Appendix

1. Full regression table

	suicide thoughts			
	(1)	(2)	(3)	(4)
gun	0.471*** (0.086)	0.476*** (0.086)	0.481*** (0.086)	0.485*** (0.087)
age		0.027 (0.024)	0.024 (0.024)	0.023 (0.024)
female		0.422*** (0.085)	0.393*** (0.085)	0.377*** (0.087)
black			−0.174 (0.126)	−0.046 (0.132)
hispanic			−0.063 (0.212)	−0.054 (0.215)
asian			0.476** (0.212)	0.493** (0.216)
american indian			0.226 (0.227)	0.152 (0.233)
other race			0.436 (0.278)	0.383 (0.283)
health			−0.191*** (0.041)	−0.166*** (0.043)
catholic				0.110 (0.156)
disciples of christ				−0.517** (0.226)
baptists				−0.368** (0.152)
lutheran				0.071 (0.202)
methodist				−0.319 (0.205)
jehovah's witness				0.316 (0.387)
jewish/orthodox				−0.342 (0.692)
muslim/islam				−2.298 (2.501)
religion: other				−0.052 (0.155)
intelligence				0.011 (0.040)
substance abuse				−0.263 (0.299)
psychological problems				1.018*** (0.111)
Constant	−2.434*** (0.066)	−3.039*** (0.367)	−2.462*** (0.390)	−2.552*** (0.428)
Observations	6,201	6,201	6,201	6,201

Note: *p<0.1; **p<0.05; ***p<0.01

2. Coefficient of interest - different matching methods

1. For completeness: columns 1 and 2 show the coefficient of interest for the unimputed and unmatched and for the imputed but still unmatched data respectively. Column 3 uses the "nearest" and column 4 the "subclass" method. Column 5 is just the same coefficient as for model 4 in the previous table. It is included for comparison.

2. Note: Since "subclass" and CBPS matching both use weights I used "quasibinomial" for the logistic regression instead of "binomial". The latter is used for those regressions that didn't include weights (unimputed and unmatched, imputed and unmatched, nearest neighbor matching).
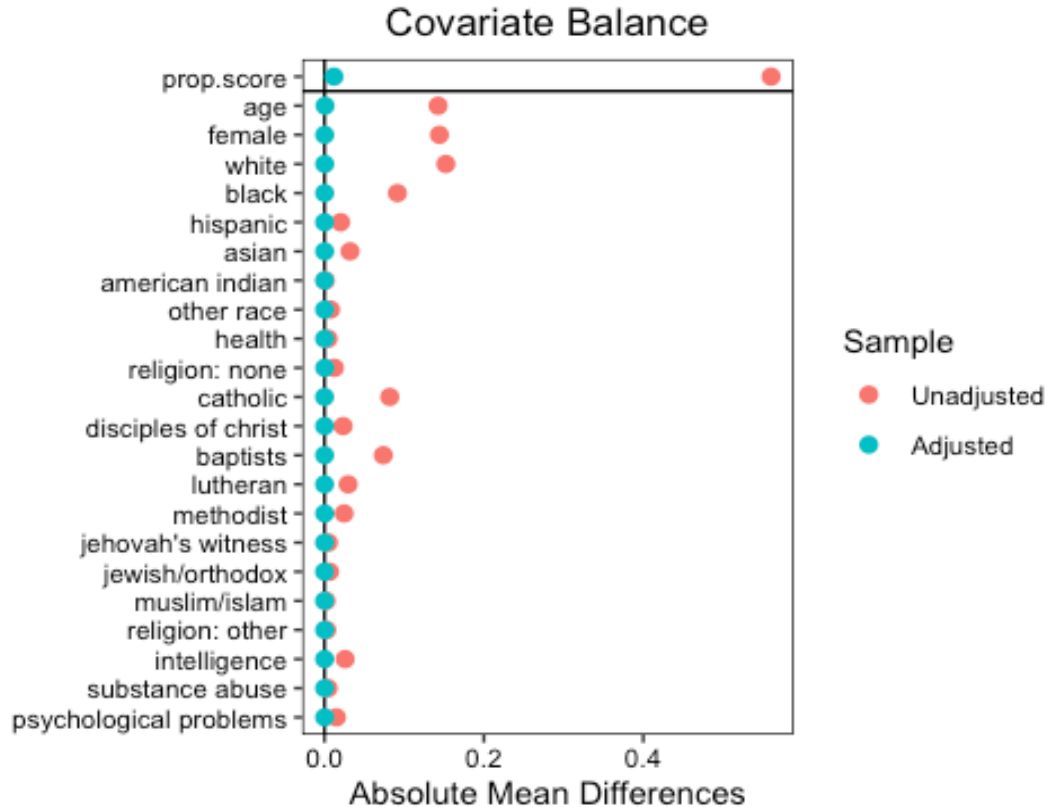
Table 4: Regression Results: coefficient for gun - different matching methods

	Outcome				
	logistic			*glm: quasibinomial link = logit*	
	(1)	(2)	(3)	(4)	(5)
gun	0.557***	0.523***	0.513***	0.523***	0.485***
	(0.119)	(0.100)	(0.145)	(0.100)	(0.087)

| *Note:* | | | | | *p<0.1; **p<0.05; ***p<0.01 |

3. Covariate Balance before/after matching with CBPS

Covariate Balance

4. ANOVA tables

Complete ANOVA table

	Resid. Df	Resid. Dev	Df	Deviance	Pr(>Chi)
1	6199	1.26			
2	6197	1.25	2	0.01	0.0000
3	6191	1.24	6	0.01	0.0000
4	6179	1.21	12	0.03	0.0000

ANOVA model 1 vs. 2

	Resid. Df	Resid. Dev	Df	Deviance	Pr(>Chi)
1	6199	1.26			
2	6197	1.25	2	0.01	0.0000

ANOVA model 2 vs. 3

	Resid. Df	Resid. Dev	Df	Deviance	Pr(>Chi)
1	6197	1.25			
2	6191	1.24	6	0.01	0.0000

ANOVA model 3 vs. 4

	Resid. Df	Resid. Dev	Df	Deviance	Pr(>Chi)
1	6191	1.24			
2	6179	1.21	12	0.03	0.0000

5. Full summary statistics

5a. Full summary statistics of all covarites - Original data

Covariate Balance - Original data

	0 (N=4875)	1 (N=1568)	Total (N=6443)
age			
N	3511	1193	4704
N-Miss	1364	375	1739
Mean (SD)	14.792 (1.740)	15.107 (1.672)	14.872 (1.728)
female			
N-Miss	1377	376	1753
0	1503 (43.0%)	715 (60.0%)	2218 (47.3%)
1	1995 (57.0%)	477 (40.0%)	2472 (52.7%)
race			
N-Miss	2016	520	2536
0	1687 (59.0%)	812 (77.5%)	2499 (64.0%)
1	847 (29.6%)	170 (16.2%)	1017 (26.0%)
2	123 (4.3%)	21 (2.0%)	144 (3.7%)
3	125 (4.4%)	15 (1.4%)	140 (3.6%)
4	35 (1.2%)	17 (1.6%)	52 (1.3%)
5	42 (1.5%)	13 (1.2%)	55 (1.4%)
health			
N	3362	1167	4529
N-Miss	1513	401	1914
Mean (SD)	2.920 (0.920)	2.884 (0.962)	2.911 (0.931)
religion			
N-Miss	100	15	115
0	579 (12.1%)	170 (10.9%)	749 (11.8%)
1	1182 (24.8%)	257 (16.5%)	1439 (22.7%)
2	453 (9.5%)	111 (7.1%)	564 (8.9%)
3	1104 (23.1%)	476 (30.7%)	1580 (25.0%)
4	142 (3.0%)	93 (6.0%)	235 (3.7%)
5	252 (5.3%)	118 (7.6%)	370 (5.8%)

6	64 (1.3%)	15 (1.0%)	79 (1.2%)
7	48 (1.0%)	6 (0.4%)	54 (0.9%)
8	21 (0.4%)	4 (0.3%)	25 (0.4%)
9	930 (19.5%)	303 (19.5%)	1233 (19.5%)
abuse			
N-Miss	3	0	3
0	4744 (97.4%)	1534 (97.8%)	6278 (97.5%)
1	128 (2.6%)	34 (2.2%)	162 (2.5%)
psychological problems			
N-Miss	7	0	7
0	4243 (87.2%)	1389 (88.6%)	5632 (87.5%)
1	625 (12.8%)	179 (11.4%)	804 (12.5%)

5b. Full summary statistics of all covarites - Imputed data

Covariate Balance - Imputed data

	0 (N=4699)	1 (N=1502)	Total (N=6201)
age			
N	4699	1502	6201
Mean (SD)	14.829 (1.851)	15.081 (1.778)	14.890 (1.837)
female			
0	2030 (43.2%)	872 (58.1%)	2902 (46.8%)
1	2669 (56.8%)	630 (41.9%)	3299 (53.2%)
race			
0	2639 (56.2%)	1083 (72.1%)	3722 (60.0%)
1	1190 (25.3%)	235 (15.6%)	1425 (23.0%)
2	301 (6.4%)	65 (4.3%)	366 (5.9%)
3	298 (6.3%)	45 (3.0%)	343 (5.5%)
4	147 (3.1%)	46 (3.1%)	193 (3.1%)
5	124 (2.6%)	28 (1.9%)	152 (2.5%)
health			
N	4699	1502	6201
Mean (SD)	2.872 (0.997)	2.883 (0.996)	2.875 (0.997)
religion			
0	554 (11.8%)	160 (10.7%)	714 (11.5%)
1	1164 (24.8%)	250 (16.6%)	1414 (22.8%)
2	449 (9.6%)	104 (6.9%)	553 (8.9%)
3	1090 (23.2%)	454 (30.2%)	1544 (24.9%)
4	147 (3.1%)	94 (6.3%)	241 (3.9%)
5	250 (5.3%)	120 (8.0%)	370 (6.0%)
6	68 (1.4%)	15 (1.0%)	83 (1.3%)
7	47 (1.0%)	6 (0.4%)	53 (0.9%)
8	22 (0.5%)	3 (0.2%)	25 (0.4%)
9	908 (19.3%)	296 (19.7%)	1204 (19.4%)

abuse			
0	4591 (97.7%)	1473 (98.1%)	6064 (97.8%)
1	108 (2.3%)	29 (1.9%)	137 (2.2%)
psychological problems			
0	4143 (88.2%)	1347 (89.7%)	5490 (88.5%)
1	556 (11.8%)	155 (10.3%)	711 (11.5%)

5c. Full summary statistics of all covarites - after CBPS matching & imputation

Covariate Balance on Matched Characteristics

	0 (N=1)	1 (N=1)	Total (N=2)
age	15.081 (1.841)	15.081 (1.778)	15.081 (1.810)
female			
- 0	1 (57.6%)	1 (58.1%)	1 (57.8%)
- 1	0 (42.4%)	0 (41.9%)	1 (42.2%)
race			
- 0	1 (71.5%)	1 (72.1%)	1 (71.8%)
- 1	0 (16.1%)	0 (15.6%)	0 (15.9%)
- 2	0 (4.4%)	0 (4.3%)	0 (4.3%)
- 3	0 (3.1%)	0 (3.0%)	0 (3.1%)
- 4	0 (3.1%)	0 (3.1%)	0 (3.1%)
- 5	0 (1.9%)	0 (1.9%)	0 (1.9%)
health	2.874 (0.991)	2.883 (0.996)	2.878 (0.993)
religion			
- 0	0 (10.6%)	0 (10.7%)	0 (10.6%)
- 1	0 (16.5%)	0 (16.6%)	0 (16.6%)
- 2	0 (7.2%)	0 (6.9%)	0 (7.1%)
- 3	0 (30.6%)	0 (30.2%)	1 (30.4%)
- 4	0 (6.1%)	0 (6.3%)	0 (6.2%)
- 5	0 (7.8%)	0 (8.0%)	0 (7.9%)
- 6	0 (1.0%)	0 (1.0%)	0 (1.0%)
- 7	0 (0.4%)	0 (0.4%)	0 (0.4%)
- 8	0 (0.3%)	0 (0.2%)	0 (0.2%)
- 9	0 (19.5%)	0 (19.7%)	0 (19.6%)
abuse			
- 0	1 (98.1%)	1 (98.1%)	2 (98.1%)
- 1	0 (1.9%)	0 (1.9%)	0 (1.9%)
psychological problems			
- 0	1 (89.5%)	1 (89.7%)	2 (89.6%)

- 1	0 (10.5%)	0 (10.3%)	0 (10.4%)

5d. Full summary statistics of all covarites - after "nearest" matching & imputation

Covariate Balance on Matched Characteristics

	0 (N=1168)	1 (N=1168)	Total (N=2336)
age	14.955 (1.748)	14.976 (1.756)	14.965 (1.752)
female			
- 0	610 (52.2%)	609 (52.1%)	1219 (52.2%)
- 1	558 (47.8%)	559 (47.9%)	1117 (47.8%)
race			
- 0	829 (71.0%)	811 (69.4%)	1640 (70.2%)
- 1	211 (18.1%)	210 (18.0%)	421 (18.0%)
- 2	49 (4.2%)	48 (4.1%)	97 (4.2%)
- 3	32 (2.7%)	40 (3.4%)	72 (3.1%)
- 4	30 (2.6%)	36 (3.1%)	66 (2.8%)
- 5	17 (1.5%)	23 (2.0%)	40 (1.7%)
health	2.929 (0.934)	2.921 (0.950)	2.925 (0.942)
religion			
- 0	140 (12.0%)	139 (11.9%)	279 (11.9%)
- 1	239 (20.5%)	222 (19.0%)	461 (19.7%)
- 2	99 (8.5%)	90 (7.7%)	189 (8.1%)
- 3	312 (26.7%)	339 (29.0%)	651 (27.9%)
- 4	48 (4.1%)	44 (3.8%)	92 (3.9%)
- 5	84 (7.2%)	69 (5.9%)	153 (6.5%)
- 6	7 (0.6%)	14 (1.2%)	21 (0.9%)
- 7	3 (0.3%)	5 (0.4%)	8 (0.3%)
- 8	3 (0.3%)	3 (0.3%)	6 (0.3%)
- 9	233 (19.9%)	243 (20.8%)	476 (20.4%)
abuse			
- 0	1154 (98.8%)	1153 (98.7%)	2307 (98.8%)
- 1	14 (1.2%)	15 (1.3%)	29 (1.2%)
psychological_prob			
- 0	1085 (92.9%)	1061 (90.8%)	2146 (91.9%)

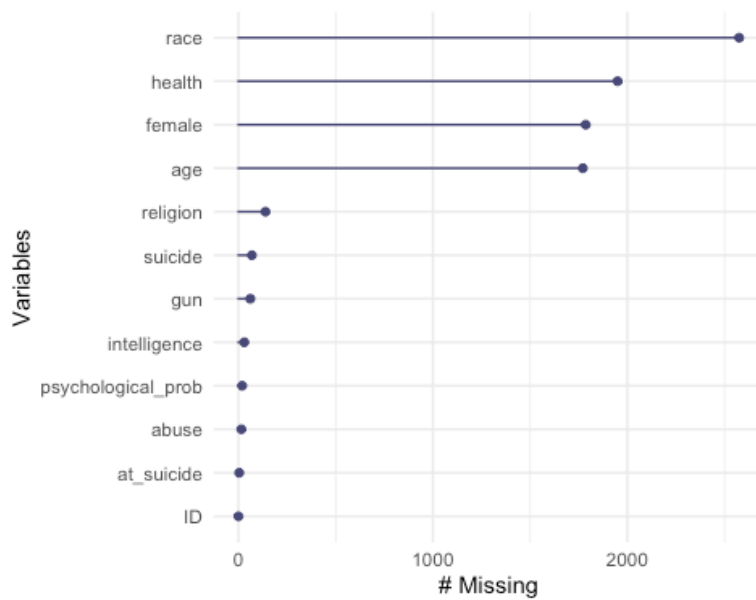|			
- 1	83 (7.1%)	107 (9.2%)	190 (8.1%)

5e. Full summary statistics of all covarites - after "subclassification" matching & imputation

Covariate Balance on Matched Characteristics

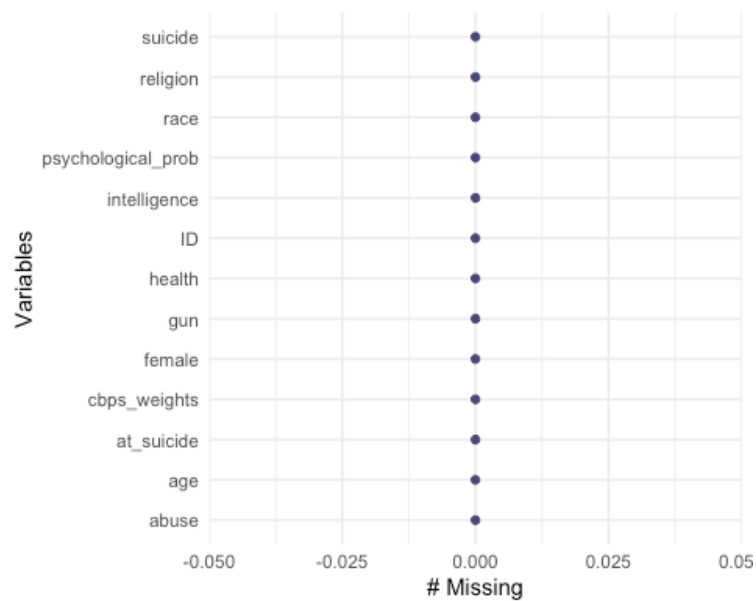|	0 (N=4699)	1 (N=1502)	Total (N=6201)
age	15.071 (1.840)	15.081 (1.778)	15.073 (1.825)
female			
- 0	2696 (57.4%)	872 (58.1%)	3568 (57.5%)
- 1	2003 (42.6%)	630 (41.9%)	2633 (42.5%)
race			
- 0	3337 (71.0%)	1083 (72.1%)	4420 (71.3%)
- 1	760 (16.2%)	235 (15.6%)	995 (16.0%)
- 2	202 (4.3%)	65 (4.3%)	267 (4.3%)
- 3	170 (3.6%)	45 (3.0%)	215 (3.5%)
- 4	141 (3.0%)	46 (3.1%)	187 (3.0%)
- 5	88 (1.9%)	28 (1.9%)	116 (1.9%)
health	2.886 (0.986)	2.883 (0.996)	2.885 (0.989)
religion			
- 0	509 (10.8%)	160 (10.7%)	669 (10.8%)
- 1	785 (16.7%)	250 (16.6%)	1035 (16.7%)
- 2	329 (7.0%)	104 (6.9%)	433 (7.0%)
- 3	1404 (29.9%)	454 (30.2%)	1858 (30.0%)
- 4	294 (6.3%)	94 (6.3%)	388 (6.3%)
- 5	372 (7.9%)	120 (8.0%)	492 (7.9%)
- 6	52 (1.1%)	15 (1.0%)	67 (1.1%)
- 7	25 (0.5%)	6 (0.4%)	31 (0.5%)
- 8	12 (0.3%)	3 (0.2%)	15 (0.2%)
- 9	917 (19.5%)	296 (19.7%)	1213 (19.6%)
abuse			
- 0	4607 (98.0%)	1473 (98.1%)	6080 (98.1%)
- 1	92 (2.0%)	29 (1.9%)	121 (1.9%)
psychological_prob			
- 0	4209 (89.6%)	1347 (89.7%)	5556 (89.6%)
- 1	490 (10.4%)	155 (10.3%)	645 (10.4%)

6. Missingness
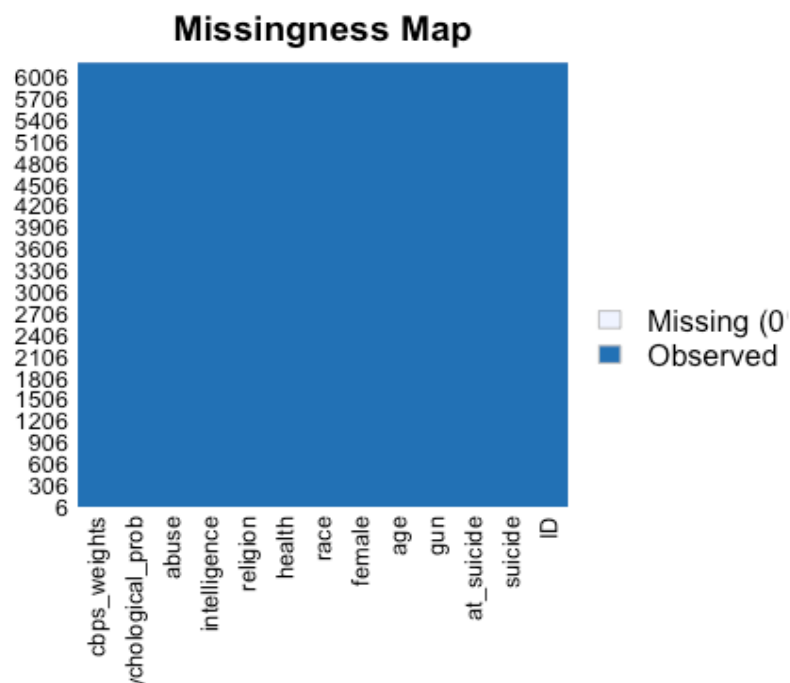
Before Imputation - 1A

Before Imputation - 1B

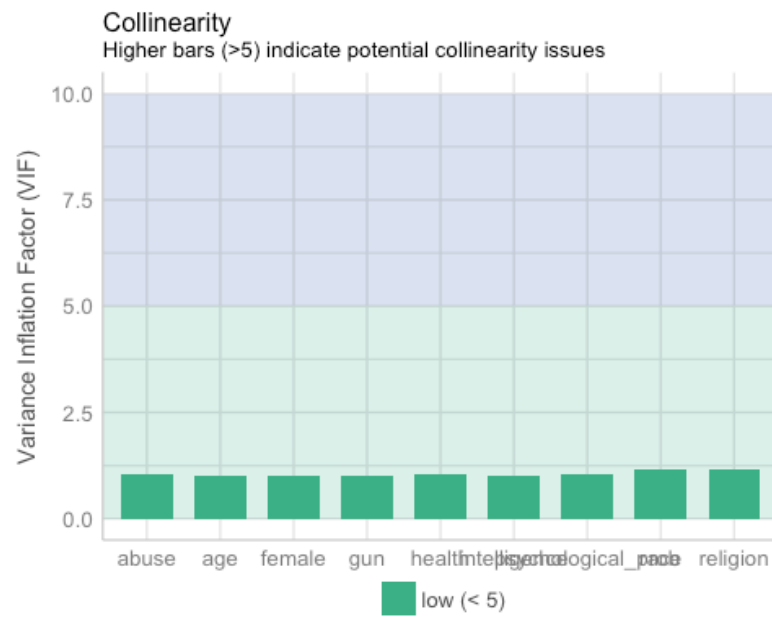After Imputation & dropping - 2A

After Imputation & dropping - 2B

7. Regression formula (coefficients included)

$$\log\left[\frac{P(\widehat{suicidal\ thoughts} = 1)}{1 - P(\widehat{suicidal\ thoughts} = 1)}\right] = -2.55 + 0.49 \cdot gun + 0.02 \cdot age + 0.38 \cdot female - 0.05 \cdot race_1$$

$$-0.05 \cdot race_2 + 0.49 \cdot race_3 + 0.15 \cdot race_4 + 0.38 \cdot race_5$$

$$-0.17 \cdot health + 0.11 \cdot religion_1 - 0.52 \cdot religion_2$$

$$-0.37 \cdot religion_3 + 0.07 \cdot religion_4 - 0.32 \cdot religion_5$$

$$+0.32 \cdot religion_6 - 0.34 \cdot religion_7 - 2.3 \cdot religion_8$$

$$-0.05 \cdot religion_9 + 0.01 \cdot intelligence - 0.26 \cdot substance\ abuse$$

$$+1.02 \cdot psychological\ problems$$

8. OLS collinearity check

Collinearity
Higher bars (>5) indicate potential collinearity issues

IX.