

Paper 4. The Impact of Wages on Care Home Quality

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INTRODUCTION

- Staff in social care – low paid, viewed as low-skilled and work in social care has a negative perception
- And yet...staff:
 - Have high levels of informal skills
 - Play a vital role in quality of care and quality of life of residents
 - Form relationships with those they provide care to
- Aim: To quantify the effect of staffing on English care home quality
 - In particular wages, but also staff training and job vacancy/staff turnover rates

PREVIOUS RESEARCH

- Mainly US-based
 - e.g. Konetzka et al., 2008; Dellefield et al., 2015; Antwi & Bowblis, 2018; Cawley et al., 2006; Castle & Engberg, 2008; Huang & Bowblis, 2019
- Often examining effect of staffing on clinical markers of quality
- Generally, but not always (e.g. agency staff), a positive effect of staffing on quality
- England
 - Negative correlations between job vacancies/staff turnover and care home quality – Allan and Vadean, forthcoming
 - Training has positive effect on firm performance – Collier et al., 2011

- Adult Social Care Workforce Data Set (ASC-WDS) provided by Skills for Care
 - Use provider database annually at October for 2016-2018
 - Use employee-level database to generate wage/training measures
 - 12,052 care home observations over 3 years of 5,555 care homes
- Staffing measures
 - Wage – (log) average hourly wage of care workers
 - Training – proportion with training for dementia and dignity/person centred care
 - Job vacancy rates - reported vacancies to total staff
 - Staff turnover – leavers in last 12 months to total staff

- Quality assessed using CQC care home quality rating
 - Based on 'Mum test'
 - Significant correlation with QoL - Towers et al. (2019) and this project's findings
 - Used the same binary indicator of quality: 0 for 'Inadequate'/'Requires improvement' and 1 for 'Good'/'Outstanding'
- Controls
 - At care home-level: type (residential/nursing), residents (living with dementia), sector (private/voluntary); size (beds), staffing (service user to staff ratio), competition (HHI)
 - At postcode district-level (e.g. SW1): needs (Attendance allowance uptake), wealth (Pension credit uptake, house price), local supply factors (female Job Seeker's Allowance uptake)

METHODS

- Missing data
 - Multiple imputation
- Endogeneity of wage and quality (circularity of relationship)
 - Require an appropriate instrument
 - Proportion of employees paid below future minimum wage
- *Model of care home quality*
 - *Actual care home quality observed with some level of error:*

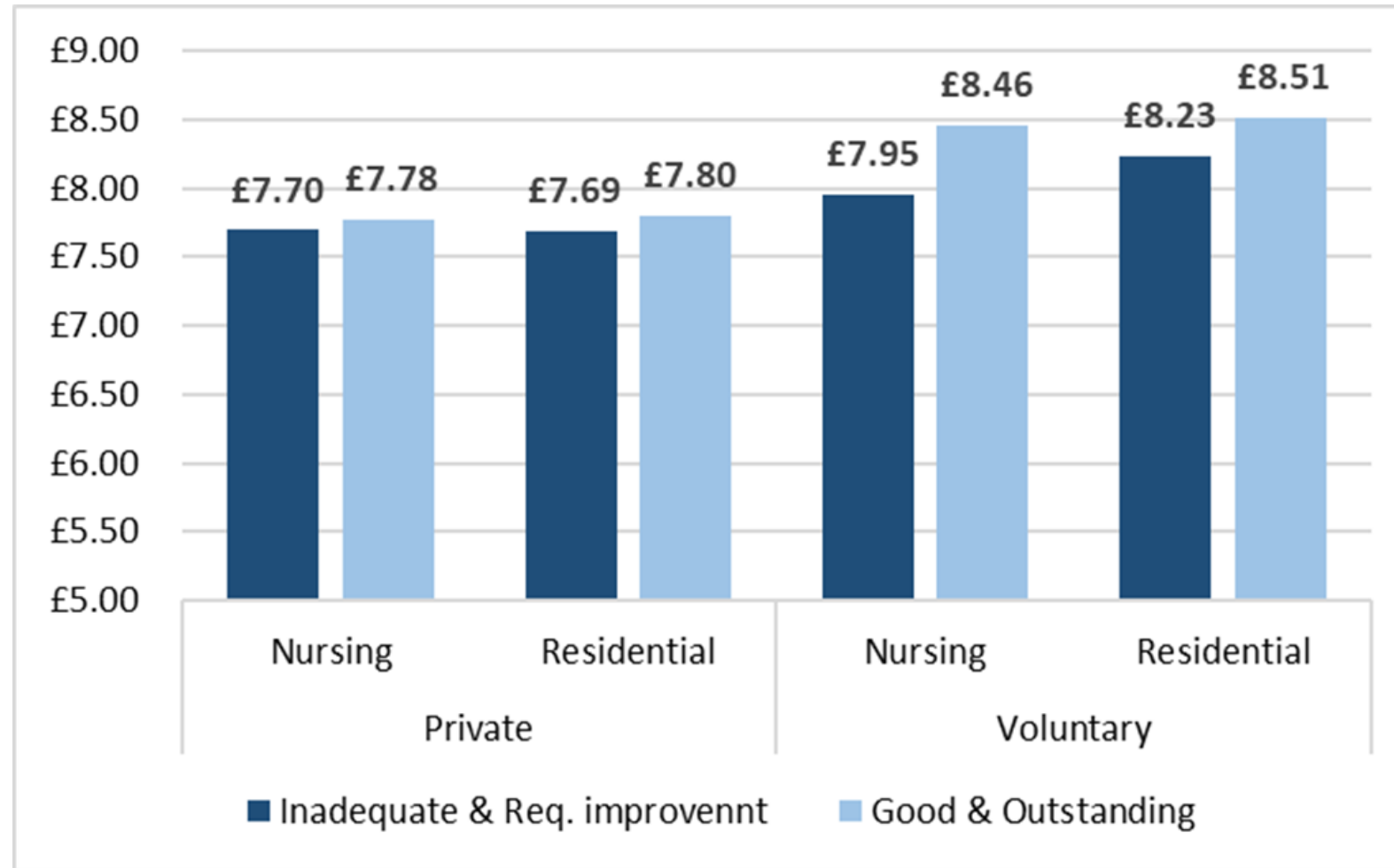
$$P(R_{jt} = 1) = \beta_1 + \beta_2 \mathbf{S}_{jt} + \beta_3 \mathbf{X}_{jt} + \varepsilon_{jt}$$

- Estimate using Linear Probability Model
 - Use fixed/random effects to take advantage of panel nature of the data

DESCRIPTIVE STATISTICS

- Staff characteristics
 - Average hourly wage: £7.85
 - Dementia training: 28.1%
 - Dignity/person-centred care training: 12.7%
 - Job vacancy rate: 4.1%
 - Staff turnover rate: 28.9%
- Quality
 - Three quarters of care home observations rated as 'Good'/'Outstanding'

CARE WORKER WAGE BY SECTOR, TYPE & QUALITY



FINDINGS

- Random effects model of quality ratings

Variables	(1) Quality Rating RE	(2) Quality Rating REIV	(3) Quality Rating RE	(4) Quality Rating RE	(5) Quality Rating RE	(6) Quality Rating RE	(7) Quality Rating REIV
Staffing measures							
Mean Wage (log)	0.163** (0.079)	0.719*** (0.126)	-	-	-	-	0.709*** (0.125)
Dementia trained (%)	-	-	0.090*** (0.016)	-	-	-	0.098*** (0.018)
Person centred care or dignity trained (%)	-	-	-	0.064*** (0.022)	-	-	0.005 (0.025)
Staff turnover rate	-	-	-	-	-0.039** (0.018)	-	-0.022 (0.020)
Job vacancy rate	-	-	-	-	-	-0.315*** (0.083)	-0.317*** (0.089)

- Significant wage effect in fixed effects/probit models

DISCUSSION

- Higher average care worker wage improves care home quality
- Indication that training also good for quality
- Staff turnover and job vacancies have negative influence on quality
- Policy implications: 1) Staffing very important for social care; 2) appropriate funding necessary for staff training/pay/retention
- Potential limitations
 - *Quality of instrument of wage?* Common in literature and satisfies tests of adequacy
 - *Self-funding levels controlled for?* Proxied at local area-level & fixed/random effects
 - *Is sample representative?* In line with national figures
 - *Quality ratings based on staff/staffing?* Size of affect varies by KLOE

DISCLAIMER

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