



Supplementary Materials

How Do Shifts in Patients with Mental Health Problems' Formal and Informal Care Utilization Affect Informal Caregivers?: A COVID-19 Case Study

Supplementary File: Detailed Results of Mediation Analyses

Dependent Variable: Change in Subjective Burden

Table S1. Model Coefficients for Mediation Analysis- Change in Subjective Burden.

| | | Total Effect | | M (Δ Informal Care Utilization) | | Y (Δ Subjective Burden) | |
|---|-------|---------------------------------|-------|---|-------|---------------------------------|--------|
| | | Y (Δ Subjective Burden) | | | | | |
| | | Coeff. | SE | Coeff. | SE | Coeff. | SE |
| <i>Antecedent</i> | | | | | | | |
| X (Δ Formal care utilization) | X1 | 0.423 | 0.322 | -1.953* | 0.887 | 0.367 | 0.326 |
| | X2 | 0.119 | 0.290 | 0.027 | 0.798 | 0.120 | 0.290 |
| M (Δ Informal care utilization) | | - | - | - | - | -0.028 | 0.025 |
| <i>Covariates</i> | | | | | | | |
| Overall COVID-19 related concerns | | | | | | | |
| | | 0.137 | 0.189 | -0.418 | 0.521 | 0.125 | 0.190 |
| Age | | | | | | | |
| | | 0.014 | 0.008 | -0.031 | 0.022 | 0.013 | 0.008 |
| Care recipient comorbidity status | | | | | | | |
| | | 0.078 | 0.254 | 1.254 | 0.698 | 0.113 | 0.255 |
| Child caregiving responsibility | | | | | | | |
| | | 0.232 | 0.277 | -0.892 | 0.763 | 0.207 | 0.278 |
| Gender | | | | | | | |
| | | 0.687** | 0.234 | -0.611 | 0.644 | 0.670** | 0.234 |
| Employment status | | | | | | | |
| | | 0.107 | 0.259 | -0.714 | 0.713 | 0.087 | 0.259 |
| Care recipient living situation | | | | | | | |
| | | -0.207 | 0.268 | 0.613 | 0.738 | -0.189 | 0.268 |
| Constant | i_1 | -1.160 | 0.634 | i_2 | 1.792 | i_3 | -1.109 |
| | | $R^2 = 0.0675$ | | $R^2 = 0.064$ | | $R^2 = 0.073$ | |
| | | $F(9, 204) = 1.641, p = 0.1056$ | | $F(9, 204) = 1.537, p = 0.137$ | | $F(10, 203) = 1.604, p = 0.108$ | |

Notes. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; coeff. coefficient; F F value; SE standard error.

Dependent Variable: Change in Happiness

Table S2. Model Coefficients for Mediation Analysis- Change in Happiness.

| | | Total Effect | | M (Δ Informal Care Utilization) | | Y (Δ Happiness) | | | |
|-----------------------------------|----|----------------------------|--------|---------------------------------|---------|-----------------------------|--------|--------|-------|
| | | Y (Δ Happiness) | | | | | | | |
| | | Coeff. | SE | Coeff. | SE | Coeff. | SE | | |
| Antecedent | | | | | | | | | |
| X (Δ Formal care utilization) | c | X1 | -0.227 | 0.286 | -1.953* | 0.887 | -0.292 | 0.288 | |
| | | X2 | -0.294 | 0.257 | 0.027 | 0.798 | -0.293 | 0.256 | |
| M (Δ Informal care utilization) | | - | - | - | - | b | -0.033 | 0.023 | |
| Covariates | | | | | | | | | |
| Overall COVID-19 related concerns | | -0.449** | 0.168 | -0.418 | 0.521 | -0.463** | 0.168 | | |
| Age | | 0.008 | 0.007 | -0.032 | 0.022 | 0.007 | 0.007 | | |
| Care recipient comorbidity status | | -0.121 | 0.225 | 1.254 | 0.698 | -0.079 | 0.226 | | |
| Child caregiving responsibility | | 0.626* | 0.246 | -0.892 | 0.763 | 0.600* | 0.246 | | |
| Gender | | -0.0840 | 0.208 | -0.611 | 0.644 | -0.104 | 0.207 | | |
| Employment status | | -0.137 | 0.230 | -0.714 | 0.713 | -0.161 | 0.230 | | |
| Care recipient living situation | | -0.321 | 0.238 | 0.613 | 0.738 | -0.300 | 0.237 | | |
| Constant | i1 | -0.100 | 0.562 | i2 | 1.792 | 1.744 | i3 | -0.040 | 0.562 |
| | | R²= 0.093 | | R²= 0.064 | | R²= 0.103 | | | |
| | | F(9, 204)= 2.324, p= 0.017 | | F(9, 204)= 1.537, p= 0.137 | | F(10, 203)= 2.323, p= 0.013 | | | |

Notes. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; coeff. coefficient; F F value; SE standard error.

Dependent Variable: Change in Psychological Wellbeing

Table S3. Model Coefficients for Mediation Analysis- Change in Psychological Wellbeing.

| | | Total Effect | | M (Δ Informal Care Utilization) | | Y (Δ Psychological Wellbeing) | |
|---|----------------------|---------------------------------------|-------|---|---------|---------------------------------------|---------|
| | | Y (Δ Psychological Wellbeing) | | | | | |
| | | Coeff. | SE | Coeff. | SE | Coeff. | SE |
| <i>Antecedent</i> | | | | | | | |
| X (Δ Formal care utilization) | X1 | -0.007 | 0.244 | <i>a</i> | -1.953* | <i>c'</i> | 0.019 |
| | X2 | -0.151 | 0.220 | | 0.027 | | 0.220 |
| M (Δ Informal care utilization) | | - | - | - | - | <i>b</i> | 0.013 |
| <i>Covariates</i> | | | | | | | |
| Overall COVID-19 related concerns | | -0.172 | 0.144 | | -0.418 | | -0.166 |
| Age | | -0.009 | 0.006 | | -0.031 | | -0.008 |
| Care recipient comorbidity status | | -0.197 | 0.192 | | 1.254 | | -0.213 |
| Child caregiving responsibility | | 0.100 | 0.210 | | -0.892 | | 0.112 |
| Gender | | -0.400* | 0.177 | | -0.611 | | -0.391* |
| Employment status | | -0.157 | 0.196 | | -0.714 | | -0.148 |
| Care recipient living situation | | -0.409* | 0.203 | | 0.613 | | -0.148* |
| Constant | <i>i₁</i> | 1.146* | 0.480 | <i>i₂</i> | 1.792 | <i>i₃</i> | 1.123* |
| | | R ² = 0.064 | | R ² = 0.064 | | R ² = 0.067 | |
| | | F(9, 204) = 1.558, p = 0.130 | | F(9, 204) = 1.537, p = 0.137 | | F(10, 203) = 1.445, p = 0.163 | |

Notes. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; coeff. coefficient; F F value; SE standard error.