European Association for Physician Health

Physicians' Psychosocial Work Environment and Quality of Care: A Systematic Review

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Being a doctor and staying a person

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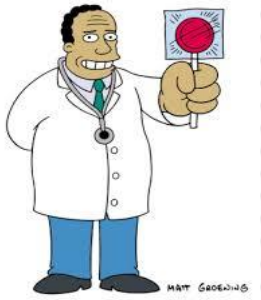
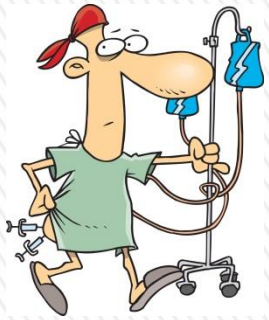
- 46.3% can't meet demands (vs 28.5%)[2]
- 48.2% insufficient staff (vs 32.2%)[2]
- 85.3% work extra hours[2]
- 33.6% harassed by patients[2]
- 11.9% assaulted[2]
- 25.1% bullied[2]



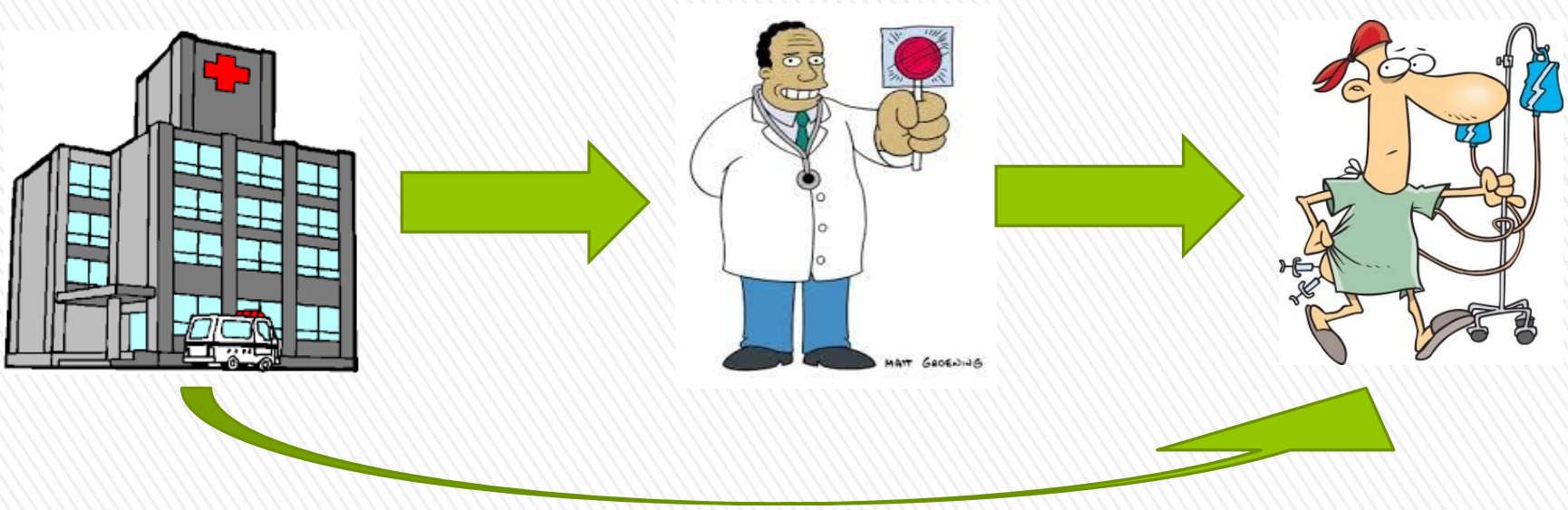
- 28% psychological distressed (vs 18% population)[4]
- 25-50% burnt out[3]
- 34.3% work-related stress[2]
- Higher rates of substance abuse[7]
- 54.2% presenteeism[2]
- 52% consider leaving[5]
- 24% fallen asleep driving home[1]



- 5% of deaths in the NHS preventable[6]
- 8-10% admissions contain errors[8-9]
- 48.3% seen a harmful error[2]
- 42% fatigued-related error in 6 months[1]

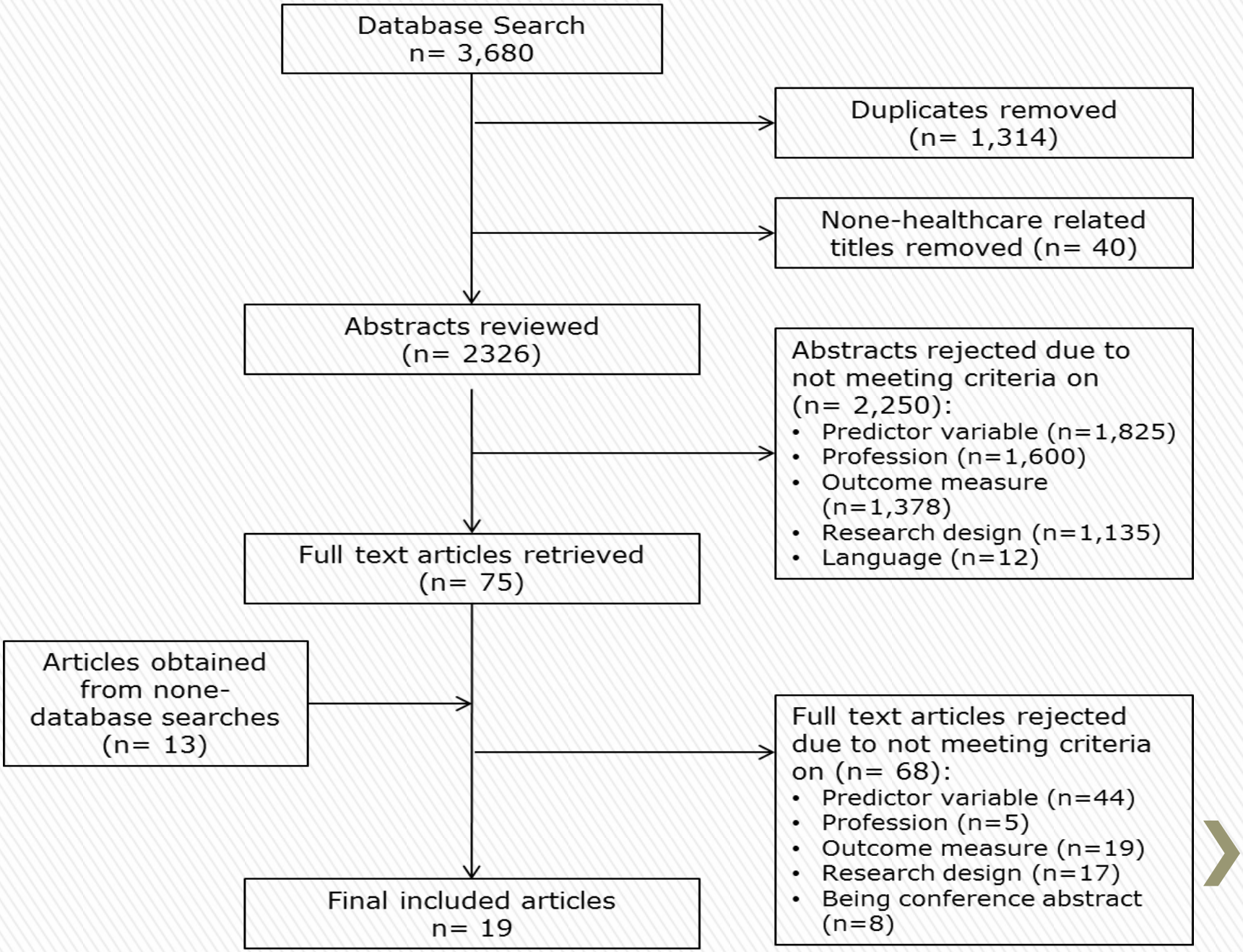
[1]Gander et al., 2007; [2]NHS Staff Survey, 2014; [3]Prins et al., 2007; [4]Firth-Cozens, 2003; [5]Ochsman, 2012; [6]Hogan et al., 2013; [7]Ghodse & Galea, 2006; [8]Sari et al., 2007; [9]Avery et al., 2012

Connecting the boxes



Aim

- This systematic review, therefore, seeks to understand the observable gap in the literature by examining:
  1. The types of psychosocial working conditions faced by doctors;
  2. The impact of these working conditions have on different types of quality of care outcomes


Database Search
n= 3,680
Duplicates removed
(n= 1,314)
None-healthcare related
titles removed (n= 40)
Abstracts reviewed
(n= 2326)
Abstracts rejected due to
not meeting criteria on
(n= 2,250):
• Predictor variable (n=1,825)
• Profession (n=1,600)
• Outcome measure
(n=1,378)
• Research design (n=1,135)
• Language (n=12)
Full text articles retrieved
(n= 75)
Articles obtained
from none-
database searches
(n= 13)
Full text articles rejected
due to not meeting criteria
on (n= 68):
• Predictor variable (n=44)
• Profession (n=5)
• Outcome measure (n=19)
• Research design (n=17)
• Being conference abstract
(n=8)
Final included articles
n= 19

Results

- 19 studies, from the United States (n=6), Germany (n=5), Israel (n=3), United Kingdom (n=2), Netherlands (n=2), Sweden (n=1)

- Two forms of psychosocial working conditions:

1. Six job demands from fifteen studies
2. Six job resources from eleven studies

- Quality of care outcomes:

1. clinical excellence (e.g., subjective work performance, chart audits, and self-rated care quality of care provided);
2. patient safety (e.g., number of self-reported or observer-assessed errors);
3. patient-rated care outcomes (e.g., patient satisfaction, patient-rated quality of care).

Job demands

	Clinical Excellence	Patient Safety	Patient Experience
Perceived workload	**r=-.250** (CI: -.381, -.110) k=4	**r=.097** (CI: .015, .179) k=3	r=.016 (CI: -.254, .282) k=2 (¤)
Demanding patients	◊	×	¤
Time pressure	¤	¤	r=-.239 (CI: -.547, .126) k=1
Perceived physical load			r=-.123 (CI: -.353, .121) k=1
Emotional demands	**r=-.200** (CI: -.318, -.076) k=1		
Higher-order job demands	**r=-.404** (CI: -.557, -.224) k=2		**r=-.380** (CI: -.467, -.286) k=1

Note: *r*: correlation effect size; CI: Lower and upper 95% Confidence Interval; *k*: number of studies; Bold denotes significant relationships; ◊ expected findings found; ¤ predicted results not supported; ×results opposite to that predicted

Job resources

	Clinical Excellence	Patient Safety	Patient Experience
Autonomy	**r=.364** (CI: .309, .416) k=2	r=.-.015 (CI: -.136, .107) k=2	
Job control	**r=.390** (CI: .228, .530) k=1 (¤)	**r=-.180** (CI: -.228, -.131) k=1 (¤)	r=.166 (CI: -.177, .473) k=1 (¤)
Learning & development	**r=.316** (CI: .198, .425) k=1	**r=.-160** (CI: -.272, -.044) k=2	
Social Support - Colleagues	**r=.134** (CI: .134, .457) k=1		r=.137 (CI: -.119, .376) k=1 (¤)
Social Support - Supervisors	**r=.250** (CI: .076, .409) k=1		r=.137 (CI: -.119, .376) k=1
Higher-order job resources	**r=.429** (CI: .313, .532) k=2		**r=.420** (CI: .329, .503) k=1

Note: *r*: correlation effect size; CI: Lower and upper 95% Confidence Interval; *k*: number of studies; Bold denotes significant relationships; ¤ predicted results not supported;

Psychosocial working conditions and quality of care

- The most consistent predictors of quality of care, with the largest effect sizes, were higher-order job demands and resources.
- Specifity of an outcome should match that of the predictor
- Quality of care initiatives should target a range of psychosocial factors:
  - Focusing on specific job demands or resources may fail to address the underlying problems within the system
  - May only yield improvements on specific outcomes.

Do the type of outcome measures matter?

- Studies only used behavioural or attitudinal outcome measures
- Psychosocial working conditions were better predictors of clinical excellence and patient safety than they were of patient experience.
- Could the relationship involving patient experience be more complex?
  - Capturing the patient's attitudes and expectations about the service received.
  - Doctors' professional standards

Theoretical consideration

- Other factors potentially affect this relationship:
  - curvilinear properties were observed for mental workload and autonomy
  - Interaction effect, where in an environment which did not encourage learning, autonomy was associated with an increase in the number of treatment errors made.
  - Other constructs prevalent in the healthcare sector (e.g., job insecurity, role conflict) were not uncovered
- Plausible that working in environments with lower standards of care leads to doctors perceiving the environment as more demanding and less resourceful
- Lack of theoretical consideration from the included studies, only two studies utilised a theoretical framework.

Limitations

- The heterogeneity of doctors
- The meta-analysed effect sizes did not account for study quality or publication bias.
- Not all studies reported all *r* values
- Small number of cross-sectional studies found, particularly within the different types of psychosocial working conditions.

Conclusion

- Better psychosocial working conditions to correlate with better clinical excellence and patient safety outcomes
- The largest and most consistent predictors of quality of care were higher-order measures of job demands and resources.
- But these relationships are fraught with a number of challenges that warrant further attention.
- What is needed is more longitudinal and multilevel designs, accounting for the methodological and theoretical challenges highlighted here.

Questions and feedback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