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Title: From the pandemic to the pan: The impact of COVID19 on parental inclusion of children in cooking activities – a cross-continental survey

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Shortened Title: COVID Cooking: Parents and children

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**Ethical Standards Disclosure:** This study was conducted according to the guidelines laid down in the Declaration of Helsinki and all procedures involving research study participants were approved by the Faculty of Medicine, Health and Life Sciences Research Ethics Committee at Queen’s University Belfast (Reference Number: MHLS20_54). All potential participants were informed that by clicking forward to take part in the survey, they were giving consent for their data to be used.
Abstract

Objective: This study aimed to investigate the impact of COVID-19 on time spent cooking and parental inclusion of children in cooking. A secondary aim was to investigate differences between those who frequently included their children in cooking activities during the COVID-19 pandemic and those that included their children less, on a number of factors such as working from home, parents’ diet quality and cooking skills confidence.

Design: Cross-continental survey with Wilcoxon signed ranks, Independent t-tests, Mann Whitney-U, Chi2, and a binomial logistic regression used for assessment.

Setting: Online

Participants: A convenience sample of parents over 18 years from the island of Ireland (N=180), Great Britain (N=312), United States of America (N=120), New Zealand (N=166)

Results: In three regions, parents’ time spent cooking and inclusion of children in everyday cooking activities increased \((p<0.001)\). Country (OR=3.6, 95% CI=1.7–7.6), education (OR=1.6, 95% CI =1.1–2.4), cooking skills confidence (OR=1.02, 95% CI=1.009-1.032) and a parental higher intake of vegetables (OR=1.3, 95% CI=1.1-1.5) were significant predictors of a more frequent inclusion of children in cooking activities.

Conclusions: While there a number of key benefits to including children in cooking for the children such as providing life skills and increases in diet quality, this study highlighted a higher intake of vegetables by parents who included children more frequently in cooking activities. With continued lockdowns due to COVID-19 and perhaps more flexibility in working from home in the future, including children in cooking activities should be a key public health message for both children and parents.

Keywords: COVID-19, cooking, parents, children, diet quality, cross-sectional survey, cross-continental, working from home
1.0 Introduction

Children’s physical and mental wellbeing can be severely impacted by childhood obesity\textsuperscript{(1,2)}. Part of the rise in childhood obesity has been attributed to children’s dietary behaviours\textsuperscript{(2)}. Consumption of home-cooked meals has been associated with a normal BMI and body fat percentage\textsuperscript{(3)}, however, with the reported decline in home cooking, nutrition education programmes including cooking interventions are being recommended as preventative strategies\textsuperscript{(4-6)}. Furthermore, cooking skills (CS) confidence has been associated with positive dietary patterns in adults\textsuperscript{(7)} and learning cooking skills at younger ages have been associated with positive dietary outcomes\textsuperscript{(8)}. While parents are supportive of children learning these CS and report learning their CS at younger ages\textsuperscript{(9,10)}, time and fear have been emphasised as barriers to including children in cooking\textsuperscript{(10)}.

The global COVID-19 pandemic has caused dramatic shifts in societal norms through movement restrictions and social distancing measures\textsuperscript{(11)}, including moving to a ‘working from home’ (WFH) model\textsuperscript{(12)}. Cooking and baking have been used to pass extra/leisure time in the home and to demonstrate skills on social media\textsuperscript{(13)}. However, whether the additional time and WFH have been sufficient to overcome the barriers to including children in cooking activities is unknown. During the initial spread of COVID-19, differences in resources, law, cultures and epidemic phases, meant that countries took different approaches to curtailling the spread of the virus\textsuperscript{(14)}. These differences of approaches may have impacted time allowances and inclusion of children in the kitchen. Therefore, this study aimed to investigate the impact of COVID-19 on time spent cooking and parental inclusion of children in cooking and baking. A secondary aim was to investigate differences between those parents who included their children more frequently or less frequently in cooking activities during COVID-19 on factors such as WFH, diet quality and CS confidence.

2.0 Methods

The participants from this study form part of a wider sample from a larger COVID-19 study on food practices\textsuperscript{(15)}. Those participants that responded to questions relating to the inclusion of children in cooking and baking activities are included in the current study. Briefly, a cross-sectional online survey was conducted from May-June 2020, with a convenience sample of adults (inclusion criteria – greater than 18 years) from three continents. Due to the restrictions of COVID-19, multiple recruitment strategies were used such as social media, researcher networks and panel participants from a market research agency operating in all regions.
(Dynata). Participants for this study, known as ‘parents’ from here, were recruited from the island of Ireland, Great Britain, New Zealand, and the USA. The parent characteristics are presented in Table 1.

Procedure

This research is reported in line with the STROBE Statement\(^{16}\). SurveyMonkey was used for the administration of the survey. Parents were screened for eligibility, following information on the survey and consent. Sociodemographic information such as age, gender, and education level (split into above and below university for analysis) were obtained. The survey took approximately 15 minutes to complete.

Survey Measures

Cooking related variables

Parents were asked how often they ‘include your child in ‘everyday’ meal preparation (such as making lunches or making dinner,’ and ‘include your child in any other cooking/baking activities,’ both before and during the COVID-19 pandemic, with responses ranging from ‘Everyday’ to ‘Never’ on a 6-point scale. Responses were reverse coded so that a higher score indicated a higher frequency. Additionally, parents were asked how long they spend preparing and cooking the main meal, both midweek and at the weekend in minutes\(^8\) both before and during the pandemic. CS confidence was assessed using the validated 14-item measure\(^{18}\), where parents rated how good they were at the 14-items on a scale of 1 to 7, with an additional option of ticking ‘Never/Rarely do it.’ The items are then summed to give an overall CS confidence score. Parents were asked at what stage of their life they learnt most of their CS\(^8\) - as a child, as a teenager, or as an adult. For analysis, the child and teenager responses were combined.

Diet quality and Health indicators

Fruit and Vegetable intake were adapted from the DINE measure\(^{18}\), where parents were asked ‘About how many servings or portions per day DID you eat of the following foods? (One serving could be, an apple a banana or a handful of chopped carrots or a bowl of green salad)’ and responded for ‘Vegetables (fresh/frozen/canned, excluding juice),’ and ‘Fruit (fresh/frozen/canned/ dried, excluding juice).’ Parents also provided their height and weight and BMI was calculated.
WFH status

Parents were also asked, ‘are you currently working from home?’; categorised ‘yes’ or ‘no’ for the analysis.

Data Analysis

Data was analysed using IBM SPSS v25. Descriptive statistics (Mean, SD, percentages) were used for demographic data. Intra-region differences were assessed using Wilcoxon signed ranks tests. To assess the differences between those who included their children in cooking activities more frequently than those who did less frequently during the pandemic (here in known as high includers and low includers respectively), a median split was used. Independent t-tests with 95% confidence intervals and Mann Whitney-U tests were used to assess the differences between low and high includers for age, CS confidence, BMI, fruit intake and vegetable intake. Chi2 tests, or Fishers exact test where assumptions were violated\(^1\) were used to examine relationships between low and high includers and education, gender, and age when the parents learnt their skills and WFH status. A binomial logistic regression was used to examine the predictors of low/high includers. Odds ratios were adjusted for all other variables in the model. A significance level of 0.05 was used.

3.0 Results

3.1. Within region differences

IOI, GB and NZ had significant increases in time spent cooking both midweek and at the weekend (p<0.001), whereas no change was seen in the USA sample, Table 2. Additionally, significant increases were seen in IOI, GB, and NZ in including their children in everyday cooking and baking activities (p<0.001). Again, this change was not seen in the USA.

3.2. Differences between low and high frequency individuals who included their children in everyday cooking activities during the pandemic

An overview of the statistical differences of low and high frequency includers can be seen in Table 3. A brief description of the results follows.

3.2.1. Sociodemographic variables

There was no significant difference in age between low and high includers in IOI and NZ. However, in GB (p=0.005) and the USA (p=0.010), high includers were significantly younger than low includers. Three regions found a significant relationship between education
and inclusion of children in cooking tasks: IOI ($p=0.012$); GB ($p=0.006$); and the USA ($p=0.038$). No relation was seen in NZ. No significant relationship between gender and inclusion of children in cooking was found in any region. Significant relationships between WFH status and inclusion of children in cooking activities were found in IOI ($p=0.030$) and GB ($p=0.017$).

3.2.2. Cooking related variables

In three of the regions, high includers had significantly greater CS confidence than low includers; GB ($p=0.004$), USA ($p=0.011$), NZ ($p=0.001$). This difference was not found in IOI. No significant relations for age of learning CS were found in any region, however, a trend was seen in the USA ($p=0.050$).

3.2.3. Diet Quality and Health Indicators

High includers in both IOI ($p=0.007$) and NZ ($p=0.040$) had a significantly greater intake of fruit during the pandemic than the low includers. No significant differences were seen in GB or the USA. Additionally, in three of the regions, high includers had a significantly higher intake of vegetables than the low includers during the pandemic; IOI ($p=0.008$), GB ($p=0.001$), and the USA ($p=0.002$). No difference was seen in NZ. In all four regions, no differences were seen in BMI between low and high includers.

3.3. Significant predictors of including children in cooking during the pandemic

The binomial logistic regression ($\chi^2 (11, n=516) =83.12, p<0.001$, Cox and Snell R Square .149, Nagelkerke R Squared .201) revealed that country was the strongest predictor of including children in cooking. Those on the island of Ireland were 3.6 times more likely to be high includers compared to the USA (OR =3.6, 95% CI =1.7–7.6). Parent’s level of education was also a strong predictor. Those with a higher level of education were 1.6 times more likely to be high includers (OR =1.6, 95% CI =1.1–2.4). Those with higher cooking skills confidence (OR =1.02, 95% CI =1.009-1.032) and a higher intake of vegetables during the pandemic (OR =1.3, 95% CI =1.1-1.5) were also significantly more likely to be high includers. Females (OR =0.6, 95% CI =0.4-0.9) and older individuals (OR =0.97, 95% CI =0.95-0.99) were significantly less likely to be higher includers. Results not shown (available upon request).

4.0 Discussion
COVID-19 has caused unprecedented societal changes, including a shift to WFH. Anecdotally, there were reports of and encouragement to include children in cooking activities for entertainment and education\(^\text{(20)}\), however, there is no published confirmation of changes in these behaviours. Previously, parents have been reluctant to include their children in kitchen activities due to fear and lack of time\(^\text{(9,10)}\). This research has shown that there were increases in the inclusion of children in both everyday cooking and baking activities in three regions. This change was not seen in the USA sample, and may be due to differing movement restrictions implemented in the USA\(^\text{(14)}\), i.e. less restrictions and therefore spent less time in the home, thus practices changed less\(^\text{(15)}\). Additionally, a relationship between working from home and including children in cooking was seen in two regions. Undoubtedly, parents have been under increased pressure with caring, work and education responsibilities\(^\text{(21)}\). While they may spend additional time cooking, including children in the process provides an opportunity for learning invaluable life skills that may have positive impacts on their diet quality and track into adulthood\(^\text{(8,22)}\). Furthermore, including children in the cooking process increases willingness to eat vegetables\(^\text{(23)}\) and food in general\(^\text{(24)}\), a key strategy for nutrition and waste reduction in times of increasing food insecurity\(^\text{(25)}\).

This study also investigated predictors for inclusion and differences between those that included their children in cooking more frequently than those who did less frequently during COVID-19. In two regions, age was associated with frequency of including children in cooking and older individuals were less likely to be high includers in the regression. Previously, older adults were shown to have higher CS confidence\(^\text{(7)}\). Here, high includers were shown to have a greater CS confidence. Furthermore, a relationship between education and frequency of including children in cooking activities was found, in line with education being associated with CS confidence\(^\text{(7)}\). Higher parental cooking confidence has additionally been associated with reductions in consumption of ultra-processed foods by children\(^\text{(26)}\). Therefore, increasing parents’ cooking confidence and reducing their fears of including children in cooking activities may be an area for future focus through parent-child cooking interventions or online cook-along videos during the pandemic, as video technology may help in promoting confidence\(^\text{(27)}\). Additionally, promotion of evidence-based guidance for specific age-appropriate CS, may help reduce parental anxiety around their child’s capabilities in the kitchen\(^\text{(28)}\).

Finally, a key finding in this study is that including children in cooking activities was associated with better parental diet quality, greater intakes of fruit in two regions, and greater
intake of vegetables in three regions than low includers. Additionally, a higher intake of vegetables was a significant predictor of higher inclusion. This could suggest that those with a better diet quality include their children more frequently or including children may increase parents’ diet quality. The latter may be due to parents trying to be positive role models for their children in their preparation and consumption behaviours\(^{(29)}\) or it may be the parents trying to choose healthier options or recipes with extra vegetables to expose their children to while including them in cooking.

4.1 Strengths and limitations

Strengths of this research include the cross-continental sampling to gather global perspectives and the use of validated measures where possible to increase comparability and repeatability. The efficient completion of the study in a relatively short timeframe provides a unique ‘snapshot’ of behaviour during a historic global event. However, as with all cross-sectional research, causality cannot be established and some selection bias may have occurred e.g. a greater number of IOI sample were recruited using social media which may have contributed towards the greater number of females. The use of a convenience sample may affect generalisability of the results, however, the use of multiple countries and a range of participants (wide age ranges, both male and female – cooking research tends to focus on the mother), may help to reduce this affect. Future research using a greater number of participants across each country would allow for multivariate analyses for each country.

5.0 Conclusions

This study has confirmed previous anecdotal evidence of increases in including children in cooking activities during the COVID-19 pandemic. Cooking skills confidence was associated with a higher frequency of including children in cooking activities. Additionally, while there are several benefits associated with the inclusion of children in cooking, such as providing life skills and increases in diet quality, a higher intake of vegetables by parents who included children more frequently in cooking activities was seen. With continued lockdowns due to COVID-19 and perhaps future increased flexibility in working from home, including children in cooking activities should be a key public health message for both children and parents.
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Table 1: Basic Parental Demographics across the different regions

| Country/Region | Characteristic | IOI | GB | USA | New Zealand |
|----------------|---------------|-----|----|-----|-------------|
|                | Mean | SD  | Mean | SD  | Mean | SD  | Mean | SD |
| **Total (N)**  | 180  | 312 | 120 | 166 |
| Age            | 40.13 | 9.07 | 43.02 | 12.12 | 39.78 | 16.14 | 40.45 | 12.00 |
| BMI            | 26.74 | 6.46 | 26.52 | 5.59 | 29.06 | 11.31 | 27.25 | 6.27 |
| Isolating      | 46.74 | 18.59 | 42.15 | 27.96 | 35.82 | 30.57 | 35.31 | 20.30 |
| Social Distancing | 50.14 | 14.53 | 49.66 | 25.27 | 39.18 | 31.05 | 42.32 | 25.35 |
|                | N    | %   | N   | %   | N   | %   | N    | % |
| **Gender**     |      |     |     |     |     |     |     |    |
| Male           | 16   | 8.9 | 153 | 49.0 | 53  | 44.2 | 79   | 47.6 |
| Female         | 164  | 91.1 | 158 | 50.6 | 66  | 55.0 | 87   | 52.4 |
| Other          | 0    | 0   | 1   | 0.4 | 1   | 0.8 | 0    | 0  |
| **Education**  |      |     |     |     |     |     |     |    |
| None           | 0    | 0   | 0   | 0   | 0   | 0   | 2    | 1.2 |
| Primary School | 1    | 0.6 | 5   | 1.6 | 1   | 0.8 | 5    | 3.0 |
| Secondary School | 20  | 11.1 | 67  | 21.5 | 24  | 20.0 | 26   | 15.7 |
| Additional Training | 41 | 22.8 | 71  | 22.8 | 17  | 14.2 | 28   | 16.9 |
| Undergraduate degree | 46 | 25.6 | 102 | 32.7 | 40  | 33.3 | 53   | 31.9 |
| Postgraduate degree | 72 | 40.0 | 67  | 21.5 | 38  | 31.7 | 52   | 31.3 |
| **Employment Status** |   |     |     |     |     |     |     |    |
| Full Time      | 98   | 54.4 | 189 | 60.6 | 68  | 56.7 | 104  | 62.7 |
| Furloughed or temporarily unemployed | 25 | 13.9 | 37  | 11.9 | 8   | 6.7  | 4    | 2.4 |
| Part time (less than 8 hours per week) | 2  | 1.1  | 8   | 2.6  | 12  | 10.0 | 7    | 4.2 |
| Part time (greater than 8 hours per week) | 36 | 20.0 | 31  | 9.9  | 10  | 8.3  | 23   | 13.9 |
| Retired        | 1    | 0.6 | 16  | 5.1 | 12  | 10.0 | 5    | 3.0 |
|                                    |  |  |  |  |  |  |  |  |
|------------------------------------|---|---|---|---|---|---|---|---|
| Long term sickness/disability      | 3 | 1.7 | 3 | 1.0 | 1 | 0.8 | 3 | 1.8 |
| Unemployed (either seeking or not seeking employment) | 15 | 8.3 | 28 | 9.0 | 9 | 7.5 | 20 | 12.0 |
| **Working From Home**              |   |   |   |   |   |   |   |   |
| All working hours                  | 79 | 43.9 | 137 | 43.9 | 55 | 45.8 | 38 | 22.9 |
| Some working hours                 | 20 | 11.1 | 36 | 11.5 | 16 | 13.3 | 36 | 21.7 |
| Not working from home              | 37 | 20.6 | 55 | 17.6 | 19 | 15.8 | 59 | 35.5 |
Table 2: Within country differences from before the COVID19 pandemic to during the pandemic on time spent cooking and the inclusion of children in the kitchen

|                      | IOI (N=180) | GB (N=312) | USA (N=120) | New Zealand (N=166) |
|----------------------|-------------|------------|-------------|---------------------|
|                      | Before      | During     | Significance | Before             | During             | Significance | Before | During     | Significance |
| Time spent cooking  | Mean (SD)   | Mean (SD)  | P           | Mean (SD)          | Mean (SD)          | P           | Mean (SD) | Mean (SD) | P           |
| - midweek            | 41.34 (25.69) | 51.24 (37.44) | <0.001 | 32.71 (29.47) | 39.18 (34.94) | <0.001 | 25.94 (31.78) | 27.82 (36.29) | 0.162 |
|                      |             |            |             |                    |                    |             | 34.84 (23.26) | 43.77 (32.59) | <0.001 |
| Time spent cooking  | Mean (SD)   | Mean (SD)  | P           | Mean (SD)          | Mean (SD)          | P           | Mean (SD) | Mean (SD) | P           |
| - weekend            | 60.83 (44.91) | 69.04 (48.20) | <0.001 | 42.34 (37.56) | 46.15 (39.65) | <0.001 | 29.25 (37.11) | 31.15 (39.73) | 0.068 |
|                      |             |            |             |                    |                    |             | 40.17 (29.12) | 48.25 (38.74) | <0.001 |
| Inclusion of children everyday meal preparation | Mean (SD)   | Mean (SD)  | P           | Mean (SD)          | Mean (SD)          | P           | Mean (SD) | Mean (SD) | P           |
|                      | 3.07 (1.58) | 4.07 (1.47) | <0.001 | 2.87 (1.52) | 3.31 (1.53) | <0.001 | 3.53 (1.60) | 3.53 (1.65) | 0.987 |
|                      |             |            |             |                    |                    |             | 3.37 (1.57) | 3.79 (1.57) | <0.001 |
| Inclusion of children in baking activities | Mean (SD)   | Mean (SD)  | P           | Mean (SD)          | Mean (SD)          | P           | Mean (SD) | Mean (SD) | P           |
|                      | 2.44 (1.15) | 3.38 (1.21) | <0.001 | 2.53 (1.28) | 2.97 (1.39) | <0.001 | 3.28 (1.65) | 3.38 (1.66) | 0.434 |
|                      |             |            |             |                    |                    |             | 2.87 (1.42) | 3.40 (1.44) | <0.001 |
Table 3: Differences between high and low includers of children in cooking activities during the pandemic

| Variable | IOI | GB | USA | NZ |
|----------|-----|----|-----|----|
|          | Low (SD)/Median | Hig (SD)/Median | t/U | 95% confidence intervals/Z | Low (SD)/Median | Hig (SD)/Median | t/U | 95% confidence intervals/Z | Low (SD)/Median | Hig (SD)/Median | t/U | 95% confidence intervals/Z | Low (SD)/Median | Hig (SD)/Median | t/U | 95% confidence intervals/Z |
| Age      | 40.00/0.0 | 39.00/0.0 | -0.248/0.04 | 45.00/0.0 | 41.00/0.0 | 9937/0.50 | -2.800/0.05 | 43.88/17.91 | 36.20/13.56 | 2.66/13.38 | 0.00/0.09 | 42.28/12.06 | 39.29/11.89 | 1.57/-6.77 | 0.19 |
| CS Conf. | 72.00/0.0 | 76.00/0.0 | -1.411/0.15 | 66.00/0.0 | 72.00/0.0 | 9891/0.50 | -2.857/0.04 | 64.09/17.23 | 72.89/19.73 | -1.54/2.59 | -15.54/-2.06 | 0.00/0.11 | 66.73/17.51 | 75.60/15.79 | -3.38/-3.68 | 0.01 |
| BMI      | 25.85/0.5 | 24.88/0.5 | -0.531/0.95 | 25.98/0.5 | 25.61/0.0 | 6192/0.50 | -0.043/0.96 | 25.66/0.5 | 25.95/0.0 | 430.50/0.79 | -0.281/2.79 | 0.79/2.00 | 24.91/1414/0.50 | -0.921/0.357 | 0.00 |
| Fruit Durin g | 2.00/0.0 | 2.00/0.0 | -2.681/0.07 | 2.00/0.0 | 2.00/0.0 | 8900/0.00 | -1.651/0.99 | 2.00/0.0 | 2.00/0.0 | 820.50/0.0 | -1.745/0.81 | 2.00/2.00 | 2.00/2.00 | 2171/0.50 | -2.057/0.040 |
| Veg During | 2.00 | 3.00 | 2070.00 | -2.633 | 0.008 | 2.00 | 3.00 | 8041.50 | -3.193 | 0.001 | 2.00 | 3.00 | 701.50 | -3.105 | 0.002 | 2.00 | 3.00 | 2337.50 | -1.626 | 0.104 |
|------------|------|------|---------|--------|-------|------|------|---------|--------|-------|------|------|---------|--------|-------|------|------|---------|--------|-------|
| N (%)      |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| N (%)      |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| χ²         |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| P          |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| χ²         |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| P          |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |

| Education  |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Below      |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| University | 24   | 38   | (38.7)  |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Univeristy | 25   | 93   | (78.8)  | 6,300  | 0.0   | 12   |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Gender     |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Male       | 6    | 10   | (37.5)  |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Female     | 43   | 121  | (26.2)  |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Age of Learn |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| Below      |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
| University | 25   | 93   | (78.8)  | 6,300  | 0.0   | 12   |      |         |        |       |      |      |         |        |       |      |      |         |        |       |
|        | ng CS |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |       |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Child  | 20 (25.0) | 60 (75.0) | 69 (47.6) | 76 (52.4) | 25 (38.5) | 40 (61.5) | 23 (31.9) | 49 (68.1) |       |     |     |     |     |     |
| or    |       |     |     |     |     |     |     |     |     |     |     |     |     |     |
| adoles| 29 (29.0) | 71 (71.0) | 0.359 | 0.5 | 88 (52.7) | 79 (47.3) | 0.810 | 0.3 | 68 (56.4) | 24 (43.6) | 3.836 | 0.0 | 50 (43.6) | 53 (56.4) | 2.345 |
| cent  |       |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Adult  | 24 (24.2) | 75 (75.8) | 4.684 | 0.0 | 75 (43.4) | 98 (56.6) | 5.703 | 0.0 | 17 (39.4) | 43 (60.6) | 0.044 | 0.8 | 33 (39.2) | 45 (60.8) | 0.050 |
|        |       |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Working from Home |       |     |     |     |     |     |     |     |     |     |     |     |     |     |
| No    | 16 (43.2) | 21 (56.8) | 34 (61.8) | 21 (38.2) | 8 (42.1) | 11 (57.9) | 22 (37.3) | 37 (62.7) |       |     |     |     |     |     |
| Yes   | 24 (24.2) | 75 (75.8) | 4.684 | 0.0 | 75 (43.4) | 98 (56.6) | 5.703 | 0.0 | 17 (39.4) | 43 (60.6) | 0.044 | 0.8 | 33 (39.2) | 45 (60.8) | 0.050 |
|       |       |     |     |     |     |     |     |     |     |     |     |     |     |     |