

Interventions for Promoting Adherence to Fluid Intake and Dietary Salt Restriction in Patients with End-Stage Kidney Disease: A Systematic Review

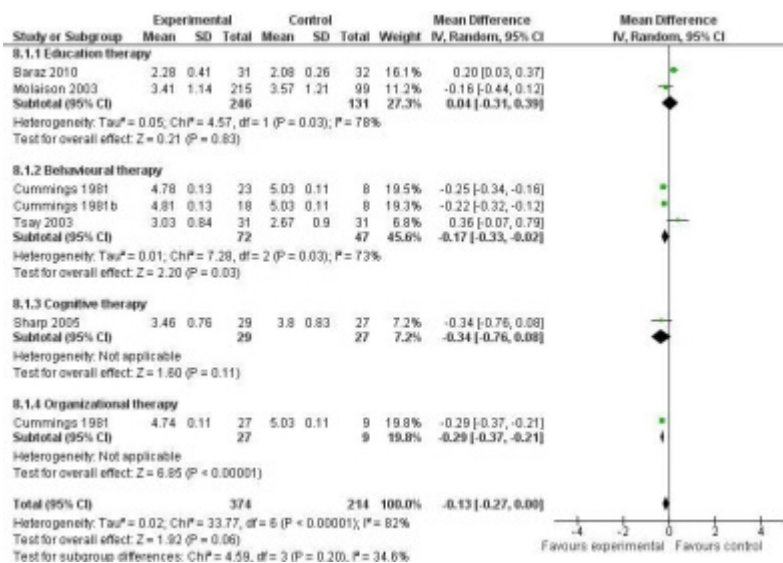
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BACKGROUND: Volume overload is common in end-stage kidney disease (ESKD), and high interdialytic weight gain (IDWG) is associated with hypertension, cardiovascular events and mortality. Strategies to improve adherence to salt and fluid restriction have not been formally summarized. This was the aim of our systematic review.

METHODS: We searched the Cochrane Renal Group specialized registry, Medline and EMBASE to April 2012 for randomized trials of non-pharmacological interventions to improve adherence to salt and fluid restriction, compared head-to-head or versus routine care, in ESKD patients, either not on dialysis, on hemodialysis, or on peritoneal dialysis. Data on mortality, cardiovascular events, quality of life and surrogate endpoints (including IDWG as a volume status measure) were extracted where available. A meta-analysis using random effects model with results expressed as relative risks or weighted mean differences with 95% confidence intervals was done and risk of bias assessed.

RESULTS: Nine trials (n=914) were eligible, 8 in hemo and 1 in peritoneal dialysis. Participant age was 55.6 (SD 7.8) years, dialysis vintage 43.9 (SD 18.4). In hemodialysis patients, education and cognitive therapies did not significantly reduce end of treatment IDWG compared to routine care, while behavioral and organizational therapy (nurse phone calls) did. There were no data on any hard end points.



CONCLUSIONS: Existing data on interventions to promote adherence to dietary salt and fluid restriction are limited and showed minimal or no benefit. Behavioral therapies may be promising but deserve further study.