

Supplementary figure legends

Figure S1 Stratified analyses by potential modifiers of the association between Faith's Phylogenetic Diversity and RA. Adjusted for age, gender, race, PIR, BMI, HEI-2015, education, marital status, smoking, drinking, diabetes, hypertension, frequency of dental floss/device usage, and frequency of mouthwash usage. In the subgroup analysis, the model is not adjusted for the stratification variable itself. Abbreviations: OR, odds ratio; CI, confidence interval; RA, rheumatoid arthritis; PIR, poverty income ratio; BMI, body mass index; HEI-2015, Health Eating Index-2015.

Variable	Count	OR (95% CI)		P value	P for interaction
Overall	1544	0.943 (0.900, 0.988)		0.014	
Gender					0.396
Male	631	0.909 (0.841, 0.980)		0.014	
Female	913	0.959 (0.902, 1.019)		0.18	
Age					0.428
20-45 years	316	0.936 (0.827, 1.054)		0.281	
46-69 years	1228	0.944 (0.896, 0.994)		0.029	
Race					0.719
Mexican American	195	0.919 (0.778, 1.074)		0.299	
Other Hispanic	156	1.092 (0.872, 1.398)		0.459	
Non-Hispanic White	676	0.924 (0.858, 0.993)		0.034	
Non-Hispanic Black	429	0.940 (0.858, 1.027)		0.173	
Other Races	88	0.960 (0.918, 1.004)		0.076	
Education level					0.052
Above high school	754	1.004 (0.933, 1.080)		0.914	
High school or equivalent	356	0.910 (0.820, 1.006)		0.072	
Under high school	432	0.891 (0.814, 0.971)		0.01	
Marital status					0.789
Married/Living with partner	876	0.958 (0.900, 1.020)		0.181	
Never married	187	0.858 (0.685, 1.052)		0.155	
Widowed/Divorced/Separated	479	0.914 (0.840, 0.991)		0.032	
PIR					0.043
<3.5	1024	0.923 (0.874, 0.973)		0.003	
≥3.5	404	1.035 (0.932, 1.147)		0.518	
BMI					0.439
<25 kg/m²	298	0.929 (0.822, 1.042)		0.223	
25-30 kg/m²	430	0.897 (0.810, 0.990)		0.033	
≥30 kg/m²	799	0.975 (0.915, 1.038)		0.433	
Dietary quality(HEI-2015)					0.987
<60	1054	0.946 (0.898, 0.995)		0.031	
≥60	308	0.937 (0.828, 1.057)		0.295	
Drinking status					0.721
No	394	0.929 (0.842, 1.021)		0.128	
Yes	1072	0.943 (0.893, 0.995)		0.034	
Smoking status					0.146
Never	660	0.958 (0.886, 1.034)		0.275	
Ever	449	0.990 (0.906, 1.082)		0.826	
Current	435	0.885 (0.809, 0.964)		0.006	
Hypertension					0.683
No	545	0.927 (0.865, 0.992)		0.029	
Yes	999	0.966 (0.921, 1.012)		0.146	
Diabetes					0.88
No	888	0.934 (0.886, 0.984)		0.011	
Yes	656	0.969 (0.914, 1.026)		0.282	
Frequency of dental floss/device usage					0.905
Never	507	0.947 (0.881, 1.018)		0.143	
<1 per day	484	0.915 (0.833, 1.002)		0.059	
=1 per day	443	0.958 (0.870, 1.054)		0.381	
Frequency of mouthwash usage					0.277
Never	566	0.935 (0.861, 1.012)		0.099	
<1 per day	327	0.987 (0.896, 1.085)		0.783	
=1 per day	540	0.935 (0.864, 1.009)		0.087	

1

Figure S2 Stratified analyses by potential modifiers of the association between Shannon-Weiner Index and RA. Adjusted for age, gender, race, PIR, BMI, HEI-2015, education, marital status, smoking, drinking, diabetes, hypertension, frequency of dental floss/device usage, and frequency of mouthwash usage. In the subgroup analysis, the model is not adjusted for the stratification variable itself. Abbreviations: OR, odds ratio; CI, confidence interval; RA, rheumatoid arthritis; PIR, poverty income ratio; BMI, body mass index; HEI-2015, Health Eating Index-2015.

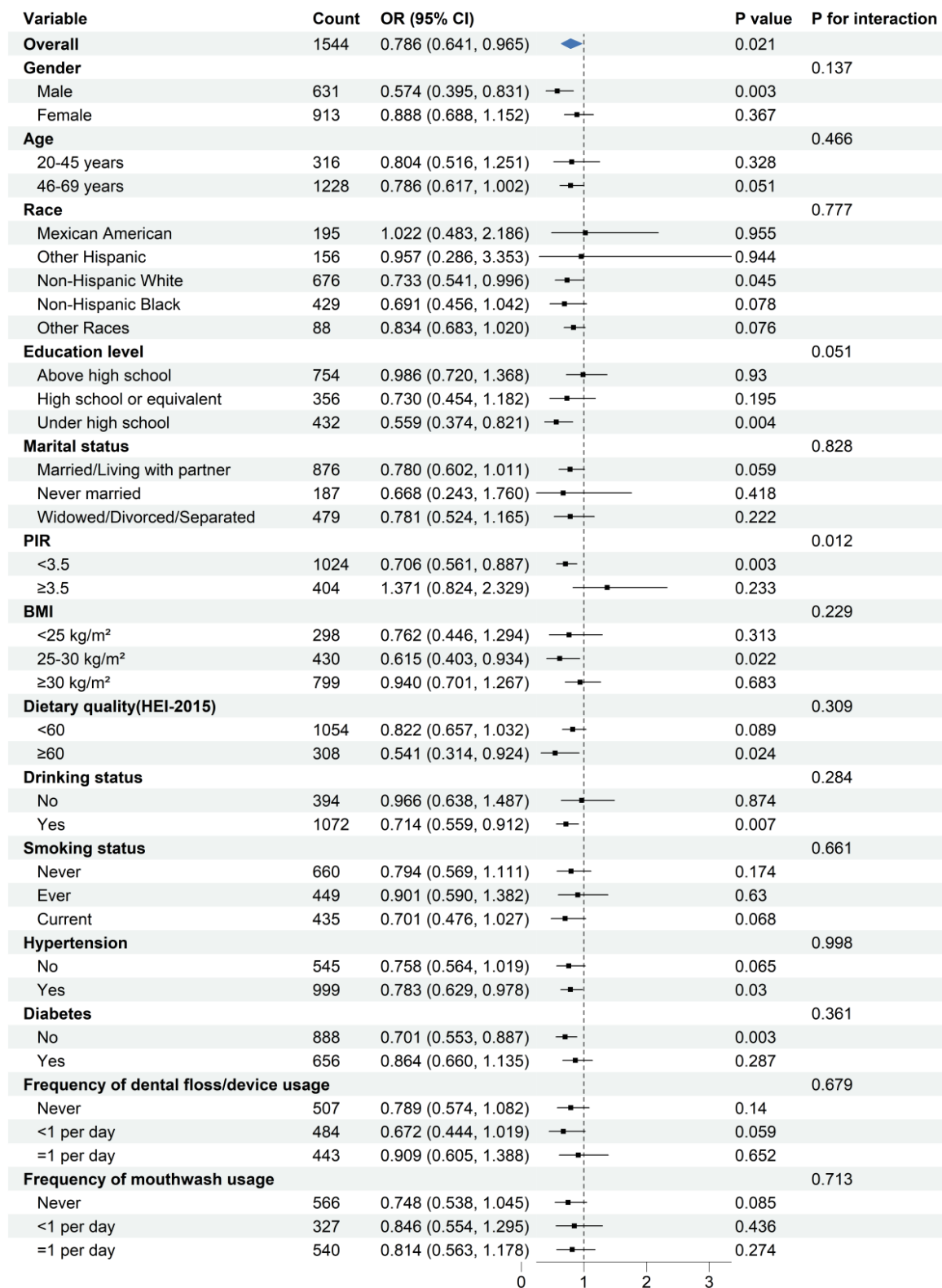


Figure S3 Stratified analyses by potential modifiers of the association between Simpson Index and RA. Adjusted for age, gender, race, PIR, BMI, HEI-2015, education, marital status, smoking, drinking, diabetes, hypertension, frequency of dental floss/device usage, and frequency of mouthwash usage. In the subgroup analysis, the model is not adjusted for the stratification variable itself. Abbreviations: OR, odds ratio; CI, confidence interval; RA, rheumatoid arthritis; PIR, poverty income ratio; BMI, body mass index; HEI-2015, Health Eating Index-2015.

