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Mental well-being and quality of working life in UK social workers before and during the COVID-19 pandemic: A propensity score matching study

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Abstract

During the COVID-19 pandemic interest into its potential impact on mental well-being has intensified. Within the social care sector, the pandemic has increased job demands and prolonged stress taking a disproportionate toll on the workforce, particularly social workers. This article compares the mental well-being and quality of working life of social workers in the United Kingdom (UK) before and during the pandemic. Data were collected in 2018 ($N = 1{,}195$) and 2020 ($N = 1{,}024$) using two cross-sectional surveys. To account for the differences between the datasets, propensity score matching was employed prior to effect estimation, utilising demographic and work-related variables common to both datasets. The differences between the two time-points were estimated using multiple regressions. Both mental well-being and quality of working

life were significantly higher during the COVID-19 pandemic in 2020 compared to 2018. This suggests that during the highpoint of the pandemic in the UK, increased support, and changes to working practices, such as reprioritisation of work and other initiatives, may be responsible for increased mental well-being and quality of working life. While acknowledging the known pressures on UK social workers during the COVID-19 pandemic this evidence suggests a mixed picture of the pandemic with lessons for managers and employers.

Keywords: COVID-19, propensity score matching, quality of working life, social workers, United Kingdom, well-being

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Introduction

COVID-19, a severe acute respiratory syndrome coronavirus, has had a profound effect on the daily lives of individuals globally and had a huge impact on the social care workforce worldwide. In the UK, social workers' working conditions and working practices were substantially affected (Abrams and Dettlaff, 2020; Banks *et al.*, 2020). Social workers play a vital role in supporting the well-being of adults and children in need of care and support that was often worsened by the COVID-19 pandemic. UK studies have explored frontline experiences of practice ranging from child protection (Baginsky and Manthorpe, 2021) to adult social work (Manthorpe *et al.*, 2021a). Since March 2020, when the first UK lockdown began, social workers have minimised their contact with service users and many moved their practice online. The imposed lockdown and social distancing guidelines potentially posed a significant threat to the relationship-based practices that social work traditionally relies upon (Golightley and Holloway, 2020). Reduction in home or other visits, reduced physical contact and an increase in online or telephone contacts and conferencing were quickly adopted (Baginsky and Manthorpe, 2021) and much of this remains at the time of writing (May, 2021).

Prior to the pandemic, social workers were already in a high-risk category for developing mental health and well-being-related problems (Truter and Fouche, 2021; Dominelli, 2021; Harrikari *et al.*, 2021; Savaya *et al.*, 2021). There was substantial evidence internationally that social workers faced intense workplace job demands and chronic stress (Kim and Lee, 2009; Johnson *et al.*, 2019, 2020), face burnout (McFadden *et al.*, 2015; Gómez-García *et al.*, 2020) and are influenced strongly by negative psychological impact (Evans *et al.*, 2006; Harrikari *et al.*, 2021; Savaya *et al.*, 2021). A survey of its members by the British Association of Social Work (BASW, 2021) reported that 58.8 percent of social workers surveyed considered that working during the COVID-19 crisis had

negatively impacted their mental health while 68.3 percent said it was more difficult working at home than when in the office.

Recent research suggests that these negative factors can be reduced when good upward communication and support systems are in place, reducing the severity of work-related stressors (Kim and Lee, 2009; Reddington *et al.*, 2021). However, social workers may not consistently have the necessary resources or support structures, to rise above these challenges. This brings uncertainty and increases the risk of negative outcomes (Truter and Fouche, 2021; Dominelli, 2021). As COVID-19 continues, social workers have expressed concerns about future practices within the profession. Banks *et al.* (2020) have observed that the inherent weaknesses within the social work system have been exposed. COVID-19 has made the daily work of social workers more difficult as it has exacerbated the consequences associated with a challenging social work system (Downing *et al.*, 2021; Miller and Reddin Cassar, 2021). However, whether these weaknesses have impacted the well-being and quality of working life of social work is uncertain. The pandemic provides both an opportunity to explore these areas in more detail and to bring to the fore a much needed and focused examination of well-being and work-related quality of life (WRQoL).

The need for evidence of what was supportive and what was difficult during COVID-19 times, combined with the already high demand nature of the social work profession, guides this article. The purpose of this article is to compare the well-being and quality of working life of UK social workers at two time points; before and during the COVID-19 pandemic. A propensity score matching method was used to balance the samples on demographic and work-related variables. Based on the growing literature of decreased well-being outcomes for health care staff (Pappa *et al.*, 2020; Shreffler *et al.*, 2020; Dorado Barbé *et al.*, 2021) and social workers (Harrikari *et al.*, 2021; Holmes *et al.*, 2021) due to the COVID-19 pandemic, it was hypothesised that both mental well-being and quality of working life will be lower during the pandemic compared to previously.

Methodology

Sampling and participants

Data for this study are from two datasets: (1) 2018 data collected through an online survey entitled 'Social Work: Ageing at work and Extending Working Lives' and (2) 2020 data collected through the first online survey (Phase 1: May–July 2020) of a wider study entitled 'Health and social care workers' quality of working life and coping while

working during the COVID-19 pandemic'. The 2018 survey was administered to social workers working in the UK and aimed to capture their attitudes towards ageing, well-being and career planning. The survey was promoted through the Northern Ireland Social Care Council, a regulatory body for social services provision in Northern Ireland, and through the *Community Care* website, a popular UK-wide platform covering UK social work and social care.

The 2020 survey targeted health and social care professionals (nurses, midwives, allied health professionals, social care workers, social workers) working in the UK during the COVID-19 pandemic and enquired about their well-being and coping strategies. For the current study, we used data from those participants who self-reported their occupation as 'social worker'. The 2020 survey was disseminated through social media posts, newsletters and direct emails of professional regulatory bodies, unions and associations of the above groups, including the Northern Ireland Social Care Council and *Community Care*. Both surveys received ethical approval from Ulster University (see below) and participants provided informed consent. It is worth noting that the surveys were conducted during different circumstances with the latter being conducted during the COVID-19 pandemic which may have influenced results.

The 2018 dataset contained 1,391 social workers and the 2020 dataset contained 1,282 social workers. The analysis was based on cases with complete data. Of the original sample of 2,673 participants (2018: $n = 1{,}391$; 2020: $n = 1{,}282$), we excluded 451 (2018: $n = 196$; 2020: $n = 255$), who had missing data on the covariates and/or the outcome measures. We then excluded further three participants who indicated their gender to be 'other' (i.e. neither male nor female), as we would not be able to conduct meaningful analyses with this small subgroup. The final sample size was 2,219 participants: 1,195 from the 2018 dataset and 1,024 from the 2020 dataset. Characteristics of the effective sample are presented in Table 1.

Ethical considerations

The 2018 study received approval by the Ulster University Research Ethics Filter Committee in January 2018. The 2020 study was approved by Filter Ethics Committee in the School of Nursing at Ulster University (Ref No: 2020/5/3.1, 23 April 2020; Ulster University IRAS Ref No: 20/0073). All permissions for the use of scales were received from original authors, and consent and confidentiality were addressed in participant information materials.

Table 1. Sample characteristics

Variable	2018, *n* (%) (*n* = 1,195)	2020, *n* (%) (*n* = 1,024)	All, *n* (%) (*N* = 2,219)
Gender			
Male	218 (18.2)	147 (14.4)	365 (16.4)
Female	977 (81.8)	877 (85.6)	1,854 (83.6)
Age, years			
20–29	60 (5.0)	100 (9.8)	160 (7.2)
30–39	173 (14.5)	250 (24.4)	423 (19.1)
40–49	259 (21.7)	290 (28.3)	549 (24.7)
50–59	506 (42.3)	310 (30.3)	816 (36.8)
60+	197 (16.5)	74 (7.2)	271 (12.2)
Ethnicity			
White	1,135 (95.0)	940 (91.8)	2,075 (93.5)
Black	23 (1.9)	52 (5.1)	75 (3.4)
Asian	11 (0.9)	9 (0.9)	20 (0.9)
Mixed	26 (2.2)	23 (2.2)	49 (2.2)
Country of work			
England	610 (51.0)	523 (51.1)	1,133 (51.1)
Scotland	27 (2.3)	23 (2.2)	50 (2.3)
Wales	29 (2.4)	50 (4.9)	79 (3.6)
Northern Ireland	529 (44.3)	428 (41.8)	957 (43.1)
Relationship status			
Married	694 (58.1)	544 (53.1)	1,238 (55.8)
Single	208 (17.4)	190 (18.6)	398 (17.9)
Divorced	94 (7.9)	48 (4.7)	142 (6.4)
Separated	39 (3.3)	22 (2.1)	61 (2.7)
Cohabiting	160 (13.4)	220 (21.5)	380 (17.1)
Disability			
Yes	160 (13.4)	102 (10.0)	262 (11.8)
No	1,010 (84.5)	899 (87.8)	1,909 (86.0)
Unsure	25 (2.1)	23 (2.2)	48 (2.2)
Years of experience			
Up to 5	148 (12.4)	221 (21.6)	369 (16.6)
6–10	150 (12.6)	170 (16.6)	320 (14.4)
11–20	325 (27.2)	286 (27.9)	611 (27.5)
21–30	317 (26.5)	229 (22.4)	546 (24.6)
Over 30	255 (26.5)	118 (11.5)	373 (16.8)
Hours worked per week			
Part-time: up to 20 h	89 (7.4)	53 (5.2)	142 (6.4)
Part-time: variable	110 (9.2)	64 (6.2)	174 (7.8)
Full-time: 37.5 h	413 (34.6)	571 (55.8)	984 (44.3)
Full-time: up to five excess hours	238 (19.9)	156 (15.2)	394 (17.8)
Full-time: 6–10 excess hours	218 (18.2)	123 (12.0)	341 (15.4)
Full-time: 11+ excess hours	127 (10.6)	57 (5.6)	184 (8.3)
Carer			
Definitely yes	428 (35.8)	370 (36.1)	798 (36.0)
Probably yes	139 (11.6)	126 (12.3)	265 (11.9)
Might or might not	54 (4.5)	46 (4.5)	100 (4.5)
Probably not	94 (7.9)	95 (9.3)	189 (8.5)
Definitely not	480 (40.2)	387 (37.8)	867 (39.1)

Presented are column percentages.

Measures

Covariates

The following nine variables, theoretically unrelated to grouping (i.e. 2018 versus 2020 data), were common across the two datasets: gender, age, ethnicity, country of work, relationship status, disability status, number of years of work experience as a social worker, number of hours worked in a typical week, and whether or not participants considered themselves to be a carer, defined as someone who 'usually provides support to others that depend on that support for aspects of daily living such as food, shelter, warmth and social and emotional needs'. All covariates, except for age in the 2018 dataset, were categorical in the original surveys. Some variables needed recoding to make them comparable across the two time periods.

Outcomes

Mental well-being was assessed using the short version of the Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS; Stewart-Brown *et al.*, 2009), consisting of seven items. Respondents use a five-point Likert scale ranging from 1 = *None of the time* to 5 = *All of the time* to how often in the last two weeks they have been feeling what is described by the statements. The scores are then summed and transformed into metric scores using a conversion table. Higher scores indicate better well-being. The scale has good psychometric properties (McKay and Andretta, 2017; Ng Fat *et al.*, 2017) and in the current study, internal consistency was good in the effective sample (Cronbach's α: 0.878).

Quality of working life was assessed with the twenty-four-item WRQoL Scale (Van Laar *et al.*, 2007). Respondents were asked to rate the items using a five-point Likert scale ranging from 1 = *Strongly disagree* to 5 = *Strongly agree* to indicate their attitudes to the factors that influence their quality of working life. Twenty-three items contribute to the overall WRQoL score and three items are reverse-scored. In addition to the overall quality of working life, the scale assesses six domains of quality of working life; Job career satisfaction (being content with one's job and career prospects); Stress at work (seeing work pressures as acceptable or excessive); Working conditions (being satisfied with one's working conditions); Control at work (being involved in decisions that affect one's work); General well-being (general psychological and physical health); and Home-work interface (whether the organisation helps one with pressures outside of work). Higher overall scores as well as higher scores on the individual domains indicate better quality of working life. The scale has good psychometric properties (Van Laar *et al.*,

2007; Edwards *et al.*, 2009) and in the current study, internal consistency of the twenty-three items in the effective sample was good (Cronbach's α: 0 .876).

Data analysis

To compare the well-being and the WRQoL between social workers in 2018 and those in 2020, we pre-processed the data using propensity score matching, which helps to eliminate the confounding associated with estimating treatment effects in observational studies. The treatment in our case was the time period in which the data were collected, i.e. pre-COVID-19 (2018 data; coded as 0) and during COVID-19 (2020 data; coded as 1). As the two datasets were not linked and contained different individuals, a matching procedure was employed to make the samples more comparable and thus eliminate the effects of the sample differences (i.e. covariates) on the measured outcomes (SWEMWBS, total WRQoL and the six WRQoL domains).

In the first step, we selected covariates to include in the matching process. Recent simulation studies have shown that variables associated with the outcome, or with the outcome and the treatment, should all be included in propensity score estimation. However, variables that are only associated with the treatment, but not the outcome, should be excluded, as this can increase the bias, the variance and the mean squares error of the estimated effect (Brookhart *et al.*, 2006; Cuong, 2013; VanderWeele, 2019). We conducted a series of multiple linear regressions with gender, age, ethnicity, country of work, relationship status, disability status, number of years of work experience as a social worker, number of hours worked in a typical week and carer status as predictor variables, and the SWEMWBS, total WRQoL and WRQoL domain scores as outcome variables. We also conducted a binary logistic regression with the above covariates as predictors and the time period (2018 versus 2020) as the outcome variable. Any predictor variables associated with SWEMWBS, total WRQoL, or any domain WRQoL scores were used as covariates in the propensity score estimation (age, ethnicity, country, relationship, disability, years of experience, hours worked in a week, carer status). Variables only associated with the time period were excluded (gender). Previous simulation study has shown that when multiple outcomes are examined, generic-outcome propensity score models perform well compared to outcome-specific models (Wyss *et al.*, 2013).

In the second step, we used several methods to match the two samples using the R package *MatchIt* (Ho *et al.*, 2011). These included 1:1 nearest neighbour matching without replacement, 1:1 nearest neighbour matching with replacement, optimal full propensity score matching, optimal pair matching and exact matching. The propensity scores were

estimated using logistic regressions. We then compared the balance statistics of these methods, specifically the standardised mean differences, the mean and maximum empirical cumulative density functions (the latter is also known as the Kolmogorov–Smirnov statistic), as well as the remaining sample sizes to help us decide on the optimal matching method. The balance statistics of all methods are reported in the Supplementary materials. The best, and comparable, balance was achieved with the optimal full propensity score matching and the 1:1 nearest neighbour matching with replacement (exact matching discarded too many cases). Optimal full propensity score matching was selected, because it uses all treated and all control cases, so no participants were discarded through the matching process. In full matching, all individuals are assigned to sub-classes, each one of which contains at least one treated and at least one untreated case. The matching is optimal, which means that more than one untreated individual can be matched to a treated individual if they are similar (or vice versa; Stuart and Green, 2008).

Finally, we estimated the effect of the time period on the outcome variables by fitting linear regression models with the well-being and WRQoL total and domain scores as the outcome variables. The regressions included the matching weights and all the covariates that had been used for matching the samples. Including the covariates in the regression model essentially means double adjustment and helps to account for residual imbalance on the covariates, which may be present after propensity score matching (Nguyen *et al.*, 2017). In the linear regression models, the time period coefficient was interpreted as the estimate of the effect. We computed cluster robust standard errors for the regression estimates using the R package *sandwich* (Zeileis *et al.*, 2020). Additionally, we calculated the estimated marginal means for all the outcomes using the *emmeans* package (Length, 2020) and associated cluster-robust standard errors were calculated using the *estimatr* package (Blair *et al.*, 2021).

Results

Descriptive statistics and preliminary analyses

Descriptive statistics of the outcome variables before matching are shown in Table 2. Data were not normally distributed and therefore the Mann–Whitney U tests were used to compare the scores on well-being, quality of working life and the six domains of the quality of working life between the two groups (2018 versus 2020). The results showed that prior to matching, both well-being ($U = 577{,}753.00$, $p = 0.023$, $r = 0.05$) and the overall quality of working ($U = 446{,}418.50$, $p < 0.001$, $r = 0.23$) life were also significantly better in 2020 compared to 2018. The same was found for the six domains of quality of working life, all of which

Table 2. Descriptive statistics of raw data

Outcome variable	M	SD	Median	Lower quartile	Upper quartile
Well-being					
2018	20.84	3.63	20.73	18.59	23.21
2020	21.18	3.45	20.73	18.59	23.21
Total WRQOL					
2018	72.18	15.20	73.00	62.00	83.00
2020	79.16	14.50	81.00	70.00	89.00
WRQOL: Job career satisfaction					
2018	20.12	4.58	21.00	17.00	23.00
2020	22.08	4.27	23.00	19.00	25.00
WRQOL: Stress at work					
2018	4.41	1.87	4.00	3.00	6.00
2020	4.74	1.84	5.00	3.00	6.00
WRQOL: Working conditions					
2018	9.33	2.68	10.00	7.00	12.00
2020	10.37	2.58	11.00	9.00	12.00
WRQOL: Control at work					
2018	9.47	2.74	10.00	7.00	12.00
2020	10.27	2.73	11.00	9.00	12.00
WRQOL: General well-being					
2018	19.23	4.68	20.00	16.00	23.00
2020	20.73	4.38	21.00	18.00	24.00
WRQOL: Home–work interface					
2018	9.62	2.92	10.00	8.00	12.00
2020	10.97	2.68	11.00	9.00	13.00

were better in 2020 (JCS: $U = 461{,}681.00$, $p < 0.001$, $r = 0.21$; SAW: $U = 545{,}745.50$, $p < 0.001$, $r = 0.09$; WCS: 472,729.50, $p < 0.001$, $r = 0.20$; CAW: $U = 506{,}396.50$, $p < 0.001$, $r = 0.15$; GWB: $U = 498{,}532.00$, $p < 0.001$, $r = 0.16$; HWI: $U = 446{,}268.50$, $p < 0.001$, $r = 0.21$). Chi-squared tests revealed significant differences in all covariates ($p < 0.001$).

The results showed that after matching, both well-being ($U = 574{,}652.50$, $p = 0.023$, $r = 0.06$) and the overall quality of working ($U = 6.81135.00$, $p < 0.001$, $r = 0.23$) life were also significantly better in 2020 compared to 2018. The same was found for the six domains of quality of working life, all of which were better in 2020 (JCS: $U = 658{,}801.50$, $p < 0.001$, $r = 0.19$; SAW: $U = 585{,}086.00$, $p < 0.001$, $r = 0.08$; WCS: 631,888.00, $p < 0.001$, $r = 0.15$; CAW: $U = 646{,}281.50$, $p < 0.001$, $r = 0.17$; GWB: $U = 645{,}850.00$, $p < 0.001$, $r = 0.17$; HWI: $U = 689{,}768.50$, $p < 0.001$, $r = 0.24$). Chi-squared tests revealed significant differences in all covariates similar to before matching ($p < 0.001$).

Propensity score matching

The propensity score was estimated using a logistic regression, with the time period regressed on the covariates selected for matching. The matching method selected for the estimation of effect was the optimal

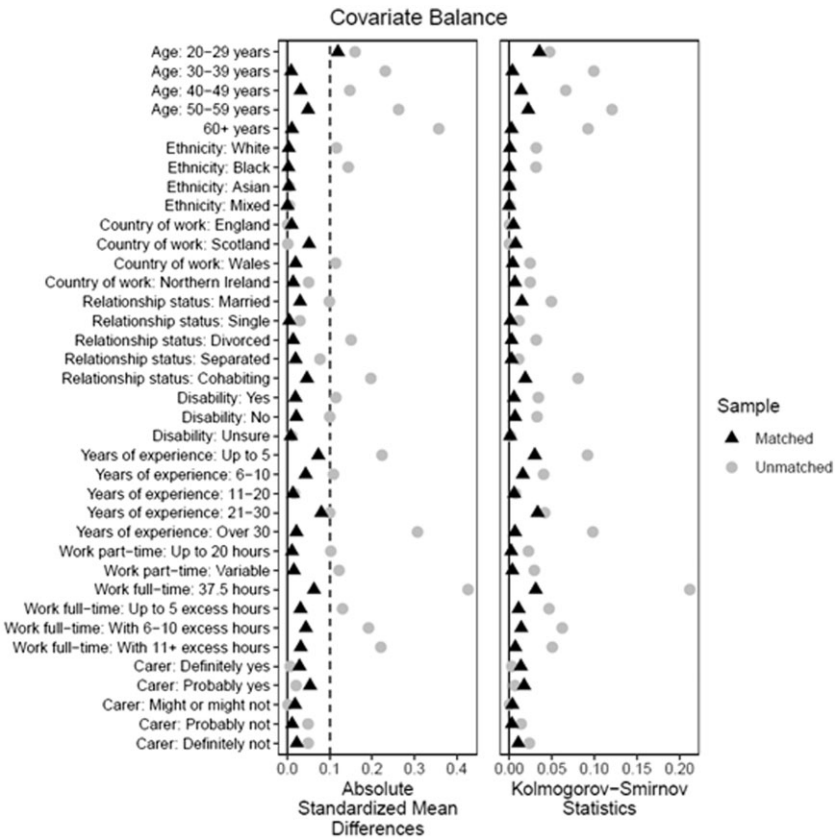

Figure 1: Covariate balance before and after the full optimal matching process.

full propensity score matching, as it produced adequate balance on covariates and this method additionally uses all available data. The covariate balance achieved with this method is depicted in Figure 1. Balance statistics are presented in Supplementary materials. After the full matching, the standardised mean differences for all covariates, except for age, were below 0.1. The standardised mean differences for the majority of pairwise interactions between the covariates were also below 0.1 and all were below 0.27.

Effect estimation

The estimated effect of the time period on participants' well-being was $b = 0.43$ ($\beta = 0.06$, cluster robust SE $= 0.20$, $p = 0.002$), suggesting higher well-being for participants in 2020 compared to 2018. The

Table 3. Estimates of effect after full optimal matching ($N = 2,219$)

Outcome	Estimated marginal means (SE)			Regression			
	2018	2020	Effect size	B	β	SE	*p*-value
Well-being	19.35 (0.39)	19.78 (0.40)	0.06	0.43	0.06	0.20	0.029
Overall WRQOL	65.66 (1.67)	72.63 (1.79)	0.23	6.96	0.23	0.98	< 0.001
WRQOL: Job career satisfaction	19.09 (0.50)	21.07 (0.57)	0.19	1.97	0.22	0.32	< 0.001
WRQOL: Stress at work	4.27 (0.26)	4.51 (0.26)	0.08	0.24	0.06	0.10	0.013
WRQOL: Working conditions	8.53 (0.33)	9.33 (0.33)	0.15	0.80	0.15	0.15	< 0.001
WRQOL: Control at work	8.33 (0.32)	9.22 (0.36)	0.17	0.90	0.16	0.17	< 0.001
WRQOL: General well-being	16.84 (0.52)	18.49 (0.52)	0.17	1.65	0.18	0.29	< 0.001
WRQOL: Home–work interface	8.61 (0.33)	10.01 (0.34)	0.24	1.40	0.24	0.18	< 0.001

b = Unstandardized estimate; β = Standardized estimate; SE = Cluster-robust standard error. The estimates from regression are for the 2020 time period, 2018 was the reference group.

estimated effect of the time period on participants' overall WRQoL was $b = 6.96$ ($\beta = 0.23$, cluster robust SE = 0.98, $p < 0.001$), again suggesting better WRQoL for participants in 2020 compared to 2018. The results of the WRQoL domains, along with estimated marginal means for all outcome variables, are presented in Table 3.

Discussion

The aim of the present study was to compare the mental well-being and quality of working life of social workers before (2018) and during (2020) the COVID-19 pandemic in the UK. A propensity score matching method was employed to account for the differences between the two cross-sectional samples of social workers. This is the first study known to the authors to explicitly investigate this among social workers. The results showed that, after matching, both mental well-being and the quality of working life increased significantly from 2018 to 2020. However, from a survey of healthcare professionals, conducted in 2011, normative (population norms) level of well-being using the Short Warwick Ed scale, were reported as a mean score of 23.6, this means that both the 2018 and 2020 social work cohort were almost four points below the health care sector normal (NHS Health Survey for England, 2011).

More recently from Northern Ireland, a Department of Public Health (2020) Coronavirus Report found well-being scores (21.14) slightly higher than this present study. Indeed, across the general population

mental well-being generally improved as the pandemic continued and worry began to decrease, these findings from the Department of Public Health (2020) suggest that the improvement could be related to fewer restrictions than in times of stricter lockdowns. The findings from this present study highlight that while 2020 was a challenging year, mental well-being and WRQoL may have improved among social workers due to a new appreciation of increased resilience (i.e. ability to adapt to challenges and stress in their daily lives), possibly due to public appreciation as exemplified in the UK by public demonstrations of support such as Clapping for Carers (Manthorpe *et al.*, 2021b). Dorado Barbé *et al.* (2021) have also acknowledged that higher resilience provides protection in pandemic situations, leading to better well-being.

Considering the psychological impact, prolonged stress and higher job demands often associated with the COVID-19 pandemic (Dominelli, 2021; Harrikari *et al.*, 2021; Holmes *et al.*, 2021; Miller and Reddin Cassar, 2021), these results may seem counterintuitive. As indicated in the literature, COVID-19 has been challenging for social workers (Downing *et al.*, 2021; Morse and Dell, 2021). In contrast to the findings of the present study, some commentators outside the UK have argued that social workers are more under pressure and undervalued during COVID-19 times than they were previously (Amadasun, 2020 (Nigeria); Downing *et al.*, 2021 (commenting on rural social work in the USA)). Johnson *et al.* (2020) and Reddington *et al.* (2021) also reported that social workers felt less positive and less able to cope with their work during the COVID-19 pandemic, especially as workloads and case allocations increased.

A longitudinal study of English local authority child and family social workers conducted by the Department of Education was collected in two waves, the first wave of the surveys (November 2018 and March 2019) and the second wave (November 2019–January 2020) prior to the COVID-19 pandemic (Johnson *et al.*, 2019, 2020). The reports indicated that social workers were more stressed and were dealing with high work demands which had worsened between the survey waves. These findings indicate that mental well-being and quality of working life were already low before the pandemic, as suggested by the 2018 findings of this present study.

A *Community Care* survey carried out in November 2020 found that social workers' reported their mental health and well-being to be significantly worse than it was pre-pandemic (Turner, 2020). Respondents highlighted that the pandemic had increased workloads, which could explain the decline. However, the easement of lockdown restrictions between July and November 2020 across most of the UK could have influenced workforce pressures and the results, and well-being and WRQoL could have deteriorated between the different surveys. Qualitative findings from Morse and Dell (2021) and Cook *et al.* (2020)

found staff finding it difficult to work remotely with a lack of resources, team support and opportunities. Additionally, social work practice during this time was characterised as stressful and overwhelming. These findings suggest that well-being and WRQoL should have been worse in 2020 in comparison to 2018 and so challenge our findings.

The findings of this present study are not suggesting that COVID-19 had no impact on the mental well-being or quality of working life but may demonstrate that during the pandemic other factors have had a positive influence on many social workers. The differences between previous research and this present study could be attributed to coping strategies or increased resilience developed through previous experience and high case/workloads, or the public, employer and government response to the pandemic. An important context to consider relating to these changes in well-being and WRQoL is that our 2020 data were collected after many social workers had transitioned to working from home and online.

Evidence suggests that reduced work-life conflict during the pandemic has occurred since working at home, reducing the stressors associated with the poorer psychological impact at work (Savaya *et al.*, 2021; Schieman *et al.* 2021). This creates greater work flexibility, reducing travel times, which may contribute to significantly better mental well-being and quality of life in 2020 compared to 2018 (McFadden *et al.*, 2021a). In contrast, a notable finding from this present study was that approximately 70 percent of social workers in 2020 reported a change in caring responsibilities due to childcare arrangements, home schooling, caring for older relatives amongst others, reflective of the female compositions of the profession. Researchers have acknowledged that the pandemic has increased the number of caring responsibilities and stressors thus impacting that work-life balance (Evanoff *et al.*, 2020; Power, 2020). These finding suggests mental well-being and WRQoL should be lower in 2020 and so further work is needed to explore this complexity.

The differences in scores from 2018 to 2020 could stem from increased resilience, supportive and responsive support services and networks. Alternatively, their life away from the job might have instilled a positive outlook (Truter and Fouche, 2021) which may be part of the reason for the findings in this study. During the pandemic more social workers have had the ability to work from home with an estimated eight in ten working from home and using online technology (Turner, 2020). Less travel time and being able to see their family more regularly at home, is time they do not normally possess, and therefore could have an influence on their WRQoL and mental well-being. A safe and appealing space away from work was highlighted by Truter and Fouche (2021) as an opportunity to enhance resilience. It is possible many people working from home have had more opportunity to relax and get outside. Furthermore, the higher scores in 2020 could be associated with

workplace well-being promotion, self-care, support services, communication skills training, effective planning systems, flexible work hours and less excessive work demands (Kalliath *et al.*, 2020; Mette *et al.*, 2020; Downing *et al.*, 2021; Miller and Reddin Cassar, 2021; Morse and Dell, 2021). In order to improve WRQoL and reduce the pressures within the social work profession, compassionate and understanding employers and co-workers are important factors alongside regular team communication and support services within the workplace (Cook *et al.*, 2020; Kalliath *et al.*, 2020; Dominelli, 2021). These workplace supports also are evidenced in the current study and formed one of our 'good practice recommendations' which emerged from the data (McFadden *et al.*, 2021b).

Study limitations and future research

To our knowledge, this is one of the first propensity scoring studies to emerge with pre-pandemic baseline data enabling the comparison of social workers before and during the COVID-19 pandemic. As such, this present study can serve as the foundation for future social work research. Strengths of this study are the robust sample size and reliable outcomes measures of SWEMWBS and WRQoL. As with all studies, some limitations exist. First, given that the 2020 data used were only from Phase 1 of the wider 'Health and social care workers' quality of working life and coping while working during the COVID-19 pandemic' study, the results only give a snapshot of the data at one point during the pandemic. More data or the inclusion of the second phase may provide different results. However, this was a unique opportunity to compare 2018 social workers with social workers in the middle of the UK pandemic (May to July 2020). Both surveys were self-reported, this may increase the risk of recall bias or social desirability bias (Bowling, 2005; Rosenman *et al.*, 2011; Alhubaiti, 2016). The surveys were administered under different circumstances with the 2020 survey being conducted during the COVID-19 pandemic which may have influenced the results slightly. Most of the samples were from Northern Ireland and England (94.2 percent) with a smaller sample of participants from Scotland and Wales (5.8 percent). This makes the findings of this study less generalisable to the social workers in these countries. Any generalisation to male social workers must be considered tentatively, as 83.6 percent of the samples were females which may have influenced the results. This high representation of a larger female sample is similar to previous research and is representative of the profession (Batra *et al.*, 2020; Holmes *et al.*, 2021). Similarly, there was an over-representation of respondents who identified as being of White ethnicity (93.5 percent) which is higher than the UK Social Worker workforce, which is reported to be between 71.4 percent (Gov.uk, 2021) and 88.6 percent (Community Care, 2020) White

ethnicity. Additionally, recruiting a sample which ethnically resembles this workforce has proven a challenge, which could be linked to the sampling technique used in this study. Therefore, well-being cannot be truly generalised among all ethnicities. Another limitation is that the sample in the 2020 data were collected after many social workers had transitioned to working remotely which many have influenced the results during this time period as different experiences could have introduced limitations to data analysis and were not examined in this study. Another limitation is the cross-sectional nature of the data in 2018 and 2020, this therefore means that the data is only reflective of that single time period for those participants and we cannot determine causal inference (Wang and Cheng, 2020). While the study gender, age, ethnicity, country of work, relationship status, disability status, number of years of work experience as a social worker, number of hours worked in a typical week and carer status were used as predictor variables, the findings of this study cannot rule out other ecological drivers for changes in work-related anxiety and mental well-being. Finally, while the propensity scores method was beneficial in accounting for the differences between the datasets, the method can be limiting. Propensity score matching can increase residual bias as unrealistically extreme weights may be generated, additionally unmeasured confounders may still be present (Winkelmayer and Kurth, 2004; Streiner and Norman, 2012; Okoli *et al.*, 2014).

Future studies examining how resilience and positive coping strategies counteract the negative psychological impact of a pandemic will be important to fully capture how this could influence mental well-being and WRQoL. Furthermore, quantitative results were used in this study, additional research should adopt a mixed methods research design with a strong qualitative approach to get a further clarification and meaning behind the quantitative data. Finally, future studies could provide a more focused examination on how well-being and WRQoL interplays with burnout and coping within social workers during the COVID-19 pandemic and on social work outcomes as they are experienced by service users and carers.

Conclusion

In summary, social workers will continue to face increased stressors and work demands during and post-COVID-19. Results indicated that social workers' mental well-being and the quality of working life increased significantly from 2018 to 2020. These social workers were largely resilient to the changes in lifestyle and work created by the COVID-19 pandemic. The wider literature emphasises that the demands within the social work profession may take a disproportionate toll on well-being and

quality of working life. The findings from this study point to the potential for initiatives and workplace support in minimising such stressors.

Supplementary material

Supplementary material is available at *British Journal of Social Work Journal* online.

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Conflict of interest statement

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

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