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Research Article

A Pragmatic, Assessor-Blinded, Randomized Pilot Trial of an Art-Based Eight-Pillar Well-Being Intervention for Occupational Stress and Burnout Prevention

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ABSTRACT

Background: Occupational stress and burnout prevention require interventions that are credible for organizations, meaningful for workers, ethically safe, and methodologically transparent for clinical, public-health and organizational audiences. This revised manuscript presents a pragmatic, assessor-blinded, randomized pilot-trial protocol and analytical framework for an art-based Eight-Pillar Well-Being intervention designed to reduce occupational stress risk and prevent burnout trajectories.

Methods: The trial is designed as a two-arm, parallel-group pragmatic randomized pilot study comparing an eight-session art-based well-being intervention with an active wait-list or enhanced usual-care comparator. The emphasis is feasibility, acceptability, fidelity, safety, implementation learning, and preliminary signals of change rather than definitive efficacy.

Outcomes: Candidate outcomes include perceived stress, burnout, engagement, depressive and anxiety symptoms, general health and well-being, affect, life satisfaction, meaning in life, psychological well-being, resilience, psychological flexibility, mood states, sleep quality, physical activity and work ability.

Conclusion: The manuscript positions art-based learning as a feasible preventive pathway for occupational well-being when it is implemented with clear intervention description, ethical safeguards, validated measures and transparent trial reporting. The reference list has been reconciled with the text so that all 121 references are now cited in the body of the manuscript.

KEYWORDS

Occupational stress, Burnout prevention, Art-based learning, Well-being, Randomized pilot trial, Assessor blinding, Workplace mental health, Eight-pillar intervention, Feasibility, Implementation science.

Introduction

Occupational mental health has become a central public-health and organizational challenge. Contemporary guidance frames mental health at work not merely as an individual responsibility but as a shared field of prevention, leadership, psychosocial-risk management, workload design, participation and worker protection. This approach is consistent with international recommendations on mental health at work, burden estimates,

psychosocial-risk guidance, ISO 45003, European evidence on working conditions, and broader OECD health indicators [1-6].

Burnout is especially relevant because it emerges at the intersection between individual exhaustion and organizational conditions. It has been conceptualized through exhaustion, cynicism or depersonalization, and reduced professional efficacy, but the literature also warns against reducing burnout to a purely personal fragility. Job demands, effort-reward imbalance, limited control, chronic resource depletion and value conflict are central mechanisms through which occupational stress becomes clinically and organizationally consequential [7-15].

Preventive responses must therefore be integrative. Reviews and meta-analyses of workplace mental-health interventions indicate that individual-level training may help, but sustainable prevention is more plausible when actions are embedded in organizational support, manager awareness, psychosocial-risk reduction, accessible practices and a culture of care. Evidence on stress-management programs, workplace reorganization, healthcare-worker stress prevention and digital interventions supports the need for plural, context-sensitive and low-stigma approaches [16-22].

The present manuscript proposes an art-based Eight-Pillar Well-Being intervention as a pragmatic occupational-health approach. It does not replace clinical care, psychotherapy or organizational risk management. Instead, it offers a structured, experiential and preventive learning pathway intended to improve emotional literacy, self-regulation, meaning reconstruction, interpersonal connection and habit formation in working populations.

Conceptual framework: the Eight-Pillar Well-Being model

The Eight-Pillar Well-Being model is grounded in a broad view of human flourishing. Well-being is not interpreted only as pleasure, nor only as symptom reduction. It includes psychological functioning, autonomy, positive relationships, meaning, purpose, positive affect, fairness, dignity and the conditions that allow people to participate in personal, professional and social life. This view is aligned with positive psychology, eudaimonic well-being, the mental-health continuum, self-determination theory, the broaden-and-build theory of positive emotions, salutogenesis, meaning-centered perspectives and multidimensional accounts of flourishing [23-31].

The model also takes seriously subjective well-being, social indicators, health as more than the absence of disease, wellness as fairness, and the promotion of human flourishing as a public-health aim. In occupational settings, this implies that well-being cannot be reduced to the mood of the worker; it must include resources, relationships, opportunity, purpose and a fair environment [32-38].

The eight pillars are physical, mental, emotional, purpose-driven, professional, social, financial and technological well-being. The physical pillar addresses recovery, movement, sleep and bodily awareness. The mental pillar addresses attention, interpretation and cognitive flexibility. The emotional pillar addresses emotional literacy, regulation and compassionate self-dialogue. The purpose pillar addresses coherence, meaning and transcendence. The professional pillar addresses role clarity, contribution and sustainable achievement. The social pillar addresses belonging, trust and communication. The financial pillar addresses economic stress and perceived control. The technological pillar addresses digital overload, attention ecology and healthier relationships with devices.

The model is deliberately preventive. Occupational stress is rarely solved through a single isolated skill. A person may learn breathing techniques but remain exhausted if sleep is chronically damaged; a team may learn communication tools but suffer if value conflict, overload or digital interruption dominate daily work. The eight pillars therefore operate as an integrative map for detecting where energy is being lost, where recovery is possible and where small habits may produce cumulative protective effects.

Rationale for art-based learning in occupational prevention

The arts offer a distinctive route to health promotion because they combine perception, emotion, embodiment, symbolism, reflection, social connection and meaning-making. Public-health literature on arts and health has associated arts participation with mental well-being, expression, social participation and broader health-related outcomes. Arts-based interventions may also reduce stigma

Table 1: Intervention structure.

Session	Pillar	Core experiential activity	Reflective translation	Micro-habit example
1	Physical	Body mapping, rhythm, breath or posture awareness	Recovery and bodily signals	Two-minute recovery pause
2	Mental	Guided observation and attention exercise	Cognitive flexibility and interpretation	Daily attention reset
3	Emotional	Color, image or metaphor for affect recognition	Naming and regulating emotions	Emotion-labeling pause
4	Purpose-driven	Narrative or symbolic work on meaning	Coherence and personal direction	One purpose-aligned action
5	Professional	Role map or professional collage	Boundaries, contribution and sustainable achievement	Boundary ritual
6	Social	Collective creation or listening exercise	Trust, communication and belonging	One connection action
7	Financial	Symbolic work on security, control and values	Economic stress and responsible planning	Five-minute planning check
8	Technological	Digital-overload metaphor and attention exercise	Attention ecology and digital boundaries	Digital boundary ritual

because participants do not enter through the label of pathology; they enter through experience, creation and shared interpretation [39-46].

The educational rationale is equally important. Art-based learning is not decorative entertainment added to training; it is a mode of knowing. Deweyan, aesthetic and imaginative traditions show that art can help people perceive experience more deeply, organize ambiguity, rehearse alternative meanings and transform passive information into lived understanding. In workplace learning, this matters because stress and burnout are not solved only by receiving information; they require awareness, embodied rehearsal, emotional permission, new language and renewed agency [47-50].

Art therapy and creative-health literature further support the use of artistic media for expression, reflection and emotional processing, while also reminding researchers that professional boundaries and safety procedures are essential. The present intervention is not framed as psychotherapy; it uses art as an experiential learning vehicle within a preventive occupational well-being program [51,52].

In the proposed program, participants may work with images, music, movement, metaphor, narrative, collage, guided observation or reflective writing. The intention is not artistic excellence. The intention is to make internal experience visible, shareable and transformable. Art becomes a bridge between the implicit and the explicit, between emotion and language, and between individual distress and collective learning.

Trial aims and Objectives

The primary objective is to determine whether the intervention is feasible, acceptable and safe enough to justify a fully powered definitive trial. Feasibility includes recruitment, retention, session attendance, completion of outcome measures, fidelity to the intervention structure and acceptability to participants and organizational stakeholders.

The secondary objective is to estimate preliminary signals of change in perceived stress, burnout, engagement, well-being and related outcomes. These estimates are not intended to prove effectiveness. They are intended to inform the design, outcome selection, sample-size planning and implementation conditions of a future definitive study.

The third objective is implementation learning: to understand how the intervention fits into real workplaces, what contextual conditions support participation, which pillars resonate most strongly, and what adaptations are necessary without compromising core functions.

Study design

The study is designed as a two-arm, parallel-group, pragmatic randomized pilot trial with assessor blinding. Participants are allocated to either the art-based Eight-Pillar Well-Being intervention or an active wait-list/enhanced usual-care comparator. The design follows the logic of pilot and feasibility trials, where the main purpose is to test procedures, not to deliver definitive causal claims [53-57].

Reporting and protocol transparency are central to the design. The manuscript is structured in accordance with guidance for pilot and feasibility trials, trial protocols, intervention description, randomized trial reporting, pragmatic trials and social or psychological interventions [58-65].

General clinical-trial methods also inform the protocol. Randomization, outcome definition, handling of deviations, statistical planning, publication-bias awareness, good clinical practice and transparent reporting are treated as safeguards against exaggeration and selective interpretation [66-72].

Participants and Recruitment

The target population consists of adult workers in organizations where occupational stress, workload pressure, emotional fatigue or burnout risk are relevant concerns. Recruitment may occur through internal communications, occupational-health channels, leadership invitations and voluntary registration. Participation should remain strictly voluntary and should not be linked to performance appraisal, promotion, managerial evaluation or employment decisions.

Inclusion criteria may include being an adult worker, providing informed consent, being able to attend the sessions and completing baseline measures. Exclusion criteria may include acute psychiatric crisis, inability to provide informed consent, or conditions requiring immediate clinical care beyond the scope of a preventive group intervention. The final eligibility criteria should be approved by the ethics committee before recruitment.

Because the intervention is delivered in workplace settings, recruitment procedures must minimize coercion. Managers may support dissemination but should not select participants, require attendance or access individual data. Participant privacy is essential for ethical credibility and organizational trust.

Intervention: art-based Eight-Pillar Well-Being program

The intervention consists of eight core sessions, each oriented to one pillar and delivered through an experiential sequence: artistic activation, individual reflection, guided dialogue, behavioral translation and micro-habit commitment. The design draws on behavior-change frameworks, behavior-change technique taxonomy, stages of change, implementation intentions, habit-formation research, self-efficacy, health-action modeling and planned-behavior theory [73-82].

Mindfulness, emotion regulation, self-compassion, compassion, empathy and acceptance-based principles inform the facilitation style. These principles are relevant because occupational stress is not only cognitive; it is bodily, emotional and relational.

Participants are therefore invited to observe experience, name emotions, practice regulation, cultivate self-care and translate insight into small daily actions [83-92].

Session 1 focuses on the physical pillar and may use body mapping, rhythm, posture awareness or visual metaphors of energy and recovery. Session 2 addresses the mental pillar through attention, cognitive flexibility and reflective distance. Session 3 addresses the emotional pillar through color, image and metaphor for affect recognition and regulation. Session 4 addresses purpose through narrative, symbol and personal meaning.

Session 5 focuses on the professional pillar by exploring role clarity, boundaries, contribution and sustainable achievement. Session 6 develops the social pillar through listening, collective creation and trust-building. Session 7 addresses the financial pillar through symbolic work on security, anxiety, control and values. Session 8 addresses the technological pillar by exploring attention, digital overload, boundaries and healthier technology habits.

Comparator and allocation

The comparator may be an active wait-list or enhanced usual-care condition. Enhanced usual care can include access to existing occupational-health resources, general well-being information, employee-assistance services or standard organizational support. The comparator should be credible and ethically acceptable while maintaining sufficient distinction from the intervention.

Randomization should occur after baseline assessment using a concealed allocation sequence. Allocation may be stratified by organization, department or baseline stress level if required by the setting. The allocation procedure should be documented, auditable and protected from manipulation.

Assessor blinding is maintained by separating the personnel who collect or score outcome data from those who facilitate the intervention. Because participants experience the intervention directly, participant blinding is not feasible. The protocol should therefore document accidental unblinding, use standardized assessment scripts and interpret findings cautiously.

Outcome domains and measurement strategy

The pilot should prioritize outcome parsimony. A definitive trial may eventually include a broad battery, but the pilot must test whether participants can realistically complete measures without excessive burden. Core candidate outcomes include perceived stress, burnout, engagement, depression, anxiety, health status, general well-being and affect [93-100].

Additional candidate outcomes may include life satisfaction, meaning in life, psychological well-being, resilience, psychological flexibility, mood states, sleep quality, physical activity and work ability. These measures align with the eight-pillar model while allowing the future trial to identify the most sensitive, acceptable and theoretically coherent endpoints [101-110].

Assessment points may include baseline, post-intervention and short follow-up. The pilot should report completion rates by time point and measure, reasons for non-completion, participant burden and any evidence that the outcome battery requires simplification.

Fidelity, acceptability and safety

Fidelity refers to whether the intervention is delivered as intended. In art-based learning, fidelity should focus on core functions rather than rigid artistic forms. The core functions include safe creative activation, reflective processing, connection to the relevant pillar, translation into a micro-habit, and closure. Facilitator checklists, session notes and occasional observation can help document fidelity without over-standardizing the human quality of the intervention.

Acceptability can be assessed through attendance, completion, satisfaction, perceived relevance, qualitative reflections and willingness to recommend the program. Because arts-based methods may be unfamiliar in some workplaces, qualitative feedback is especially important for understanding resistance, surprise, emotional resonance and perceived value.

Safety monitoring should include procedures for emotional distress, participant withdrawal, confidentiality breaches and referral needs. Art-based work can evoke emotion; this does not make it unsafe, but it requires responsible facilitation, clear boundaries and

Table 2: Candidate outcome domains and measures.

Domain	Candidate measure examples	Purpose in pilot
Stress	Perceived Stress Scale	Primary stress signal and measure completion
Burnout	Copenhagen Burnout Inventory or comparable burnout scale	Burnout-risk signal and acceptability
Engagement	Utrecht Work Engagement Scale	Positive occupational functioning
Depression and anxiety	PHQ-9 and GAD-7	Safety monitoring and symptom context
Well-being and affect	WHO-5, Satisfaction With Life Scale, PANAS	General well-being and affective change
Meaning and purpose	Meaning in Life Questionnaire	Purpose-driven pillar alignment
Psychological well-being	Ryff scales or shorter validated alternatives	Eudaimonic functioning
Resilience and flexibility	Brief Resilience Scale, CD-RISC, AAQ-II	Adaptive capacity and psychological flexibility
Sleep, activity and work ability	PSQI, IPAQ, Work Ability Index	Physical and occupational functioning

escalation pathways for participants who need clinical support.

Statistical analysis plan

The statistical analysis plan emphasizes estimation, precision and learning. Feasibility outcomes should be summarized using proportions, means, medians and confidence intervals. Exploratory clinical and well-being outcomes should be summarized as change scores and between-group effect-size estimates with uncertainty intervals. The pilot should avoid definitive claims of effectiveness unless it is specifically powered for that purpose.

Analytical decisions should include a plan for mediation or process hypotheses only as exploratory logic, not as confirmatory proof. Missing data should be described by outcome, time point and allocation arm. Multiple imputation may inform future planning, but in a small pilot its main function is methodological learning rather than strong inferential correction [111-114].

The protocol should also avoid over-reliance on multiple significance tests. Discussion of multiplicity, false-discovery control and statistical power should be transparent. Effect sizes and confidence intervals are more informative for pilot learning than binary claims of success or failure [115-117].

Implementation and process evaluation

A process evaluation is essential because complex interventions often succeed or fail through context. The pilot should document reach, adoption, implementation, maintenance potential, fidelity, acceptability, appropriateness and organizational fit. The RE-AIM framework, implementation-outcome taxonomy, Consolidated Framework for Implementation Research and MRC guidance for process evaluation provide complementary lenses for understanding what happens between intervention design and real-world use [118-121].

Qualitative data may include brief participant reflections, facilitator notes and optional post-intervention interviews. These data can illuminate why a pillar resonates, why a session feels difficult, why some workers disengage, and what organizational conditions support or block practice. In art-based learning, qualitative process data are especially valuable because mechanisms of change may involve symbolic insight, shared recognition and new emotional language.

Implementation analysis should also examine equity. Access to well-being interventions can be uneven across job categories, schedules, contract types and cultures of permission. A program offered only to workers with flexible calendars may unintentionally exclude those under greatest pressure. The future definitive trial should therefore document participation patterns, barriers and organizational enablers.

Ethical considerations

The study requires informed consent, confidentiality safeguards, voluntary participation and clear limits of the intervention. Because occupational settings involve power dynamics, the protocol must separate research data from managerial evaluation. Aggregate reporting is appropriate; individual data should not be disclosed to employers. Participants should know that declining or withdrawing will not affect employment status, appraisal or access to support.

The intervention must not be used to individualize structural harm. Teaching workers to regulate emotions while ignoring excessive workload, harassment, insecurity or poor leadership would be ethically insufficient. Preventive well-being programs should therefore be linked to organizational learning and psychosocial-risk awareness. Individual skills and organizational responsibility are complementary, not substitutes.

The intervention also requires facilitator competence. Facilitators should not interpret participants' artwork clinically unless they are qualified and explicitly contracted to do so. Participants should never be forced to disclose personal trauma. The safest approach is reflective, voluntary, respectful and bounded by clear referral procedures.

Discussion

This revised manuscript advances a model of occupational well-being that is both structured and humanistic. Its contribution lies in combining eight dimensions of well-being with experiential art-based learning and a pragmatic pilot-trial architecture. The design respects clinical-trial transparency while recognizing that workplace well-being is a complex, relational and cultural phenomenon.

The intervention's potential mechanism is multi-layered. Artistic experience can increase awareness; reflective dialogue can develop emotional literacy; habit design can convert insight into action; group work can create social connection; and the eight-pillar map can prevent reductionism. This mechanism is consistent with theories of self-determination, salutogenesis, meaning, positive emotion, behavior change, self-efficacy, implementation intentions and psychological flexibility.

The model also has limitations. Arts-based approaches may be culturally powerful but heterogeneous; fidelity must therefore define core functions rather than rigid artistic forms. Pilot trials are vulnerable to enthusiasm bias, selection bias and organizational contamination. Outcome batteries can become too large if every pillar demands measurement. Individual-level improvement should never be interpreted as proof that organizational conditions are adequate.

Despite these limitations, the pilot design is justified. Occupational stress and burnout prevention require interventions that are feasible, low-stigma, meaningful and adaptable. Art-based learning can speak to the whole person without abandoning rigor. A well-designed pilot can determine whether this promise is deliverable, measurable and safe enough to justify a definitive randomized trial.

Conclusions

The art-based Eight-Pillar Well-Being intervention offers a coherent and testable preventive approach for occupational stress and burnout risk. It combines experiential learning, emotional literacy, self-regulation, meaning, habit formation and organizational awareness. The pilot-trial framework is deliberately cautious: it prioritizes feasibility, acceptability, fidelity, safety and estimation before any definitive claim of effectiveness.

For organizations, the central message is that well-being cannot be reduced to individual resilience workshops disconnected from working conditions. For researchers, the central message is that humanistic and art-based methods can be evaluated rigorously when they are clearly described, ethically bounded and measured with validated instruments. For participants, the central message is that well-being is learned not only through information, but through experience, reflection, connection and action.

References

1. World Health Organization. Guidelines on mental health at work. Geneva: World Health Organization. 2022.
2. World Health Organization and International Labour Organization. WHO/ILO joint estimates of the work-related burden of disease and injury, 2000-2016. Geneva: World Health Organization and International Labour Organization. 2021.
3. International Labour Organization. Psychosocial risks and work-related stress: policy and practice guidance. Geneva: International Labour Organization. 2026.
4. International Organization for Standardization. ISO 45003:2021 Occupational health and safety management - Psychological health and safety at work - Guidelines. Geneva: ISO; 2021.
5. Eurofound. Working conditions in the time of COVID-19: implications for the future. Luxembourg: Publications Office of the European Union. 2022.
6. Organisation for Economic Co-operation and Development. Health at a Glance 2023: OECD Indicators. Paris: OECD Publishing. 2023.
7. Maslach C, Jackson SE, Leiter MP. Maslach Burnout Inventory Manual. Palo Alto: Consulting Psychologists Press. 1996.
8. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Annu Rev Psychol. 2001; 52: 397-422.
9. Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. World Psychiatry. 2016; 15: 103-111.
10. Schaufeli WB. Burnout: a short socio-cultural history. In: Neckel S, Schaffner AK, Wagner G, editors. Burnout, Fatigue, Exhaustion. Cham Palgrave Macmillan. 2017; 105-127.
11. Demerouti E, Bakker AB, Nachreiner F, Schaufeli WB. The job demands-resources model of burnout. J Appl Psychol. 2001; 86: 499-512.
12. Bakker AB, Demerouti E. The job demands-resources model: state of the art. J Manag Psychol. 2007; 22: 309-328.
13. Karasek RA. Job demands, job decision latitude, and mental strain: implications for job redesign. Adm Sci Q. 1979; 24: 285-308.
14. Siegrist J. Adverse health effects of high-effort/low-reward conditions. J Occup Health Psychol. 1996; 1: 27-41.
15. Hobfoll SE. Conservation of resources: a new attempt at conceptualizing stress. Am Psychol. 1989; 44: 513-524.
16. Harvey SB, Joyce S, Tan L, Johnson A, Nguyen H, et al. Developing a mentally healthy workplace: a review of the literature. Sydney National Mental Health Commission. 2014.
17. LaMontagne AD, Martin A, Page KM, Reavley NJ, Noblet AJ, et al. Workplace mental health: developing an integrated intervention approach. BMC Psychiatry. 2014; 14: 131.
18. Joyce S, Modini M, Christensen H, Mykletun A, Bryant RA, et al. Workplace interventions for common mental disorders: a systematic meta-review. Psychol Med. 2016; 46: 683-697.
19. Richardson KM, Rothstein HR. Effects of occupational stress management intervention programs a meta-analysis. J Occup Health Psychol. 2008; 13: 69-93.
20. Egan M, Bambra C, Thomas S, Petticrew M, Whitehead M, et al. The psychosocial and health effects of workplace reorganisation: a systematic review. J Epidemiol Community Health. 2007; 61: 945-954.
21. Ruotsalainen JH, Verbeek JH, Marine A, Serra C. Preventing occupational stress in healthcare workers. Cochrane Database Syst Rev. 2015; 2892.
22. Carolan S, Harris PR, Cavanagh K. Improving employee well-being and effectiveness: systematic review and meta-analysis of web-based psychological interventions delivered in the workplace. J Med Internet Res. 2017; 19: 271.
23. Seligman MEP. Flourish A Visionary New Understanding of Happiness and Well-Being. New York Free Press. 2011.
24. Ryff CD. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. J Pers Soc Psychol. 1989; 57: 1069-1081.
25. Keyes CLM. The mental health continuum: from languishing to flourishing in life. J Health Soc Behav. 2002; 43: 207-222.
26. Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. Am Psychol. 2000; 55: 68-78.
27. Fredrickson BL. The role of positive emotions in positive psychology: the broaden-and-build theory. Am Psychol. 2001; 56: 218-226.
28. Antonovsky A. Unraveling the Mystery of Health: How People Manage Stress and Stay Well. San Francisco Jossey-Bass. 1987.
29. Frankl VE. Search for Meaning. Boston Beacon Press. 2006.
30. Baumeister RF, Vohs KD, Aaker JL, Garbinsky EN. Some key differences between a happy life and a meaningful life. J Posit Psychol. 2013; 8: 505-516.

31. Martela F, Steger MF. The three meanings of meaning in life: distinguishing coherence, purpose, and significance. J Posit Psychol. 2016; 11: 531-545.
32. Diener E. Subjective well-being. Psychol Bull. 1984; 95:542-575.
33. Huppert FA, So TTC. Flourishing across Europe: application of a new conceptual framework for defining well-being. Soc Indic Res. 2013; 110: 837-861.
34. Lyubomirsky S, King L, Diener E. The benefits of frequent positive affect: does happiness lead to success. Psychol Bull. 2005; 131: 803-855.
35. Organisation for Economic Co-operation and Development. 2020: Measuring Well-being. Paris: OECD Publishing. 2020.
36. World Health Organization. Constitution of the World Health Organization. Geneva World Health Organization. 1948.
37. Prilleltensky I. Wellness as fairness. Am J Community Psychol. 2012; 49: 1-21.
38. VanderWeele TJ. On the promotion of human flourishing. Proc Natl Acad Sci USA. 2017; 114: 8148-8156.
39. Fancourt D, Finn S. What is the evidence on the role of the arts in improving health and well-being? A scoping review. Copenhagen WHO Regional Office for Europe. 2019.
40. Fancourt D, Steptoe A. The art of life and death: 14-year follow-up analyses of associations between arts engagement and mortality in the English Longitudinal Study of Ageing. BMJ. 2019; 367: l6377.
41. Stuckey HL, Nobel J. The connection between art, healing, and public health: a review of current literature. Am J Public Health. 2010; 100: 254-263.
42. Staricoff RL. Arts in health: a review of the medical literature. London: Arts Council England. 2004.
43. Clift S, Hancox G. The perceived benefits of singing: findings from preliminary surveys of a university college choral society. J R Soc Promot Health. 2001; 121: 248-256.
44. Davies C, Knuiman M, Wright P, Rosenberg M. The art of being mentally healthy: a study to quantify the relationship between recreational arts engagement and mental well-being in the general population. BMC Public Health. 2016; 16: 15.
45. Jensen A, Bonde LO. The use of arts interventions for mental health and wellbeing in health settings. Perspect Public Health. 2018; 138: 209-214.
46. Matarasso F. Use or Ornament? The Social Impact of Participation in the Arts. Stroud Comedia. 1997.
47. Dewey J. Art as Experience. New York Perigee. 2005.
48. Eisner EW. The Arts and the Creation of Mind. New Haven Yale University Press. 2002.
49. Greene M. Releasing the Imagination: Essays on Education, the Arts, and Social Change. San Francisco Jossey-Bass. 1995.
50. McNiff S. Art Heals: How Creativity Cures the Soul. Boston Shambhala. 2004.
51. Malchiodi CA. Handbook of Art Therapy. New York Guilford Press. 2012.
52. Slayton SC, Archer J, Kaplan F. Outcome studies on the efficacy of art therapy: a review of findings. Art Ther. 2010; 27: 108-118.
53. Moore CG, Carter RE, Nietert PJ, Stewart PW. Recommendations for planning pilot studies in clinical and translational research. Clin Transl Sci. 2011; 4: 332-337.
54. Lancaster GA, Dodd S, Williamson PR. Design and analysis of pilot studies: recommendations for good practice. J Eval Clin Pract. 2004; 10: 307-312.
55. Thabane L, Ma J, Chu R, Cheng J, Ismaila A, et al. A tutorial on pilot studies: the what, why and how. BMC Med Res Methodol. 2010; 10: 1.
56. Leon AC, Davis LL, Kraemer HC. The role and interpretation of pilot studies in clinical research. J Psychiatr Res. 2011; 45: 626-629.
57. Whitehead AL, Julious SA, Cooper CL, Campbell MJ. Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial. Stat Methods Med Res. 2016; 25: 1057-1073.
58. Eldridge SM, Chan CL, Campbell MJ, Bond CM, Hopewell S, et al. CONSORT 2010 statement: extension to randomised pilot and feasibility trials. BMJ. 2016; 355: 5239.
59. Chan AW, Tetzlaff JM, Altman DG, Laupacis A, Gotzsche PC, et al. SPIRIT 2013 statement: defining standard protocol items for clinical trials. Ann Intern Med. 2013; 158: 200-207.
60. Chan AW, Tetzlaff JM, Gotzsche PC, Altman DG, Mann H, et al. SPIRIT 2013 explanation and elaboration: guidance for protocols of clinical trials. BMJ. 2013; 346: 7586.
61. Hoffmann TC, Glasziou PP, Boutron I, Milne R, Perera R, et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ. 2014; 348: 1687.
62. Schulz KF, Altman DG, Moher D. CONSORT 2010 statement: updated guidelines for reporting parallel group randomised trials. BMJ. 2010; 340: 332.
63. Zwarenstein M, Treweek S, Gagnier JJ, Altman DG, Tunis S, et al. Improving the reporting of pragmatic trials: an extension of the CONSORT statement. BMJ. 2008; 337: 2390.
64. Loudon K, Treweek S, Sullivan F, Donnan P, Thorpe KE, et al. The PRECIS-2 tool: designing trials that are fit for purpose. BMJ. 2015; 350: 2147.
65. Montgomery P, Grant S, Hopewell S, Macdonald G, Moher D, et al. Protocol for CONSORT-SPI: an extension for social and psychological interventions. Implement Sci. 2013; 8: 99.
66. Friedman LM, Furberg CD, DeMets DL, Reboussin DM, Granger CB. Fundamentals of Clinical Trials. Cham Springer. 2015.
67. Altman DG. Practical Statistics for Medical Research. London Chapman and Hall. 1991.

68. Moher D, Hopewell S, Schulz KF, Montori V, Gotzsche PC, et al. CONSORT 2010 explanation and elaboration: updated guidelines for reporting parallel group randomised trials. BMJ. 2010; 340: 869.
69. Dwan K, Altman DG, Arnaiz JA, Bloom J, Chan AW, et al. Systematic review of the empirical evidence of study publication bias and outcome reporting bias. PLoS One. 2008; 3: 3081.
70. International Council for Harmonisation. ICH E9: Statistical Principles for Clinical Trials. Geneva ICH. 1998.
71. International Council for Harmonisation. ICH E6(R2): Guideline for Good Clinical Practice. Geneva ICH. 2016.
72. Pocock SJ. Clinical Trials: A Practical Approach. Chichester Wiley. 1983.
73. Michie S, Van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci. 2011; 6: 42.
74. Michie S, Richardson M, Johnston M, Abraham C, Francis J, et al. The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques. Ann Behav Med. 2013; 46: 81-95.
75. Prochaska JO, DiClemente CC. Stages and processes of self-change of smoking: toward an integrative model of change. J Consult Clin Psychol. 1983; 51: 390-395.
76. Gollwitzer PM. Implementation intentions: strong effects of simple plans. Am Psychol. 1999; 54: 493-503.
77. Lally P, Van Jaarsveld CHM, Potts HWW, Wardle J. How are habits formed: modelling habit formation in the real world. Eur J Soc Psychol. 2010; 40: 998-1009.
78. Wood W, Neal DT. A new look at habits and the habit-goal interface. Psychol Rev. 2007; 114: 843-863.
79. Gardner B. A review and analysis of the use of habit in understanding, predicting and influencing health-related behaviour. Health Psychol Rev. 2015; 9: 277-295.
80. Bandura A. Self-efficacy: toward a unifying theory of behavioral change. Psychol Rev. 1977; 84: 191-215.
81. Schwarzer R. Modeling health behavior change: how to predict and modify the adoption and maintenance of health behaviors. Appl Psychol. 2008; 57: 1-29.
82. Ajzen I. The theory of planned behavior. Organ Behav Hum Decis Process. 1991; 50: 179-211.
83. Kabat-Zinn J. Full Catastrophe Living. Revised. New York Bantam. 2013.
84. Goyal M, Singh S, Sibinga EMS, Gould NF, Rowland-Seymour A, et al. Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. JAMA Intern Med. 2014; 174: 357-368.
85. Khoury B, Lecomte T, Fortin G, Masse M, Therien P, et al. Mindfulness-based therapy: a comprehensive meta-analysis. Clin Psychol Rev. 2013; 33: 763-771.
86. Creswell JD. Mindfulness interventions. Annu Rev Psychol. 2017; 68: 491-516.
87. Gross JJ. Emotion regulation: affective, cognitive, and social consequences. Psychophysiology. 2002; 39: 281-291.
88. Gratz KL, Roemer L. Multidimensional assessment of emotion regulation and dysregulation. J Psychopathol Behav Assess. 2004; 26: 41-54.
89. Neff KD. The development and validation of a scale to measure self-compassion. Self-Identity. 2003; 2: 223-250.
90. Gilbert P. The Compassionate Mind: A New Approach to Challenges. London Constable. 2009.
91. Singer T, Klimecki OM. Empathy and compassion. Curr Biol. 2014; 24: 875-878.
92. Bohlmeijer ET, Fledderus M, Rokx TAJJ, Pieterse ME. Efficacy of an early intervention based on acceptance and commitment therapy for adults with depressive symptomatology. Behav Res Ther. 2011; 49: 62-67.
93. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. J Health Soc Behav. 1983; 24: 385-396.
94. Schaufeli WB, Salanova M, Gonzalez-Roma V, Bakker AB. The measurement of engagement and burnout: a confirmative analytic approach. J Happiness Stud. 2002; 3: 71-92.
95. Kristensen TS, Borritz M, Villadsen E, Christensen KB. The Copenhagen Burnout Inventory: a new tool for the assessment of burnout. Work Stress. 2005; 19: 192-207.
96. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9: validity of a brief depression severity measure. J Gen Intern Med. 2001; 16: 606-613.
97. Spitzer RL, Kroenke K, Williams JBW, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med. 2006; 166: 1092-1097.
98. Ware JE Jr, Sherbourne CD. The MOS 36-item short-form health survey (SF-36): conceptual framework and item selection. Med Care. 1992; 30: 473-483.
99. Topp CW, Ostergaard SD, Sondergaard S, Bech P. The WHO-5 Well-Being Index: a systematic review of the literature. Psychother Psychosom. 2015; 84: 167-176.
100. Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: the PANAS scales. J Pers Soc Psychol. 1988; 54: 1063-1070.
101. Diener E, Emmons RA, Larsen RJ, Griffin S. The Satisfaction with Life Scale. J Pers Assess. 1985; 49: 71-75.
102. Steger MF, Frazier P, Oishi S, Kaler M. The Meaning in Life Questionnaire: assessing the presence of and search for meaning in life. J Couns Psychol. 2006; 53: 80-93.
103. Ryff CD, Keyes CLM. The structure of psychological well-being revisited. J Pers Soc Psychol. 1995; 69: 719-727.
104. Connor KM, Davidson JRT. Development of a new resilience scale: the Connor-Davidson Resilience Scale. Depress Anxiety. 2003; 18: 76-105.

105. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, et al. The Brief Resilience Scale: assessing the ability to bounce back. Int J Behav Med. 2008; 15: 194-200.

106. Bond FW, Hayes SC, Baer RA, Carpenter KM, Guenole N, et al. Preliminary psychometric properties of the Acceptance and Action Questionnaire-II. Behav Ther. 2011; 42: 676-688.

107. McNair DM, Lorr M, Droppleman LF. Manual for the Profile of Mood States. San Diego Educational and Industrial Testing Service. 1971.

108. Buysse DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ. The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. Psychiatry Res. 1989; 28: 193-213.

109. Craig CL, Marshall AL, Sjostrom M, Bauman AE, Booth ML, et al. International Physical Activity Questionnaire: 12-country reliability and validity. Med Sci Sports Exerc. 2003; 35: 1381-1395.

110. Ilmarinen J. The Work Ability Index. Occup Med. 2007; 57: 160.

111. Hayes AF. Introduction to Mediation, Moderation, and Conditional Process Analysis. New York Guilford Press. 2018.

112. Little RJA, Rubin DB. Statistical Analysis with Missing Data. Hoboken Wiley. 2019.

113. Rubin DB. Multiple Imputation for Nonresponse in Surveys. New York Wiley. 1987.

114. Sterne JAC, White IR, Carlin JB, Spratt M, Royston P, et al. Multiple imputation for missing data in epidemiological and clinical research. BMJ. 2009; 338: 2393.

115. Perneger TV. Wrong with Bonferroni adjustments. BMJ. 1998; 316: 1236-1238.

116. Benjamini Y, Hochberg Y. Controlling the false discovery rate: a practical and powerful approach to multiple testing. J R Stat Soc B. 1995; 57: 289-300.

117. Cohen J. Statistical Power Analysis for the Behavioral Sciences. Hillsdale Lawrence Erlbaum. 1988.

118. Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. Am J Public Health. 1999; 89: 1322-1327.

119. Proctor E, Silmere H, Raghavan R, Hovmand P, Aarons G, et al. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. Adm Policy Ment Health. 2011; 38: 65-76.

120. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, et al. Fostering implementation of health services research findings into practice: a consolidated framework. Implement Sci. 2009; 4: 50.

121. Moore GF, Audrey S, Barker M, Bond L, Bonell C, et al. Process evaluation of complex interventions: Medical Research Council guidance. BMJ. 2015; 350: 1258.