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Effectiveness of stress control classes: A multi-service practice research network study

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The PRN

IAPT services:
- Leeds
- Sheffield
- Cumbria
- Barnsley
- Kirklees
- York
- Doncaster
- East Riding
- Lancashire

Universities:
- U. of Sheffield
- U. of York
- U. of Huddersfield
• Stress Control (SC) is a brief educational class about stress and anxiety management skills
• It usually lasts 6 sessions
• It includes lectures delivered by mental health workers and additional handouts / information
• It doesn’t require participants to talk about their problems or symptoms
• Participants have a chance to approach the class facilitators to ask questions or obtain advice
• Friends/relatives can also attend in some cases
• Provided in all/most IAPT services
Aims

• To scope stress control provision across the services
• To evaluate outcomes across stress control classes
• To compare outcomes between the five services using routinely collected IAPT measures
• To investigate relationship between client variables and outcome (baseline severity; socio-economic status).
• 4,451 people accessed 163 SC classes across the 5 services over 2 years
• 12.6% of cases receiving an intervention at step 2 received SC.
• SC groups had between 4 and 111 participants; mean = 48.77, SD = 27.42, median = 45.
• Based on defining completers as attending at least 4 sessions, treatment completion rate for SC was 70%.
• Approximately 15% accessed further treatment on completion of SC, either at steps 2 and 3, or were signposted to other services.
Stepped care pathway for stress control participants

- Total referrals to 5 northern IAPT services between 2013-15: N = 97,020 (range = 11,560 to 33,562)
- Cases that entered treatment (≥2 contacts) and were discharged during 2013-15: N = 48,698 (50.2% of referrals)
- Started treatment at step 2: N = 35,410 (72.7% of cases)
- Started treatment at step 3: N = 13,288 (27.3% of cases)
- Accessed stress control (SC) intervention: N = 4,451 (12.6% of step 2 cases)
  - Completed ≥4 sessions: N = 3,092 (69.5% of SC cases)
  - Dropped out (<4 sessions): N = 1,359 (30.5% of SC cases)
- Accessed further treatment: N = 445 (14.4%)
  - Breakdown:
    - @ step 2 = 330
    - @ step 3 = 94
    - @ other services = 21
- Accessed further treatment: N = 239 (17.6%)
  - Breakdown:
    - @ step 2 = 186
    - @ step 3 = 42
    - @ other services = 11
Participant characteristics

- 63% of SC participants were female, with a mean age of 43 (range: 16 – 89).
- 92.6% were white British ethnic background.
- 71.4% were self-referred; 21% referred by GPs; 7.5% by other professionals.
- The most common primary diagnoses were mixed anxiety & depression (60.8%), GAD (19.7%) and depressive episode (11.1%).
Mean baseline severity scores

GAD-7 = 11.87 (SD = 5.33)

PHQ-9 = 12.13 (SD = 6.02)

Work & Social Adjustment Scale = 14.82 (SD = 8.84)
Outcomes

- Approximately 42% showed reliable and clinically significant improvement after SC (RCSI)
- People who attended more sessions were more likely to recover
- The pooled GAD-7 effect size for all sites was $d = 0.70$, which was consistent with efficacy benchmarks for guided self-help interventions ($d = 0.69$). One site had significantly lower effects ($d = 0.48$), which was explained by differences in treatment length and case-mix.
- PHQ-9 ES = 0.59
- WSASES = 0.47
Benchmarking analysis of SC interventions across 5 IAPT services

**Graph Description:**
- **Y-axis:** Participating IAPT services (A, B, C, D, E, Pooled)
- **X-axis:** GAD-7 effect size ($d$) and 95% confidence intervals
- **Data Points:**
  - SC benchmark (0.62)
  - GSH benchmark (0.69)

**Legend:**
- Small effect size
- Medium effect size
- Large effect size
Analysis of case-mix and group effects

- Multilevel regression model (MLM) which takes account of hierarchical nature of the data
- Cases were nested within SC groups, and groups were nested within sites
- MLM to investigate if outcomes influenced by patient characteristics (case-mix), after controlling for differences between sites and variability in outcomes attributable to groups (group effects).
- Post-treatment GAD-7 score was primary outcome measure
- Analysis was restricted to a subsample where each SC group had at least 5 participants (Total = 4,220 cases within 161 groups).
• Group size (number of participants in each SC class) did not predict post-treatment anxiety scores
• Higher post-treatment anxiety scores were found for cases in the most socioeconomically deprived areas and those with higher baseline GAD-7, PHQ-9 and WSAS scores
• Age, gender, ethnicity and employment status were not found to predict outcomes
• The site variable was no longer statistically significant in model that took account of differences in group and case mix variables, suggesting they fully explain differences between services
• Compared to most other sites, patients in site E attended a lower mean number of SC sessions ($F(4, 4804) = 28.483, p <.001$), they lived in more socioeconomically deprived areas (IMD; $F(4, 4743) = 12.786, p <.001$), they had higher baseline anxiety (GAD-7; $F(4, 3291) = 9.842, p <.001$), depression (PHQ-9; $F(4, 3256) = 10.836, p <.001$) and functional impairment scores (WSAS; $F(4, 3171) = 62.459, p <.001$).
Dose-response in stress control interventions

Cumulative gains in recovery

% Recovered (RCSI)

SC cases clustered by total sessions attended
Caterpillar plot: variability in GAD-7 outcomes
Service users’ views

- Very helpful, even for some with long standing MH problems.
- Questioned whether benefits lasted – longer term follow up required
- Some parts more relevant than others – sign posting to more information on topics of most relevance.
- How to keep people engaged when most relevant topics come later – stress connectedness and flag up future topics, preparatory information, video
- Case examples not so relevant to backgrounds of those attending
- Importance of a friend/family member attending
- What happens after the classes? Like “falling off a cliff”; “fall through cracks”
- Importance of feeling supported, hope, structure of sessions.
- Some presenters more effective than others – if they used own words, not just follow ‘script’.
Our conclusions

• About 42% showed reliable and clinically significant improvement and effect sizes equivalent to other low intensity interventions – but how much can we attribute to SC?
• Attending more sessions associated with better results – may be that those who don’t find it helpful drop out
• Why do about a third drop out (attend less than 4 sessions) and what happens to them? Why are so few stepped up?
• Longer term follow up required
• Importance of engaging significant others in self management
• People with severe depression/ anxiety symptoms, and those in more socio-economically disadvantaged areas seem to gain less from attending SC – these factors should be taken account of when comparing services.
• Thank you