**Supplementary Table 3: Performance of generalized estimating equation (GEE) model for each role and relationship strain variable**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Models for each role and relationship strain variable** | **Brier Score** | **Model calibration: Proportion of observed anxiety and/or depression, n (%) 95% CI, corresponding to each predicted probability risk score groups** | | | | | **Model GOF**  **(p-value)** | **Model**  **discrimination**  **(AUC)** |
| **<15%** | ≥**15-30%** | ≥**30-45%** | ≥**45-60%** | ≥**60** |
| Model 1: Time crunch | 0.13 | 182 (8.12)  7.06, 9.37 | 244 (21.67)  19.36, 24.17 | 164 (38.41)  33.90, 43.12 | 152 (50.84)  45.17, 56.48 | 208 (69.80)  64.34, 74.75 | 0.49 | 0.79  (0.77, 0.81) |
| Model 2: Financial crunch - about having enough money to do important things for family | 0.14 | 190 (8.80)  7.68, 10.07 | 282 (20.77)  18.69, 23.01 | 213 (37.57)  33.67, 41.63 | 131 (56.71)  50.23, 62.97 | 159 (63.86)  57.69, 69.60 | 0.38 | 0.77  (0.75, 0.78) |
| Model 3: Juggling family, work, or other responsibilities | 0.13 | 245 (9.24)  8.20, 10.41 | 261 (23.86)  21.42, 26.48 | 138 (38.55)  33.64, 43.70 | 194 (51.32)  46.28, 56.34 | 122 (66.67)  59.50, 73.13 | 0.57 | 0.78  (0.76, 0.80) |
| Model 4: Experience with intimate relationship in general | 0.13 | 182 (7.90)  6.87, 9.07 | 236 (22.20)  19.80, 24.80 | 185 (42.82)  38.23, 47.55 | 125 (46.47)  40.57, 52.46 | 218 (70.78)  65.44, 75.60 | 0.46 | 0.79  (0.78, 0.81) |
| Model 5: Social and/or emotional support received from partner | 0.14 | 228 (9.23)  8.15, 10.44 | 299 (25.43)  23.12, 28.11 | 177 (34.50)  30.51, 38.73 | 122 (46.04)  40.11, 52.08 | 161 (70.93)  64.67, 76.47 | 0.45 | 0.75  (0.73, 0.77) |
| Model 6: Practical support provided by partner | 0.14 | 226 (9.26)  8.17, 10.47 | 296 (24.36)  22.03, 26.86 | 177 (36.49)  32.32, 40.88 | 121 (46.54)  40.54, 52.64 | 180 (67.42)  61.55, 0.73 | 0.45 | 0.75  (0.73, 0.77) |
| Model 7: Degree of happiness in partner relationship: | 0.14 | 234 (9.71)  8.59, 10.95 | 281 (22.66)  20.41, 25.08 | 191 (39.30)  35.05, 43.72 | 122 (43.11)  37.45, 48.96 | 136 (68.00)  0.61, 0.74 | 0.34 | 0.75  (0.74, 0.77) |
| Model 8: Relationship tension with partner | 0.14 | 180 (8.62)  7.49, 9.91 | 301 (20.42)  18.44, 22.56 | 216 (35.53)  31.81, 39.42 | 105 (50.00)  43.26, 56.74 | 182 (69.47)  63.61, 74.75 | 0.41 | 0.76  (0.75, 0.78) |

AUC: Area under the receiver operating characteristic curve. GOF: goodness of fit (Hosmer-Lemeshow goodness-of-fit test). Brier score: an aggregate measure of disagreement between the observed outcome and a prediction—the average squared error difference.