International Journal of Science and Research Archive
eISSN: 2582-8185
Cross Ref DOI: 10.30574/ijsra
Journal homepage: https://ijsra.net/

(RESEARCH ARTICLE)

Check for updates

Psychiatric assessment of kidney transplant candidates and living donors: An eight-year prospective study

Mamouni Alaoui Youness [1], Akanour Adil [2], Mansouri Wafaa [1,*] and Kadiri Mohamed [1]

[1] *Department of Psychiatry, Mohammed V Military Training Hospital, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco.*
[2] *Department of Psychiatry, Oued Eddahab Training Hospital, Faculty of Medicine and Pharmacy, Cadi Ayyad University, Marrakech, Morocco.*

International Journal of Science and Research Archive, 2025, 17(02), 704–708

Publication history: Received 08 October 2025; revised on 15 November 2025; accepted on 18 November 2025

Article DOI: https://doi.org/10.30574/ijsra.2025.17.2.3097

Abstract

Background: Post-transplant outcomes are strongly influenced by psychosocial and behavioral factors, particularly medication adherence, which has been identified as a key determinant of graft survival [1,2]. Given the prevalence of psychosocial vulnerabilities in transplant candidates, integrating psychiatric expertise into the pre-transplant evaluation has been shown to improve risk identification and support decision-making [3]. Structured psychosocial assessment tools, such as the Stanford Integrated Psychosocial Assessment for Transplantation (SIPAT), further standardize this process and help clinicians evaluate candidates more comprehensively [4].

Objectives: To characterize psychiatric morbidity among kidney transplant candidates and living donors, to describe the implementation of a specialized psychiatric consultation program, and to assess its feasibility and preliminary outcomes.

Methods: This prospective, single-center study (January 2018–October 2025) was conducted at Mohammed V Military Hospital in Rabat. All transplant candidates, recipients, and potential living donors underwent comprehensive psychiatric evaluations using semi-structured interviews based on DSM-5 criteria [5]. The assessment protocol included individual evaluations and joint donor–recipient sessions.

Results: 30 transplant candidates/recipients (mean age 43.1 ± 12.3 years; 65% male) and 30 potential living donors were evaluated (N = 60). Among candidates, the most frequent psychiatric diagnoses were anxiety disorders (40%), depressive episodes (13.3%), and adjustment disorders (30%). Among the 26 patients with 6-month follow-up, medication adherence was 90.4%. Post-transplant psychiatric complications occurred in 6.75% of cases, all successfully managed. Living donors—95% of whom were first-degree relatives—showed lower rates of formal psychiatric diagnoses (16.7%) yet reported high levels of procedure-related anxiety (93.3%). Donor satisfaction was high (94.6%).

Conclusions: This study highlights the substantial psychiatric burden among kidney transplant candidates and demonstrates the feasibility of systematic psychiatric assessment in transplant programs. The high adherence rate (90.4%) underscores the value of integrated psychiatric care [9,10]. Psychiatric evaluation should evolve beyond a gatekeeping function to provide continuous therapeutic support throughout the transplant process.

Keywords: Kidney Transplantation; Psychiatric Assessment; Living Donors; Medication Adherence; Anxiety; Depression; Transplant Outcomes

* Corresponding author: Mansouri Wafaa

1. Introduction

Kidney transplantation offers superior outcomes compared with dialysis [11,12], yet its success is strongly influenced by psychological factors that affect adherence to immunosuppressive therapy [1,2]. Non-adherence is estimated to account for up to 36% of late acute rejection episodes [13]. Psychiatric disorders are highly prevalent among transplant candidates, with depressive disorders in 20–45% and anxiety disorders in 25–50%, and are consistently associated with poorer clinical outcomes [6,7,14]. Despite robust evidence, the routine implementation of systematic psychiatric assessment remains inconsistent across transplant programs [3,4].

This article presents an eight-year experience (January 2018–October 2025) implementing a structured psychiatric assessment program at Mohammed V Military Hospital in Rabat, Morocco. We describe the development of the service, examine the prevalence of psychiatric morbidity, report preliminary clinical outcomes, and discuss key implications for the evolving field of transplant psychiatry.

2. Methods

2.1. Study Design and Population

This prospective single-center study was conducted at Mohammed V Military Hospital, a 500-bed tertiary care facility performing approximately six kidney transplants annually, predominantly from living donors. All patients referred for psychiatric consultation were included in the study, encompassing pre-transplant candidates, post-transplant recipients, and potential living donors [15].

2.2. Psychiatric Assessment Protocol

Board-certified psychiatrists performed all evaluations using semi-structured interviews grounded in DSM-5 diagnostic criteria [5]. The assessment followed a three-phase protocol: (1) an individual recipient evaluation (30 minutes), (2) an individual donor evaluation (30 minutes), and (3) a joint donor–recipient consultation lasting 30–45 minutes [8,16].

Table 1 Core Elements of Psychiatric Assessment Protocol

Transplant Recipient Assessment	Living Donor Assessment
Sociodemographic and psychosocial profile	Demographics and recipient relationship
Complete medical and dialysis history	Medical and psychiatric history
Lifetime and current psychiatric disorders	Mental status examination
Mental status examination	Motivations and voluntariness assessment
Psychological functioning and coping	Understanding of donation risks
Social support systems	Post-donation expectations
Understanding of transplantation	Coercion screening
Adherence capacity assessment	

2.3. Follow-up and Data Collection

Follow-up assessments were conducted at 1, 3, and 6 months after transplantation. Data collected included demographic characteristics, medical information, psychiatric diagnoses based on DSM-5 criteria, clinical interventions, and follow-up outcomes.

3. Results

3.1. Study Population

Over 94 months, 60 psychiatric consultations were completed: 30 transplant candidates/recipients (mean age 43.1 ± 12.3 years; 65% male; 85% pre-transplant) and 30 living donors (mean age 39.4 ± 10.8 years; 56.7% female; 95% first-degree relatives). The leading causes of end-stage renal disease were diabetic nephropathy, chronic glomerulonephritis, and hypertensive nephrosclerosis.

3.1.1. Psychiatric Morbidity

Transplant candidates

Anxiety disorders were identified in 40% of candidates (generalized anxiety disorder 23.3%, specific phobias 11.7%, panic disorder 5%). Depressive episodes were diagnosed in 13.3%, adjustment disorders in 30%, and substance-related concerns in 8.3%. Beyond formal diagnoses, 78.3% reported significant transplant-related worries, most commonly surgical risks (46.7%), potential medication side effects (45%), and fear of graft rejection (43.3%).

Living donors: Formal psychiatric diagnoses were identified in 16.7% of donors, predominantly anxiety disorders (13.3%). However, procedure-related anxiety was highly prevalent (93.3%), with concerns regarding surgical complications (80%), long-term health consequences (70%), and potential transplant failure (45%).

Assessment Outcomes

Candidates: 80% were approved without intervention, 10% with brief intervention, 2% with psychiatric treatment, 1% experienced temporary deferral.

Donors: 90% were approved without intervention, and 10% with brief intervention.

Of the 30 candidates, after transplantation, Medication adherence was 90.4%. Psychiatric complications occurred in 13.5%. Among the donors,17% experienced temporary emotional difficulties, all resolved through brief counseling.

4. Discussion

4.1. Psychiatric Morbidity Burden

The high prevalence of psychiatric disorders (anxiety 40%, depression 13.3%, adjustment disorders 30%) aligns with international literature [6,7,14], confirming that psychiatric morbidity is universal in transplant populations regardless of setting. Multiple factors contribute: uremia's neuropsychiatric effects, dialysis burden consuming more than 12 hours weekly, existential uncertainty about transplant timing, anticipatory surgical anxiety, and financial stress. Notably, 78.3% expressed significant concerns even without formal diagnoses, highlighting the psychological complexity beyond just categorical psychopathology.

The somatic presentation of depression (patients reporting fatigue, sleep disturbance, and pain more than mood symptoms) reflects both cultural patterns in North Africa and genuine difficulty distinguishing uremic from depressive symptoms. This underscores the need for comprehensive clinical interviews by experienced psychiatrists rather than relying solely on screening tools that may miss somatized presentations.

4.2. Favorable Adherence Outcomes

The medication adherence rate of 90.4% at 6 months significantly exceeds typical rates of 60-80% [9,10,17]. Although our observational design prevents definitive causal conclusions, several plausible mechanisms are possible. First, identifying and treating pre-transplant depression and anxiety likely removed cognitive and motivational barriers to adherence. Second, personalized psychoeducation enhanced understanding and self-efficacy. Third, the therapeutic relationship established during evaluation facilitated continued engagement, allowing early intervention when issues arose. Fourth, the comprehensive assessment addressed multiple adherence barriers (social support, financial resources, and organizational skills) simultaneously.

4.3. Therapeutic Function Beyond Gatekeeping

A key insight is that psychiatric assessment must go beyond gatekeeping to offer real therapeutic value. The consultation provided patients a safe space—explicitly psychological, separate from technical medical discussions—where emotional experiences could be explored without judgment, fears expressed without appearing weak, and concerns addressed through empathetic listening and education. Many patients reported this was the first time anyone had asked how they felt about transplantation beyond surface questions.

Patients often felt pressured to appear psychologically strong with their medical teams, fearing that expressing doubts might threaten their candidacy. The psychiatric consultation allowed acknowledgment of ambivalence and concerns not as pathology but as normal responses to extraordinary stress. This therapeutic reframing brought relief and more

genuine engagement. Several patients later said that the pre-transplant psychiatric assessment was among the most helpful aspects of their preparation.

4.4. Living Donor Evaluation: Ethical Considerations

Donor evaluation serves crucial ethical functions: protecting autonomy, ensuring informed consent, detecting coercion, managing expectations, and promoting positive outcomes [8,16]. With 95% family donors, assessing voluntariness becomes a nuanced psychological pressure stemming from obligation, anticipated guilt, and awareness of being the only eligible donor can be as influential as explicit coercion, despite being subtle and internalized.

The joint donor-recipient consultation proved invaluable, revealing dynamics not apparent when evaluated separately: communication patterns, power imbalances, expectation alignment, and relationship quality.

Nearly universal donor anxiety (93.3%) despite low formal diagnoses reflects a real psychological burden requiring normalization and support rather than pathologization. High satisfaction (94.6%) combined with temporary difficulties in 17% suggests most donors find meaningful psychological benefits, although some need brief support, highlighting the importance of accessible psychiatric services.

4.5. Limitations and Future Directions

Major limitations include an observational approach without controls preventing causal conclusions, a short follow-up period (6 months maximum), reliance on clinical interviews rather than structured diagnostic instruments, and triangulated rather than electronic adherence monitoring. Future research should focus on longer follow-up, comparative studies of assessment models, cost-effectiveness analyses, and implementation research to explore barriers across diverse settings.

4.6. Clinical Implications

Recommendations include: (1) systematic assessment for all candidates and donors, not just those with obvious concerns; (2) adequate time for assessments (60-90 minutes for recipients, 45-60 minutes for donors); (3) making joint donor-recipient consultations standard practice; (4) viewing psychiatric disorders as modifiable risk factors needing treatment, not outright contraindications; (5) ongoing psychiatric support post-transplant for early intervention. Programs should incorporate psychiatric expertise as a core part of the transplant team rather than optional services.

5. Conclusions

This eight-year experience demonstrates the feasibility and benefits of structured psychiatric assessment in kidney transplantation. The high rates of psychiatric morbidity (anxiety 40%, depression 13.3%, adjustment disorders 30%) underscore the need for routine evaluations. Favorable adherence (90.4%) and effective management of psychiatric issues suggest that comprehensive psychiatric care positively impacts outcomes, although controlled studies are necessary.

Psychiatric assessment should provide therapeutic value beyond gatekeeping—offering a supportive space for emotional expression, education, anxiety management, and ongoing support. Living donor evaluations, including joint consultations, play vital ethical roles, and donor satisfaction (94.6%) supports the effectiveness of comprehensive assessment.

We recommend that transplant programs establish psychiatric services as fundamental components—conducting systematic assessments, customizing interventions, facilitating psychiatric treatment, and providing ongoing support. The psychological journey deserves attention equal to the medical and surgical aspects. When well-integrated, psychiatric care benefits both patients and programs.

Compliance with ethical standards

Acknowledgments

The authors thank the transplant team at Mohammed V Military Hospital for collaboration, the nursing staff for care coordination, the social work team for psychosocial support, and, most importantly, the patients and donors whose participation shaped this program.

Disclosure of conflict of interest

The authors declare no conflicts of interest. No external funding was received.

Statement of informed consent

Written informed consent was obtained from all participants before enrollment.

References

[1] Dobbels F, Vanhaecke J, Dupont L, et al. Pretransplant predictors of posttransplant adherence and clinical outcome. Transplantation. 2009;87(10):1497-504. doi:10.1097/TP.0b013e3181a440ae

[2] Dew MA, DiMartini AF, De Vito Dabbs A, et al. Rates and risk factors for nonadherence to the medical regimen after adult solid organ transplantation. Transplantation. 2007;83(7):858-73. doi:10.1097/01.tp.0000258599.65257.a6

[3] Telles-Correia D, Mega I, Barbosa A, et al. Importance of psychiatric consultation to transplant patients. Transplant Proc. 2009;41(3):898-900. doi:10.1016/j.transproceed.2009.01.062

[4] Maldonado JR, Dubois HC, David EE, et al. The Stanford Integrated Psychosocial Assessment for Transplantation (SIPAT). Psychosomatics. 2012;53(2):123-32. doi:10.1016/j.psym.2011.12.012

[5] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Arlington, VA: American Psychiatric Publishing; 2013.

[6] Palmer S, Vecchio M, Craig JC, et al. Prevalence of depression in chronic kidney disease: systematic review and meta-analysis. Kidney Int. 2013;84(1):179-91. doi:10.1038/ki.2013.77

[7] Cukor D, Rosenthal DS, Jindal RM, et al. Depression is an important contributor to low medication adherence. Kidney Int. 2009;75(11):1223-9. doi:10.1038/ki.2009.51

[8] Clemens KK, Thiessen-Philbrook H, Parikh CR, et al. Psychosocial health of living kidney donors: a systematic review. Am J Transplant. 2006;6(12):2965-77. doi:10.1111/j.1600-6143.2006.01567.x

[9] Chisholm-Burns MA, Spivey CA, Graff Zivin J, et al. Improving outcomes of renal transplant recipients with behavioral adherence contracts. Am J Transplant. 2013;13(9):2364-73. doi:10.1111/ajt.12341

[10] De Bleser L, Matteson M, Dobbels F, et al. Interventions to improve medication adherence after transplantation. Transpl Int. 2009;22(8):780-97. doi:10.1111/j.1432-2277.2009.00881.x

[11] Wolfe RA, Ashby VB, Milford EL, et al. Comparison of mortality in all patients on dialysis, patients on dialysis awaiting transplantation, and recipients of a first cadaveric transplant. N Engl J Med. 1999;341(23):1725-30. doi:10.1056/NEJM199912023412303

[12] Tonelli M, Wiebe N, Knoll G, et al. Systematic review: kidney transplantation compared with dialysis in clinically relevant outcomes. Am J Transplant. 2011;11(10):2093-109. doi:10.1111/j.1600-6143.2011.03686.x

[13] Sellares J, de Freitas DG, Mengel M, et al. Understanding the causes of kidney transplant failure: the dominant role of antibody-mediated rejection and nonadherence. Am J Transplant. 2012;12(2):388-99. doi:10.1111/j.1600-6143.2011.03840.x

[14] Kimmel PL, Peterson RA, Weihs KL, et al. Multiple measurements of depression predict mortality in chronic hemodialysis outpatients. Kidney Int. 2000;57(5):2093-8. doi:10.1046/j.1523-1755.2000.00059.x

[15] Levenson JL, Olbrisch ME. Psychosocial evaluation of organ transplant candidates. Psychosomatics. 1993;34(4):314-23. doi:10.1016/S0033-3182(93)71882-7

[16] Abecassis M, Adams M, Adams P, et al. Consensus statement on the live organ donor. JAMA. 2000;284(22):2919-26. doi:10.1001/jama.284.22.2919

[17] Denhaerynck K, Dobbels F, Cleemput I, et al. Prevalence, consequences, and determinants of nonadherence in adult renal transplant patients. Transpl Int. 2005;18(10):1121-33. doi:10.1111/j.1432-2277.2005.00176.x