

Unmasking The Truth

Healthcare workers' perceptions of respiratory infection risk; a mixed methods research study into protective mask use in routine practice



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Declarations of interests and associated conflicts

- ❖ This presentation is sponsored by Reynard Health Supplies
- ❖ Products from Reynard Health Supplies were not used in my research
- ❖ There is no reference to Reynard Health Supplies in this presentation

Overview

- ❖ Background
- ❖ Research question
- ❖ Research design and methods
 - Video-reflexive ethnography
- ❖ Preliminary findings
- ❖ Conclusion

Background

- ❖ Global pandemics & outbreaks persist into the 21st century
- ❖ Emerging respiratory viral infectious diseases
 - SARS-CoV
 - H1N1 pandemic influenza
 - MERS-CoV
- ❖ Staff at risk of infection and as vectors of disease
- ❖ Hospital transmission of infectious diseases

Preventing transmission

- ❖ Infection prevention and control measures
- ❖ Use of a protective mask
 - Surgical mask
 - N95/P2 particulate respirator mask
 - Powered, air-purifying respirator (PAPR)

Compliance with protective mask use

- ❖ 3-16% compliance rate for masks
- ❖ One of the least complied with items of PPE
- ❖ Even during respiratory outbreaks/pandemics mask use is sub-optimal

Why?

- ❖ Environment
- ❖ Workplace culture
- ❖ Managerial support
- ❖ Resources
- ❖ Perception of risk to self

Research questions

What are clinicians' risk-taking knowledge, attitudes and behaviours with respect to protective mask use for infectious diseases?

Do the cultural and behavioural factors that influence HCW mask use vary across clinical settings?

Research settings

- ❖ Tertiary referral hospitals in Western Sydney
- ❖ Healthcare workers – nurses, allied health, doctors, support staff
- ❖ Clinical departments
 - Adult emergency department
 - Adult ward for respiratory diseases
 - Paediatric emergency department

Research methods

- ❖ Multi-disciplinary survey
- ❖ Field observation
- ❖ Documentation review
- ❖ Semi-structured interviews
- ❖ Focus groups
- ❖ Video-reflexive sessions

Survey

- ❖ Distributed via URL link and in paper copy
- ❖ Questions
 - Demographic – profession and number of years in profession
 - Perception of risk – Likert scale
 - Environmental and resource barriers to mask use - Likert scale
 - Behaviour related to eye protection and mask use for specific clinical practices and scenarios

Video-reflexive ethnography

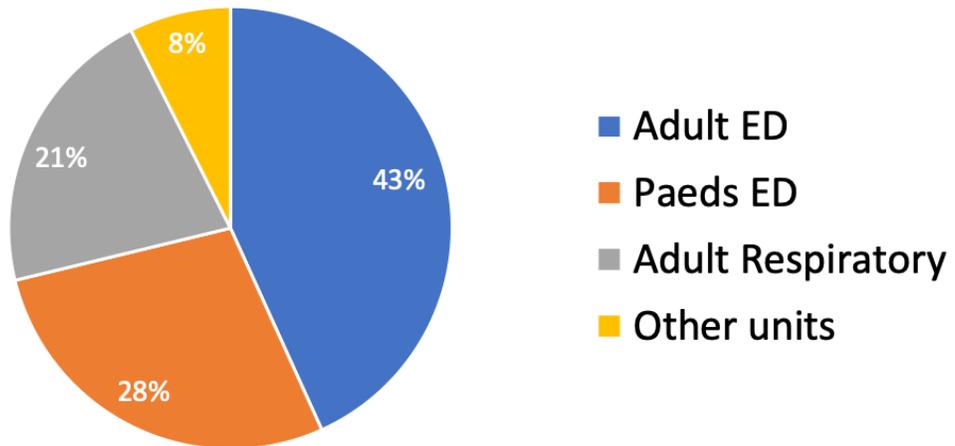
- ❖ Work with participants to video practices of interest, and then show back the footage to them in reflexive sessions
- ❖ The use of PPE is complex - dependent on multiple factors
- ❖ Video provides insight into HCWs behaviour and decision making related to mask use
- ❖ Group reflexive sessions demonstrate excellence and foster improvement
 - Individual practice
 - Unit culture

Me - the researcher

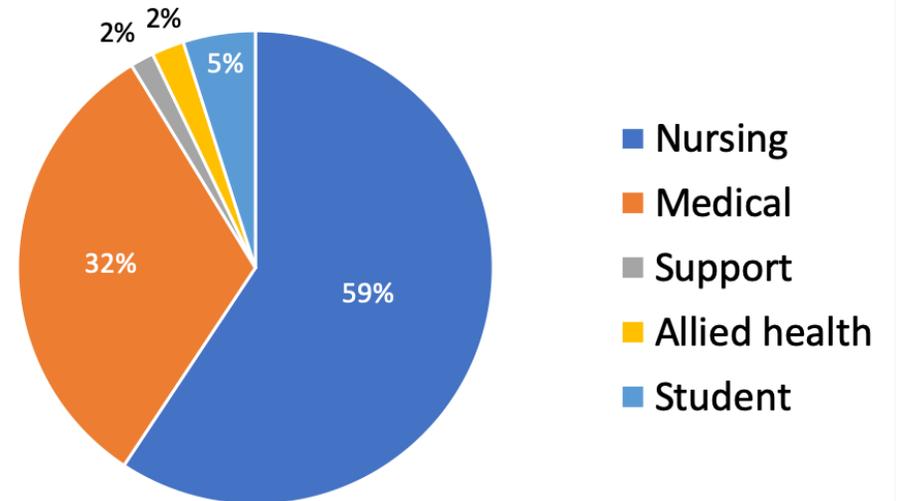
- ❖ Clinician – nurse
- ❖ Infection preventionist
- ❖ Outsider - non-staff member
- ❖ Researcher – ‘clinalyst’*
 - “Outsider-analyst-catalyst”
 - Leads the project BUT partners with clinicians
 - Catalyzes insiders’ knowledge by asking outsider questions

Survey results - 182 completed

Clinical areas of work



Survey responses by profession



Preliminary survey analysis – quick look

- ❖ Most respondents perceive their workplace as a risk of acquiring a respiratory infection and worry about taking infection home
- ❖ Most respondents agree that a mask will protect them
- ❖ Compliance with mask use greater for ?TB than ?influenza in the ED setting
- ❖ Eye protection is rarely worn for protection against respiratory droplets/splash
- ❖ Most respondents recognise that the flu vaccine does not totally protect them
- ❖ Mixed responses about the comfort and availability of resources
- ❖ Most respondents would come to work if they had a respiratory infection

Qualitative findings

- ❖ Preliminary analysis
- ❖ Adult ED and respiratory ward data only
 - Paediatric ED VRE in progress
- ❖ Transcripts of interviews, VR sessions, focus groups, plus observation notes
- ❖ Thematic analysis of data using the behavioural TDF framework

Knowledge, attitudes and behaviour

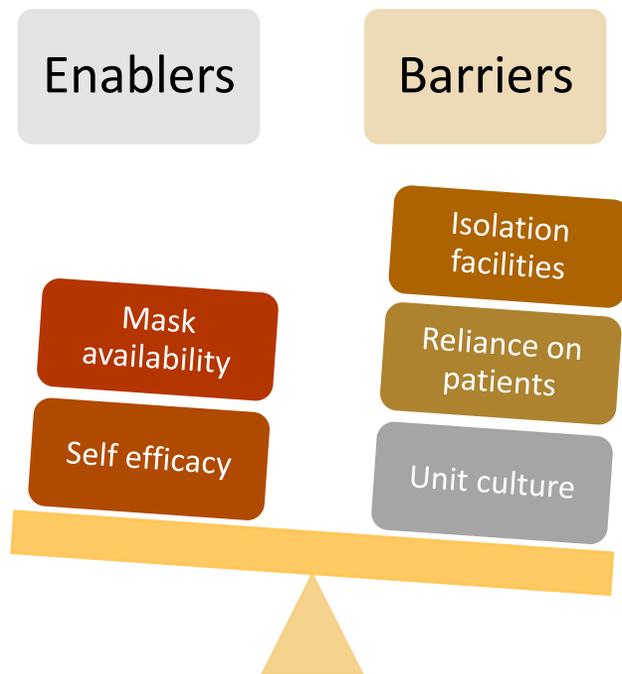
- ❖ Higher compliance with mask use in respiratory ward vs ED
- ❖ Influenced by behavioural norms and culture in the unit / ward
- ❖ Adherence to policy higher in ward than ED
- ❖ Confusion around which mask to wear for which precautions or disease
- ❖ Masks perceived to interfere with doctor/patient relationship
- ❖ Fast pace and chaotic environment in ED not conducive to mask use

Factors influencing perception of risk

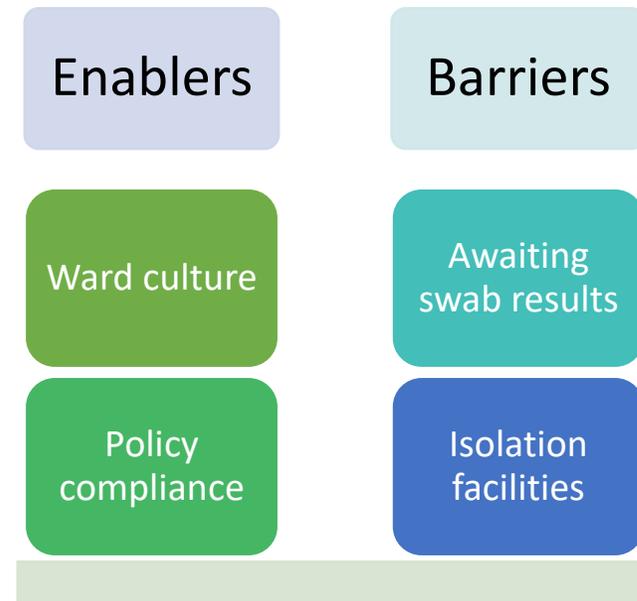
- ❖ Diagnosis / disease
- ❖ Signage / isolation facilities
- ❖ Season – winter viruses
- ❖ Past experiences
- ❖ Risk for patient - restricted to immune-compromised
- ❖ Patients wearing masks (ED)

Enablers and Barriers to mask use

Emergency department



Respiratory ward



Conclusions

- ❖ VRE is useful for exploring the perceptions of risk and behaviour related to protective masks in a healthcare setting
- ❖ The behaviour around protective mask use differs between ED and a respiratory ward
- ❖ Suspected diagnosis and isolation facilities influence the perception of risk
- ❖ The working environment in ED is a challenge to optimal protective mask use
- ❖ There is a significant knowledge gap related to types of mask
- ❖ Different clinical contexts may require different approaches to mask use

Thanks to

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References

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