.mayocp.2016.08.016 10.1016/j.mayocp.2016.08.016.
- Shanafelt, Mungo, M., Schmitgen, J., Storz, K. A., Reeves, D., Hayes, S. N., . . . Buskirk, S. J. (2016). Longitudinal Study Evaluating the Association Between Physician Burnout and Changes in Professional Work Effort. *Mayo Clinic Proceedings*, 91(4), 422-431. doi:10.1016/j.mayocp.2016.02.001 10.1016/j.mayocp.2016.02.001.
- Shanafelt, & Noseworthy, J. H. (2017). Executive Leadership and Physician Well-being: Nine Organizational Strategies to Promote Engagement and Reduce Burnout. *Mayo Clinic Proceedings*, 92(1), 129-146. doi:10.1016/j.mayocp.2016.10.004
- Shanafelt, Ripp, J., & Trockel, M. (2020). Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic. *JAMA*, 323(21), 2133-2134. doi:10.1001/jama.2020.5893
- Shaw, R. (2012). New Public Management in Australia: Past, Present and Future. [La nouvelle gestion publique en Australie : passé, présent et futur]. *Pouvoirs*, 141(2), 117-132. Retrieved from https://www.cairn-int.info/article-E_POUV_141_0117--the-new-public-management-in-australia.htm
- Sheaffer, Z., Richardson, B., & Rosenblatt, Z. (1998). Early-Warning-Signals Management: A Lesson from the Barings Crisis. *Journal of Contingencies and Crisis Management*, 6(1), 1-22. doi:10.1111/1468-5973.00064
- Sheehan, C. (2021). Psychological Anthropology and Medical Anthropology: A Brief History of Ideas and Concepts. *Irish journal of Psychological Medicine*, 1-6. doi:10.1017/ipm.2021.34
- Shepherd, A. (2020). Covid-19: Frontline Doctors Continue PPE Fight. *BMJ (Clinical research ed.)*, 369, m2188-m2188. doi:10.1136/bmj.m2188
- Shillcutt, S. (2018). Doctors Save Lives. Let's Start Saving Our Own. On KevinMD.com. Retrieved from <https://www.kevinmd.com/blog/2018/04/doctors-save-lives-lets-start-saving-our-own.html>
- Shin, H., Park, Y. M., Ying, J. Y., Kim, B., Noh, H., & Lee, S. M. (2014). Relationships Between Coping Strategies and Burnout Symptoms: A Meta-Analytic Approach. *Professional Psychology: Research and Practice*, 45(1), 44-56. doi:10.1037/a0035220
- Sigsbee, L. B., & Bernat, L. J. (2014). Physician Burnout: A Neurologic Crisis. *Neurology*, 83(24), 2302-2306. doi:10.1212/WNL.0000000000001077
- Siltala, J. (2013). New Public Management: The Evidence-Based Worst Practice? *Administration & Society*, 45(4), 468-493. doi:10.1177/0095399713483385
- Sinaiko, J. E., & Toloui, O. (2007). The Intersection of Compliance and Quality: the Bottom Line. *Journal of Health Care Compliance*, 9(2), 63-66. Retrieved from <http://ez.library.latrobe.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=24656361&site=ehost-live&scope=site>
- Small, M. L., Jacobs, E. M., & Massengill, R. P. (2008). Why Organizational Ties Matter for Neighborhood Effects: Resource Access through Childcare Centers. *Social Forces*, 87(1), 387-414. doi:10.1353/sof.0.0079
- Smith, Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the Ability to Bounce Back. *International Journal of Behavioral Medicine*, 15(3), 194-200.
- Smith, Kearney, P. J., & Merlat, W. (1999). Evolutionary Adaptation in Autonomous Agent Systems — A Paradigm for the Emerging Enterprise. *BT Technology Journal*, 17(4), 157-167. doi:10.1023/A:1009667613845

- Smith, B. (2018). Generalizability in Qualitative Research: Misunderstandings, Opportunities and Recommendations for the Sport and Exercise Sciences. *Qualitative Research in Sport, Exercise and Health*, 10(1), 137-149. doi:10.1080/2159676X.2017.1393221
- Society for Human Resource Management. (2017). 2017 Employee Benefits: Remaining Competitive in a Challenging Talent Marketplace [Press release]. Retrieved from <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/pages/2017-employee-benefits.aspx>
- Soliman, M., & Saurin, T. A. (2020). Lean-as-Imagined Differs From Lean-as-Done: The Influence of Complexity. *Production Planning & Control*, 1-18. doi:10.1080/09537287.2020.1843729
- Sparvell, R. (2016). State's Top Doctor Claims Fiona Stanley Open Letter is "a Cry for Help". *WA Today*. Retrieved from <http://www.watoday.com.au/wa-news/states-top-doctor-claims-fiona-stanley-hospital-open-letter-is-a-cry-for-help-20160214-gmtn0b.html>
- Spivak, M., Smith, A., & Logsdon, C. (2011). Developing Expert Clinical Nurses: Grow Them, Hold Them and Let Them Walk Away. *Journal of Nursing Management*, 19(1), 92-97.
- Spurgeon, P., Sujan, M.-A., Cross, S., & Flanagan, H. (2019). Human Factors and Systems Approach to Patient Safety. In P. Spurgeon, M.-A. Sujan, S. Cross, & H. Flanagan (Eds.), *Building Safer Healthcare Systems: A Proactive, Risk Based Approach to Improving Patient Safety* (pp. 31-43). Cham: Springer International Publishing.
- St.Pierre, M. (2011). *Crisis Management in Acute Care Settings Human Factors, Team Psychology, and Patient Safety in a High Stakes Environment* (2nd ed.). Berlin: Springer Berlin Heidelberg.
- Stanley, D. J., Meyer, J. P., & Topolnytsky, L. (2005). Employee Cynicism and Resistance to Organizational Change. *Journal of Business and Psychology*, 19(4), 429-459. doi:10.1007/s10869-005-4518-2
- Stark, A. (2014). Bureaucratic Values and Resilience: An Exploration of Crisis Management. *Public Administration*, 92(3), 692.
- Stinglhamber, F., Marique, G., Caesens, G., Desmette, D., Hansez, I., Hanin, D., & Bertrand, F. (2015). Employees' Organizational Identification and Affective Organizational Commitment: An Integrative Approach. *PLoS One*, 10(4), e0123955-e0123955. doi:10.1371/journal.pone.0123955
- Sujan, M. A., Huang, H., & Braithwaite, J. (2017). Learning From Incidents in Health Care: Critique From a Safety-II Perspective. *Safety Science*, 99, 115-121. doi:10.1016/j.ssci.2016.08.005
- Sutherland, G., & Sharp, S. (1980). "The Fust Official Psychologist in the Wurrld": Aspects of the Professionalization of Psychology in Early Twentieth Century Britain. *History of Science*, 18(3), 181-208. doi:10.1177/007327538001800302
- Swensen, S., Kabcenell, A., & Shanafelt, T. (2016). Physician-Organization Collaboration Reduces Physician Burnout and Promotes Engagement: The Mayo Clinic Experience. *Journal of Healthcare Management*, 61(2), 105-127.
- Takemura, Y., Kunie, K., & Ichikawa, N. (2019). The Effect of Work Environment on Burnout Among Nursing Directors: A Cross Sectional Study. *Journal of Nursing Management*, 28(1), 157-166. doi:10.1111/jonm.12909
- Taku, K. (2014). Relationships Among Perceived Psychological Growth, Resilience and Burnout in Physicians. *Personality and Individual Differences*, 59, 120.
- Teoh, K. R. H., Hassard, J., & Cox, T. (2020). Individual and Organizational Psychosocial Predictors of Hospital Doctors' Work-Related Well-Being: A Multilevel and Moderation Perspective. *Health Care Management Review*, 45(2).

- Tevis, S. E., & Kennedy, G. D. (2020). Building Relationships with Hospital Administrators. In T. S. Wang & A. W. Beck (Eds.), *Building a Clinical Practice* (pp. 115-127). Cham: Springer International Publishing.
- The Economist Intelligence Unit. (2021). The Global Livability Index 2021 How the Covid-19 pandemic affected livability worldwide. Retrieved from <https://www.eiu.com/n/campaigns/global-liveability-index-2021/>
- Thomas, L. R., Ripp, J. A., & West, C. P. (2018). Charter on Physician Well-Being. *JAMA*, 319(15), 1541-1542. doi:10.1001/jama.2018.1331
- Thyer, L., Simpson, P., & Nugteren, B. V. (2018). Burnout in Australian Paramedics. *International Paramedic Practice*, 8(3), 48-55. doi:10.12968/ippr.2018.8.3.48
- Titelius, R. (2015). Fremantle Hospital Jobs to be Cut, Intensive Care Unit Downgraded. PerthNow. Retrieved from <http://www.perthnow.com.au/news/western-australia/fremantle-hospital-jobs-to-be-cut-intensive-care-unit-downgraded/news-story/0e70b39196780489548d7b6e241b67ab>
- Topper, B., & Lagadec, P. (2013). Fractal Crises - A New Path for Crisis Theory and Management. *Journal of Contingencies & Crisis Management*, 21(1), 4-16. doi:10.1111/1468-5973.12008
- Tóth-Király, I., Morin, A. J. S., & Salmela-Aro, K. (2021). Reciprocal Associations between Burnout and Depression: An 8-Year Longitudinal Study. *Applied Psychology*, 70(4), 1691-1727. doi:<https://doi.org/10.1111/apps.12295>
- Townsend, Wilkinson, A., & Bartram, T. (2011). Guest Editors' Note: Lifting the Standards of Practice and Research - Hospitals and HRM. *Asia Pacific Journal of Human Resources*, 49(2), 131-137. <https://doi.org/10.1177/1038411111401512>
- Tucker, & Parker, L. (2014). In Our Ivory Towers? The Research-Practice Gap in Management Accounting. *Accounting and Business Research*, 44(2), 104-143. doi:10.1080/00014788.2013.798234
- Tucker, Zheng, S., Gardner, J. W., & Bohn, R. E. (2020). When do Workarounds Help or Hurt Patient Outcomes? The Moderating Role of Operational Failures. *Journal of Operations Management*, 66(1-2), 67-90. doi:10.1002/joom.1015
- Tucker, A., & Singer, S. (2015). The Effectiveness of Management-By-Walking-Around: A Randomized Field Study. *Production and Operations Management*, 24(2), 253.
- Ubbink, D. T., Tump, E., Koenders, J. A., Kleiterp, S., Goslings, J. C., & Brolmann, F. E. (2014). Which Reasons Do Doctors, Nurses, and Patients Have for Hospital Discharge? A Mixed-Methods Study. *PLoS One*, 9(3), e91333.
- Uema, A., Kitamura, H., & Nakajima, K. (2020). Adaptive Behavior of Clinicians in Response to an Over-Constrained Patient Safety Policy on the Administration of Concentrated Potassium Chloride Solutions. *Safety Science*, 121, 529-541. doi:<https://doi.org/10.1016/j.ssci.2019.09.023>
- Vanvactor, J. (2011). Cognizant Healthcare Logistics Management: Ensuring Resilience During Crisis. *International Journal of Disaster Resilience in the Built Environment*, 2(3), 245-255.
- Vašíčková, V. (2020). Crisis Management Process - A Literature Review and a Conceptual Integration. *Acta Oeconomica Pragensia*, 27, 61-77. doi:10.18267/j.aop.628
- Veazey Brooks, J., & Bosk, C. L. (2012). Remaking Surgical Socialization: Work Hour Restrictions, Rites of Passage, and Occupational Identity. *Social Science & Medicine*, 75(9), 1625-1632. doi:10.1016/j.socscimed.2012.07.007
- Vedeld, T., Coly, A., Ndour, N., & Hellevik, S. (2016). Climate Adaptation at what Scale? Multi-Level Governance, Resilience, and Coproduction in Saint Louis, Senegal. *Journal of the International Society for the Prevention and Mitigation of Natural Hazards*, 82(Supplement 2), 173-199.

- Verbeeten, F. H. M., & Speklé, R. F. (2015). Management Control, Results-Oriented Culture and Public Sector Performance : Empirical Evidence on New Public Management. *Organization Studies*, 36(7), 953-978. doi:10.1177/0170840615580014
- Verni, C. (2012). A Hospital System's Response To A Hurricane Offers Lessons, Including The Need For Mandatory Interfacility Drills. *Health Affairs*, 31(8), 1814-1821. doi:10.1377/hlthaff.2012.0154
- Veronesi, G., Kirkpatrick, I., & Vallasca, F. (2014). Does Clinical Management Improve Efficiency? Evidence from the English National Health Service. *Public Money & Management*, 34(1), 35-42.
- Vinson, A. E., Zurakowski, D., Randel, G. I., & Schlecht, K. D. (2016). National Survey of US Academic Anesthesiology Chairs on Clinician Wellness. *Journal of Clinical Anesthesia*, 34, 623-631.
- Volpe, U., Luciano, M., Palumbo, C., Sampogna, G., Del Vecchio, V., & Fiorillo, A. (2014). Risk of Burnout Among Early Career Mental Health Professionals. *Journal of Psychiatric and Mental Health Nursing*, 21(9), 774-781. doi:10.1111/jpm.12137
- Wade, V. A., Elliott, J. A., & Hiller, J. E. (2014). Clinician Acceptance is the Key Factor for Sustainable Telehealth Services. *Qualitative Health Research*, 24(5), 682-694. doi:10.1177/1049732314528809
- Wears, R. L. (2015). *Resilient Health Care, Volume 2: The Resilience of Everyday Clinical Work*. In E. Hollnagel & J. Braithwaite (Eds.), (2nd ed.). Boca Raton: CRC Press.
- Webster, F., Rice, K., Dainty, K. N., Zwarenstein, M., Durant, S., & Kuper, A. (2015). Failure to Cope: The Hidden Curriculum of Emergency Department Wait Times and the Implications for Clinical Training. *Academic Medicine*, 90(1), 56-62. doi:10.1097/ACM.0000000000000499
- Weigl, M., Schmuck, F., Heiden, B., Angerer, P., & Müller, A. (2019). Associations of Understaffing and Cardiovascular Health of Hospital Care Providers: A Multi-Source Study. *International Journal of Nursing Studies*, 99, 103390-103390. doi:10.1016/j.ijnurstu.2019.103390
- Wernick, B., Wojda, T., Wallner, A., Yanagawa, F., Firstenberg, M., Papadimos, T., & Stawicki, S. (2016). Brain Drain in Academic Medicine: Dealing with Personnel Departures and Loss of Talent. *International Journal of Academic Medicine*, 2(1), 68-77. doi:10.4103/2455-5568.183332
- Westbrook, J., Sunderland, N., Li, L., Koyama, A., McMullan, R., Urwin, R., . . . Braithwaite, J. (2021). The Prevalence and Impact of Unprofessional Behaviour Among Hospital Workers: A Survey in Seven Australian Hospitals. *Medical Journal of Australia*. 214(1), 31-37. doi:10.5694/mja2.50849
- West, Dyrbye, & Shanafelt. (2018). Physician Burnout: Contributors, Consequences and Solutions. *Journal of Internal Medicine*. 283, 516-529. doi:10.1111/joim.12752
- West, Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to Prevent and Reduce Physician Burnout: A Systematic Review and Meta-Analysis. *Lancet*, 388(10057), 2272-2281. doi:10.1016/s0140-6736(16)31279-x 10.1016/S0140-6736(16)31279-X.
- West, Dyrbye, L. N., Rabatin, J. T., Call, T. G., Davidson, J. H., Multari, A., . . . Shanafelt, T. D. (2014). Intervention to Promote Physician Well-Being, Job Satisfaction, and Professionalism: A Randomized Clinical Trial. *JAMA Internal Medicine*, 174(4), 527-533. doi:10.1001/jamainternmed.2013.14387 10.1001/jamainternmed.2013.14387.
- West, Dyrbye, L. N., Sinsky, C., Trockel, M., Tutty, M., Nedelec, L., . . . Shanafelt, T. D. (2020). Resilience and Burnout Among Physicians and the General US Working

- Population. *JAMA Network Open*, 3(7), e209385-e209385.
doi:10.1001/jamanetworkopen.2020.9385
- West, Guthrie, J. P., Dawson, J. F., Borrill, C. S., & Carter, M. (2006). Reducing Patient Mortality in Hospitals: The Role of Human Resource Management. *Journal of Organizational Behavior*, 27(7), 983-1002.
- West, Shanafelt, T. D., & Kolars, J. C. (2011). Quality of Life, Burnout, Educational Debt, and Medical Knowledge Among Internal Medicine Residents. *JAMA*, 306(9), 952-960. doi:10.1001/jama.2011.1247 10.1001/jama.2011.1247.
- Western Australian Department of Health. (2017). Overview of the WA Health System. *Healthy WA*. Retrieved from http://healthywa.wa.gov.au/Articles/N_R/Overview-of-the-WA-health-system
- Western Australian Department of Health. (2015). *South Metropolitan Health Service Annual Report 2014-2015*. Retrieved from <https://ww2.health.wa.gov.au/~media/Files/Corporate/Reports-and-publications/Annual-reports/12856-metro-annual-report-2015.pdf>
- Wible, P. (2018). What I've Learned From My Tally of 757 Doctor Suicides. *The Washington Post*. Retrieved from https://www.washingtonpost.com/national/health-science/what-i-ve-learned-from-my-tally-of-757-doctor-suicides/2018/01/12/b0ea9126-eb50-11e7-9f92-10a2203f6c8d_story.html?noredirect=on&utm_term=.efa02b7c8a94
- Wilkinson, Whittington, R., Perry, L., & Eames, C. (2017). Examining the Relationship Between Burnout and Empathy in Healthcare Professionals: A Systematic Review. *Burnout Research*, 6, 18–29. doi: 10.1016/j.burn.2017.06.003
- Willard-Grace, R., Hessler, D., Rogers, E., Dubé, K., Bodenheimer, T., & Grumbach, K. (2014). Team Structure and Culture are Associated With Lower Burnout in Primary Care. *Journal of the American Board of Family Medicine*, 27(2), 229.
- Witt, A. (Producer). (2015). Doctors Share Their Tweet-Sized Mental Health Stories. *Doctor Portal*. Retrieved from <https://www.doctorportal.com.au/mental-health-for-doctors/>
- World Health Organization (WHO). (2010). Healthy Workplaces: A Model for Action: For Employers, Workers, Policymakers and Practitioners. In. Switzerland: World Health Organization.
- World Health Organization (WHO). (2016). Z56: Problems Related to Employment or Unemployment. In W. H. Organization (Ed.), *ICD-10* (10 ed.). Online.
- World Health Organization (WHO). (2021). Social Determinants of Health. *Health Topics*. Retrieved from https://www.who.int/health-topics/social-determinants-of-health#tab=tab_2
- Wright, A. L., Middleton, S., Greenfield, G., Williams, J., & Brazil, V. (2016). Strategies for Teaching Evidence-Based Management: What Management Educators Can Learn from Medicine. *Journal of Management Education*, 40(2), 194-219.
- Xu, R. (2018). The Burnout Crisis in American Medicine. *The Atlantic*. Retrieved from <https://www.theatlantic.com/health/archive/2018/05/the-burnout-crisis-in-health-care/559880/>
- Yanchus, N. J., Carameli, K. A., Ramsel, D., & Osatuke, K. (2020). How to Make a Job More Than Just a Paycheck: Understanding Physician Disengagement. *Health Care Management Review*, 45(3), 245-254. doi:10.1097/HMR.0000000000000218
- Yang, L. (2012). Comparative Analysis of Nuclear Crisis Communication: 2011 Fukushima Nuclear Crisis and 1979 Three Mile Island Nuclear Crisis. In. Ann Arbor: Ann Arbor: ProQuest Dissertations & Theses.
- Yogarabindranath Swarna, N. (2013). Intrinsic Motivation: How Can it Play a Pivotal Role in Changing Clinician Behaviour? *Journal of Health Organization and Management*, 27(2), 266-272.

- Zattoni, A., & Pugliese, A. (2021). Corporate Governance Research in the Wake of a Systemic Crisis: Lessons and Opportunities from the COVID-19 Pandemic. *Journal of Management Studies*, 58(5), 1405-1410. doi:10.1111/joms.12693
- Zhong, J., Lam, W., & Chen, Z. (2011). Relationship Between Leader-Member Exchange and Organizational Citizenship Behaviors: Examining the Moderating Role of Empowerment. *Asia Pacific Journal of Management*, 28(3), 609-626.
- Zhuo, L., Farrell, P. J., McNair, D., & Krewski, D. (2014). Statistical Methods for Active Pharmacovigilance, With Applications to Diabetes Drugs. *Journal of Biopharmaceutical Statistics*, 24(4), 856-873. doi:10.1080/10543406.2014.901338
- Zubareva, M. (2018). Anti-Crisis Communications in Crisis Management. *АНТИКРИЗИСНЫЕ КОММУНИКАЦИИ В УПРАВЛЕНИИ КРИЗИСНЫМИ ЯВЛЕНИЯМИ*, 36(8), 19-23. doi:10.25264/2311-5149-2018-8(36)-19-23
- Журавлев, В. В., Варкова, Н. Ю., & Журавлев, Н. В. (2020). СОВЕРШЕНСТВОВАНИЕ СТРАТЕГИЧЕСКОГО УПРАВЛЕНИЯ УСТОЙЧИВЫМ РАЗВИТИЕМ УГЛЕДОБЫВАЮЩИХ ПРЕДПРИЯТИЙ ЯКУТИИ НА ОСНОВЕ ИНТЕГРАЦИИ МЕХАНИЗМОВ ПРИНЯТИЯ РЕШЕНИЙ И ЭКОЛОГО-ЭКОНОМИЧЕСКОЙ ОЦЕНКИ БИЗНЕСА. ЧАСТЬ 2. *IMPROVEMENT OF STRATEGIC MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF YAKUTIA COAL MINING COMPANIES ON THE BASIS OF INTEGRATION OF MECHANISMS FOR DECISION-MAKING AND ECO-ECONOMIC BUSINESS EVALUATION. PART 2.*, 14(4), 138-145. doi:10.14529/em200416
- Мерзликина, Г. С., Рыльщикова, С. А., & Дубинина, Н. А. (2018). ОРГАНИЗАЦИОННЫЕ ИННОВАЦИИ КАК «НОВЫЙ СТАРЫЙ» ИНСТРУМЕНТ ПРЕВЕНТИВНОГО АНТИКРИЗИСНОГО УПРАВЛЕНИЯ ПРЕДПРИЯТИЕМ: РЕГИОНАЛЬНЫЙ АСПЕКТ. *ORGANIZATIONAL INNOVATIONS AS A "NEW OLD" TOOL OF CRISIS PREVENTIVE OPERATION OF BUSINESS: REGIONAL ASPECT.*(3), 78-88. doi:10.24143/2073-5537-2018-3-78-88