**INTRODUCTION AND AIMS:** Young adults (YA) receiving renal replacement therapy (RRT) face disruption to normal activities and consequent impacts upon their wellbeing. We aimed to define psychosocial and lifestyle outcomes for YA on RRT compared to the general population.
**METHODS:** We designed a cross-sectional online survey for 16 to 30-year olds receiving RRT, based on validated measures with general population comparator data (the Health Survey for England and the Avon Longitudinal Study of Parents and Children). Additional clinical information was obtained from the United Kingdom Renal Registry (UKRR). We compared outcomes between populations using age and sex adjusted regression models, having applied survey weights to account for response bias by gender, ethnicity and socioeconomic status.
**RESULTS:** **The cohort.**We recruited 976 YA and 64% responded to the survey - 417 (71%) with transplants and 173 (29%) on dialysis. Survey participants were 51% male, 74% Caucasian, and had a median age of 25 years. The most common primary renal disease group was ‘tubulointerstitial diseases’ (31%) due to structural causes, followed by ‘glomerular diseases’ (27%). The median duration since RRT start was 6 years. The majority (59%) started RRT in adult services. The median eGFR was 59 mls/min/1.73m2. A fifth started RRT within 90 days of their first nephrology review. Around 80% had ever received a transplant, with 27% having experienced transplant failure. **Socio-demographics.**Compared to the general population, YA on RRT were less likely to be in a relationship (odds ratio (OR) 0.7; 95% confidence interval (CI) 0.5, 0.9; p=0.002) and have their own children (OR 0.6; 95% CI 0.4, 0.8; p=0.001); more likely to live in the family home (OR 3.1; 95% CI 2.3, 4.1; p<0.0001), to receive no income (OR 8.9; 95% CI 2.3, 34.2; p=0.001) and to be unable to work due to health (OR 15.6; 95% CI 10.0, 24.6; p<0.0001). **Psychological health.**YA had poorer quality of life (EQ-5D tariff β -0.21; 95% CI -0.23, -0.18; p<0.0001 - 21 points out of 100 lower) than the general population. They had inferior mental wellbeing (Warwick Edinburgh Mental Wellbeing Scale β -4.8, 95% CI -6.22, -3.39; p<0.0001 - 4.8 out of 70 points lower) and twice the likelihood of having a psychological disturbance (OR 2.1, 95% CI 1.7, 2.8; p<0.0001) compared to the general population. Using the 12-item general health questionnaire 31% had a psychological disturbance but only 17% reported their mental health was affected by their condition. **Lifestyle.**YA reported more positive lifestyle behaviours: being more likely to have never smoked (OR 2.8; 95% CI 2.1, 3.7; p<0.0001), less likely to have ever tried cannabis (OR 0.2; 95% CI 0.1, 0.4; p<0.0001), other street drugs (OR 0.4; 95% CI 0.2, 0.8; p=0.008), or to have been in trouble with the law (OR 0.4; 95% CI 0.2, 0.6; p<0.0001), compared to the general population.
**CONCLUSIONS:** Because we identified more psychological problems using screening than YA on RRT were aware of having, psychological problems may be underdiagnosed in this group. This study comprises the largest cohort of YA transplant and dialysis patients to date, and provides the strongest evidence of worse psychosocial outcomes but more positive lifestyle behaviours in YA on RRT, compared to the age-matched general population. In further work we will examine aspects of chronic disease between patient groups, and explore characteristics predictive of key outcomes, such as quality of life.