The impact of the Covid-19 pandemic on nursing home staff mental health in Ireland

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Background

◦ By mid-2020, the end of the first wave, nursing home residents accounted for:

  ◦ 40% of Covid-19 deaths in the USA,
  ◦ 56% in Ireland,
  ◦ 47% in the UK and
  ◦ 40% in Italy

Very little research on nursing home staff mental health:

Only one quantitative study to date which estimated a prevalence of mod-severe PTSD symptoms in Italian care home workers to be 39% [Riello et al 2020]

Methods

- Online anonymous survey of staff mental health
  NHI-affiliated nursing homes (Nov-Jan 2020)

- Recruitment via NHI email list of persons-in-charge (PICs)

- Posters/email/telephone calls to every NHI nursing home

- Social media advertisement via Twitter and Facebook
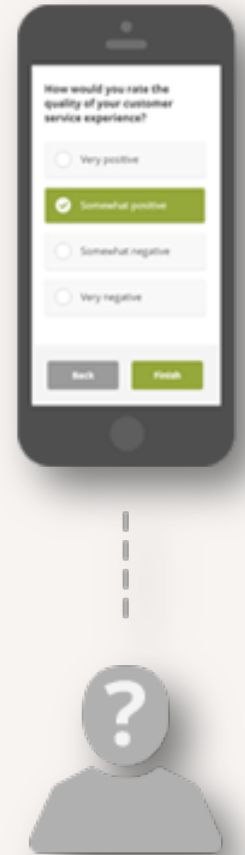
Measures

◦ Basic demographic information was recorded along with profession, regional work location, years of experience, living arrangements, pre-existing medical and psychiatric conditions, extent of exposure to Covid-19, quarantine experience and history of contact with Covid-19-positive acquaintances.

◦ Free text box provided (analysed separately)

◦ Impact of Events Scale Revised (IES-R)

◦ WHO-5 Wellbeing Index

◦ Two Likert scale items on suicidal ideation and planning (From C-SSRS)

◦ Moral Injury Events Scale (MIES)

◦ Brief Coping Orientation to Problems Experienced (Brief-COPE)

◦ 15 items on perceptions of the Covid-19 outbreak adapted from SARS paper.

◦ 1 item on Altruism.

◦ Work ability scale (WAS)

Analysis

- Using a 95% confidence interval with a 5% margin of error, our minimum sample size was determined to be 360 based on previous literature demonstrating that 39% of nursing home staff scored ≥26 on the IES-R during the Covid-19 pandemic.

- We examined demographic/Covid-19 exposure characteristics of the sample divided into three groups: nurses, healthcare assistants (HCA) and nonclinical staff.

- These groups were further categorised based on cut-off scores for the WHO-5, IES-R and WAS and the presence/absence of suicidal ideation or planning

- Chi squares; ANOVAs as appropriate.

- Post-hoc analyses were performed for significant between-group differences. Significance level was set at 0.05.

- Regression analysis performed using a generalised linear model to adjust for significant differences in demographic features (i.e. age, years of experience, ethnicity), personal Covid-19 infection history and exposure to Covid-19-infected acquaintances.

- Simple sensitivity analysis performed for selection bias.

RESULTS

Response & Demographics

- 390 responses
  - 120 Nurses
  - 172 HCAs
  - 98 others, including catering, household, administrative staff and activity coordinators

- 86% Female; 13% Male; 1% Prefer not to say

- 83% White; 5% Asian; 4% SE Asian; 3% Black

n=16
4.1%

n=70
17.9%

n=173
44.4%

n=131
33.6%
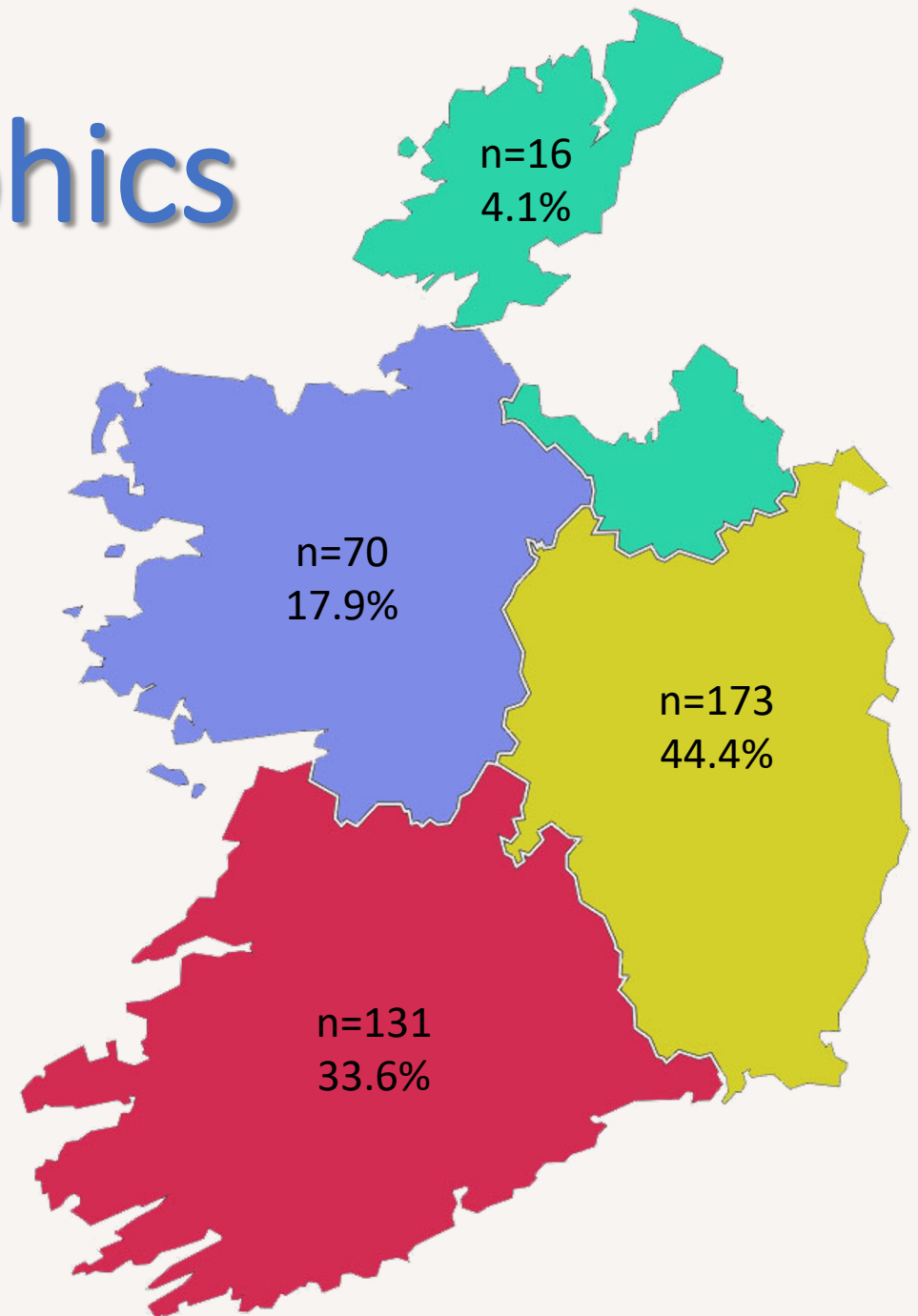
Demographics

◦ There were significant differences between nurses, HCAs and nonclinical staff in age (P<0.001), ethnicity (P <0.001) and years' experience (P <0.001).

◦ With respect to age, HCAs were proportionally the youngest group.
   ◦ There were significantly more HCAs aged ≤30 (z = 4.6)
   ◦ Significantly fewer HCAs aged ≥51 (z = -4.4).

◦ Significantly fewer nurses were of white ethnicity (z = -3.5) and nonclinical staff were more likely to be of white ethnicity (z = 4.5).

◦ Nurses were the most experienced group:
   ◦ less likely to report <5 years' experience (z = -6.1)
   ◦ more likely to report ≥10 years' experience (z = 5.4).

Exposure to Covid-19

◦ Almost one third of staff reported having quarantined (31.3%).

◦ A majority reported no history of Covid-19 infection (80.3%).

◦ Of those who had contracted Covid-19, only 4.8% reported having symptoms for ≥9 weeks but 33.8% reported not having fully recovered.

◦ Most nursing home staff reported no history of caring for residents with Covid-19 (63.9%), although 67% reported contact with Covid-19 infected acquaintances.

WHO-5 Wellbeing Index
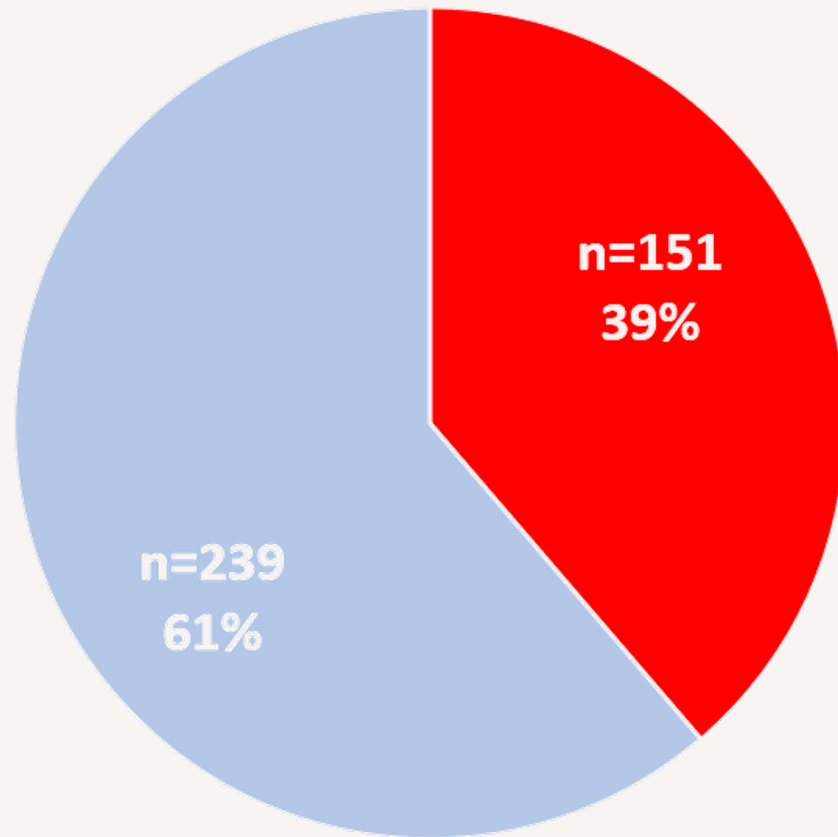
WHO-5 score ≤32, indicating poor wellbeing, was 38.7% (95% CI 33.9-43.6%).

This figure lies at the higher end of the range for prevalence globally of depressive symptoms in the general population during the Covid-19 pandemic (14.6-48.3%)

Significant differences between groups were noted (*P*=0.015):
more nurses reporting poor wellbeing (z = 2.6)
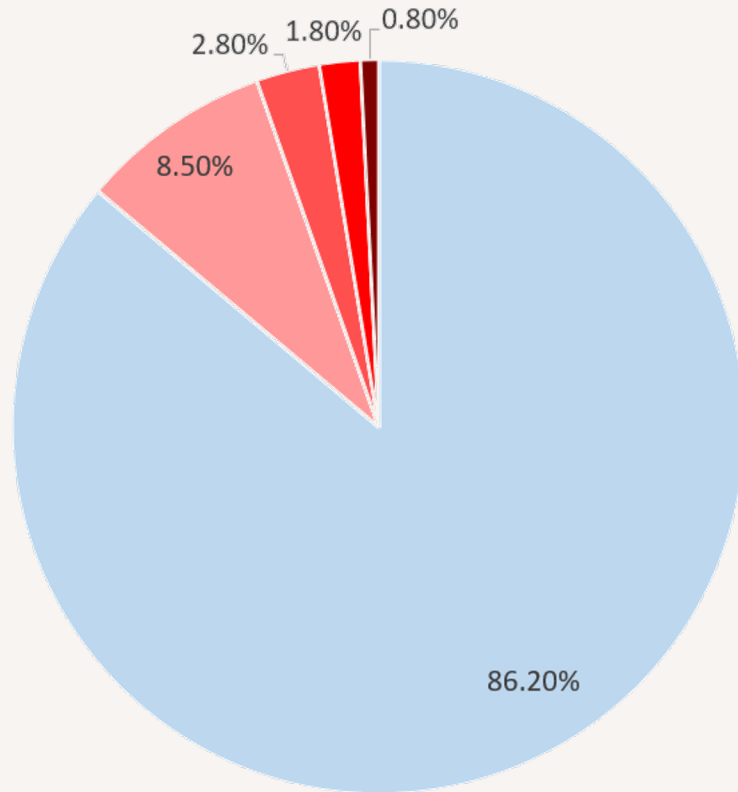more HCAs reporting normal wellbeing (z = 3.1).

Scores consistent with likely major depression (WHO-5 ≤20) were reported by 20% of all staff (95% CI 16-24%) with no differences between groups.

■ Abnormal, indicating depressive symptoms   **■ Positive wellbeing**
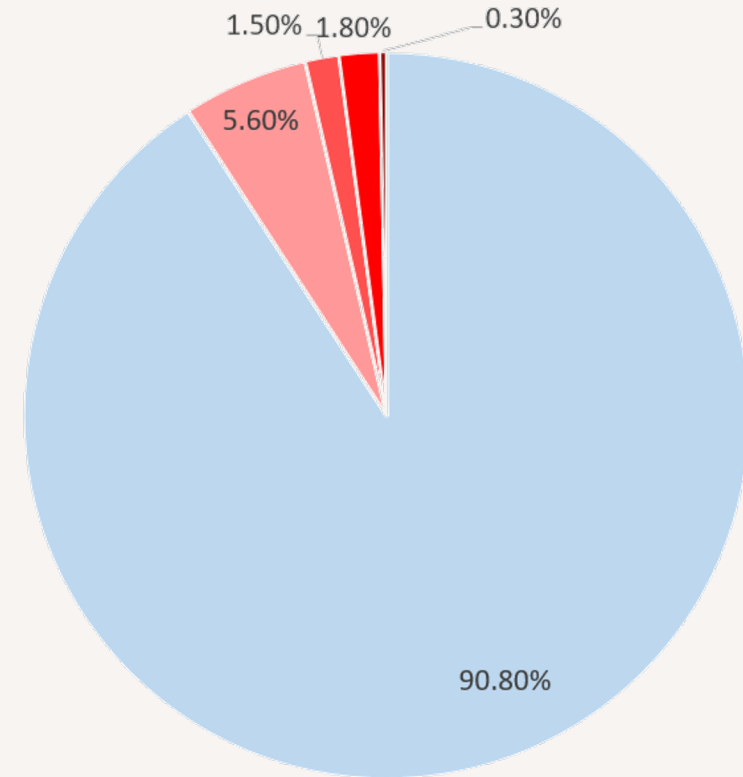
Suicidal Ideation & Planning

I had some thoughts about wanting to end my life

2.80% 1.80% 0.80%

8.50%

86.20%

■ Not at all ■ A little bit ■ Moderately ■ Quite a bit ■ Extremely
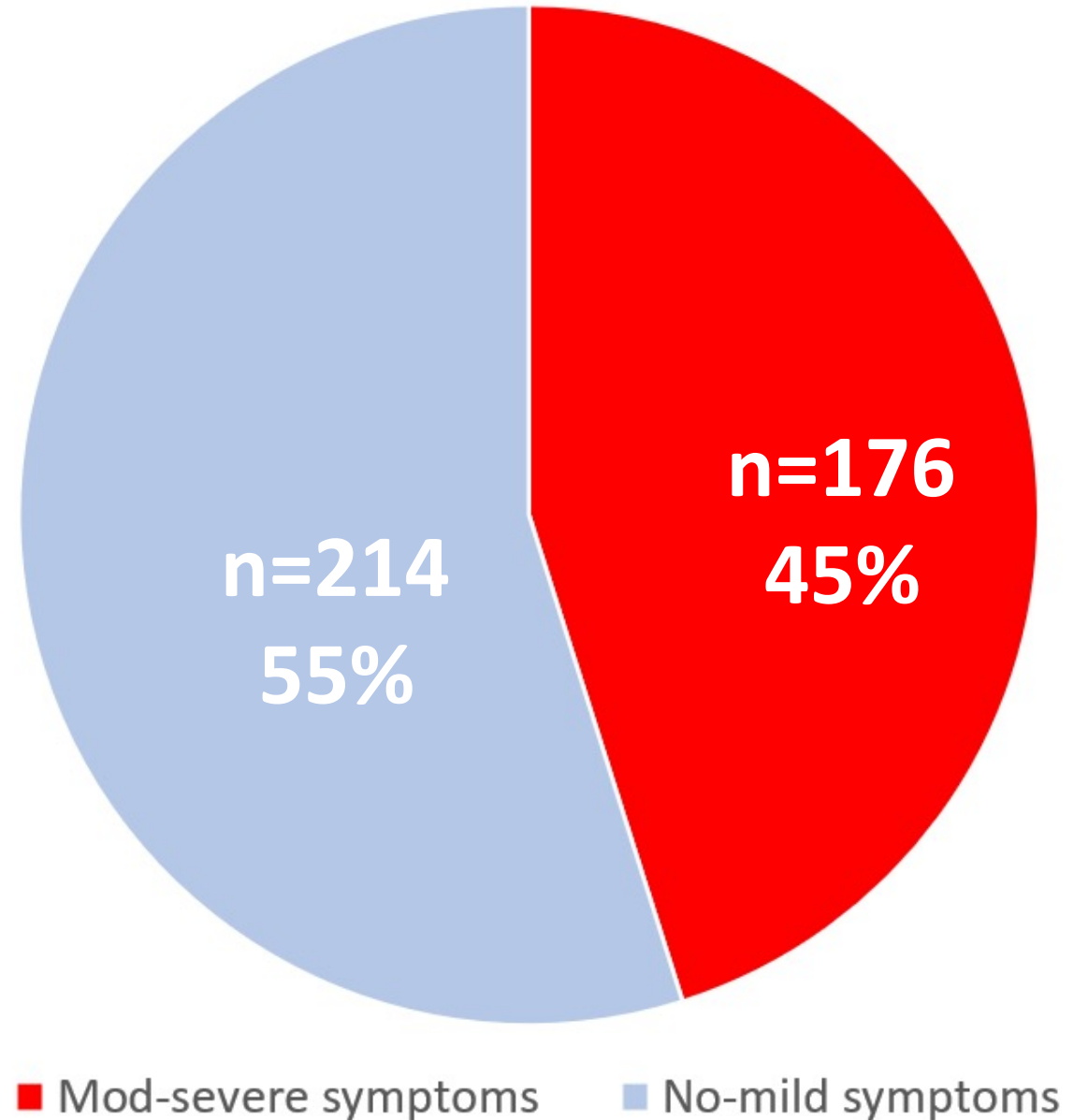
I thought about developing a plan to end my life

1.50% 1.80% 0.30%

5.60%

90.80%

■ Not at all ■ A little bit ■ Moderately ■ Quite a bit ■ Extremely

1 in 7 - thoughts of suicide

1 in 11 - suicide planning

Moral Injury Events Scale

◦ MIES scores: Total score; transgression by self, transgression by others, betrayal.

◦ The mean score for nursing home staff in Ireland (20.8, SD 9.1) was significantly higher than that of US hospital staff at the beginning of the pandemic (16.15, SD 7.8; $P<0.0001$)

◦ There were significant differences between groups on the MIES total score ($P=0.027$, adjusted $P=0.038$) and the MIES "Transgression by others" subscale ($P=0.030$, adjusted $P=0.048$).

◦ HCAs reported a significantly higher degree of moral injury than nonclinical staff (mean difference (and a significantly higher "Transgression by others" score than nonclinical staff.

◦ A difference between groups was noted on the MIES betrayal subscale; however, this did not survive adjustment.

Brief-COPE

◦ Approach (adaptive); avoidant (maladaptive); Religion and Humour

◦ The groups differed in use of approach (adaptive) coping style (P=0.001, adjusted P=0.045), with nurses using an approach (adaptive) coping style more than nonclinical staff.

◦ There was a significant difference for use of religion as a coping mechanism but this did not survive adjustment (P=0.049, adjusted P=0.116).

◦ There were no differences noted for using avoidant (maladaptive) coping styles or humour.

Work Ability

◦ Work ability, as self-rated by the Work Ability Score, was deemed insufficient by 24.6% (95% CI 20.3-28.9%) of staff, with no differences between groups.

◦ No previous comparison data for nursing home staff but similar levels of insufficient work ability have been recorded in Irish doctors before the pandemic and was associated with burn-out in doctors

Key points from quantitative analysis

◦ First systematically conducted study of Republic of Ireland nursing home staff experience during the Covid-19 pandemic

◦ Only the second such report internationally.

◦ The prevalence of symptoms of PTSD and intensity of moral injury in Irish nursing home staff was significantly higher than that of hospital staff internationally during the Covid-19 pandemic.

◦ Concerning levels of suicidal ideation (13%) and planning (9%).

◦ Significantly more nurses reported poor wellbeing despite being more likely to utilise adaptive coping styles.

◦ HCAs reported a significantly higher degree of moral injury than nonclinical staff.

  ◦ Youngest group but this remained significant even after controlling for age and years of experience.

    ◦ ?due to their close relationships with residents.

THANK YOU