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Brief report

Psychologically informed leadership coaching positively impacts the mental well-being of 80 senior doctors, medical and public health leaders

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Abstract

Introduction Senior doctors, medical and public health leaders frequently experience poor levels of mental well-being. The aim was to investigate whether psychologically informed leadership coaching impacted on the mental well-being of 80 UK-based senior doctors, medical and public health leaders.

Methods A pre–post study was undertaken during 2018–2022 of 80 UK senior doctors, medical and public health leaders. Before and after measures of mental well-being were measured using the Short Warwick-Edinburgh Mental Well-Being Scale. The age range was 30–63 years (mean 44.5, mode and median, 45.0). Thirty-seven participants were male (46.3%). The proportion of non-white ethnicity was 21.3%.

Participants undertook an average of 8.7 hours of bespoke 1:1 psychologically informed leadership coaching.

Results The mean well-being score before the intervention was 21.4 (SD=3.28). The mean well-being score after the intervention increased to 24.5 (SD=3.38). A paired samples t-test found that the increase in metric well-being scores after the intervention was statistically significant ($t=-9.52$, $p<0.001$; Cohen's $d=3.14$).The mean improvement was+17.4% (median 115.8%, mode 100, range −17.7% to+202.4%). This was observed particularly in two subdomains.

Conclusion Psychologically informed leadership coaching may be an effective way to improve mental well-being outcomes in senior doctors, medical and public heath leaders. The contribution of psychologically informed coaching is currently limited in medical leadership development research.

Introduction

Doctors are in a unique position to respond effectively to the challenges facing humanity and healthcare: effective clinical leadership is essential to improving health outcomes.[1–3]

Four recent systematic reviews have confirmed that commonly used methods of medical leadership development, including coaching, lead to significantly improved outcomes at individual, organisational and clinical levels.[2 4–6]

There is concern that medical staff, including medical–managers and leaders, experience poor levels of well-being.[7 8] The uniqueness of their position and feelings of unpreparedness for leadership roles may be a source of occupational strain. Coaching can not only develop leaders but also has significant positive effects on well-being, especially psychologically informed coaching.[9–11] This is termed ‘Coaching Psychology’, and is a new subdiscipline of psychology formally recognised by the British Psychological Society (see Footnote). A recent National Institute for Health and Care Excellence (NICE) Evidence Review[12] found that ‘preventative coaching’ resulted in improved quality of life, reduced job stress and reduced mental illness symptoms.

The aim of this experimental ‘pre–post’ study was to investigate whether psychologically informed leadership coaching impacted on the mental well-being of senior doctors, medical and public health leaders. The data are based on a cohort of 80 UK-based senior doctors, medical and public health leaders who completed a bespoke, 1:1, psychologically informed leadership coaching programme. Changes in validated mental well-being outcomes were measured using the Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS): this positively worded, seven-item interval scale is a simple to use, internationally recognised and scientifically validated measure of mental well-being.[13 14]

Method

The sample comprised a cohort of 80 senior doctors, medical and/ or public health leaders who had voluntarily sought out 1:1 psychologically informed coaching for leadership development during 2018–2022.

The intervention comprised individual psychologically informed leadership coaching programmes; participants undertook an average of 8.7 hours of coaching (range 3–36, mode 6, median 9). As coaching is a heutagogical approach to learning, self-identified goals were chosen by the participants and were primarily focused on: identifying future career direction; improving work–life balance; and improving leadership competence, including at board or system level. A minority of participants’ goals (less than 10%) specifically focused on improving mental well-being. All sessions were 1:1 format. The mechanism was leadership coaching grounded in coaching psychology, and integrated a range of evidence-based approaches in a flexible manner according to each participant’s needs: the intervention taxonomies used are in online supplemental appendix 1. Participants with self-disclosed or

suspected current or recent moderate or severe mental illness were excluded for ethical reasons.

Delivery took place using a combination of in-person and/ or online coaching sessions over a period of several months, with between session ‘homework’. Coaching sessions were 90 min long, generally between 2 and 4 weeks apart.

Before and after data were collected using ‘raw’ SWEMWBS scores. These were converted into metric scores[15] to allow assessment of ‘statistically meaningful change’ for each participant. Statistically meaningful change is a feature of the scale’s psychometric properties, defined as greater than or equal to 2.0 metric points in either a positive (‘meaningful positive change’) or negative (‘meaningful negative change’) direction[13] (see also footnote).

The SWEMWBS was used under licence. Each participant’s metric scores were classified into low, medium or high well-being using established parameters.[14]

Data were analysed using Excel (Microsoft V.365 Apps for Business), using the data analysis toolpack. Correlation was undertaken using CORREL function; statistical analysis was undertaken using the t-test: paired two sample for means.[16]

Results

Thirty-seven of the 80 participants were male (46.3%). The age range was 30–63 years (mean 44.5, mode 45.0, median 45.0). The proportion of non-white ethnicity was 21.3% (17).Nineteen participants (23.4%) were senior doctors who were not in a formal leadership role; 37 (46.2%) senior doctors in formal leadership roles; 8 (10.0%) were public health leaders who were also doctors and 16 (20.0%) were non-medical public health leaders.

The mean well-being score before the intervention was 21.4 (SD=3.28). The mean well-being score after the intervention increased to 24.5 (SD=3.38). A paired samples t-test found that the increase in metric well-being scores after the intervention was statistically significant ($t=-9.52$, $p<0.001$; Cohen’s $d=3.14$). The mean improvement was+17.4% (median 115.8%, mode 100, range −17.7% to+202.4%).

Sixty-three participants achieved a meaningful positive change (79.8%). Fourteen participants achieved neither a meaningful positive or a meaningful negative change (17.5%). Three participants achieved a meaningful negative change (3.8%), all of whom reported positive outcomes from the intervention in their qualitative feedback.

Before the intervention, 43.8% of participants had ‘low well-being (<19.5 metric, n=35), 51.2% had moderate well-being (19.6–27.4 metric, n=41), 5.0% had ‘high well-being’ (>27.5 metric, n=4). After the intervention, 8.8% had ‘low

well-being'. 75.0% had 'moderate well-being' and 16.3% of participants had 'high well-being'. This is shown in figure 1.

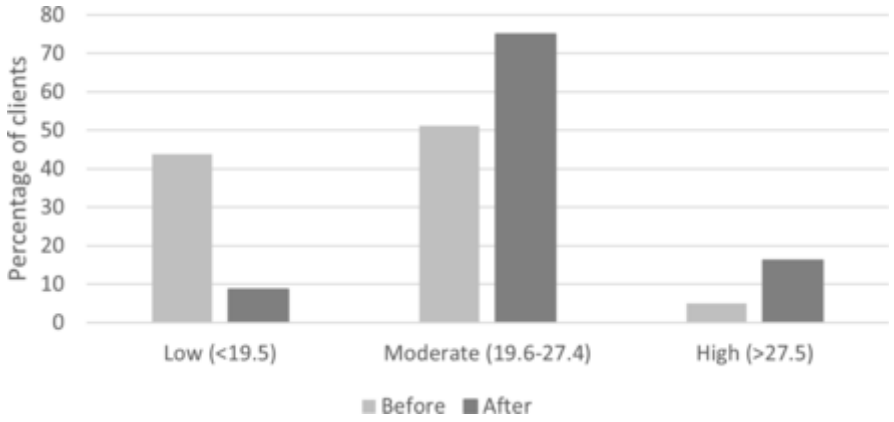

Figure 1

Percentage of respondents' metric SWEMWBS scores before and after coaching intervention (n=80). SWEMWBS, Short Warwick-Edinburgh Mental Well-Being Scale.

All domains of well-being were positively impacted by the intervention, the greatest improvement was in 'feeling optimistic about the future' (average of +0.79 improvement), and 'able to make my mind up about things' (average of +0.60 improvement).

There was no correlation between net change in score and the number of coaching sessions in the intervention (r=0.163). There was a weak negative correlation between metric scores before and after the intervention (r=−0.445).

Discussion

These findings are based on a highly specific sample of senior doctors, medical and public health leaders in the UK, who had actively sought out psychologically informed leadership coaching. They are likely to be broadly typical of the wider medical and public health leadership population in the UK.

Participants' mean SWEMWBS scores before the intervention (21.2 metric) were lower than the population average (23.6 metric),[14] after the intervention, the mean was slightly above the population average (24.5). The participants are likely to be representative of their peers, as senior clinicians and healthcare leaders are known to have low well-being and high rates of stress related illness.[7 8]

There was a weak negative correlation between before and after well-being scores, indicating that the lower the initial well-being score, the greater the potential greater capacity to benefit. Capacity-to-benefit and person-to-intervention fit are important concepts which merit further research.

Coaching works through five main mediators[17]: individual learner 'coachability'; working alliance; organisational/system factors; coach factors

(specifically including their grounding in psychological science[9]) and the coaching intervention.

Improving psychological health is both related to and separate from treating mental illness, and evidence is emerging how to achieve this. Coaching is not a therapeutic intervention, however, it can have therapeutic benefits in terms of improved well-being outcomes. Psychologically informed coaching may provide a less stigmatising intervention for senior doctors, medical and public health leaders who do not have an active or recent mental illness but are experiencing lower levels of mental health, 'languishing', as well as for those who are already flourishing. The SWEMWBS scale inversely correlates with clinical scales,[13] ensuring appropriate boundaries between coaching and therapy is a complex and important ethical issue: it is important that coaches are independently accredited and regulated.

Limitations of the research

This study comprises a highly motivated population who proactively sought out psychologically informed leadership coaching, with multiple causes of bias. There was no randomisation, no control group, no longer-term follow-up, and there was only one coach who also undertook the evaluation. Stressors facing participants were dynamic, and the period investigated was different for different participants.

The study made no efforts to address systemic or organisational causes impacting well-being, or the impact of the intervention beyond individual well-being outcomes. The intervention included activating participants to effect change at team, organisational and system levels, however, no data were collected on this.

Each participants received a flexible and unique intervention based on their specific needs and goals: it is not possible to know which aspect of each participant’s intervention was responsible for which domain(s) of improvement in well-being. The coach’s unique set of skills, background and experience may not be replicable.

Conclusion

This study of 80 senior doctors, medical and public health leaders demonstrated a statistically significant improvement in mental well-being scores after an average of 8.7 hours of psychologically informed leadership coaching. Despite methodological limitations, the results are likely to have been attributable at least in part to the intervention. This cannot be concluded with certainty without a control group.

Ensuring that medical leaders remain psychologically well is a key concern for the future. The unique role of psychologically informed coaching in both medical leadership development and improving medical leaders’ well-being is limited in current medical leadership development research.

Ethics statements

Patient consent for publication

Not applicable.

Ethics approval

Ethical approval was not specifically sought for the use of anonymised audit data, consent was given at the point of contracting for each coaching intervention.

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Sarah Stewart-Brown, Professor of Public Health at the University of Warwick, for advice on the use of the Warwick-Edinburgh Wellbeing Scale. Daryl O'Connor, Professor of Psychology at the University of Leeds, for advice on statistical analysis. Dr Natalie Lancer, Chartered Coaching Psychologist, for advice on the potential limitations of wellbeing scales.

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Footnotes

- **Contributors** FJD has solely: Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; and rafting the work or revising it critically for important intellectual content; and final approval of the version to be published; and agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
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- **Competing interests** see uploaded disclosure form.
- **Provenance and peer review** Not commissioned; externally peer reviewed.
- **Author note** SWEMWBS is responsive to change at group level and individual level in a clinical sample of patients with depression and anxiety. Results using different standards suggest a difference of either 1 or 3 points as the threshold for statistically meaningful change at the individual level. Coaches who have a rigorous academic background in psychology may become Coaching Psychologists through the British Psychological Society, including Chartered Membership, a doctoral level award. Three other international coaching professional bodies have emerged with their own independent accreditation and governance processes.

Supplementary materials

Intervention taxonomies

The intervention taxonomies used were (not every intervention was used for every client):

1 Goals and planning (1.1 Goal setting (behavior), 1.2. Problem solving, 1.3. Goal setting (outcome), 1.4. Action planning, 1.5. Review behavior goal(s), 1.6. Discrepancy between current behavior and goal, 1.7. Review outcome goal(s), 1.8. Behavioral contract, 1.9. Commitment)

2 Feedback and monitoring (2.2. Feedback on behaviour, 2.3. Self-monitoring of behaviour, 2.4. Self-monitoring of outcome(s) of behaviour, 2.5. Monitoring of outcome(s) of behavior without feedback, 2.7. Feedback on outcome(s) of behavior)

3 Social support (3.1. Social support (unspecified))

4 Shaping knowledge (4.1. Instruction on how to perform the behavior, 4.2. Information about Antecedents, 4.3. Re-attribution, 4.4. Behavioral experiments)

5 Natural consequences (5.1. Information about health consequences, 5.2. Salience of consequences, 5.3. Information about social and environmental consequences, 5.4. Monitoring of emotional consequences, 5.6. Information about emotional consequences)

6 Comparison of behaviour (6.1 Demonstration of the behavior; 6.2. Social comparison; 6.3. Information about others' approval)

7 Associations (7.1. Prompts/cues, 7.2. Cue signalling reward, 7.7. Exposure)

8 Repetition and substitution (8.1. Behavioral practice/rehearsal, 8.2. Behavior substitution, 8.3. Habit formation, 8.4. Habit reversal, 8.6. Generalisation of target behavior, 8.7. Graded tasks)

9 Comparison of outcomes (9.1. Credible source, 9.2. Pros and cons, 9.3. Comparative imagining of future outcomes)

10 Reward and threat (10.7. Self-incentive, 10.9. Self-reward)

11 Regulation (11.2. Reduce negative emotions, 11.3. Conserving mental resources)

12 Antecedents (12.1. Restructuring the physical environment, 12.2. Restructuring the social environment, 12.3. Avoidance/reducing exposure to cues for the behavior)

13 Identity (13.1. Identification of self as role model, 13.2. Framing/reframing, 13.3. Incompatible beliefs, 13.4. Valued self-identify, 13.5. Identity associated with changed behavior)

15 Self belief (15.1. Verbal persuasion about capability, 15.2. Mental rehearsal of successful performance, 15.3. Focus on past success, 15.4. Self-talk)

16 Covert learning (16.2. Imaginary reward, 16.3. Vicarious consequences)

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