Florence Nightingale Faculty of Nursing, Midwifery & Palliative Care

FEARLESS ICU

Fostering teamwork for resilient staff and safe care

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NIHR | National Institute for Health and Care Research

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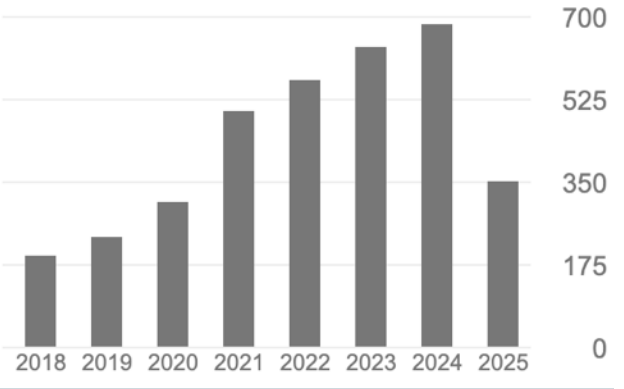

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Social Science & Medicine 181 (2017) 102–111

Contents lists available at ScienceDirect

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journal homepage: www.elsevier.com/locate/socscimed

Accomplishing professional jurisdiction in intensive care: An ethnographic study of three units

Andreas Xyrichis [a, *], Karen Lowton [b], Anne Marie Rafferty [a]

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Interprofessional Education T.344 is in the **97th** percentile by worldwide Topic Prominence.

97.408 ▼

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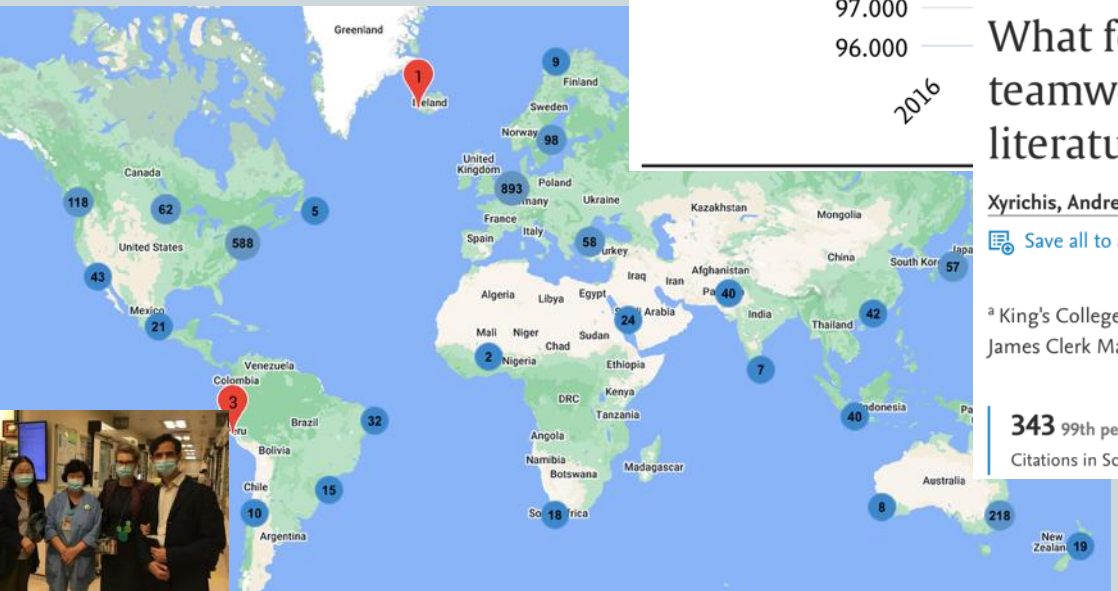


International Journal of Nursing Studies • *Open Access* • **Volume 45, Issue 1, Pages 140 - 153** • **January 2008**

What fosters or prevents interprofessional teamworking in primary and literature review

Xyrichis, Andreas ✉ ; Lowton, Karen

Save all to author list

[a] King's College London, The Florence Nightingale School of N James Clerk Maxwell Building, 57 Waterloo Rd., United Kingd

343 99th percentile	15.64	253
Citations in Scopus	FWCI ⓘ	Views count ⓘ ↗

Teamwork & safety in the NHS

- Interprofessional teamwork is paramount for quality & safety
- Poor teamwork increases risk of patient safety incidents

⚠ Miscommunication
⚠ Care omissions
⚠ Duplication of services
⚠ Uncoordinated care
⚠ Delays, Errors

- Safety in the NHS is a major concern
  - 4,000 incidents leading to patient death;
  - 60,000 incidents leading to moderate or severe harm;
  - medication errors cost the NHS >£98million/year.

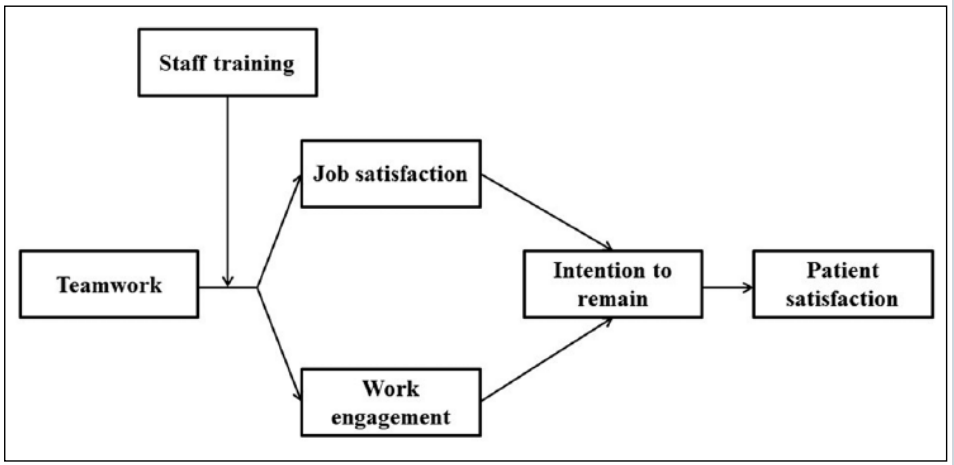
Staff outcomes

Perceived Organizational Support in Health Care: The Importance of Teamwork and Training for Employee Well-Being and Patient Satisfaction

Group & Organization Management
2018, Vol. 43(3) 475–503

DOI: 10.1177/1
journals.sagep

Chidiebere Ogbonnaya[1], C. Justice Tillman[2] and Katerina Gonzalez[2]

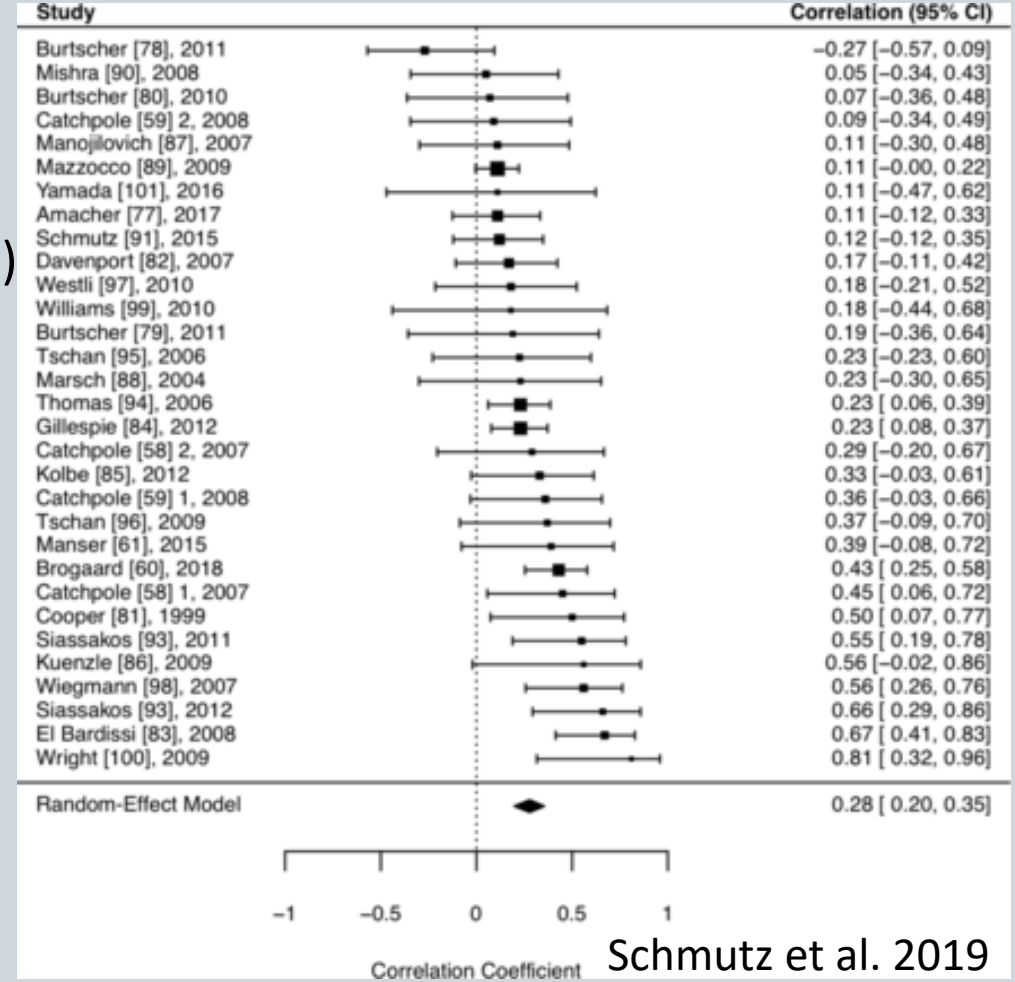


Variables		*M*	*SD*	1	2	3	4	5	6
1	Teamwork	3.61	0.70						
2	Job satisfaction	3.40	0.76	.66**					
3	Work engagement	3.82	0.78	.45**	.53**				
4	Intention to remain	3.41	1.07	.43**	.57**	.53**			
5	Patient satisfaction	3.65	0.14	.03**	.04**	.01*	.06**		
6	Training	1.46	0.47	.21**	.19**	.15**	.14**	.05**	

Note. Sample size (*N*) = 66,930 employees nested within 162 National Health Service Trusts.
*$p < .05$. **$p < .01$.

Clinical performance

- Meta-analysis of 1,390 healthcare teams studied the performance implications of teamwork in healthcare
- Found a **3-fold improvement** (OR 2.8) in clinical performance measures, including on complications, infection rates, adherence to guidelines
- Interprofessional teams outperformed uniprofessional teams
- Existing teams outperformed 'new' teams
- Most effective for non-routine, complex work



Schmutz et al. 2019

An Evaluation of Outcome from Intensive Care in Major Medical Centers

WILLIAM A. KNAUS, M.D.; ELIZABETH A. DRAPER, R.N., M.S.; DOUGLAS P. WAGNER, Ph.D.; and JACK E. ZIMMERMAN, M.D.; Washington, D.C.

We prospectively studied treatment and outcome in 5030 patients in intensive care units at 13 tertiary care hospitals. We stratified each hospital's patients by individual risk of death using diagnosis, indication for treatment, and Acute Physiology and Chronic Health Evaluation (APACHE) II score. We then compared actual and predicted death rates using group results as the standard. One hospital had significantly better results with 69 predicted but 41 observed deaths ($p < 0.0001$). Another hospital had significantly inferior results with 58% more deaths than expected ($p < 0.0001$). These differences occurred within specific diagnostic categories, for medical patients alone and for medical and surgical patients combined, and were related more to the interaction and coordination of each hospital's intensive care unit staff than to the unit's administrative structure, amount of specialized treatment used, or the hospital's teaching status. Our findings support the hypothesis that the degree of coordination of intensive care significantly influences its effectiveness.

MEDICAL CARE
Volume 32, Number 5, pp 508–525

The Performance of Intensive Care Units: Does Good Management Make a Difference?

STEPHEN M. SHORTELL, PHD,* JACK E. ZIMMERMAN, MD, FCCM,†
DENISE M. ROUSSEAU, PHD,* ROBIN R. GILLIES, PHD,*
DOUGLAS P. WAGNER, PHD,† ELIZABETH A. DRAPER, RN, MS,‡
WILLIAM A. KNAUS, MD,† AND JOANNE DUFFY, DNSC, CCRN§

ORIGINAL INVESTIGATION

HEALTH CARE REFORM

The Effect of Multidisciplinary Care Teams on Intensive Care Unit Mortality

Michelle M. Kim, MSc; Amber E. Barnato, MD, MPH; Derek C. Angus, MD, MPH; Lee F. Fleisher, MD; Jeremy M. Kahn, MD, MSc

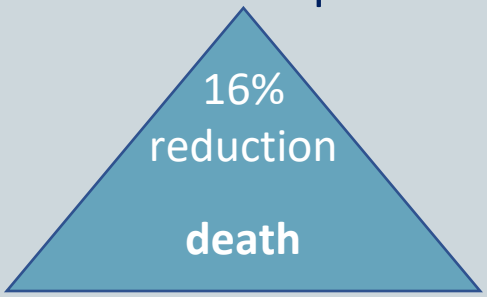
ICU Mortality

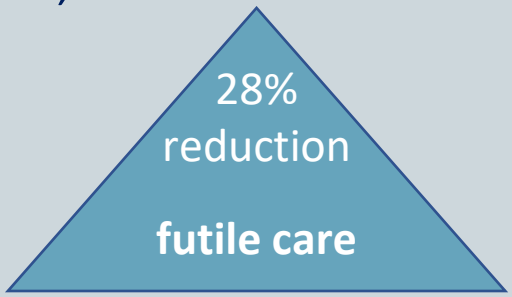
- In intensive care units rated better on quality of collaborative working, **55% more patients survived** than were expected to, while in the worst rated units **58% more patients died** than were expected to ($p<0.0001$) (Knaus et al., 1986)
  - Knaus et al. 1986 (5,030 patients), Shortell et al. 1994 (17,000 patients), Kim et al. 2010 (107,000 patients)

- Improving the **quality** of professional interactions
- Reducing **duplication** of services
- Avoiding **communication** errors
- Limiting care **omissions**
- Improving patient **satisfaction** and outcomes

Background

- Growing research evidence since the 1980s points to benefits of teamwork in ICU for patients, staff, and the service.





- ↓ Length of stay
- ↓ Mechanical ventilation
- ↓ Central line infections
- ↓ Ventilator pneumonia
- ↓ Staff burnout

There is now sufficient evidence that supports an *interprofessional team* approach as an essential component in the provision of high-quality ICU care.

Society of Critical Care Medicine

although the evidence linking high-performing teams to *patient safety* is clear, there is no consistent approach in the NHS to developing teams

NHS England

Interprofessional Team Collaboration and Work Environment Health in 68 US Intensive Care Units

By Brenda T. Pun, DNP, RN, Jin Jun, PhD, RN, Alai Tan, PhD, Diane Byrum, MSN, RN, Lorraine Mion, PhD, RN, Eduard E. Vasilevskis, MD, MPH, E. Wesley Ely, MD, MPH, and Michele Balas, PhD, RN, CCRN-K

British Journal of Anaesthesia **98 (3):** 347–52 (2007)
doi:10.1093/bja/ael372 Advance Access publication February 1, 2007

BJA

CRITICAL CARE

Interdisciplinary communication in the intensive care unit

T. W. Reader[1] *, R. Flin[1], K. Mearns[1] and B. H. Cuthbertson[2]

Brief Report

Discrepant attitudes about teamwork among critical care nurses and physicians*

Eric J. Thomas, MD, MPH; J. Bryan Sexton, PhD; Robert L. Helmreich, PhD

Discrepant attitudes

"Intensive care relies on the integrity of the team and the unfailing functioning of teamwork… Consensus is important and its achievement is a central, day to day working arrangement for ensuring the solidarity of the team."

ICU Nursing Perspective (Melia, 2001)

Discrepant attitudes

"We have gone very much to a multidisciplinary team approach, which is fine, as long as you always remember one thing. When push comes to shove and you end up at the GMC (General Medical Council), the only person they are interested in is the consultant in charge."

ICU Medicine Perspective (Xyrichis, 2019)

Staff experiences –teamwork & solidarity

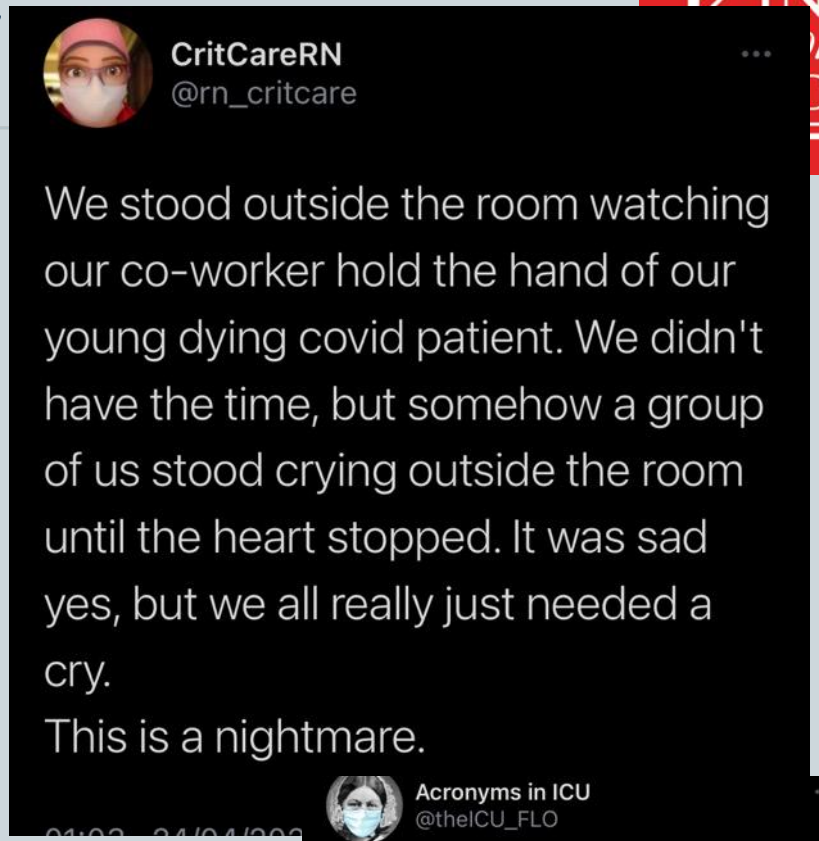
ONLINE CLINICAL INVESTIGATION

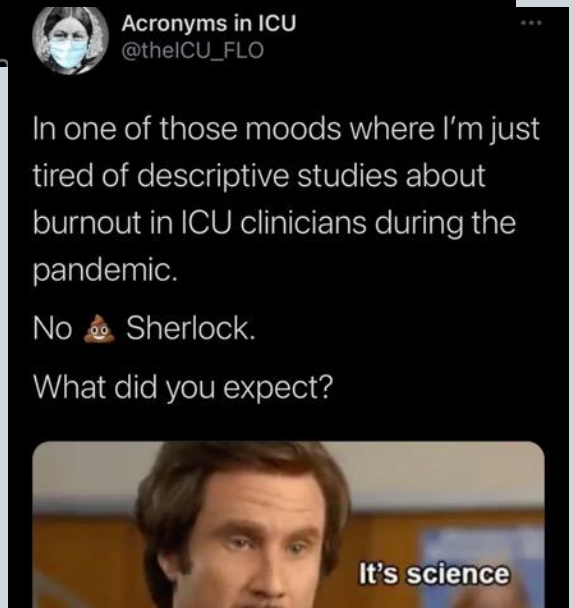
The Lived Experience of ICU Clinicians During the Coronavirus Disease 2019 Outbreak: A Qualitative Study

Nancy Kentish-Barnes, PhD[1]
Lucas Morin, PhD[2]
Zoé Cohen-Solal, MS[1]
Alain Cariou, MD, PhD[3]
Alexandre Demoule, MD, PhD[4]
Elie Azoulay, MD, PhD[1]

OBJECTIVES: During the coronavirus disease 2019 pandemic, frontline
asked to reorganize the provision of critical
ur aim was to gain insight into the lived ex-
ked in ICUs during the surge.
ng semistructured, in-depth interviews.

Staff experiences –reality



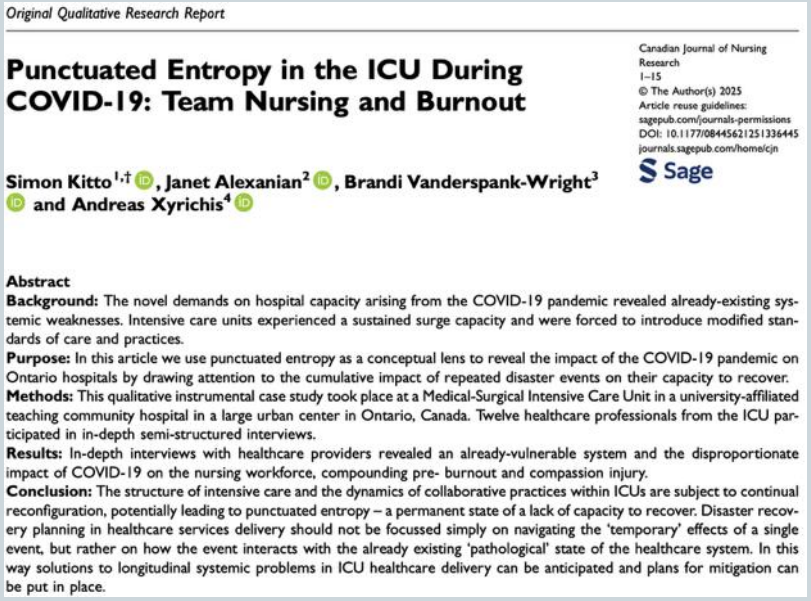


Punctuated entropy in the ICU COVID-19

- We use ‘punctuated entropy’ as a conceptual lens to reveal the impact of the COVID-19 pandemic on Ontario ICUs. We drew attention to the cumulative impact of repeated disaster events on systems' capacity to recover.

- The structure of intensive care and the dynamics of collaborative practices within ICUs are subject to continual reconfiguration
  - ➢ leading to *punctuated entropy* – a permanent state of a lack of capacity to recover.

- Disaster recovery planning in healthcare services delivery should not be focussed simply on navigating the ‘temporary’ effects of a single event, but rather on how the event interacts with the already existing ‘pathological’ state of the healthcare system.



Original Qualitative Research Report

Punctuated Entropy in the ICU During COVID-19: Team Nursing and Burnout

Canadian Journal of Nursing Research
1–15

DOI: 10.1177/08445621251336445
journals.sagepub.com/home/cjn
Sage

Simon Kitto[1,†], Janet Alexanian[2], Brandi Vanderspank-Wright[3] and Andreas Xyrichis[4]

Abstract

Background: The novel demands on hospital capacity arising from the COVID-19 pandemic revealed already-existing systemic weaknesses. Intensive care units experienced a sustained surge capacity and were forced to introduce modified standards of care and practices.

Purpose: In this article we use punctuated entropy as a conceptual lens to reveal the impact of the COVID-19 pandemic on Ontario hospitals by drawing attention to the cumulative impact of repeated disaster events on their capacity to recover.

Methods: This qualitative instrumental case study took place at a Medical-Surgical Intensive Care Unit in a university-affiliated teaching community hospital in a large urban center in Ontario, Canada. Twelve healthcare professionals from the ICU participated in in-depth semi-structured interviews.

Results: In-depth interviews with healthcare providers revealed an already-vulnerable system and the disproportionate impact of COVID-19 on the nursing workforce, compounding pre- burnout and compassion injury.

Conclusion: The structure of intensive care and the dynamics of collaborative practices within ICUs are subject to continual reconfiguration, potentially leading to punctuated entropy – a permanent state of a lack of capacity to recover. Disaster recovery planning in healthcare services delivery should not be focussed simply on navigating the ‘temporary’ effects of a single event, but rather on how the event interacts with the already existing ‘pathological’ state of the healthcare system. In this way solutions to longitudinal systemic problems in ICU healthcare delivery can be anticipated and plans for mitigation can be put in place.

Recovering from COVID-19?

CritCareRN @rn_critcare · 1d
Now here we are... Broken nurses in a broken profession working in a broken system where everyone is jumping ship. Don't blame them.

baggy 🥺
@plastic_baggy17

Well, 6 of my co-workers (all who have 5+ yrs experience) are leaving. My other coworkers are all incredibly burnt out, so am i...but why? Its not covid (anymore)

thetimes.co.uk
NHS resignation crisis as burnout, bullying and sexism push staff out

nurseKEM @NurseKem · 1d
Replying to @DrBryanLeyva
We are a team. Different roles that should complement each other. Why is this so hard? 😩
7

Kelly Wright MD @MigsRunner · 1d
Replying to @DrBryanLeyva
Toxicity and disrespect just makes everyone worse off and patients less safe.
6

Hayley
@hayleymagill

Why are NHS staff so hostile towards eachother? Working in this system is hard enough without it. I am EXHAUSTED, not by the job but by constant anxiety and tiptoeing.

NHS Workforce reports

The King's Fund (2020) 'The courage of compassion'

- staff wellbeing as a serious threat to the health service
- support staff through effective *teamwork*, compassionate *leadership* and psychologically *safe* team environments

House of Commons (2021) 'NHS Workforce burnout and resilience'

- workforce burnout as the highest in the history of the NHS
- improve capacity for *teamwork* in the NHS, including issues of *leadership* and environments in which staff can feel *safe* to speak up and voice concerns.
- evaluation of the factors enabling resilient teamwork in the NHS

The NHS staff survey

Decline in teamwork scores post COVID-19

- **42%** of respondents indicated lack of shared/team objectives
- **28%** reported lack of meetings to discuss team effectiveness
- **29%** did not received the respect they deserved from colleagues
- **53%** said relationships at work were strained
- **26%** report unenthusiastic about their job
- **27%** would not feel safe raising concerns about unsafe practice
- **35%** would not speak up about anything that worries them

FEARLESS questions

- What is the recent international evidence on the effectiveness and implementation of teamwork interventions in ICU?
- How have team practices, staff experiences and perceptions of teamwork changed post-pandemic in ICU?
- What are the core features, and cost/benefits of an intervention to improve teamwork in the ICU; how can it best be implemented and sustained?

The FEARLESS study

Evidence Syntheses M1-M18	• Cochrane effectiveness review • Cochrane qualitative/implementation review
Secondary Data Analysis M4-M10	• Regression analysis of the NHS Staff Survey • Variables: gender, age, ethnicity, profession
Ethnographic Case Studies M12-M31	• Five ICUs, maximum variation sampling • Rapid observations, interviews, documents
Intervention Development M32-M38	• Reflexive workshops, Toolkit development • Website, videos, diagnostics, implementation guide
Site Recruitment & Protocol Development M39-M45	• Networking, conferences, social media • Protocol development for successive trial

The ethnography

Fieldwork questions

- What actually shapes teamwork in ICU, and how do you integrate teamwork into your everyday workflow?
- How do positive or negative perceptions of teamwork affect your experience of working in ICU? How do you make teamwork happen in real-world ICU settings?
- Is teamwork sustainable? What needs to be done to make teamwork part of normal everyday practice in ICU?

Data collection

Sites: 8 ICUs

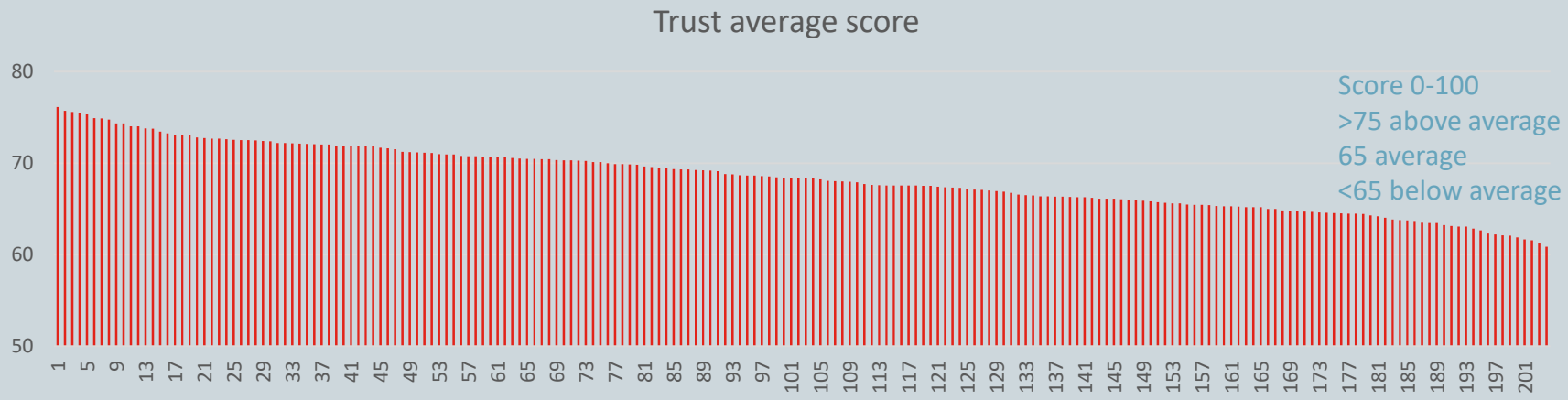
- across tertiary, academic, & district general hospitals;
- of different size, geography, organisational models;
- across high, moderate, & lower teamwork scores

Data collection

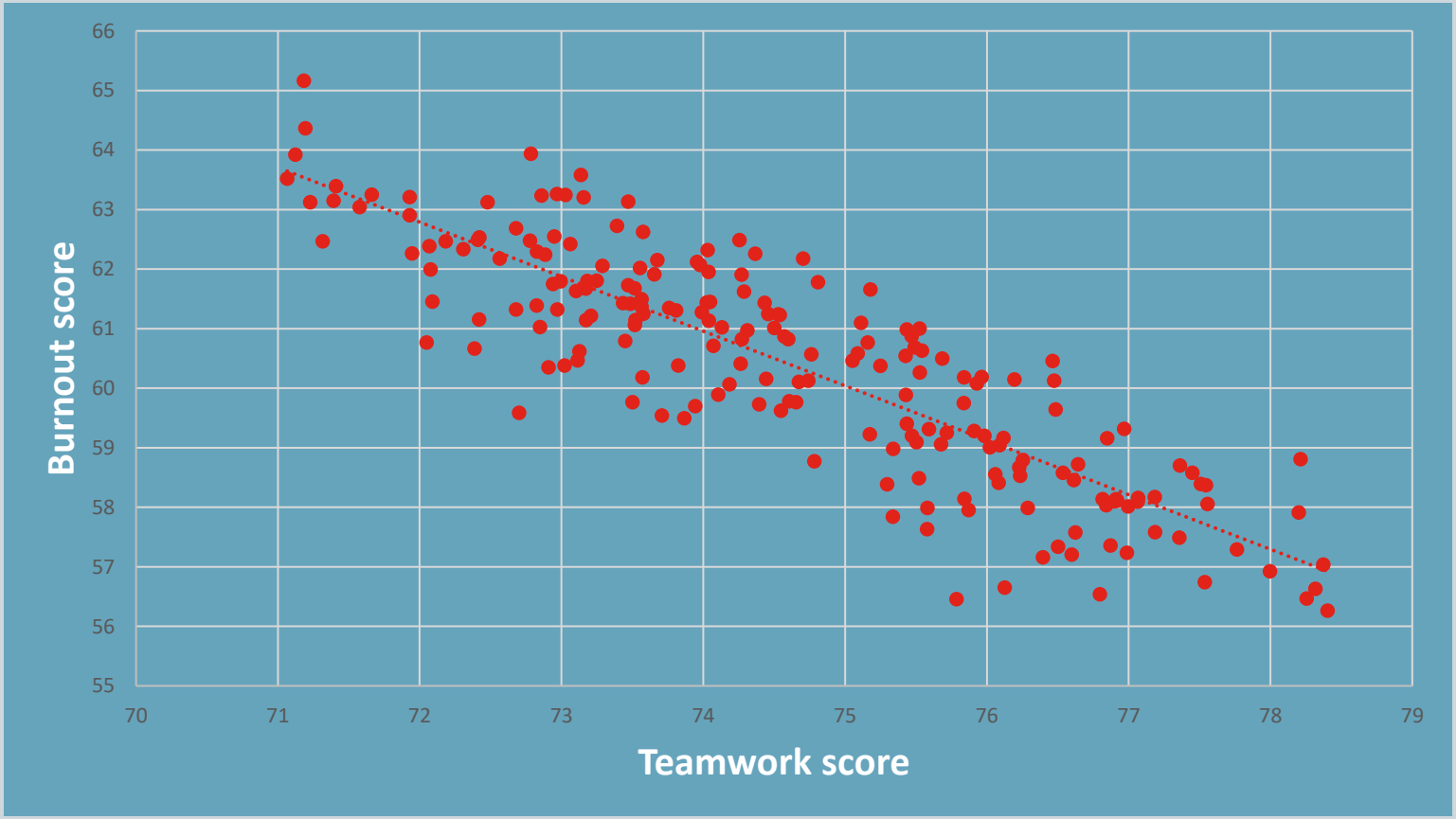
- 500-700 hours (shadowing, meetings, ward rounds)
- 100 semi-structured interviews (across professions and seniority)
- relevant policies, documents, protocols

NHS Staff Survey

	2023, n >50K
Q7a - The team I work in has a set of shared objectives.	73.72
Q7b - The team I work in often meets to discuss the team's effectiveness.	**62.18**
Q7c - I receive the respect I deserve from my colleagues at work.	72.66
Q7d - Team members understand each other's roles.	71.21
Q7e - I enjoy working with the colleagues in my team.	**82.55**
Q7f - My team has enough freedom in how to do its work.	59.10
Q7g - In my team disagreements are dealt with constructively.	**57.81**
Q7h - I feel valued by my team.	71.13
Q7i - I feel a strong personal attachment to my team.	65.31



NHS Staff Survey



Preliminary findings

1

Uses of place and space

- Physical layout
- Social engagement
- Implications for collaborative working

2

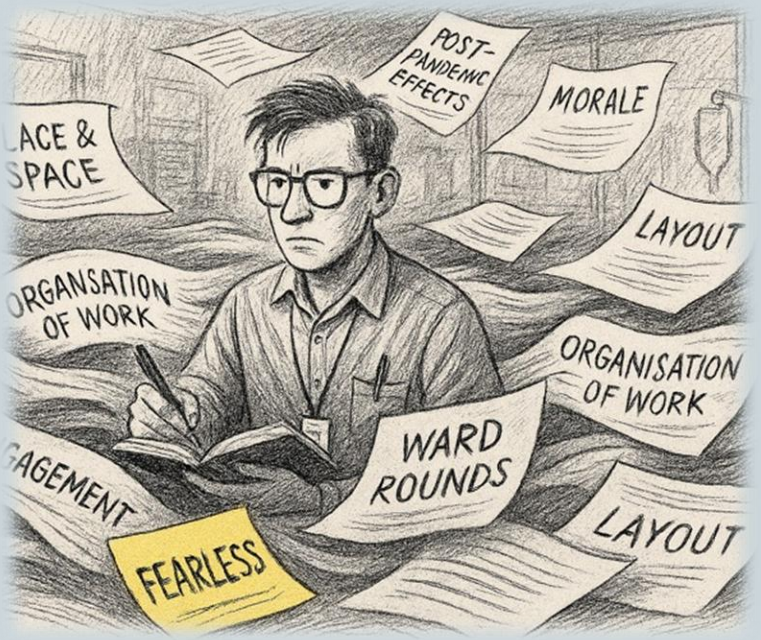
Organisation of work in the ICU

- Optimal/ideal vs real
- Social organisation of the unit
- Interprofessional ward rounds - when and how people engage

3

Post-pandemic effects

- Work/life balance and boundaries
- Pandemic nostalgia
- Morale and well-being



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