




The Impact of Work Loss on Mental and Physical Health During the COVID-19 Pandemic: Baseline Findings from a Prospective Cohort Study

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Abstract

Purpose To determine if losing work during the COVID-19 pandemic is associated with mental and physical health status. To determine if social interactions and financial resources moderate the relationship between work loss and health. **Methods** Participants were Australians aged 18+ years that were employed in paid work prior to the COVID-19 pandemic who responded to an online or telephone survey from 27th March to 12th June 2020 as part of a prospective longitudinal cohort study. Outcome measures include Kessler-6 score > 18 indicating high psychological distress, and Short Form 12 (SF-12) mental health or physical health component score < = 45 indicating poor mental or physical health. **Results** The cohort consisted of 2,603 respondents, including groups who had lost their job (N = 541), were not working but remained employed (N = 613), were working less (N = 660), and whose work was unaffected (N = 789). Three groups experiencing work loss had greater odds of high psychological distress (AOR = 2.22–3.66), poor mental (AOR = 1.78–2.27) and physical health (AOR = 2.10–2.12) than the unaffected work group. Poor mental health was more common than poor physical health. The odds of high psychological distress (AOR = 5.43–8.36), poor mental (AOR = 1.92–4.53) and physical health (AOR = 1.93–3.90) were increased in those reporting fewer social interactions or less financial resources. **Conclusion** Losing work during the COVID-19 pandemic is associated with mental and physical health problems, and this relationship is moderated by social interactions and financial resources. Responses that increase financial security and enhance social connections may alleviate the health impacts of work loss. **Registration** Australian New Zealand Clinical Trials Registry: ACTRN12620000857909.

Keywords Mental health · Psychological distress · Employment · Financial support · COVID-19

Introduction

Changes in work, including widescale unemployment and reductions in working hours, have been one of the major consequences of public health measures taken to limit

transmission of the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), which leads to the Coronavirus Disease 2019 (COVID-19). Globally there was an estimated 14% reduction in working hours during the first half of 2020 compared to the last quarter of 2019, equivalent to a loss of 400 million full-time jobs [1]. In Australia, the setting for this study, an estimated 870,000 workers (6.7% of the total employed) lost their jobs between February and May 2020 after widespread public health measures to contain COVID-19 were introduced, while in May a further 1.55 million remained employed but were working no hours, or fewer hours than they were prior to the pandemic [2]. A coronavirus-induced recession with widespread job losses has potential to lead to an epidemic of mental illness, chronic disease and mortality [3]. National data demonstrates a higher than normal prevalence of stress, anxiety and hopelessness among the general community during the

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COVID-19 pandemic [4], and elevations in the community prevalence of depression and anxiety symptoms [5].

Work and health are closely interconnected. There is substantial evidence globally of the health benefits of good work [6]. The harmful health impacts of losing work are also well described [7], including in people whose work is impacted by viral epidemics [8, 9]. Work loss both disrupts social connections and reduces material financial resources, which are important determinants of health [10, 11]. Financial resources affect multiple determinants of health such as housing, energy and food security, as well as ability to access healthcare [12]. Social support can confer resilience to stress while social isolation has been associated with higher risk of depression symptoms [13].

As in many nations with developed economies, the response to the COVID-induced employment crisis by the Australian Government has been temporary wage subsidies [14], and increases in social security payments [15], to ensure workers maintain employer connections and a source of income. The ability of workers to maintain social interaction has been challenged by physical distancing, isolation, movement restriction and working from home requirements. The health of those that have maintained higher levels of social interaction, and who have greater financial resources, may be less impacted by work loss. This study aimed to determine whether losing work during the COVID-19 pandemic is associated with poorer mental and physical health, and to determine if financial resources and social interactions moderate the relationship between work loss and health. We hypothesised that a gradient in work loss would be reflected in a health gradient, with the most affected group (the newly unemployed) reporting the worst health status.

Methods

Design, Setting and Participants

We report findings from a baseline survey of a prospective longitudinal cohort study of people living in Australia, aged at least 18 years, and who were employed in a paid job or self-employed prior to the COVID-19 pandemic.

Participants enrolled into the study between 27th March and 12th June 2020 and completed a 20-min baseline survey (either online or via a telephone survey) upon enrolment, which included both standardised health metrics and a range of study-specific questions. The online Qualtrics survey targeted those who had lost work and was promoted via social and general media, through personal networks, and via newsletters distributed by community sector and industry groups. Participants were enrolled into the telephone survey via random digit dialling conducted by a third-party market research company and included both those who has lost

work and those whose work was unaffected. Participants were offered the opportunity to enter into a random draw to receive a gift voucher upon completion of the online survey. Participation was voluntary.

Four study groups were created, defined on the basis of changes in work and job loss at the time of the baseline survey in order to test the hypothesis of a gradient between degree of work loss and health: (i) *Lost Job*—those who had lost their jobs during the COVID-19 pandemic and were not working, (ii) *Off-Work*—those still employed but not currently working (e.g. stood down, furloughed, taking leave), (iii) *Reduced Work*—those still employed and working fewer hours than before the pandemic (e.g. full-time equivalent ratio reduction, fewer days working), and (iv) *Work Unaffected*—those employed and working the same or more hours as before the pandemic.

Health Outcomes

Psychological distress was assessed using the 6-item Kessler Psychological Distress (K-6) scale [16], distinguishing levels of serious mental illness [17]. Mental and physical health were assessed using the Mental Component Score and the Physical Component Score of the 12-item Short Form Health Survey (SF-12) scale [18]. Outcome measures were derived using standardised scoring methods and included whether the respondent recorded:

- A K-6 score of more than 18 indicating high psychological distress.
- A SF-12 mental health component score of less than or equal to 45 indicating poor mental health.
- A SF-12 physical health component score of less than or equal to 45 indicating poor physical health.

Social Interactions, Financial Resources and Demographics

Financial resources were assessed with the question: ‘If all of a sudden you had to get \$2000 for something important, could the money be obtained within a week?’ [19]. Responses of ‘yes’ were categorised as having more financial resources and responses of ‘no’ and ‘don’t know’ as having less financial resource. Social interactions were measured using the Social Interaction sub-scale of the Duke Social Support Index [20]. Scores were dichotomised with reference to the cohort median as (1) less social interaction for scores less than 8, or (2) high levels of social interaction for scores greater than or equal to 8.

Other survey items included a range of sociodemographic, work history and health characteristics including age, gender, household circumstances, personal income,

pre-COVID-19 occupation and working hours, and the presence of pre-existing medical conditions.

Analytical Approach

The work-health relationship was modelled using separate binary logistic regressions for the following dependent variables; high distress, poor mental health, or poor physical health. Models included working status group and interaction terms between working status with social interaction, and working status with financial resources as independent variables, in addition to adjusting for age, gender, pre-existing medical conditions and survey mode as covariates. The reference group for interaction terms was the Unaffected Work subgroup with more social interactions and more financial resources. Pre-existing diagnosed anxiety and depression were included as covariates in the models for psychological distress and mental health. For the physical health model, a diverse set of health conditions were compiled into the total number of medical conditions from a list of categories which was used as a covariate (See Table S1). Preliminary analysis identified differences in cohort profiles and outcomes between survey modes and thus a variable for survey mode was also included. Models were hypothesis-driven to investigate the moderation of social interactions and financial resources on the work-health relationship whilst accounting for known biases during cohort recruitment and pre-existing health conditions. All tests used significance levels of 0.05, and 95% confidence intervals (CI) were calculated corresponding to each adjusted odds ratio (AOR).

Results

A total of 2603 participants enrolled in the study, including 541 (20.8%) in the Lost Job group, 613 (23.5%) in the Off-Work group, 660 (25.4%) in the Reduced Work group and 789 (30.3%) in the Unaffected Work group. For each group, the proportion completing the survey via telephone was 23.8% (Lost Job), 20.4% (Off-Work), 51.1% (Reduced Work) and 100% (Unaffected Work). Participants were recruited from a diverse set of industries, occupations, working conditions (e.g., engaged in casual, full-time or part-time work pre-pandemic), and from across all states and territories of Australia (Table S1).

Psychological Distress

Across the cohort 438 respondents (17.1%) reported high psychological distress, and its prevalence differed by

working status (Table 1). A total of 159 (30.0%) respondents from the Lost Job group demonstrated high psychological distress compared with 156 (25.9%) from the Off-Work group, 108 (16.7%) from the Reduced Work group, and 15 (1.9%) from the Unaffected Work group.

For subgroups with more social interaction and more financial resources, the adjusted odds of high psychological distress were significantly greater for the Lost Job group (AOR = 3.66, 95% CI = [1.47, 9.14]) and the Off-Work group (AOR = 3.35, 95% CI = [1.38, 8.16]) compared with the reference group, indicating a relationship between a gradient in exposure to work and psychological distress (Table 2). Lower levels of social interaction was associated with greater odds of high psychological distress across the three subgroups with work loss (AOR_{min-max} = 5.83–7.25). Less financial resources was associated with greater odds of high psychological distress across all groups (AOR_{min-max} = 5.43–8.36).

Mental Health

Poor mental health was common in the cohort, occurring in 1348 (51.9%) of all respondents. Prevalence was lowest in the Unaffected Work group with 190 (24.2%) of respondents recording poor mental health, compared with 392 (59.5%) in the Reduced Work group, 392 (64.1%) in the Off-Work group, and 374 (69.1%) in the Lost Job group.

For respondents with more social interaction and more financial resources, the adjusted odds of poor mental health were significantly greater for the Reduced Work group (AOR = 2.15, 95% CI = [1.55, 2.98]), Off-Work group (AOR = 1.78, 95% CI = [1.20, 2.62]), and the Lost Job group (AOR = 2.27, 95% CI = [1.47, 3.49]) compared with the Unaffected Work group. Less social interaction was associated with greater odds of poor mental health for those in the three work loss groups (AOR_{min-max} = 3.08–3.47). Possessing less financial resources was associated with greater odds of poor mental health, across all working status groups (AOR_{min-max} = 1.92–4.53), including the Unaffected Work group.

Physical Health

The prevalence of poor physical health was much lower than for poor mental health across the cohort, constituting 315 (12.1%) respondents. The Unaffected Work group had 66 (8.4%) respondents with poor physical health, compared with 92 (14.0%) for the Reduced Work group, 82 (13.4%) for the Off-Work group, and 75 (13.9%) for the Lost Job group.

The odds of poor physical health, for those with a more social interaction and more financial resources, were

Table 1 Summary statistics for health outcomes and predictor variables

	Whole cohort N (col%)	Psychological distress		Mental health		Physical health	
		High	Low or moderate	Poor	Average or good	Poor	Average or good
	2603 (100.0%)	438 (17.1%)	2119 (82.9%)	1348 (51.9%)	1249 (48.1%)	315 (12.1%)	2281 (87.9%)
<i>Working status</i>							
Lost job	541 (20.8%)	159 (30.0%)	371 (70.0%)	374 (69.1%)	167 (30.9%)	75 (13.9%)	466 (86.1%)
Off-work	613 (23.5%)	156 (25.9%)	446 (74.1%)	392 (64.1%)	220 (35.9%)	82 (13.4%)	530 (86.6%)
Reduced work	660 (25.4%)	108 (16.7%)	539 (83.3%)	392 (59.5%)	267 (40.5%)	92 (14.0%)	566 (86.0%)
Unaffected work	789 (30.3%)	15 (1.9%)	763 (98.1%)	190 (24.2%)	595 (75.8%)	66 (8.4%)	719 (91.6%)
<i>Social interaction</i>							
Less	1393 (53.5%)	308 (27.4%)	817 (72.6%)	736 (65.1%)	395 (34.9%)	165 (14.6%)	966 (85.4%)
More	1134 (43.6%)	114 (8.3%)	1263 (91.7%)	554 (39.9%)	836 (60.1%)	134 (9.6%)	1255 (90.4%)
<i>Financial resource</i>							
Less	763 (29.3%)	269 (35.5%)	489 (64.5%)	563 (74.0%)	198 (26.0%)	126 (16.6%)	634 (83.4%)
More	1805 (69.3%)	168 (9.4%)	1618 (90.6%)	766 (42.5%)	1035 (57.5%)	180 (10.0%)	1621 (90.0%)
<i>Gender</i>							
Female	1614 (62.0%)	337 (21.2%)	1253 (78.8%)	948 (58.8%)	665 (41.2%)	201 (12.5%)	1411 (87.5%)
Male	975 (37.5%)	96 (10.1%)	858 (89.9%)	394 (40.6%)	576 (59.4%)	112 (11.5%)	858 (88.5%)
<i>Age</i>							
18–24 years	245 (9.4%)	49 (20.4%)	191 (79.6%)	142 (58.2%)	102 (41.8%)	20 (8.2%)	224 (91.8%)
25–34 years	442 (17.0%)	87 (20.1%)	345 (79.9%)	259 (59.0%)	180 (41.0%)	37 (8.4%)	402 (91.6%)
35–44 years	484 (18.6%)	89 (18.8%)	385 (81.2%)	273 (56.5%)	210 (43.5%)	44 (9.1%)	439 (90.9%)
45–54 years	647 (24.9%)	121 (19.1%)	514 (80.9%)	352 (54.4%)	295 (45.6%)	76 (11.7%)	571 (88.3%)
55–65 years	652 (25.0%)	87 (13.5%)	557 (86.5%)	296 (45.5%)	355 (54.5%)	115 (17.7%)	535 (82.3%)
65+ years	113 (5.1%)	5 (3.8%)	127 (96.2%)	26 (19.5%)	107 (80.5%)	23 (17.3%)	110 (82.7%)
<i>Pre-existing medical conditions</i>							
Depression	492 (18.9%)	188 (38.3%)	303 (61.7%)	391 (79.5%)	101 (20.5%)		
Anxiety	463 (17.8%)	191 (41.3%)	272 (58.7%)	378 (81.6%)	85 (18.4%)		
Mean (SD) number	1.0 (1.6)					2.0 (2.4)	0.9 (1.5)
<i>Survey mode</i>							

Table 1 (continued)

	Whole cohort N (col%)	Psychological distress		Mental health		Physical health	
		High	Low or moderate	Poor	Average or good	Poor	Average or good
	2603 (100.0%)	438 (17.1%)	2119 (82.9%)	1348 (51.9%)	1249 (48.1%)	315 (12.1%)	2281 (87.9%)
Online	1223 (47.0%)	383 (31.9%)	819 (68.1%)	902 (73.8%)	321 (26.2%)	161 (13.2%)	1062 (86.8%)
Telephone	1380 (53.0%)	55 (4.1%)	1300 (95.9%)	446 (32.5%)	928 (67.5%)	154 (11.2%)	1219 (88.8%)

All data is reported as number (row percentage) unless otherwise stated. SD = standard deviation

Table 2 Binary logistic regression models for psychological distress, mental and physical health

	Adjusted Odds Ratio [95% Confidence Interval]		
	High psychological distress	Poor mental health	Poor physical health
<i>Working status</i> [§]			
Unaffected work	1.00 (ref)	1.00 (ref)	1.00 (ref)
Reduced work	2.22 [†] [0.91, 5.42]	2.15** [1.55, 2.98]	2.12** [1.29, 3.47]
Off-work	3.35** [1.38, 8.16]	1.78** [1.20, 2.62]	2.10* [1.18, 3.73]
Lost job	3.66** [1.47, 9.14]	2.27** [1.47, 3.49]	2.11* [1.11, 4.02]
<i>Less social interaction (LSI)</i> [‡]			
LSI*unaffected work	1.14 [0.37, 3.51]	1.37 [0.94, 2.00]	1.93** [1.13, 3.30]
LSI*reduced work	5.85** [2.44, 14.06]	3.47** [2.33, 5.17]	2.83** [1.61, 4.97]
LSI*off-work	5.83** [2.42, 14.08]	3.08** [2.00, 4.74]	3.09** [1.67, 5.74]
LSI*lost job	7.25** [3.00, 17.49]	3.09** [2.01, 4.74]	2.86** [1.53, 5.33]
<i>Less financial resources (LFR)</i> [¶]			
LFR*unaffected work	5.43** [1.80, 16.34]	1.92** [1.11, 3.33]	2.57** [1.23, 5.35]
LFR*reduced work	6.04** [2.38, 15.31]	4.53** [2.80, 7.34]	3.90** [2.06, 7.39]
LFR*off-work	7.66** [3.11, 18.85]	2.40** [1.49, 3.86]	3.34** [1.70, 6.56]
LFR*lost job	8.36** [3.35, 20.87]	4.13** [2.52, 6.79]	3.66** [1.87, 7.17]
<i>Gender</i>			
Female	1.23 [0.92, 1.66]	1.26* [1.03, 1.54]	0.96 [0.73, 1.27]
Male	1.00 (ref)	1.00 (ref)	1.00 (ref)
<i>Age</i>			
18–24 years	1.12 [0.70, 1.80]	1.02 [0.71, 1.47]	0.85 [0.47, 1.53]
25–34 years	1.14 [0.77, 1.70]	1.18 [0.87, 1.60]	0.88 [0.54, 1.43]
35–44 years	1.00 (ref)	1.00 (ref)	1.00 (ref)
45–54 years	0.79 [0.55, 1.14]	0.72* [0.55, 0.96]	1.33 [0.87, 2.03]
55–64 years	0.56** [0.38, 0.82]	0.51** [0.38, 0.68]	2.10** [1.41, 3.13]
65+ years	0.36* [0.13, 0.96]	0.24** [0.14, 0.40]	2.43** [1.37, 4.32]
<i>Pre-existing medical conditions</i>			
Anxiety (ref. no Anxiety)	1.69** [1.23, 2.31]	1.62** [1.17, 2.23]	
Depression (ref. no Depression)	2.13** [1.56, 2.91]	2.46** [1.82, 3.32]	
Total number			1.44** [1.33, 1.56]
<i>Survey mode</i>			
Online	3.34** [2.25, 4.95]	2.49** [1.92, 3.23]	0.28** [0.18, 0.41]
Telephone interview	1.00 (ref)	1.00 (ref)	1.00 (ref)

[†]0.05 ≤ p < 0.1, *0.01 ≤ p < 0.05, **p < 0.01. [§]with more social interactions (MSI) and more financial resources (MFR). [‡]with MFR. [¶]with MSI

significantly higher for those in the three work loss groups (AOR = $_{\min\text{-max}}$ 2.10–2.12) compared with the Unaffected Work group. Less social interaction was associated with greater odds of poor physical health across all working status groups (AOR = $_{\min\text{-max}}$ 1.93–3.09), as was less financial resources (AOR $_{\min\text{-max}}$ = 2.57–3.90).

Covariates

A total of 1128 (43.4%) respondents reported having at least one pre-existing medical condition, including 463 (17.8%) with anxiety and 492 (18.9%) with depression (Table 1). Respondents who reported anxiety or depression had greater odds of high psychological distress (AOR = 1.69, 95% CI = [1.23, 2.31] or AOR = 2.13, 95% CI = [1.56, 2.91] respectively) and poor mental health (AOR = 1.62, 95% CI = [1.17, 2.23] or AOR = 2.46, 95% CI = [1.82, 3.32]). For physical health, each additional medical condition reported increased the odds of poor physical health by 1.44 (95% CI = [1.33, 1.56]). Female respondents had greater odds (AOR = 1.26, 95% CI = [1.03, 1.54]) of poor mental health than male respondents. Age-related differences were observed across all health outcomes. Older respondents had lower odds of psychological distress and poor mental health than the reference group of 35 to 44 year olds, but higher odds of poor physical health. Respondents who completed the survey online had greater odds of high psychological distress (AOR = 3.34, 95% CI = [2.25, 4.95]) and poor mental health (AOR = 2.49, 95% CI = [1.92, 3.23]) and lower odds of poor physical health (AOR = 0.28, 95% CI = [0.18, 0.41]), compared to those completing the survey via telephone.

Discussion

This study demonstrates that in a cohort of people employed prior to the COVID-19 pandemic, those experiencing work loss are more likely to report psychological distress, and poor mental and physical health compared to those whose work was unaffected. These negative health effects are exacerbated in people reporting fewer financial resources and those reporting lower levels of social interaction. These findings demonstrate that financial hardship and social connections moderate the relationship between work and health in the extraordinary circumstances of the COVID-19 pandemic [7]. Strategies that promote social interactions and increase financial security in those experiencing job or work loss may help to minimise negative health impacts.

The odds of high psychological distress were greatest in people reporting lower financial resources. Among these

respondents, the greatest odds of distress were reported by people who had lost their job, followed by those who were off work, those with reduced working hours and finally by those whose work was unaffected. The odds of poor mental and physical health were also greater in people reporting lower financial resources. The links between financial resources and health, particularly mental health, are well established [21]. Our data additionally show that lower access to financial resources exacerbates the negative health consequences of work loss. People with lower financial reserves are more likely to report increases in financial stress [22]. Potential interventions to ameliorate these impacts include increasing the financial support available to those who have lost work during the pandemic [23], and supporting people to manage their existing financial resources.

The Australian government introduced two major economic stimulus programs to provide financial support to people whose work was affected during the COVID-19 pandemic [14, 15]. Similar economic stimulus programs were introduced in nations with developed economies. For example, the Canadian government introduced payments of up to \$500 CAD per week for workers who stopped work or whose work hours were reduced due to COVID-19 [24], while the United Kingdom introduced payments of up to £2500 GBP per month to employers to cover wages of furloughed workers [25]. Our findings suggest that in the Australian context, these economic measures may have had positive health consequences, by reducing the number of people in financial stress early during the pandemic. Conversely, withdrawal of these measures will reduce access to financial resources and may result in a worsening of mental and physical health among working age individuals. Enhancing access to services such as financial planning or financial counselling may also be helpful.

We also observed that social interactions moderated the work-health relationship. Social support is an important determinant of health. Loneliness and social isolation have been associated with increased mortality, as well as adverse physical and mental health outcomes [26]. During the COVID-19 pandemic social interactions have been transformed by the public health measures introduced to reduce viral transmission. The ability to participate in activities that support health such as working or volunteering, caring for others, meeting in groups, participating in clubs and sporting groups [27] have all been reduced. This was particularly the case during the early stages of the pandemic in Australia during which period study data were collected, and has also been observed globally as travel and movement restrictions are revised in regions experiencing second waves of COVID-19 infections. Importantly, we observe that the moderating impact of lower social interaction on mental health and

psychological distress was limited to people in the Lost Job, Off Work and Reduced Work groups. Those whose work was unaffected and who reported low social interactions did not report elevated distress or poorer mental health than their counterparts with more social interaction, suggesting a protective effect of continued engagement in work. Policy that enables social interaction, such as the establishment of social or household ‘bubbles’ during phases of lockdown, may alleviate some of these negative health consequences. These approaches may be particularly important for some people at high risk of mental health problems, including for example those living alone [5].

Our data also provide some evidence for a gradient in health that can be related to the extent of work loss consistent with our a priori hypothesis. Those in the job loss group had the greatest odds of reporting high psychological distress, poor mental and physical health than those in the other study groups. Those in the unaffected work group had the lowest odds of reporting these adverse health outcomes, while the reduced work and off work groups were intermediate.

Economic recovery from the pandemic is likely to be a long-term process, and is unlikely to be evenly spread across society. A second wave in community transmission in the Australian state of Victoria [28] has led to further job and work losses, more stringent movement restrictions, and business closures. Some industries and occupations are at greater risk of pandemic-linked work loss than others [29], due to the inability to work remotely or enforce physical distancing, the rate of insecure and casual work arrangements, the risk of workplace transmission to employees or members of the public, or being considered ‘non-essential’ and thus more susceptible to business closure during outbreaks. Health-promoting programs should be targeted to people working in these high-risk industries and occupations, and to those whose working arrangements mean they are ineligible for alternative forms of financial assistance.

To our knowledge, this is one of the first studies examining psychological distress, mental and physical health, in particular among people losing work during the COVID-19 pandemic. Study strengths include the use of validated measurement instruments, the temporal proximity of data collection to job and work loss and that the analysis accounted for multiple confounders. Study limitations include its cross-sectional nature and reliance on self-report. The sample may not be representative of the population affected, including for example a greater proportion of older people in the work loss groups than indicated in population prevalence studies [30], although the regression model adjusts for multiple demographic factors to aid outcome interpretation. Significant differences were observed between survey modes,

with online respondents more likely to report mental health problems and less likely to report physical health problems than telephone respondents. Using multiple response modes and statistically controlling for response mode in regression models may have reduced the response biases commonly observed in health outcomes research [31]. Data collection began at the peak of a first wave of COVID-19 cases in Australia and continued through the early stages of re-opening. Longitudinal data from this cohort will track changes in work and employment amongst the study groups, and examine longer-term impacts of mental and physical health as the pandemic unfolds in Australia.

Conclusion

Working-age people experiencing acute work loss early in the COVID-19 pandemic were more likely to report psychological distress, and poor mental and physical health compared to those whose working hours were not reduced. These negative health effects were moderated by financial resources and social interactions. A dramatic rise in unemployment and underemployment has been a feature of the pandemic in many countries. When implementing measures to limit transmission of the SARS-CoV-2 virus, governments should also implement measures to limit work loss, enhance social interactions and maintain financial security among their labour force.

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Compliance with Ethical Standards

Competing interest No relevant disclosures.

Ethical Approval Approval to conduct the study was provided by Monash University Human Research Ethics Committee.

Data Sharing The data are held at Monash University, Insurance Work and Health Group, School of Public Health and Preventive Medicine. Procedures to access data from this study are available through contacting the lead author. Proposals for collaborative analyses will be considered by the study’s investigator team.

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