

SCOPING AN INTERVENTION TO ENHANCE MEN'S WELLNESS AFTER PROSTATE CANCER TREATMENT

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Stage 1

Research

L Teleni et al.

Exercise in ADT-treated prostate cancer

23:2

101–112

Exercise improves quality of life in androgen deprivation therapy-treated prostate cancer: systematic review of randomised controlled trials

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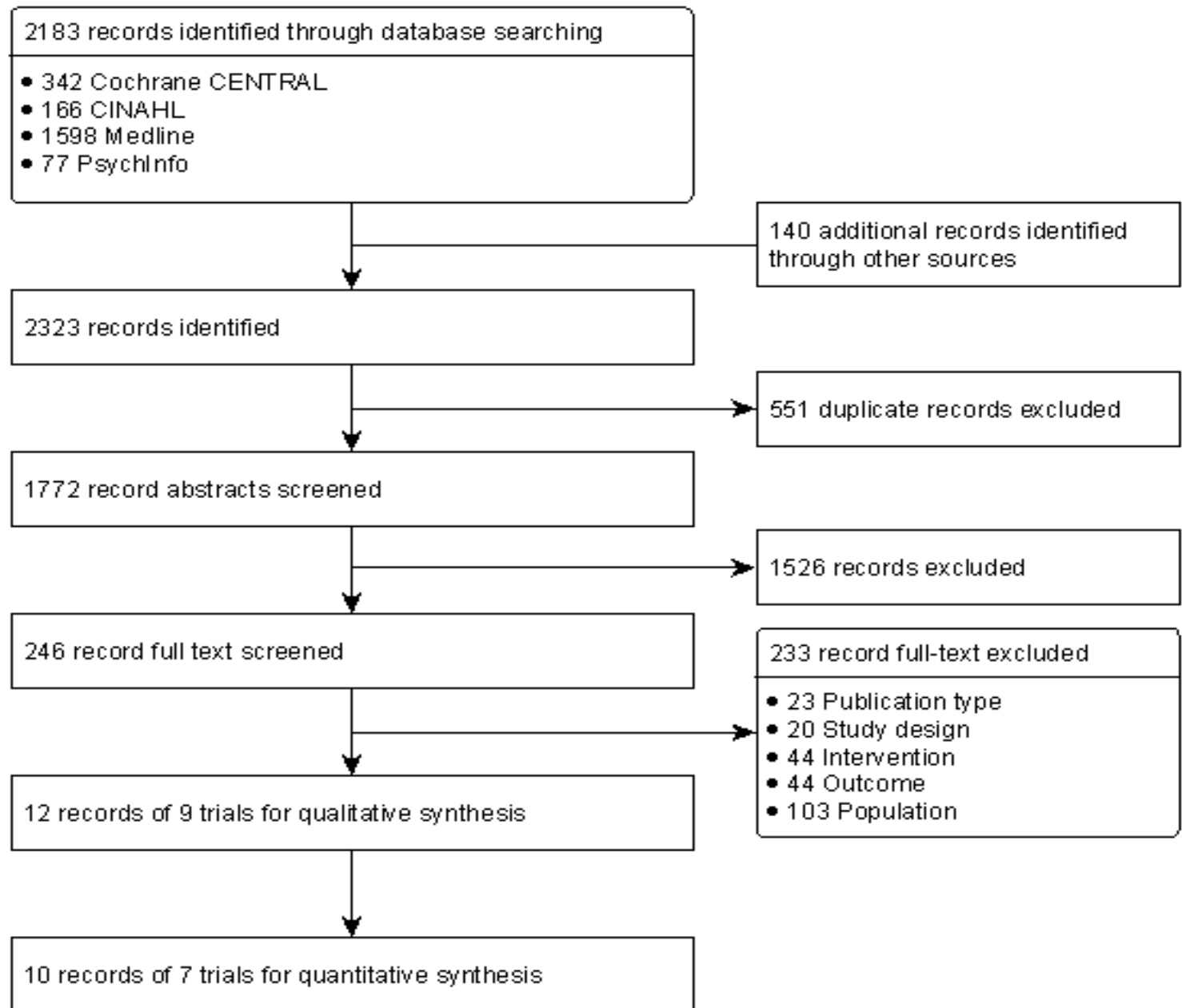
Medline search strategy

Subject	MeSH and keywords
Prostate cancer	"Prostatic Neoplasms" [MeSH] or prostate cancer
Dietary interventions	"Diet" [MeSH] or "Diet Therapy" [MeSH]
Dietary supplements	"Isoflavones" [MeSH] or isoflavones or "Flax" [MeSH] or flaxseed or "Soy Milk" [MeSH] or "Soy Foods" [MeSH] or soy or "Soybean Proteins" [MeSH] or "Carotenoids" [MeSH] or "Vitamin E" [MeSH] or lycopene or "Folic Acid" [MeSH] or folate or "Dietary Supplements" [MeSH] or "Complementary Therapies" [MeSH] or "Naturopathy" [MeSH]
Fruit, vegetables and fibre	"Fruit" [MeSH] or fruit or "Vegetables" [MeSH] or vegetables or "Dietary Fiber" [MeSH] or dietary fibre
Dairy, meat and fat	"Dairy Products" [MeSH] or dairy or "Calcium, Dietary" [MeSH] or "Meat" [MeSH] or "Dietary Fats" [MeSH]
Exercise interventions	"exercise" [MeSH] or "physical endurance" [MeSH] or "Exercise Therapy" [MeSH]
Search limits	English language, 2004-current, all adult (19 plus years)

Outcomes of interest

- Metabolic risk factors such as elevated lipid profiles
- Insulin resistance
- Blood pressure
- Body composition
- Androgen deprivation symptoms such as vasomotor distress, insomnia, mood swings and depression
- Quality of life

Prisma flow chart



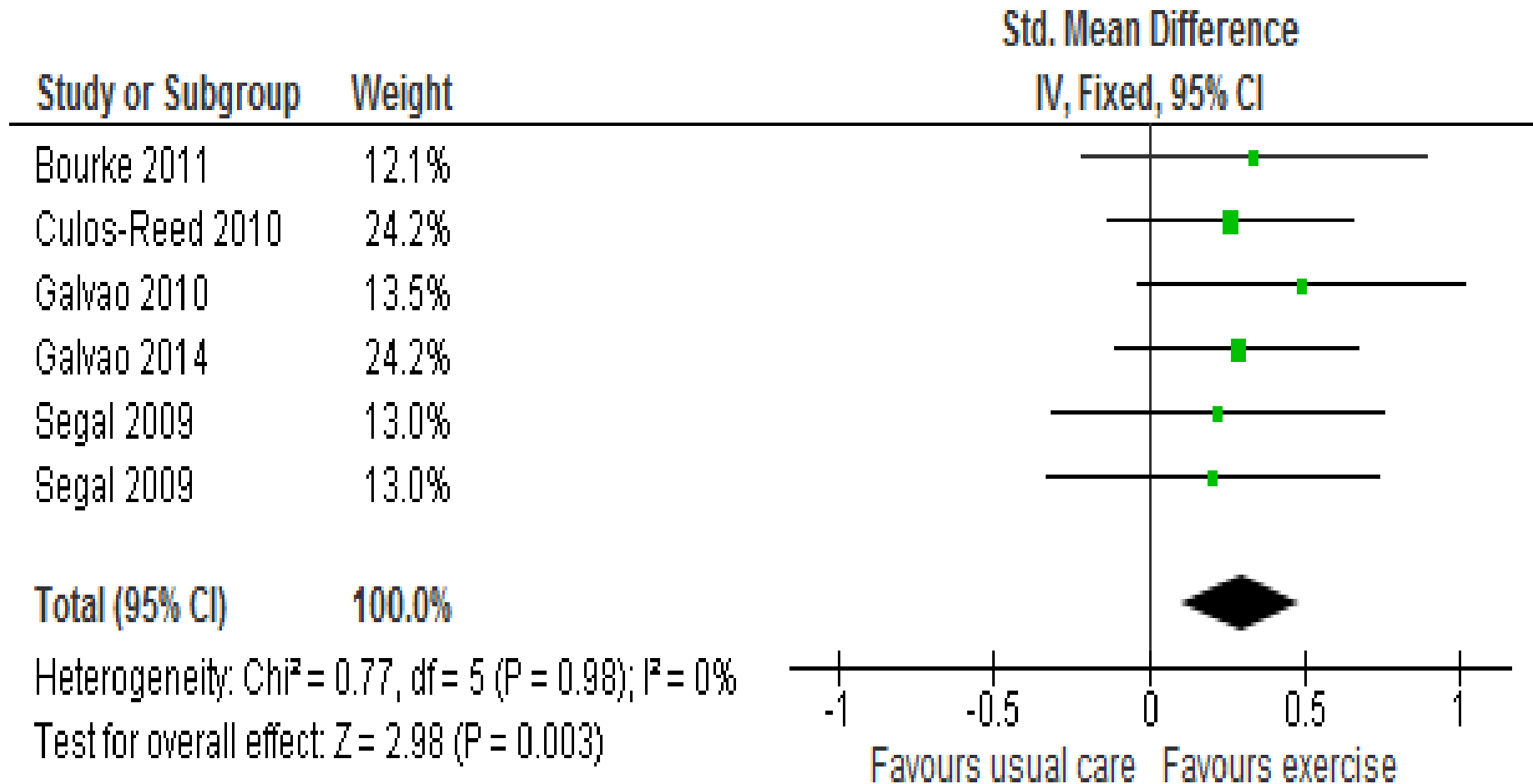
Risk of Bias

	Random sequence generation (selection bias)	Blinding of participants and personnel (performance bias)	Allocation concealment (selection bias)	Incomplete outcome data (attrition bias)	Blinding of outcome assessment (detection bias)	Groups comparable at baseline	Consistent treatment between groups	Consistent outcome measures between groups	Reliability of outcome measures	Reliability of statistical analyses	Selective reporting (reporting bias)
Bourke 2011	+	-	+	+	+	+	+	+	+	+	?
Bourke 2014	+	-	+	+	+	+	+	+	+	+	+
Culos-Reed 2010	?	-	?	+	?	+	+	+	+	+	+
Galvao 2010	+	-	+	+	?	+	+	+	+	+	+
Galvao 2014	+	-	?	+	-	+	+	+	+	+	+
Segal 2009	+	-	+	+	?	+	+	+	+	+	+
Sharma 2009	+	+	+	-	+	+	+	+	+	+	+
Uth 2014	+	-	+	?	-	+	+	+	+	+	+
Vitolins 2013	+	+	?	-	+	+	+	+	+	+	+

Metabolic risk factors and exercise

Outcome	Studies	Participants	Effect estimate
Weight [kg]	4	310	0.26 [-2.40, 2.93]
BMI [kg/m ²]	4	371	0.08 [-0.79, 0.95]
Waist circumference [cm]	2	200	-0.38 [-2.97, 2.22]
Lean body mass [kg]	4	335	-0.20 [-1.72, 1.32]
Fat mass [kg]	3	214	-0.61 [-2.48, 1.26]
Fat mass [%]	4	335	-0.71 [-1.96, 0.55]
Total cholesterol [mmol/L]	2	157	0.13 [-0.18, 0.44]
Triglycerides [mmol/L]	2	157	-0.06 [-0.27, 0.15]
LDL [mmol/L]	2	157	0.06 [-0.20, 0.32]
HDL [mmol/L]	2	157	0.06 [-0.05, 0.16]
Systolic BP [mm Hg]	3	300	1.72 [-2.47, 5.90]
Blood glucose [mmol/L]	2	157	0.13 [-0.18, 0.44]

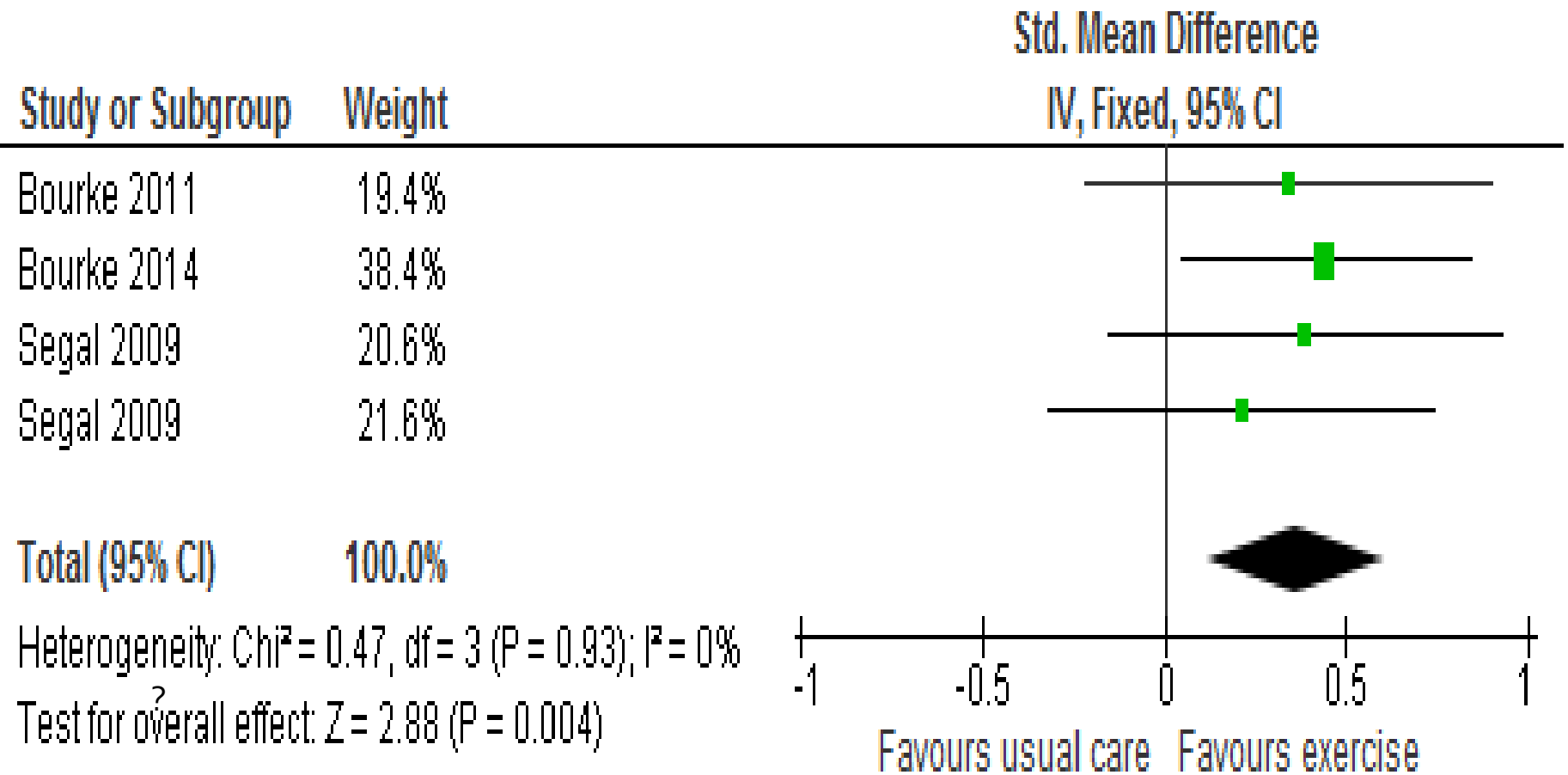
Exercise v usual care on health-related quality of life



SOY V PLACEBO ON HEALTH-RELATED QUALITY OF LIFE.

SMD = 0.01; 95% CI = -0.38, 0.41

Exercise v usual care on disease-specific quality of life



SOY V PLACEBO ON DISEASE-SPECIFIC QUALITY OF LIFE ??????????????

Strengths, limitations and future directions

Strengths

- Quantitative analysis, minimal heterogeneity, low risk of bias in studies
- Independent data extraction
- Risk of bias assessment completed independently by 2 reviewers

Limitations

- No dietary studies (except soy) or bone health studies
- Not enough data to evaluate AET vs RET
- No control for interventionist contact – might affect QoL perceptions

Future directions

- Effect of dietary counselling on outcomes
- Effect of RET vs AET vs combined modality on outcomes
- Interventions that address metabolic risk factors (?longer trials) and bone health

Complementary interview study

What is the best content and format of a lifestyle program for men with prostate cancer treated with ADT?

- 20 men interviewed
- Interviews and analysis framed according to PRECEDE model:
 - Predisposing
 - Enabling
 - Reinforcing factors.
- E.g. experiences of treatment, treatment-related education and lifestyle needs, suggestions for format, content and timing of lifestyle intervention

Findings

- This cohort were very health literate and practised healthy lifestyle
- Different preferences for content, timing and format e.g. paper-based vs face-to-face vs internet-enabled, group vs individual **however** were overwhelmingly uninterested in such a program
- **UNLESS** it addressed urogenital issues – erectile dysfunction, poor libido and urinary incontinence.

The way forward

- Masters student (prostate cancer specialist nurse) currently analysing the interview data
- ? Publication of interview data, future collaborations with experts in this field