



# COVID-19 Related Occupational Stress in Staff in an Acute Paediatric Teaching Hospital

Murray Johanna<sup>1,3</sup> Adamis, Dimitrios<sup>4</sup> McNicholas Fiona<sup>1,2,3</sup>

<sup>1</sup>UCD School of Medicine, Dublin 4. <sup>2</sup>Children's Health Ireland (CHI).

<sup>3</sup>Crumlin Lucena Clinic, Rathgar. <sup>4</sup>Sligo Mental Health Services.



## Introduction

Previous pandemics have drawn attention to increased stress and poorer psychological functioning among health care workers<sup>1</sup>. Studies conducted during the earlier phases of COVID-19, predominantly from Asia and Americas, have also shown high levels of stress, anxiety and depression among healthcare workers<sup>2</sup>. Concerns regarding caring for their sick patients, as well as their own health and that of their family have been identified. High health worker stress, combined with increased clinical demands alongside shrinking resources, creates a breeding ground for occupational stress and burnout, with resultant medical errors. Burnout in a paediatric setting may represent unique challenges but is less well studied.<sup>3</sup> To the authors' knowledge, there have been no studies conducted of paediatric healthcare workers stress levels in Ireland.

## Methods

A study specific questionnaire was designed, using both an existing validated stress questionnaire and additional questions specifically designed for this study. Following ethical permission (CHI Crumlin 20th October 2020), and with the support of the hospital's communication department, a link to an online questionnaire was sent to all staff, accompanied by paper and pen surveys left in each department.

To measure the level of burnout, the 19 item version of the Copenhagen Burnout Inventory (CBI) was used<sup>4</sup>. CBI incorporates three subscales: personal burnout (6 questions) work related burnout (7 questions) and patient related burnout (6 questions). Additional questions were asked of the respondent on changes in work environment during COVID-19, access to PPE and awareness of occupational health supports. Information on COVID-19 related adverse effects on personal and family health, leave opportunities and stress reduction training were also collected.

Gender: How do you identify?	Male	14
	Female	119
How many years have you been working in CHI Crumlin?	Less than 1 year	13
	1-5 years	48
	5-10 years	26
	More than 10 years	46
Clinical/ Non-Clinical	Clinical Work	114
	Non Clin	19
Which age group do you fall into?	18-34	40
	35-44	51
	45-54	29
	55+	13

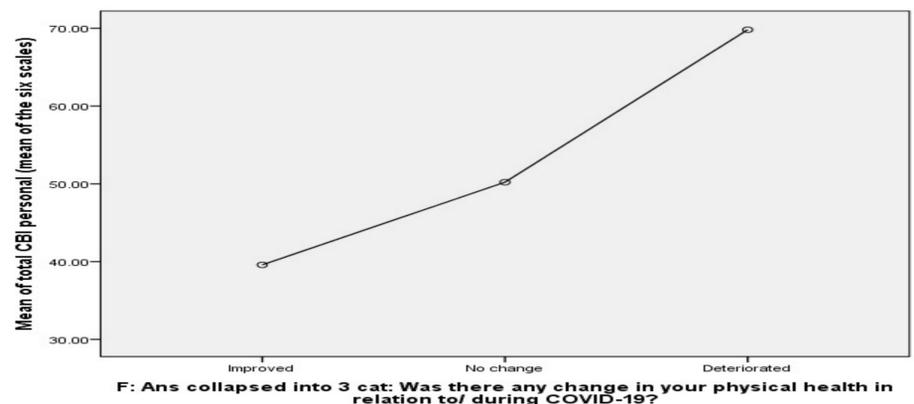
Changes	Significantly Improved	No Change	Significantly Deteriorated
Physical health	4.5% (6)	58.7% (78)	37.8% (49)
Mental health	3% (4)	31% (41)	66% (88)
Eating habits	9.77% (13)	45.9% (61)	44.3% (59)
Alcohol intake	25.5% (34)	56.4% (75)	18.1% (24)
Sleeping habits	6.77% (9)	41.35% (55)	51.88% (69)
Exercise habits	34.6% (46)	28.6% (38)	36.8% (49)

Table 2. Ratings of personal/ physical / mental health

## Results

The majority of respondents reported moderate or higher levels of burnout for personal (n=93; 69.9%) and work domains (n=83; 62.4%). Rates of patient-related burnout were lower (n=18; 13.5%). Higher rates of BO were found in staff with perceived COVID-19 adverse effects on physical (n=50, 38%) and mental health (n=88, 66%); [F (2, 13.019) = 16.019, p < .001]. There was a small correlation between age and patient CBI (r = -0.180, n=133, p < 0.038) with younger age employees having higher patient related stress.

The majority of staff had no stress reduction training at any stage in their career, either in professional (60%), on the job (62%) or post pandemic (59%) work. Although most (82%) were aware of occupational health supports, few (30%) would access these if needed. 65% (n=86) of the respondents seriously considered changing jobs in the last 6- 12 months.



## Discussion



- Representativeness of the sample to the hospital population
- Wide array of occupational backgrounds participated
- Unprecedented time in healthcare
- Validated instrument was used to measure personal, work & patient-related BO



- Small sample size & low response rate
- Potential respondent bias
- Clinicians over-represented
- Reliability of this research could be related to its repeatability
- Gender weighted, potential gender disparity in coping processes/ work life integration
- Limitations of CBI



## Conclusions

High level of occupational stress among hospital staff during COVID-19, in the absence of stress reduction training is a risk factor for burnout. Interventions, acceptable to the employee, are urgently needed given the likelihood of additional work demands as COVID-19 continues.

## References

- Gavin, B., Hayden, J., Adamis, D. and McNicholas, F., 2020. *Caring for the psychological well-being of healthcare professionals in the Covid-19 pandemic crisis*. Ir Med J, 113(4), p.51.
- Shreffler, J., Petrey, J. and Huecker, M., 2020. *The impact of COVID-19 on healthcare worker wellness: A scoping review*. Western Journal of Emergency Medicine, 21(5), p.1059.
- Buckley, L., Berta, W., Cleverly, K., Medeiros, C., Widger, K. *What is known about paediatric nurse burnout: a scoping review*. Hum Resourc Health.2020 Feb 11; 18 (1):9.
- Kristensen, TS., Borritz, M., Villadsen, I., Christensen, KB. The Copenhagen Burnout Inventory: a new tool for the assessment of burnout. Work Stress 2005; 19 (3) : 192- 207.

## Acknowledgement

To the best of my knowledge, the named authors have no conflict of interest, financial or otherwise. Ethics approved CHI Crumlin Ethics Committee.