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## What positives can be taken from the COVID-19 pandemic in Australia?

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1 **Title: What positives can be taken from the COVID-19 pandemic in Australia?**

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14 **Word count:** 3099

15 **Abstract**

16

17 **Objective:** To investigate whether Australians have experienced any positive effects during the  
18 COVID-19 pandemic, despite the disruption to society and daily life.

19

20 **Methods:** National online longitudinal survey. As part of a June 2020 survey, participants (n=1370)  
21 were asked 'In your life, have you experienced any positive effects from the COVID-19 pandemic'  
22 (yes/no), with a free-text explanation if yes, and also completed the WHO-Five well-being index.  
23 Differences were explored by demographic variables. Free-text responses were thematically coded.

24

25 **Results:** 960 participants (70%) reported experiencing at least one positive effect during the COVID-  
26 19 pandemic. Living with others (p=.045) and employment situation (p<.001) at baseline (April),  
27 were associated with experiencing positive effects. Individuals working for pay from home were  
28 more likely to experience positive effects compared to those who were not working for pay  
29 (aOR=0.45, 95%CI: 0.32, 0.63, p<.001), or who were working for pay outside the home (aOR=0.40,  
30 95%CI: 0.28, 0.58, p<.001). Age and education were not associated with positive effects when  
31 controlling for employment and household numbers. There was an overall effect of gender (p=.001),  
32 where those identifying as female were more likely than males (aOR=1.62, 95%CI: 1.25, 2.09) to  
33 report experiencing a positive effect. 54.2% of participants reported a sufficient level of wellbeing,  
34 23.2% low wellbeing and a further 22.6% very low wellbeing. Of those experiencing positives,  
35 945/960 (98%) provided an explanation. The three most common themes were 'Family time' (33%),  
36 'Work flexibility' (29%), and 'Calmer life' (19%).

37

38 **Conclusion:** A large proportion of surveyed Australians reported positive effects resulting from  
39 changes to daily life due to the COVID-19 pandemic in Australia. Enhancing these aspects may build  
40 community resilience to cope with future pandemic responses. The needs of people living alone, and  
41 of those having to work outside the home or who are unemployed, should be considered by health  
42 policy makers and employers in future pandemic preparedness efforts, as these groups were least  
43 likely to report positive experiences and may be more vulnerable.

44

45 **Abstract Word count:** 321

46 **Key words:** COVID-19, positives, resilience, crisis, community, connection, working from home,  
47 mental health

48

## 49 **Introduction**

50 A substantial human toll has resulted from the COVID-19 global pandemic, with over 1.5 million lives  
51 lost (1,2) and trillions cost to the global economy (3). Nevertheless, the detrimental effects of the  
52 pandemic have differed considerably between countries, with different government responses and  
53 public health orders implemented. In 2020 Australia has fared favourably in comparison to many  
54 other developed nations after closing international borders, intensive COVID-19 testing and contact  
55 tracing, in addition to other methods of slowing the spread of the virus (4,5). Early in the course of  
56 the pandemic, Australia ceased all inbound travel except for exceptional circumstances and to allow  
57 citizens and permanent residents home (6). At this time, citizens and permanent residents were also  
58 prohibited from leaving the country (7,8).

59 This is not the first pandemic or large-scale crisis to disrupt daily life, that humans have experienced.  
60 It is however, the first at this scale that has occurred during a time of global connectivity via the  
61 internet, telecommunications and air travel (9). Throughout our history as a species, humans have  
62 endured famines, plagues, world wars, climate changes, nuclear catastrophes and other near-misses  
63 of existential threat (10). In fact, there is widespread perception that the rate of natural disasters is  
64 only increasing (11). Exploring how humans may find positives among these demanding  
65 circumstances and how collective resilience enables this, may help us mitigate the negative  
66 consequences of COVID-19 and future global crises.

67 Previous research has demonstrated that people can react positively to large scale crises by  
68 developing resilience, particularly as a community. This positive reaction to disaster has been  
69 observed amongst other populations under duress in times of crises, such as Londoners during The  
70 Blitz (12), New Zealanders in the immediate aftermath of the Canterbury Earthquakes (13), and  
71 Chileans in the aftermath of the 2010 earthquake and tsunami (14,15) which include reports of  
72 community cohesion, a positive outlook and demonstrable traits of resilience. Furthermore,  
73 research found that characteristics of community resilience, including tight bonds and a sense of  
74 kinship, were helpful in addressing the Ebola virus in Liberia (16).

75 In this paper we investigated whether participants had experienced any positive effects during the  
76 pandemic and what those positives were; and explored whether there were any sociodemographic  
77 factors associated with a more or less positive experience during this period.

78

79

## 80 **Methods**

### 81 **Study design and setting**

82 The Sydney Health Literacy Lab (SHELL) has been conducting a national longitudinal survey in  
83 Australia since April 2020. The original sample was recruited via an online market research panel,  
84 Dynata, and using paid advertising on social media (n=4326). Participants were aged 18 years and  
85 over, could read and understand English and were currently residing in Australia. Participants  
86 recruited through social media (n=2006) were then followed-up monthly from April-July. Participants  
87 recruited via social media were given the opportunity to enter a prize draw for the chance to win  
88 one of ten AUD\$20 gift cards upon completion of each survey. More details on recruitment are  
89 provided elsewhere (17), other survey results are provided elsewhere (17–20). In the June survey  
90 (June 5<sup>th</sup>- 12<sup>th</sup>), participants were asked the following question, ‘In your life, have you experienced  
91 any positive effects from the COVID-19 pandemic’ (yes/no). Those participants responding ‘yes’ were  
92 asked to provide a free-text response: ‘Please describe what these positive experiences have been’.  
93 Participants also completed the WHO-Five well-being index (WHO-5); a 5-item questionnaire that  
94 measures current mental well-being over the previous two weeks (21). We used the STROBE cross  
95 sectional checklist when writing our report (22).

### 96 **Ethical Approval**

97 This study was approved by The University of Sydney Human Research Ethics Committee (2020/212).  
98 All participants in the study provided informed consent before completing the online survey.

### 99 **Quantitative analysis**

100 Quantitative data were analysed using Stata/IC v16.1 (StataCorp, College Station TX, USA).  
101 Descriptive statistics were generated for demographic characteristics of the analysed sample.  
102 Logistic regression was applied to determine whether age (categorised into 10 year groups until  
103 70+), gender (male, female, other/prefer not to say), highest level of educational attainment (high  
104 school or less, trade certificate, university education), household structure (live alone, or live with 1-  
105 2, 3-4, or 5 or more others) or employment situation in April (not working for pay, working for pay  
106 from home, working for pay outside the home, or other working for pay situation) were associated  
107 with self-reported positive experiences during the COVID-19 pandemic. Multivariable linear  
108 regression was also applied to determine whether the aforementioned variables were associated  
109 with participants’ WHO-5 score (scored 0-100), with scores of  $\leq 28$  representing very low wellbeing,  
110  $\leq 50$  low wellbeing,  $> 50$  high wellbeing.

## 111 **Content Analysis**

112 Free-text responses were analysed using content analysis (23), a widely used analysis method which  
113 combines qualitative and quantitative methods to analyse text data, allowing the content and  
114 frequency of categories to be reported. One member of the research team (SC) first read through all  
115 the free-text responses and developed the initial coding framework. All members of the research  
116 team also reviewed the free-text responses and discussed the coding framework. A random  
117 selection (randomised in excel) of 200 responses (~20%) were double coded independently by two  
118 members of the research team (SC and RD). Level of agreement was tested using Cohen’s kappa (24)  
119 and indicated substantial agreement ( $\kappa=0.83$ ). Any discrepancies were discussed between SC and RD  
120 until consensus was reached. SC then coded the remaining 745 responses. The frequency of each  
121 code and main themes were then reported.

## 122 **Results**

### 123 **Descriptive statistics**

124 Demographic characteristics of the sample overall, and by their response to the question “In your  
125 life, have you experienced any positive effects from the COVID-19 pandemic” are provided in Table  
126 1. Of the 1370 individuals in the sample, 960 (70.1%) indicated that they had experienced at least  
127 one positive during the COVID-19 pandemic. Overall, 54.2% (n=743) of participants reported a  
128 sufficient level of wellbeing ( $>50/100$ ), while 23.2% (n=318) showed low wellbeing ( $\leq 50/100$ ) and a  
129 further 22.6% (n=309) showed very low wellbeing ( $\leq 28/100$ ).

130 **Table 1.** Demographic characteristics of the analysis sample (N=1370). Data are presented as n (%)  
131 unless otherwise indicated.

Variable	Overall N=1370 No, (%)	Experienced any positive effects from the COVID-19 pandemic	
		No, n=410 (%)	Yes, n=960 (%)
<b>Age group</b>			
18 to 29 years	348 (25.4)	100 (24.4)	248 (25.8)
30 to 39 years	234 (17.1)	68 (16.6)	166 (17.3)
40 to 49 years	217 (15.8)	50 (12.2)	167 (17.4)
50 to 59 years	243 (17.7)	61 (14.9)	182 (19.0)
60 to 69 years	245 (17.9)	97 (23.7)	148 (15.4)
70 years and over	83 (6.1)	34 (8.3)	49 (5.1)
<b>Gender</b>			
Male	434 (31.7)	158 (38.5)	276 (28.7)
Female	911 (66.5)	246 (60.0)	665 (69.3)
Other / prefer not to say	25 (1.8)	6 (1.5)	19 (2.0)
<b>Education</b>			

High school or less	198 (14.5)	64 (15.6)	134 (14.0)
Certificate I-IV	140 (10.2)	46 (11.2)	94 (9.8)
University	1032 (75.3)	300 (73.2)	732 (76.3)
<b>Household structure</b>			
Living alone	213 (15.5)	80 (19.5)	133 (13.9)
1 – 2 others	732 (53.4)	229 (55.9)	503 (52.4)
3 – 4 others	368 (26.9)	88 (21.5)	280 (29.2)
5 or more others	57 (4.2)	13 (3.2)	44 (4.6)
<b>Employment situation at beginning of pandemic</b>			
Working from home	373 (27.2)	68 (16.5)	305 (31.8)
Working outside the home	315 (23.0)	107 (26.0)	208 (21.7)
Not working for pay <sup>§</sup>	631 (46.1)	218 (53.0)	414 (43.1)
Other <sup>§</sup>	51 (3.7)	18 (4.4)	33 (3.4)
<b>WHO-5 Well-being index, mean (SD) [0-100]^</b>	51.43 (23.21)	46.34 (24.25)	53.58(22.42)

132 ^ A value of 0 represents the worst imaginable well-being, to 100 representing the best imaginable  
133 well-being. Scores of  $\leq 28$  represent very low wellbeing,  $\leq 50$  low wellbeing, and  $> 50$  sufficient  
134 wellbeing. The population norm score reported for a UK sample of 1304 adults aged over 18 years in  
135 the European Quality of Life Surveys 2016 =63 (25).

136 <sup>§</sup> Not working for pay included students and retirees. Other did not have a free text response and may  
137 have included hybrid working from home and outside the home or scholarships.

138 An independent samples t-test indicated that those who reported experiencing any positive effects  
139 from the COVID-19 pandemic also had higher wellbeing scores than those who did not report  
140 positive effects (mean difference [MD]: 7.25, 95% CI: 4.59, 9.91;  $t(1369)=5.35$ ,  $p<.001$ ; Cohen's  
141  $d=0.31$ )

#### 142 **Factors associated with a positive effect of the COVID-19 pandemic**

143 Adjusted odds ratios from logistic regression are displayed in Table 2. There was an overall effect of  
144 gender ( $p=.001$ ), where those identifying as female were more likely than males (aOR=1.62, 95%CI:  
145 1.25, 2.09,  $p<.001$ ) to report experiencing a positive effect of the pandemic. Individuals who lived in  
146 households with a greater number of people were more likely to experience positive effects  
147 ( $p=.045$ ). Compared to those living alone, individuals who reported living with 3 to 4 others  
148 (aOR=1.65, 95%CI: 1.11, 2.45,  $p=.012$ ) or 5 or more other people (aOR=2.08, 95%CI: 1.03, 4.20,  
149  $p=.043$ ) had greater odds of reporting a positive effect. Employment situation during the baseline  
150 survey (April) was also associated with the experience of positive effects ( $p<.001$ ); individuals who  
151 were not working for pay (aOR=0.45, 95%CI: 0.32, 0.63,  $p<.001$ ), or who were working for pay  
152 outside of the home (aOR=0.40, 95%CI: 0.28, 0.58,  $p<.001$ ) were less likely to experience positive  
153 effects in comparison to those who were working for pay from home. Age and education did not

154 appear to be associated with reporting positive effects of the COVID-19 pandemic when controlling  
 155 for other model factors including household numbers and employment.

156 **Table 2.** Results from multivariable logistic regression on the experience of positive effects from the  
 157 COVID-19 pandemic. Data are presented as adjusted odds ratios (95% confidence intervals).

Variable	Adjusted OR	95% CI	p-value
<b>Age group</b>			.14
18 to 29 years	Reference		
30 to 39 years	0.83	0.56, 1.23	
40 to 49 years	1.13	0.75, 1.72	
50 to 59 years	1.13	0.76, 1.66	
60 to 69 years	0.68	0.47, 1.00	
70 years and over	0.73	0.43, 1.25	
<b>Gender</b>			<.001
Male	Reference		
Female	1.62	1.25, 2.09	
Other / prefer not to say	1.90	0.73, 4.96	
<b>Education</b>			.99
High school or less	1.01	0.70, 1.44	
Certificate I-IV	0.98	0.66, 1.45	
University	Reference		
<b>Household structure</b>			.045
Living alone	Reference		
1 – 2 others	1.27	0.92, 1.77	
3 – 4 others	1.65	1.11, 2.45	
5 or more others	2.08	1.03, 4.20	
<b>Employment situation at beginning of pandemic</b>			<.001
Working from home	Reference		
Working outside the home	0.40	0.28, 0.58	
Not working for pay	0.45	0.32, 0.63	
Other	0.40	0.21, 0.76	

158

159 A multivariable linear regression on the WHO-5 well-being index, displayed in table 3, found that  
 160 participants who were older (50-60, 60-70 and 70+ years) had higher wellbeing than participants in  
 161 the 18-30 year group (all  $p < .001$ ). Males had slightly higher wellbeing than females (MD=3.06,  
 162 95%CI: 0.44, 5.67,  $p = .022$ ) and participants with certificate I-IV education (MD=-5.14, 95%CI: -9.14, -  
 163 1.13,  $p = .012$ ), but not those with high school certificate or less (MD=0.72, 95%CI: -2.92, 4.36,  $p = .70$ ),  
 164 had lower wellbeing than those who were university educated. Participants who lived alone were  
 165 found to have lower wellbeing compared to those who lived with 1-2 (MD=4.05, 95% CI: 0.59, 7.50,  
 166  $p = .022$ ), or 3-4 others (MD=7.14, 95%CI: 3.17, 11.11,  $p < .001$ ). Employment situation was not  
 167 associated with wellbeing ( $p = .33$ ).



168 **Table 3.** Results from multivariable linear regression on WHO-5 well-being index. Data are presented  
 169 as marginal mean differences (95% confidence intervals) compared to the indicated reference group.

	Mean difference	95% CI	p-value
<b>Age group</b>			<.001
18 to 29 years	Reference		
30 to 39 years	-0.23	-4.12, 3.67	
40 to 49 years	2.11	-1.86, 6.09	
50 to 59 years	8.14	4.34, 11.94	
60 to 69 years	14.47	10.51, 18.42	
70 years and over	17.69	12.00, 23.38	
<b>Gender</b>			.019
Male	Reference		
Female	-3.06	-5.67, -0.44	
Other / prefer not to say	-9.60	-18.75, -0.44	
<b>Education</b>			.03
High school or less	0.72	-2.93, 4.36	
Certificate I-IV	-5.14	-9.14, -1.13	
University	Reference		
<b>Household structure</b>			.006
Living alone	Reference		
1 – 2 others	4.05	0.59, 7.50	
3 – 4 others	7.14	3.17, 11.11	
5 or more others	3.69	-3.00, 10.39	
<b>Employment situation at beginning of pandemic</b>			.33
Working from home	Reference		
Working outside the home	-0.86	-3.99, 2.28	
Not working for pay	-0.04	-3.46, 3.38	
Other	5.28	-1.32, 11.87	

170

171 **Content analysis results**

172 Of the 960 participants reporting a positive experience, 945 (98%) provided a written response  
173 detailing their positive experiences. 18 themes (plus an 'other' category) captured these responses  
174 (Table 4).

175 The three most commonly reported positive impacts identified were;

176 1) 'Family Time' (33%), with participants describing positive effects of being able to have more time  
177 with their immediate family and a feeling of greater appreciation for their family members and  
178 improvements in their family relationships. Responses to this theme included; *"...allowed my family*  
179 *to get closer together..."* and *"Appreciate close family contact via internet and the company the*  
180 *family I live with provide"*.

181 2) 'Work Flexibility' (29%) with participants discussing an appreciation of increased work flexibility  
182 with no commute involved, feeling more productive when they do work and a feeling of being more  
183 autonomous and in control of their day. Quotes such as *"No commute time. Usually takes me an*  
184 *hour door to door. It's been great reclaiming 2 hours per day. It's a shame my boss wants us to go*  
185 *back to the office now..."* and *"Working from home, avoiding commuting and the stresses that can*  
186 *pose in your life, has been a definite positive during COVID-19 isolation and I sincerely hope to strike*  
187 *a balance between office attendance and telecommuting post-COVID. We've definitely shown it's do-*  
188 *able."* Highlighted the connection between working from home and a feeling of empowerment over  
189 one's time.

190 3) 'Calmer Life' (19%) with participants highlighting the stillness of the world around them and  
191 showing an appreciation for a less frantic daily life. Quotes to this effect included; *"calm shopping*  
192 *centres, no traffic noises, less trucks, less people parking on street, less places to rush, less crowds"*  
193 and *"Everything has been quieter and calmer. Little traffic on roads, shops not as busy. As an*  
194 *introvert, no pressure to join in outings to clubs etc"*.

195 Other major themes in which over 10% of participants identified positive effects included; 4) Taking  
196 up a new hobby/ increase in leisure activity/ time outdoors; 5) Financial benefit/ saving money and  
197 6) Improved selfcare/ exercise/ home cooking.

198

199 Themes were often interconnected, with many participants identifying positives that covered  
200 several themes. Quotes such as this demonstrate connections between the top themes; *"I am able*  
201 *to work from home full time - that's 2 hours a day that I'm not wasting commuting. I am loving this. I*  
202 *was able to cycle a lot more when the streets were empty. This was an incredibly positive experience*

203 *for me. As a woman who is a relatively slow cyclist I am terrified of sharing the road with selfish and*  
 204 *angry drivers in huge cars. Therefore it was absolutely freeing and empowering to be able to cycle*  
 205 *anywhere and any time and not fear for my life. I have been able to spend more time with my child*  
 206 *and be more involved in her education. I have not felt the obligation to catch up with people and my*  
 207 *time has been my own. This has been the calmest most productive time of my life by far.”*

208

209 **Table 4.** Themes identified in free-text responses to question ‘In your life, have you experienced any  
 210 positive effects from the COVID-19 pandemic’ with example response.

Theme	N responses (%)	Example Free Text Response
Family Time	310 (33)	<p>“A slowdown in life. More time to be together as a family.”</p> <p>“Time spent connecting with the family more while working and schooling from home.”</p>
Work Flexibility	274 (29)	<p>“Have gotten into a regular exercise regime - started a six week challenge with a fitness app and have had more time to workout due to less commute time”</p> <p>“Having to work from home has allowed greater contact with family and pets”</p>
Calmer Life	181 (19)	<p>“A less busy and stressed life, less running around, more time with my daughter”</p>
New hobbies and increased leisure time	111 (12)	<p>“I have been exercising more regularly and have had more leisure time, which I have used for activities like reading. I have also enjoyed feeling the world be a bit quieter (e.g. less traffic).”</p>
Financial Benefit	92 (10)	<p>“Having saved some extra money due to not spending on both standard expenses and miscellaneous items.”</p>
Improved Selfcare	91 (10)	<p>“Being surprisingly much more active as it's easier to exercise now without having to make time to travel to and from the gym (even if there is less equipment to use). A bit of excitement coming from having a different lifestyle that everyone else is experiencing as well. It felt like an interesting break from the same day-to-day experiences of before.”</p>
Mental health improvement	86 (9)	<p>“Having time to focus on my mental health, making new friends online via animal crossing.”</p> <p>“Increased my mental health therapy and have had positive</p>

		impacts from that”
Greater connection with others	75 (8)	“Built stronger connections with friends. Made an effort to slow down and concentrate on what matters. I walk so much more and have seen so much of my suburb and its surrounds. I think we’ve rediscovered a sense of community again too...it started with the bushfires and has been strengthened by covid”
Online resources and events	69 (7)	“Catching up, via zoom every week with relatives in NZ that I normally only speak to on birthdays and Christmas.”
Friend Time	56 (6)	“Big increase in connecting with friends and family overseas via Zoom. Most family is in the UK and I have friends all over the world. I've spent more time in my garden growing food and getting to know the wildlife. I've walked more in the neighbourhood and discovered a lovely local bushwalk.”
Gained Perspective	47 (5)	“Family time, refreshed perspective on life and priorities, no commuting, no seasonal colds due to social distancing, exercise, enjoying cleaner environment W/less pollution”
More work or income	24 (3)	“More work, husband’s business more busy, more family time.”
Jobkeeper/jobseeker payments/early pension release*	30 (3)	“My fortnightly income from my cleaning job has been boosted by a factor of 10 thanks to JobKeeper (tripled once you add in loss of Newstart). As an introvert it's been a joy not being torn in 100 different directions by social obligations”
Perceived Environmental Benefits	24 (3)	“Having space to slow down. Less people around. Social distancing. Clean air, no smog. The clearness of the night sky.”
Less illness/ increased hygiene	23 (2)	“General greater community awareness of stricter hygiene practices, and recognition of front-line workers within the health sector as well as commercial and municipal workers.”
General Appreciation	16 (2)	“It has made me pause to appreciate things more. It has also made me reflect on the incredibly important nature of the work that I do.”
Telehealth	14 (1)	“Better able to manage chronic illness as now everyone is OK with working from home! And, my access to everything has improved - services online, telehealth, lessons, etc. All online! :)”
Services at home/	6 (1)	“...Move to online provision of some services has been

online services		fantastic for rural communities better able to access medical services but also things like drama classes remotely opened up opportunities for those in rural areas...”
Other/cannot code	55 (6)	“Better organisation of business” “Cheaper fuel”

211

## 212 Discussion

213 These findings illustrate that a large proportion of the Australians included in our survey found some  
214 positive experiences to take away from the first four months of the COVID-19 pandemic. Of note, a  
215 large percentage of participants in this survey found it positive having the opportunity to spend  
216 more time with family, appreciated being able to work from home or have more flexibility in their  
217 working arrangements, and many described enjoying a less busy lifestyle. However, not all groups  
218 were equally likely to experience these positive effects. Those whom were unemployed during our  
219 April survey or whom were working for pay outside of the home were less likely to experience  
220 positive effects. Those who lived alone were also less likely to experience positives. These groups  
221 may need more support for future pandemic restrictions.

222 It is notable that the predominant theme that was found in the participants’ comments was being  
223 able to spend more time with family. Although we acknowledge that many people may have been  
224 separated from their families during this time, this sample reported that the lockdown period  
225 provided many families a chance to be together and prioritise those relationships. This finding is in  
226 keeping with previous research into crises demonstrating that family and community connection is  
227 able to attenuate the detrimental impacts of disaster and promote resilience amongst community  
228 members (26,27). Furthermore, other research conducted during the pandemic has found a similar  
229 effect on increased connection and bonding for families (28). It also indicates a need for greater  
230 support for those living alone or away from close family members.

231 Working from home and workplace flexibility were highly prevalent in the responses from this  
232 sample. The pandemic gave many people who traditionally worked regular hours in an office  
233 environment a chance to experience a greater amount of freedom, flexibility and autonomy over  
234 their work lives. People have been able to save time and money from not commuting, which they  
235 have been able to use in other ways. Many people reported feeling more productive and happier  
236 with working from home and hoped that it would continue post-pandemic. Previous research has  
237 shown that people who have a shorter or no commute tend to be happier than those with a longer  
238 commute (29). The pandemic facilitated more people being able to experience a no-commute

239 lifestyle and the benefits this can bring. These changes could be retained after the pandemic  
240 response.

241 Other positives included enjoying a quieter and less busy life. This theme often tied in directly to  
242 increased work flexibility and seeing family more. The initial stages of the pandemic in Australia  
243 included stay at home orders which varied across states. These periods of time acted as enforced  
244 ‘downtime’ for many people whom did not have to leave home to work (28).

245 It may seem counterintuitive that a wide range of positives were found by surveyed participants  
246 during the pandemic, with a large proportion of participants in this study attesting to the ability to  
247 spend more time with family and friends, feeling a greater connection to community and enjoying  
248 more flexible working practices. However, when considering human adaptation to past crises  
249 (30,31), these results are not surprising. Throughout human evolution, people survived and thrived  
250 in small groups which were intimate and deeply social (32). Cooperation and reciprocity were key  
251 elements to the function of the group. Crises such as the pandemic seem to foster community  
252 connection and therefore help to attenuate the negatives of the event (33).

253 Our survey revealed that people living in single person households were significantly less likely to  
254 experience positive effects from the changes to life in the early stages of the pandemic. This finding  
255 is important and adds weight to the use of ‘social bubbles’ (designated social and physical  
256 interaction between members of different households) to maintain psychological wellbeing for  
257 people living alone during the pandemic (34,35).

258 Although a large proportion of participants in this survey found positives, it is crucial to acknowledge  
259 that it is possible to acknowledge positives in a crisis but not necessarily find the overall experience a  
260 positive one. Furthermore, many of the reported positives were time-specific and may not have  
261 remained as restrictions changed over the course of the pandemic when people returned to the  
262 office to work or when they became busy in other areas of their lives again. Furthermore, this  
263 research did not include participants from Melbourne post the implementation of the second  
264 Victorian lockdown, as this survey was completed in July 2020 before Melbourne re-entered into  
265 strict restrictions.

266 It seems apparent from the results of this study, and in keeping with previous research, that a core  
267 tenet of surviving and even thriving through crises is having strong connections with others which  
268 facilitates resilience and the ability to find positives or “cheerfulness in the face of adversity” (36).  
269 We also need to be aware of groups that cannot respond in such a way, and ensure they receive  
270 additional support during future pandemic restrictions.

271 **Strengths and limitations**

272 This study is novel in its use of both qualitative and quantitative methods to determine if any  
273 positive outcomes are to be found in the experiences of a large sample of Australians during the  
274 COVID-19 pandemic. The study is limited by its sample which is not nationally representative nor  
275 culturally and linguistically diverse. Future research should aim to include a broader representation  
276 of experiences of the pandemic most notably those from diverse backgrounds and cultural groups.

277 **Conclusion**

278 A large proportion of Australians in our survey reported experiencing positive effects because of  
279 changes to daily life due to the COVID-19 pandemic in Australia. However, the needs of people living  
280 alone or having to work outside the home should be considered by health policy makers and  
281 employers in the post-pandemic world as these groups were least likely to experience positive  
282 effects. We are lucky to live in a country that has handled the COVID-19 pandemic well overall, not  
283 forgetting the extra challenges faced by Victorians and those already experiencing socioeconomic  
284 disadvantage or loneliness. By identifying positive experiences that helped people cope with COVID-  
285 19 restrictions, we can manage future pandemic responses in ways that promote community  
286 resilience. It is important to provide extra support to groups that couldn't access the benefits of  
287 changes to daily life and consider whether we should keep some changes post-pandemic. This might  
288 include flexible working and a greater emphasis on local community engagement to promote social  
289 connections.

290 **Footnotes:** \*The Australian government enacted financial policies including 'Jobkeeper' (37) and  
291 'jobseeker' (38) to support people unemployed during the COVID-19 pandemic and also allowed  
292 early access to superannuation (39) (pension) money for individuals whom met certain criteria.

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295 all authors contributed to the framework. SC, RD and EC contributed to the analysis. SC drafted the  
296 manuscript and RD, BN, EC, CB, KM, JA and TC reviewed and edited the manuscript. All authors have  
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