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Association of Economic Factors and Patient Beliefs with Non-Adherence to Diabetes Medication in Inner-City Patients with ESKD

Introduction: Uncontrolled diabetes mellitus (DM) is a major contributor to morbidity and mortality in pts with ESKD. We studied factors related to non-adherence with DM medications in an indigent inner-city population.

Methods: A random convenience sample of 17 dialysis and 17 kidney transplant patients were interviewed face to face using the Medication Adherence Rating Scale, modified for DM, and an economic stress survey.

Results: Mean age was 61.2 ± 10.9 yrs, 33 (97%) identified as black, 12 male (35.3%), 16 (47%) had less than a college education, 24 (70%) made $< \$40K/yr$. Mean time on dialysis was 6.2 ± 6.5 yrs, and mean time since transplant was 7.1 ± 7.0 yrs.

Out of the 17 dialysis and 17 transplant patients, 10 (58%) and 11 (64%) were non-adherent (NA) to diabetes medication. In 8 patients who reported DM for ≤ 10 years, 3 were NA (38%) vs 14 (74%) in patients who had DM > 10 years, ($p = 0.005$).

41% (5/12) pts who reported that finances do not affect their control of medical conditions were non-adherent vs 85% (11/13) who felt finances did affect control, and NA pts were less likely to be satisfied with their finances ($r = -0.43$, $p = 0.032$). Out of the 10 patients who reported difficulty affording housing, 1 was adherent (10%). In contrast, out of the 15 patients who reported it is not difficult for them/their family to afford housing, 8 were adherent (53%).

NA pts were more likely to report forgetting medications ($r = 0.62$, $p = 0.001$), and more likely to agree that medication use was "unnatural" ($r = 0.62$, $p < 0.001$), and that they felt "tired and sluggish" ($r = 0.51$, $p = 0.002$) from their DM medications.

Conclusion: In our inner-City population: 1. More than half of both transplant and dialysis patients reported non-adherence to diabetes medication. 2. Non-adherence was multifactorial, with both economic and patient beliefs appearing to play a role. 3. Adherence to DM treatment may be overlooked given the multiple medical issues faced by this population.