Table S1 Basic characteristics and KAP scores

Variables	n (%)	Knowledge		Attitude		Practice	
		Mean ± SD	P	Mean ± SD	P	Mean ± SD	P
Total	499	6.00±1.99		22.29±1.96		29.28±3.78	
Gender			0.23		0.34		0.009
Male	327 (65.53)	5.93±2.00		22.23±1.95		28.96±3.91	
Female	172 (34.47)	6.15±1.95		22.41±1.97		29.89±3.44	
Age	44.41±10.54	–	–	–	–	–	–
Education			<0.001		0.003		<0.001
Middle school and below	148 (29.66)	5.14±1.98		21.95±1.80		27.31±3.33	
High school/technical secondary school	166 (33.27)	5.99±1.80		22.19±1.80		29.02±3.17	
Junior college/undergraduate and above	185 (37.07)	6.70±1.88		22.66±2.15		31.09±3.78	
Ethnicity			0.32		0.88		0.85
Han Chinese	498 (99.80)	6.00±1.99		22.29±1.96		29.28±3.78	
Ethnic minority	1 (0.20)	8.00		22.00		30.00	
Work status			<0.001		0.17		<0.001
Employed	180 (36.07)	6.59±1.83		22.45±1.94		30.62±3.11	
Unemployed	51 (10.22)	5.39±1.87		21.80±2.25		28.10±4.21	
Retired	113 (22.65)	5.12±2.06		22.04±1.81		27.43±3.86	
Self-employed	40 (8.02)	5.57±2.06		22.33±1.83		28.50±3.04	
Students	21 (4.21)	5.95±1.36		22.57±2.46		29.43±3.54	
Other	94 (18.84)	6.47±1.83		22.49±1.89		29.87±3.84	
Monthly per capita income			<0.001		0.005		<0.001
<2,000	45 (9.02)	5.20±2.27		21.76±2.35		28.76±4.27	
2,000–<5,000	161 (32.26)	5.64±2.00		22.25±1.98		28.37±3.66	
5,000–10,000	218 (43.69)	6.47±1.71		22.18±1.61		29.44±3.36	
>10,000	44 (8.82)	6.20±1.92		22.98±1.90		31.32±4.40	
Unwilling to disclose	31 (6.21)	5.48±2.51		23.10±2.94		30.74±3.98	
Marital status			0.002		0.24		<0.001
Married	376 (75.35)	5.85±1.95		22.23±1.89		28.80±3.56	
Unmarried/divorced/widowed	123 (24.65)	6.49±2.02		22.47±2.16		30.76±4.06	
Have children			<0.001		0.14		<0.001
Yes	342 (68.54)	5.77±2.00		22.20±1.88		28.70±3.73	
No	157 (31.46)	6.51±1.85		22.48±2.11		30.54±3.59	
Smoking			<0.001		0.36		<0.001
Never smoked	391 (78.36)	6.19±1.92		22.34±1.94		29.59±3.51	
History of smoking	108 (21.64)	5.31±2.07		22.14±2.03		28.14±4.44	
Drinking alcohol			<0.001		0.06		<0.001
Never drank alcohol	346 (69.34)	6.29±1.90		22.40±2.02		29.81±3.60	
History of drinking alcohol	153 (30.66)	5.35±2.04		22.05±1.80		28.08±3.90	
Medical or other commercial insurance			0.31		0.81		0.26
Yes	474 (94.99)	5.98±1.97		22.30±1.96		29.32±3.71	
No	25 (5.01)	6.40±2.20		22.20±1.91		28.44±4.87	
Post-transplant complications			0.001		0.008		0.91
Yes	164 (32.87)	6.43±1.81		21.95±1.76		29.25±3.94	
No	335 (67.13)	5.79±2.03		22.45±2.03		29.29±3.70	
Secondary kidney transplant			0.77		0.44		0.19
Yes	12 (2.40)	6.42±2.43		21.58±2.35		30.17±3.43	
No	480 (96.19)	5.99±1.98		22.31±1.95		29.22±3.76	
Unwilling to disclose	7 (1.40)	6.00±1.73		22.43±1.99		31.57±5.26	
Donated by a member of your immediate family for kidney transplant			0.44		0.58		0.53
Yes	8 (1.60)	5.13±1.81		22.50±2.93		30.75±4.50	
No	485 (97.19)	6.02±1.99		22.30±1.94		29.25±3.77	
Unwilling to disclose	6 (1.20)	6.17±1.94		21.50±1.76		29.50±3.67	
Duration since kidney transplant	54.78±47.39	–	–	–	–	–	–
Underlying or chronic illnesses			0.30		0.002		<0.001
None	103 (20.64)	6.24±2.07		22.71±1.93	1.93	31.14±3.36	
1	198 (39.68)	6.08±1.98		22.44±2.02	2.02	29.82±3.59	
2–3	189 (37.88)	5.81±1.93		21.97±1.82	1.82	27.83±3.65	
4 or more	9 (1.80)	5.78±2.11		21.11±2.32	2.32	26.56±2.30	

Table S2 Distribution of knowledge dimension

Items	Correct, n (%)
1. Complications such as renal failure, early renal dysfunction and advanced renal hypofunction may occur after kidney transplantation.	455 (91.18)
2. Rejection reaction following kidney transplantation can be broadly classified into four types: hyperacute rejection, accelerated rejection, acute rejection, and chronic rejection reaction, etc.	337 (67.54)
3. Dysfunction of the transplanted kidney is the most common complication of kidney transplantation, which refers to the absence of urine discharge after vascular connection.	380 (76.15)
4. The most common cause of dysfunction of the transplanted kidney is acute tubular necrosis, followed by hyperacute rejection.	11 (2.20)
5. Post-transplant early renal dysfunction is defined as a decrease in urine output and an increase in creatinine within 2 weeks of the observation period when the transplanted kidney is already functioning.	251 (50.30)
6. Post-transplant early renal hypofunction refers to renal hypofunction that occurs more than 3 months after surgery, mainly manifested by a slow progressive increase in blood creatinine, with most patients having normal urine output.	228 (45.69)
7. Difficulty in urination due to dysfunction of the transplanted kidney can be avoided.	167 (33.47)
8. Post-transplant complications do not include tumors.	273 (54.71)
9. The administration of immunosuppressive agents may cause some post-transplant complications.	408 (81.76)
10. In the early post-transplant period, strenuous activity should be avoided. Long-term gradual participation in physical activity and exercise is required to bring all body functions into a stable state.	486 (97.39)

The original questionnaire was in Chinese. The translation presented above is not a validated translation.

Table S3 Distribution of attitude dimension

Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I feel worried, fearful and anxious about post-transplant complications.	30 (6.01)	288 (57.72)	137 (27.45)	41 (8.22)	3 (0.60)
2. I think post-transplant complications are a necessary consequence to bear.	17 (3.41)	302 (60.52)	140 (28.06)	39 (7.82)	1 (0.20)
3. I am confident that I can overcome post-transplant complications.	47 (9.42)	373 (74.75)	73 (14.63)	6 (1.20)	0
4. I am motivated to face the post-transplant complications.	58 (11.62)	400 (80.16)	37 (7.41)	3 (0.60)	1 (0.20)
5. I think I need psychological support and comfort from my family and friends to face the post-transplant complications together.	105 (21.04)	299 (59.92)	75 (15.03)	19 (3.81)	1 (0.20)
6. I think the professionalism and selfless care of the medical team is essential for patients to overcome post-transplant complications.	205 (41.08)	282 (56.51)	9 (1.80)	2 (0.40)	1 (0.20)

The original questionnaire was in Chinese. The translation presented above is not a validated translation. Data are presented as n (%).

Table S4 Distribution of practice dimension

Items	Always	Often	Occasionally	Rarely	Never
1. I would proactively learn the daily management of post-transplant complications.	54 (10.82)	271 (54.31)	157 (31.46)	17 (3.41)	0
2. I would manage my diet by combining meat and vegetables, eating a varied diet and avoiding overeating and excessive grease.	88 (17.64)	386 (77.35)	22 (4.41)	2 (0.40)	1 (0.20)
3. I would pay attention to psychological regulation.	76 (15.23)	173 (34.67)	162 (32.46)	82 (16.43)	6 (1.20)
4. If necessary, I would go to a psychological clinic for psychological counseling.	10 (2.00)	20 (4.01)	72 (14.43)	191 (38.28)	206 (41.28)
5. I would change my bad habits, e.g., smoking, drinking alcohol, and staying up late.	119 (23.85)	350 (70.14)	21 (4.21)	5 (1.00)	4 (0.80)
6. I would avoid strenuous activities and gradually participate in physical activities and exercise for a long period of time.	78 (15.63)	298 (59.72)	112 (22.44)	11 (2.20)	0
7. I would gradually return to society, participate in work and integrate my body into society.	77 (15.43)	209 (41.88)	128 (25.65)	82 (16.43)	3 (0.60)
8. I would follow medical advice, take my medication on time and have regular check-ups.	257 (51.50)	239 (47.90)	3 (0.60)	0	0

Data are presented as n (%).

Table S5 Structural equation modelling fit without age

Indicator	Reference	Measured results
CMIN/DF	1–3 excellent, 3–5 good	5.912
RMSEA	<0.08 good	0.099
IFI	>0.8 good	0.925
TLI	>0.8 good	0.767
CFI	>0.8 good	0.922
GFI	>0.8 good	0.981
AGFI	>0.8 good	0.921

Table S6 Structural equation modelling fit with age

Indicators	Reference	Actual
CMIN/DF	1–3: excellent, 3–5: good	15.694
RMSEA	<0.08: Good	0.172
IFI	>0.8: Good	0.591
TLI	>0.8: Good	0.218
CFI	>0.8: Good	0.581