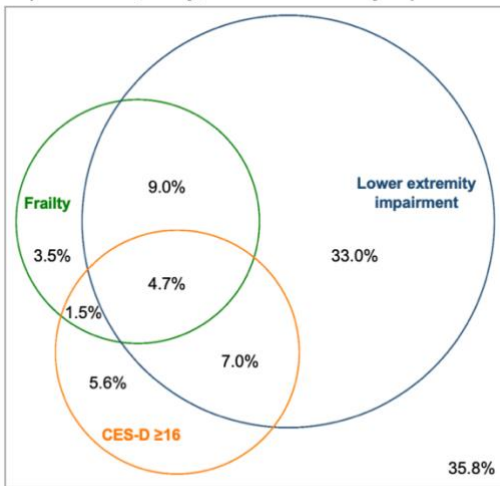


SUPPLEMENTARY MATERIALS

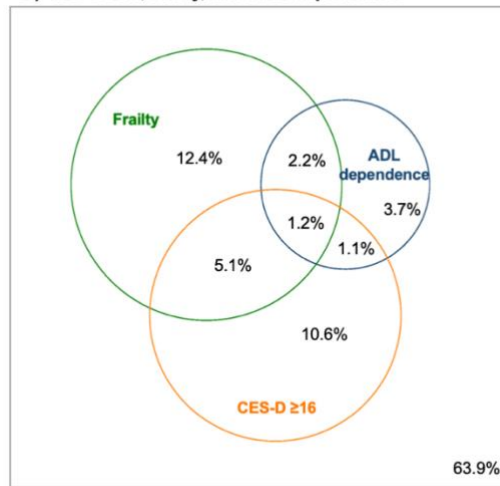
Supplementary Figure S1: Joint prevalence of mild/moderate/severe depressive symptoms (CES-D ≥ 16), frailty, and disabilities (lower extremity impairment, ADL dependence, and IADL dependence) among kidney transplant evaluation patients. The CES-D score ranges 0-60, with a higher score representing more severe depressive symptoms. Frailty was assessed using the Fried physical frailty phenotype, which is scored on a scale ranging 0-5 components, with the presence of ≥ 3 components representing frailty. Lower extremity impairment was assessed using SPPB scored ranging 0-12, with a score of ≤ 10 indicating lower extremity impairment. ADL and IADL dependences were ascertained if ≥ 1 activity reported dependence. Abbreviations: CES-D, Center for Epidemiologic Studies-Depression; SPPB, Short Physical Performance Battery; ADL, activities of daily living; IADL, instrumental activities of daily living.

A) CES-D ≥ 16 , frailty, and lower extremity impairment



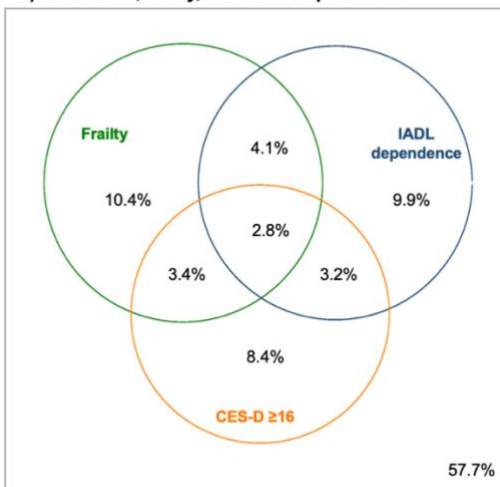
n=3,090

B) CES-D ≥ 16 , frailty, and ADL dependence



n=3,530

C) CES-D ≥ 16 , frailty, and IADL dependence



n=3,525

Supplementary Table S1: Correlates of binary depressive symptoms (CES-D ≥ 18) among kidney transplant evaluation patients using complete case analysis. Adjusted prevalence ratios (aPRs) with 95% confidence intervals (CIs) are presented from modified Poisson models. All models adjusted for all clinical and social factors, including age group, sex, Black race, years on dialysis, body mass index (BMI), smoking status, Charlson Comorbidity Index (CCI), education, marital status, employment, and neighborhood poverty level. The aPRs for clinical and social factors were estimated among patients with all clinical and social factors non-missing (n=3,037); the aPRs for physical functional measures were estimated among patients with both clinical and social factors and corresponding functional measure nonmissing (frailty, n=2,894; lower extremity impairment, n=2,665; ADL dependence, n=2,981; IADL dependence, n=2,971). Associations that are statistically significant at p<0.05 are bolded. Abbreviations: aPR, adjusted prevalence ratio; CCI, Charlson Comorbidity Index; CI, confidence interval; BMI, body mass index; CES-D, Center for Epidemiologic Studies-Depression; ADL, activities of daily living; IADL, instrumental activities of daily living.

Factor	CES-D score ≥ 18 aPR (95% CI)
Age (vs. 60-69y)	
18-29y	1.95 (1.34, 2.84)
30-39y	2.01 (1.52, 2.66)
40-49y	1.95 (1.52, 2.51)
50-59y	1.49 (1.18, 1.87)
$\geq 70y$	0.47 (0.30, 0.72)
Male	0.76 (0.65, 0.90)
Black	0.82 (0.69, 0.98)
Years on dialysis	0.97 (0.95, 0.99)
BMI, per 5kg/m²	1.01 (0.95, 1.08)
Smoking (vs. non-smoker)	
Previous smoker	1.67 (1.40, 2.00)
Current smoker	1.70 (1.33, 2.19)
CCI score (vs. 0)	
1	1.00 (0.71, 1.40)
2	1.20 (0.94, 1.54)
3	1.26 (0.99, 1.60)
≥ 4	1.40 (1.11, 1.75)
High school or below	0.96 (0.81, 1.13)
Married/cohabitating	0.69 (0.58, 0.82)
Employed	0.65 (0.53, 0.79)
Neighborhood poverty level, per 10%	1.02 (0.92, 1.12)
Frailty	2.03 (1.71, 2.41)
Lower extremity impairment	1.39 (1.14, 1.69)
ADL dependence	1.72 (1.36, 2.18)
IADL dependence	2.05 (1.72, 2.44)

Supplementary Table S2: Correlates of CES-D score and binary depressive symptoms among kidney transplant evaluation patients using multiple imputations for missing data (n=3,728).

The CES-D score ranges 0-60, with a higher score representing more severe depressive symptoms. Adjusted prevalence ratios (aPRs) with 95% confidence intervals (CIs) are presented from modified Poisson models. All models adjusted for age group, sex, Black race, years on dialysis, body mass index (BMI), smoking status, Charlson Comorbidity Index (CCI), education, marital status, employment, and neighborhood poverty level. Associations that are statistically significant at $p < 0.05$ are bolded. Abbreviations: aPR, adjusted prevalence ratio; CCI, Charlson Comorbidity Index; CI, confidence interval; BMI, body mass index; CES-D, Center for Epidemiologic Studies-Depression; ADL, activities of daily living; IADL, instrumental activities of daily living.

Factor	CES-D score, per 1 point increase aPR (95% CI)	Binary depressive symptoms	
		CES-D score ≥ 16 aPR (95% CI)	CES-D score ≥ 18 aPR (95% CI)
Age (vs. 60-69y)			
18-29y	1.48 (1.25, 1.76)	1.58 (1.14, 2.20)	1.87 (1.31, 2.67)
30-39y	1.56 (1.38, 1.76)	1.74 (1.38, 2.20)	2.10 (1.63, 2.72)
40-49y	1.46 (1.32, 1.61)	1.76 (1.43, 2.16)	1.98 (1.57, 2.50)
50-59y	1.34 (1.23, 1.47)	1.42 (1.17, 1.71)	1.51 (1.22, 1.87)
$\geq 70y$	0.76 (0.68, 0.85)	0.56 (0.40, 0.77)	0.49 (0.34, 0.73)
Male	0.87 (0.81, 0.92)	0.79 (0.69, 0.90)	0.81 (0.70, 0.94)
Black	0.89 (0.83, 0.95)	0.75 (0.65, 0.86)	0.77 (0.66, 0.91)
Years on dialysis	0.99 (0.98, 0.99)	0.98 (0.96, 0.997)	0.97 (0.95, 0.99)
BMI, per 5kg/m²	1.01 (0.98, 1.04)	1.01 (0.96, 1.07)	1.01 (0.95, 1.07)
Smoking (vs. non-smoker)			
Previous smoker	1.39 (1.29, 1.50)	1.65 (1.42, 1.91)	1.74 (1.47, 2.05)
Current smoker	1.40 (1.26, 1.55)	1.51 (1.22, 1.86)	1.69 (1.35, 2.12)
CCI score (vs. 0)			
1	1.04 (0.91, 1.20)	1.11 (0.82, 1.50)	1.06 (0.76, 1.48)
2	1.12 (1.02, 1.23)	1.16 (0.93, 1.43)	1.20 (0.95, 1.52)
3	1.13 (1.02, 1.25)	1.21 (0.98, 1.48)	1.23 (0.98, 1.56)
≥ 4	1.22 (1.11, 1.34)	1.37 (1.13, 1.67)	1.38 (1.11, 1.71)
High school or below	0.96 (0.90, 1.03)	0.96 (0.83, 1.10)	0.94 (0.80, 1.10)
Married/cohabitating	0.83 (0.77, 0.88)	0.71 (0.62, 0.82)	0.70 (0.60, 0.82)
Employed	0.80 (0.74, 0.87)	0.73 (0.63, 0.86)	0.65 (0.54, 0.78)
Neighborhood poverty level, per 10%	1.04 (1.00, 1.08)	1.07 (0.98, 1.16)	1.04 (0.95, 1.14)

Supplementary Table S3: Chance of listing for kidney transplant within 1 year after evaluation by depressive symptoms among transplant evaluation patients using multiple imputations for missing data (n=3,728). The CES-D score ranges 0-60, with a higher score representing more severe depressive symptoms. Depressive symptom severity was categorized as: none (0 points), minimal (1-15 points), mild (16-20 points), moderate (21-25 points), and severe (26-60 points). Crude hazard ratios (cHRs) and adjusted hazard ratios (aHRs) with 95% confidence intervals (CIs) were presented from adjusted Cox Proportional Hazards models. All models adjusted for age group, sex, Black race, years on dialysis, BMI, smoking history, Charlson Comorbidity Index, education, marital status, employment, and neighborhood poverty level. Associations that are statistically significant at $p < 0.05$ are bolded.

Outcome	Any listing aHR (95% CI)	Active listing aHR (95% CI)
Binary depressive symptoms		
CES-D score ≥ 16	0.84 (0.75, 0.95)	0.75 (0.65, 0.86)
CES-D score ≥ 18	0.85 (0.75, 0.97)	0.75 (0.65, 0.87)
Severity of depressive symptoms		
No symptoms	reference	reference
Minimal symptoms	0.86 (0.76, 0.97)	0.79 (0.70, 0.90)
Mild symptoms	0.78 (0.64, 0.96)	0.70 (0.55, 0.88)
Moderate symptoms	0.78 (0.61, 0.98)	0.60 (0.45, 0.79)
Severe symptoms	0.68 (0.55, 0.84)	0.56 (0.44, 0.71)
Continuous CES-D score (5 points worse)	0.94 (0.92, 0.97)	0.90 (0.88, 0.93)

Supplementary Table S4: Chance of listing for kidney transplant within 1 year after evaluation by depressive symptoms adjusted for physical functional status among evaluation patients using complete case analysis. The CES-D score ranges 0-60, with a higher score representing more severe depressive symptoms. Depressive symptom severity was categorized as: none (0 points), minimal (1-15 points), mild (16-20 points), moderate (21-25 points), and severe (26-60 points). Adjusted hazard ratios (aHRs) with 95% confidence intervals (CIs) were presented from adjusted Cox Proportional Hazards models. All models adjusted for age group, sex, Black race, years on dialysis, BMI, smoking history, Charlson Comorbidity Index, education, marital status, employment, and neighborhood poverty level. Associations that are statistically significant at $p < 0.05$ are bolded.

Model	Any listing aHR (95% CI)	Active listing aHR (95% CI)
<i>Adjusted for frailty (n=2,894)</i>		
Binary depressive symptoms		
CES-D score ≥ 16	0.74 (0.65, 0.84)	0.71 (0.61, 0.82)
CES-D score ≥ 18	0.77 (0.67, 0.88)	0.72 (0.61, 0.85)
Severity of depressive symptoms		
No symptoms	Reference	reference
Minimal symptoms	0.74 (0.65, 0.84)	0.70 (0.61, 0.80)
Mild symptoms	0.59 (0.48, 0.73)	0.59 (0.46, 0.75)
Moderate symptoms	0.66 (0.51, 0.85)	0.52 (0.38, 0.70)
Severe symptoms	0.50 (0.40, 0.63)	0.46 (0.35, 0.59)
Continuous CES-D score (5 points worse)	0.90 (0.88, 0.93)	0.88 (0.85, 0.91)
<i>Adjusted for lower extremity impairment (n=2,665)</i>		
Binary depressive symptoms		
CES-D score ≥ 16	0.79 (0.70, 0.90)	0.72 (0.62, 0.84)
CES-D score ≥ 18	0.81 (0.71, 0.93)	0.73 (0.62, 0.86)
Severity of depressive symptoms		
No symptoms	reference	reference
Minimal symptoms	0.76 (0.67, 0.87)	0.72 (0.62, 0.84)
Mild symptoms	0.65 (0.51, 0.81)	0.62 (0.48, 0.81)
Moderate symptoms	0.69 (0.54, 0.90)	0.54 (0.39, 0.74)
Severe symptoms	0.57 (0.46, 0.72)	0.48 (0.37, 0.63)
Continuous CES-D score (5 points worse)	0.92 (0.90, 0.95)	0.89 (0.86, 0.92)
<i>Adjusted for ADL dependence (n=2,981)</i>		
Binary depressive symptoms		
CES-D score ≥ 16	0.77 (0.68, 0.87)	0.71 (0.62, 0.83)
CES-D score ≥ 18	0.80 (0.70, 0.92)	0.73 (0.62, 0.86)
Severity of depressive symptoms		
No symptoms	reference	reference
Minimal symptoms	0.75 (0.66, 0.85)	0.70 (0.61, 0.80)
Mild symptoms	0.62 (0.50, 0.77)	0.59 (0.46, 0.76)
Moderate symptoms	0.69 (0.54, 0.89)	0.55 (0.41, 0.74)
Severe symptoms	0.54 (0.43, 0.67)	0.46 (0.36, 0.59)
Continuous CES-D score (5 points worse)	0.92 (0.89, 0.94)	0.88 (0.85, 0.91)

Adjusted for IADL dependence (n=2,971)

Binary depressive symptoms

CES-D score ≥ 16 **0.80 (0.71, 0.91)** **0.75 (0.65, 0.87)**

CES-D score ≥ 18 **0.82 (0.72, 0.94)** **0.75 (0.64, 0.89)**

Severity of depressive symptoms

No symptoms reference reference

Minimal symptoms **0.75 (0.66, 0.85)** **0.71 (0.62, 0.81)**

Mild symptoms **0.65 (0.52, 0.80)** **0.63 (0.50, 0.81)**

Moderate symptoms **0.69 (0.54, 0.88)** **0.56 (0.42, 0.75)**

Severe symptoms **0.56 (0.45, 0.70)** **0.49 (0.38, 0.64)**

Continuous CES-D score (5 points worse) **0.92 (0.90, 0.95)** **0.89 (0.86, 0.92)**
