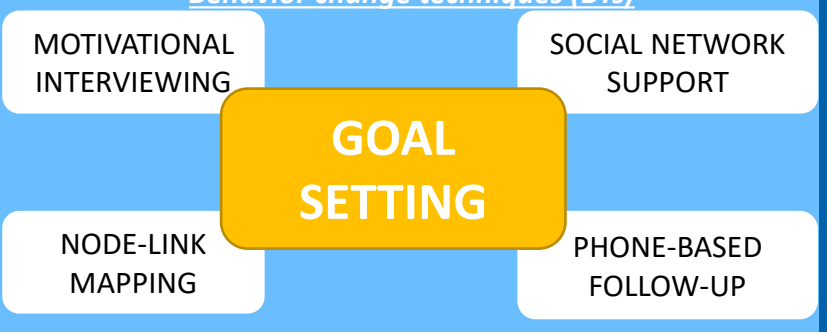
# Comparing glycaemic benefits of active versus passive lifestyle intervention in kidney allograft recipients (CAVIAR): a randomised controlled trial

***Background***:
New-onset diabetes is common after kidney transplantation but the benefit of lifestyle intervention to improve glucose metabolism is unproven.

***Methods:***
- RCT of 130 non-diabetic stable kidney transplant recipients.
- 3-24 months post-transplant randomised to active intervention (**renal dietitian-led** lifestyle advice using **behaviour change techniques**) vs passive intervention (leaflet advice alone)




***Results:*** N= 103 completed the study (20.8% drop out) over the six-month trial intervention.

| | OUTCOME | MEAN DIFFERENCE (active versus passive) | P VALUE |
|---|---|---|---|
| PRIMARY | **Insulin secretion** | -446 [-3184 to 2292] | 0·748 |
| | **Insulin secretion** | -0·45 [-1·34 to 0·44] | 0·319 |
| | **Disposition index** | -940 [-5655 to 3775] | 0·693 |
| | | | |
| SECONDARY | **Weight (kg)** | -2·47 [-4·01 to -0·92] | 0·002 |
| | **Fat mass (kg)** | -1.537 [-2.947 to -0.127] | 0.033 |
| | **Incidence of post-transplant diabetes (PTDM)** | 7.6% versus 15.6% | 0.123 |

***Discussion:*** *Renal* dietitian-led lifestyle intervention utilising defined BCTs failed to demonstrate improvement in parameters of glucose metabolism but conflictingly suggested some improvement in clinical outcomes such as weight and risk for PTDM.

***Conclusion:*** This study is the first lifestyle intervention trial designed to improve glycaemic metabolism after kidney transplantation, and introduces the concept of incorporating evidence-based BCTs into post-transplant care, but further research investigation is warranted to determine beneficial effects on clinical outcomes.

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