

Project DIRECT-sc

Depression Intervention via Referral, Education and Collaborative Treatment Self-Care

Telephone coaching increases adherence to depression self-care tools among primary care patients with chronic physical conditions: Results of a randomized trial

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Depression and self-care of chronic conditions

- Chronic physical conditions are risk factors for depression
- Depression reduces adherence to self-care for chronic conditions
- Self-care interventions for chronic conditions can have beneficial effects on depression

Depression self-care interventions

- **What are they?**
 - Include behavioral activation, cognitive restructuring, and problem solving.
 - “Low-intensity” (< 3 hours professional support)
 - Variety of tools and delivery methods
- **Do they work?**
 - Meta-analyses indicate that these interventions can be effective
 - Supported interventions appear to be more effective than unsupported interventions
- **Limitations:**
 - No direct comparison between supported and unsupported interventions
 - Little research on older populations, with chronic physical conditions, and comorbid depressive symptoms

Feasibility study

- Target population: primary care patients aged 40+ with selected chronic conditions and comorbid depressive symptoms
- Developed intervention: toolkit and coaching manual
- Assessed feasibility and acceptability from perspectives of patients, family members, and family doctors

Results of feasibility study

- Intervention was acceptable
- Significant improvement in depressive symptoms at 6 month follow-up
- Use of behavioral (skills-building) tools was associated with greater improvement
- Many participants reported that the coaching was helpful but not essential

RCT design

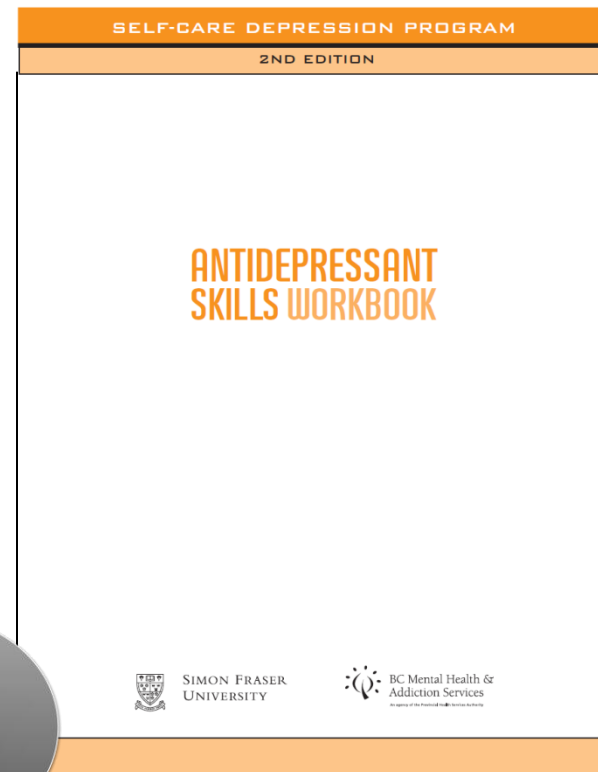
- RCT to compare a supported vs unsupported toolkit
- Eligibility criteria expanded to include any chronic physical conditions or chronic pain
- Recruitment procedures modified: patients recruited directly
- “Watchful waiting” period (4 weeks) included
- Intervention more structured and individualized

RCT Interventions

- **Intervention group:**
 - Toolkit
 - Core tools
 - Supplementary (optional) tools
 - Weekly coach calls (for 3 months) then monthly up to 6 months
 - Coach used PHQ-9 at each contact to tailor intervention to specific symptoms or problems.
- **Control group**
 - Toolkit only

Core tools: Workbook

- Antidepressant Skills Workbook
 - Informational and skills-building
 - Paper and audio versions



Core tools: DVD

- DVD – Finding a Way out of Depression









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Core tools: Mood monitoring sheets

DAILY MOOD







Date:

Morning		←	1	→	2	→	3	→	4	→	5	→	6	→	7	→	8	→	9	→	10	→	
Afternoon		←	1	→	2	→	3	→	4	→	5	→	6	→	7	→	8	→	9	→	10	→	
Evening		←	1	→	2	→	3	→	4	→	5	→	6	→	7	→	8	→	9	→	10	→	

What happened today? Note any thoughts, activities, or events.

DAILY MOOD







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DAILY MOOD

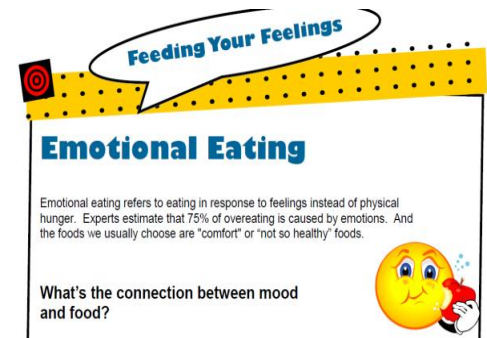
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Supplementary tools

- Relaxation CD
- Medication misuse information
- Emotional eating information
- Additional resources
 - Booklet for family members and friends
 - Information on community resources
 - Suggested readings and internet sites



RCT Outcomes

Primary Outcome:

- Severity of depressive symptoms at 6 months (PHQ-9)

Other Outcomes:

- Adherence to intervention at 3 months
- Severity of depressive symptoms at 6 months (PHQ-9)

Sample size

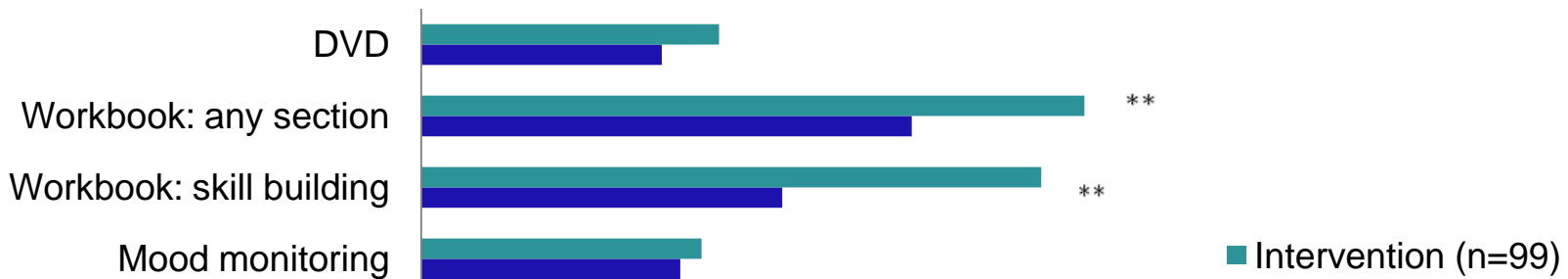
- **Planned sample size**
 - 250 (125 per group)
 - 200 subjects (80%) expected to complete 6-month follow-up
 - >80% power to detect, at $p=0.05$, an effect size of at least 0.40 for the primary outcome
- **Actual recruitment and follow-up :**
 - 1049 patients referred from 18 practices
 - 399 eligible: 223 (55.9%) consented and randomized
 - Follow-up:
 - 190 patients (85%) completed 3-month follow-up
 - 172 patients (77%) completed 6-month follow-up.

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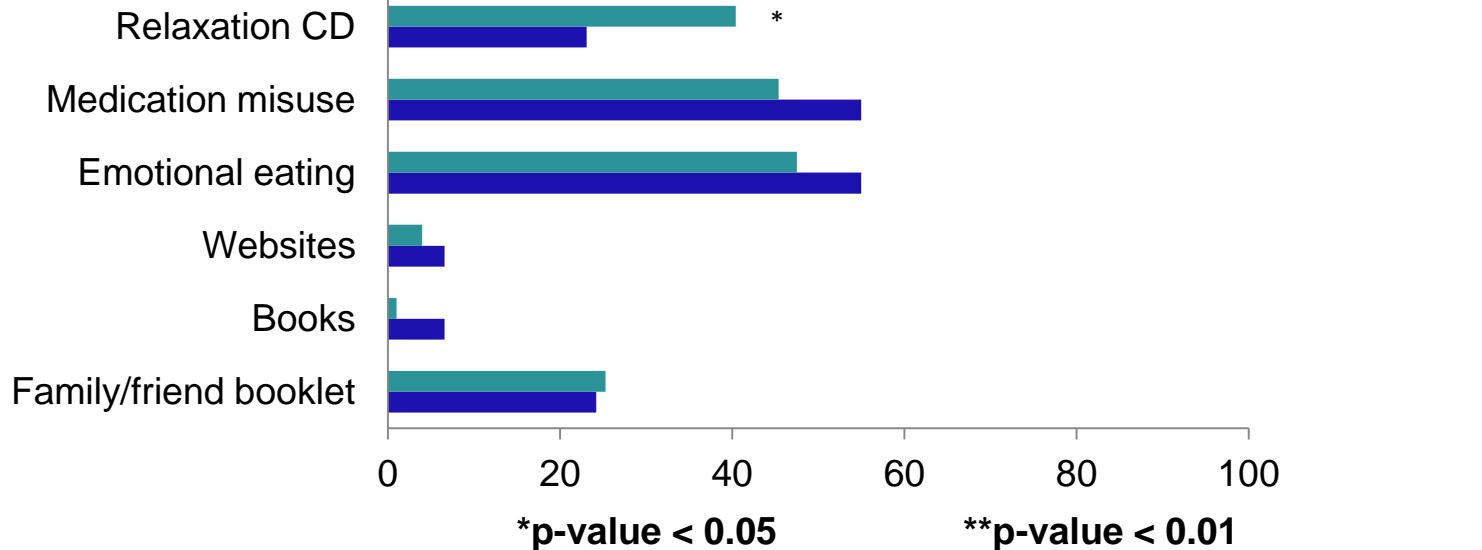
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Patient-reported use of self-care tools at 3 months, by randomization group (n=190)

Core tools



Optional tools



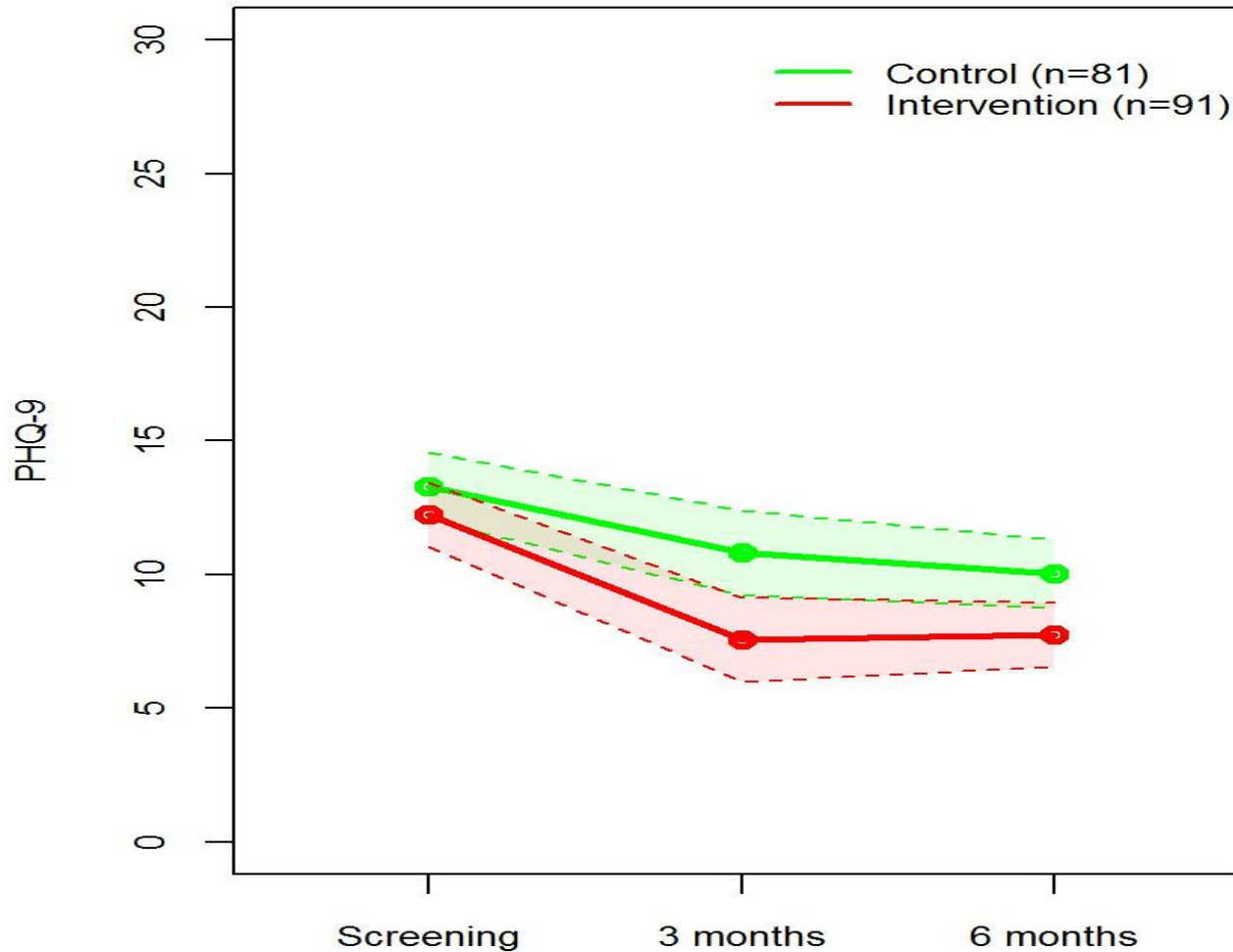
Coaching contacts in intervention group (n=97)

- Mean: 9.1 calls (SD 5.1)
- Median: 10 calls (range 0-15 calls)
- Mean duration of each call: 11.2 minutes
- Mean overall coach contact: 102 minutes

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Predicted PHQ-9 scores* (and 95% confidence intervals) for Intervention and Control groups at screening, 3 months and 6 months (n=172)



*Based on linear mixed model (best fit with time and study group)

Effect size estimates

3 months: 0.44 (95% CI 0.16; 0.72)

6-months: 0.24 (95% CI-0.01; 0.60)

- Both effect sizes adjusted for baseline imbalance. 6-month effect size also used IPW for missing data.
- Prior meta-analysis by Gellatly (2007) found overall ES of 0.43. ES for guided intervention: 0.80.

Conclusions

- Lay telephone coaching can change patterns of use of depression self-care tools and improve depressive symptoms in the short term.
- Longer term the effects of coaching on depressive symptoms are attenuated and no longer significant.

Limitations

- Effect of toolkit alone was not compared to an untreated control group.
- Both study groups received a brief orientation to the toolkit at study entry.
- 3 month follow-up interview may have had intervention effect.

Policy implications

- Provision of coaching may not be needed for depression self-care interventions in this population.
- A significant minority of patients given self-care tools may not use them.