

Online Data Supplement

Supplemental Table 1: Baseline Characteristics of Cohort by Income/Stress Category

Variable	Low stress High income (n=39)	Low stress Low income (n=24)	High stress High income (n=24)	High stress Low income (n=39)	P value
Demographics					
Age, mean (SD)^	69.9 (8.6)	64.9 (7.8)	68.1 (8.3)	61.5 (7.0)	<0.001
Female sex, N(%)	17 (43.6)	7 (29.2)	16 (66.7)	23 (59.0)	0.03
Race, N(%)					0.04
Non-Hispanic White	31 (79.5)	12 (50.0)	21 (87.5)	22 (56.4)	
African-American	7 (17.9)	10 (41.7)	3 (12.5)	15 (38.5)	
Other	1 (2.6)	2 (8.3)	0 (0)	2 (5.1)	
Smoking History					
Current Tobacco Use, N(%)	11 (28.2)	10 (41.7)	4 (16.7)	26 (66.7)	<0.001
Age started smoking, mean(SD)	16.4 (2.9)	17.3 (9.9)	18.0 (3.1)	15.4 (4.5)	0.3
Years smoked, mean(SD)	45.5 (11.6)	42.4 (11.4)	41.5 (10.0)	43.9 (7.9)	0.4
Comorbidities, N(%)					
Coronary artery disease	6 (15.4)	6 (27.3)	6 (25.0)	3 (7.7)	0.2
Congestive heart failure	7 (17.9)	2 (9.1)	2 (8.3)	2 (5.1)	0.3
Cerebral vascular accident	2 (5.1)	1 (4.5)	1 (4.2)	4 (10.3)	0.7
Hypertension	27 (69.2)	15 (68.2)	14 (58.3)	22 (56.4)	0.6
Diabetes	6 (15.4)	6 (27.3)	3 (12.5)	7 (17.9)	0.6
Osteoarthritis	7 (17.9)	5 (22.7)	4 (16.7)	4 (10.3)	0.6
Osteoporosis	7 (17.9)	2 (9.1)	5 (20.8)	2 (5.1)	0.2
Hyperlipidemia	24 (61.5)	4 (18.2)	12 (50.0)	17 (43.6)	0.01

Gastroesophageal reflux disease	12 (30.8)	10 (45.5)	13 (54.2)	14 (35.9)	0.3
Peptic ulcer disease	1 (2.6)	1 (4.5)	0 (0)	2 (5.1)	0.7
Obstructive sleep apnea	5 (12.8)	2 (9.1)	9 (37.5)	8 (20.5)	0.05
Peripheral vascular disease	2 (5.1)	2 (9.1)	1 (4.2)	0 (0)	0.4
Chronic kidney disease	3 (7.7)	2 (9.1)	3 (12.5)	1 (2.6)	0.5
Anxiety	9 (23.1)	4 (18.2)	6 (25.0)	13 (33.3)	0.6
Depression	9 (23.1)	6 (27.3)	7 (29.2)	16 (41.0)	0.4
Clinical Characteristics					
Self rated health, N(%)					0.2
Excellent	1 (2.6)	0 (0)	0 (0)	0 (0)	
Very good	5 (12.8)	1 (4.2)	2 (8.3)	1 (2.6)	
Good	14 (35.9)	8 (33.3)	5 (20.8)	8 (20.5)	
Fair	16 (41.0)	15 (62.5)	13 (54.2)	21 (53.8)	
Poor	3 (7.7)	0 (0)	4 (16.7)	9 (23.1)	
BMI, mean (SD)	27.7 (5.3)	26.9 (6.4)	28.7 (6.6)	26.3 (7.3)	0.5
FEV1 %, mean (SD)	47.7 (21.5)	44.7 (18.7)	44.3 (18.7)	48.0 (18.0)	0.8
MMRC score, mean(SD)	1.87 (1.1)	2.17 (1.1)	2.13 (1.3)	2.31 (1.2)	0.4
CAT, mean (SD)	19.5 (7.9)	20.3 (7.0)	22.6 (7.6)	26.4 (9.3)	0.003
Oxygen requirement, N(%)	18 (47.4)	10 (41.7)	12 (50.0)	12 (32.4)	0.5
Test of Adherence to Inhalers, mean (SD)^	48.0 (3.5)	47.3 (6.5)	48.2 (3.0)	42.9 (13.6)	0.4
Moderate exacerbations in prior 1 year, mean (SD)^	2.49 (3.2)	1.58 (1.8)	2.57 (1.9)	2.03 (2.4)	0.3
COPD related ED visits in prior 2 years, mean(SD)^	0.18 (0.5)	0.46 (0.8)	1.58 (4.0)	1.24 (1.6)	0.002
COPD hospitalizations in prior 2 years, mean (SD)^	0.38 (1.0)	0.88 (1.19)	1.13 (1.3)	1.3 (2.8)	0.03
All-cause hospitalizations in prior 2 years, mean (SD)^	0.67 (1.2)	0.91 (1.2)	1.50 (1.4)	1.66 (2.7)	0.02
COPD healthcare utilization frequency in prior 2 years, mean (SD)^	0.56 (1.1)	1.33 (1.8)	2.7 (4.6)	2.5 (3.4)	0.004
Use of COPD acute care services in prior 2 years, N (%)	12 (30.8)	11 (45.8)	14 (58.3)	26 (66.7)	0.01

Total N for covariates with missing data: Comorbidities (n=124), MMRC (n=123), CAT (n=121), Oxygen requirement (n=123)
^Kruskal-Wallis H test used

Supplemental Table 2: Social Determinant Characteristics of Cohort by Income/Stress Category

Social Determinant Variable	Low stress High income (n=39)	Low stress Low income (n=24)	High stress High income (n=24)	High stress Low income (n=39)	P value
Social Determinants of Health					
Transportation, N(%)					0.02
<i>Private vehicle (self)</i>	30 (76.9)	15 (62.5)	18 (75.0)	17 (44.7)	
<i>Private vehicle (other)</i>	9 (23.1)	4 (16.7)	6 (25.0)	14 (36.8)	
<i>Public transportation</i>	0 (0)	5 (20.8)	0 (0)	6 (15.8)	
<i>Walk/bike</i>	0 (0)	0 (0)	0 (0)	1 (2.6)	
Marital Status, N(%)					<0.001
<i>Married, living together, common law</i>	23 (59.0)	4 (16.7)	20 (83.3)	10 (25.6)	
<i>Single</i>	5 (12.8)	10 (41.7)	2 (8.3)	13 (33.3)	
<i>Separated/divorced/widowed</i>	11 (28.2)	10 (41.7)	2 (8.3)	16 (41.0)	
Social support, mean (SD)					
<i>Emotional[^]</i>	4.16 (1.1)	3.71 (1.5)	4.05 (0.9)	3.71 (1.3)	0.4
<i>Tangible[^]</i>	4.24 (1.2)	3.43 (1.6)	4.06 (1.2)	3.51 (1.3)	0.02
<i>Affectionate</i>	4.47 (1.2)	3.52 (1.6)	3.81 (1.5)	3.86 (1.3)	0.05
<i>Positive interaction[^]</i>	4.39 (1.0)	3.49 (1.6)	3.94 (1.3)	3.53 (1.5)	0.04
<i>Overall Functional Social Support</i>	4.28 (1.1)	3.60 (1.5)	4.10 (1.0)	3.66 (1.1)	0.07
Lack of health insurance, N(%)	1 (2.6)	2 (8.3)	0 (0)	8 (20.5)	0.01
History of homelessness, N(%)	2 (5.3)	3 (12.5)	0 (0)	6 (16.7)	0.1
Food insecurity, N(%)	5 (12.8)	8 (33.3)	1 (4.2)	21 (53.8)	<0.001
Financial Strain, N (%)					
<i>Unable to afford:</i>					
<i>Prescription Medicine</i>	8 (21.1)	7 (29.2)	1 (4.2)	16 (41.0)	0.01
<i>Mental health care</i>	0 (0)	0 (0)	1 (4.3)	6 (16.7)	0.01
<i>Dental care</i>	3 (7.7)	4 (18.2)	1(4.3)	15 (41.7)	<0.001
<i>Specialist care</i>	0 (0)	1 (4.5)	0 (0)	8 (22.2)	0.001

<i>Follow-up care</i>	1 (2.6)	2 (9.5)	0 (0)	7 (19.4)	0.02
<i>Took less medicine to save money</i>	6 (15.4)	3 (12.5)	3 (13.0)	3 (8.1)	0.8
<i>Delayed filling Rx to save money</i>	5 (12.8)	5 (20.8)	4 (17.4)	8 (22.2)	0.7
<i>Asked doctor for lower cost medication</i>	15 (38.5)	8 (33.3)	8 (34.8)	13 (36.1)	0.98
<i>Bought Rx from another country</i>	3 (7.7)	1 (4.2)	0 (0)	1 (2.8)	0.5
Education, N(%)					<0.001
<i>Less than HS</i>	3 (7.7)	4 (16.7)	1 (4.2)	15 (38.5)	
<i>HS Graduate</i>	21 (53.8)	16 (66.7)	11 (45.8)	20 (51.3)	
<i>More than HS</i>	15 (38.5)	4 (16.7)	12 (50.0)	4 (10.3)	
Neighborhood disorder, mean (SD)	21.3 (6.5)	25.7 (6.7)	22.4 (5.5)	30.9 (9.0)	<0.001
No regular access to health care, N(%)	0 (0)	6 (25.0)	3 (13.0)	7 (17.9)	0.02
Perceived discrimination, mean (SD)^	10.8 (3.7)	13.3 (7.1)	11.6 (5.2)	15.5 (8.6)	0.01
AUDIT Score (EtOH use), mean (SD)	1.82 (3.5)	1.21 (1.7)	2.3 (2.8)	1.7 (3.5)	0.7
Illicit Drug Use in past 5 years, (one or more events), N(%)	2 (5.1)	2 (8.3)	0 (0)	11 (28.2)	0.002
Perceived Stress Level, mean (SD)	9.6 (4.6)	9.5 (4.2)	22.4 (4.5)	22.0 (7.6)	<0.001

Total N for covariates with missing data: Transportation (n=125), Social support (n=117), history of homelessness (n=122), prescription medicine (n=125), mental health care (n=118), dental care (n=120), specialist care (n=119), follow-up care (n=118), took less medicine to save money (n=123), delayed filling Rx to save money (n=122), asked doctor for lower cost medication (n=122), bought Rx from another country (n=122), neighborhood disorder (n=120), no regular access to health care, (n=124), perceived discrimination, (n=114), Illicit Drug Use in past 5 years, (n=121).

^Kruskal-Wallis H test used