

Walk and talk interventions across psychotherapy, counselling, and coaching: a scoping review of designs and components

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Research Article

Keywords:

Posted Date: October 14th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10882248/v1>

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Additional Declarations: No competing interests reported.

Abstract

Background: Nature-based interventions have expanded rapidly, but the narrow subset of talk-based helping relationships carried out while walking outdoors – commonly termed *walk and talk interventions* – remains scattered across different disciplines. As the empirical literature continues developing, there is a need to map how these interventions are designed.

Study Aims: This scoping review aimed to delineate the design characteristics and intervention components reported in the literature on nature-based walk and talk coaching, psychotherapy and counselling, in order to support the development of evidence-informed practice.

Methods: Following Arksey and O'Malley's framework and PRISMA-ScR reporting standards, ten databases spanning psychology, health sciences, and management were searched for peer-reviewed studies published in English before February 2026.

Results: Of 897 records identified (473 after duplicate removal), nine articles describing eight distinct interventions were retained and charted using a form adapted from the TIDieR checklist, organized around three axes: intervention modality, session content, and therapeutic approach. The eight interventions were conducted across seven countries with 257 participants (sample sizes 3 to 84) and spanned psychotherapy, counselling, and coaching. They were marked by heterogeneity and flexibility rather than convergence, with no two alike in modality, content, or approach. The review underlines a distance between two literatures: the content and approaches most richly developed in the clinical literature, made by and for practitioners, remain largely untested in the empirical studies reviewed. More complete reporting and empirical testing of practitioner-developed content are needed to support evidence-informed practice.

Introduction

The empirical and clinical literature on therapeutic effects of being exposed to nature have developed tremendously in recent years, with the number of related papers growing so large it warranted a systematic review to catalogue other existing reviews (Kaleta et al., 2025). *Nature-based interventions* (NBIs) is the term typically used for the broad category of interventions involving multisensorial and immersive experiences that are intended to improve health and well-being and are conducted in nature (Gobster et al., 2022).

A narrow subset of NBIs consists more particularly of interventions centred on talk-based helping relationships, carried out while walking outdoors. While terminology can vary (Kaleta et al., 2025), these appear to be commonly referred to as “walk and talk” interventions (Carrico, 2018; Udler, 2023; van den Berg & Beute, 2021; Walker, 2024). Walk and talk interventions can be found across multiple disciplines, such as coaching (e.g., van den Berg & Beute, 2021), psychotherapy (Prince-Llewellyn & McCarthy, 2025), and counselling (e.g., Doucette, 2004). Although these disciplines have major differences, walk and talk interventions overall seek to facilitate personal growth and change (McCormick & Forsyth, 2026) and can share theoretical foundations (e.g., psychodynamic, systemic, solution-focused). They also share a broadly similar structure, unfolding through periodic, recurring sessions. Nevertheless, the scientific literature pertaining to these interventions remains limited and sparse, even when consulting multiple disciplines. In parallel, the clinical literature, written by and for practitioners, has developed (see Jordan, 2014; Parashar, 2022; Passmore et al., 2026; Passmore & Lloyd-Jones, 2026; Roberts, 2022; Udler, 2023). However, both bodies of work have not been brought together, and no review has yet mapped how walk and talk interventions are designed.

Study Aims

Considering the scattered state of the literature, there is a need to systematically map how walk and talk interventions are constructed. As such, the main objective of this scoping study was to answer the following question: what design

characteristics and intervention components are reported in the literature on outdoor or nature-based walk and talk coaching and psychotherapy? Furthermore, in attempting to answer this question, the present study aimed to support the development of evidence-informed practices on this topic.

Methods

Protocol

Considering the exploratory nature of the research questions at the heart of this study, a scoping review was selected as the most effective strategy to achieve our objectives. The research protocol adopted for this study was based on the 5-step framework suggested by Arksey & O'Malley (2005), with the research question identification (step 1) presented in the introduction. The identification of studies (step 2), review based on inclusion and exclusion criteria (step 3) and data charting (step 4) are summarized in the present section. Findings and recommendations (step 5) are explored in the results and discussion sections. Additionally, the PRISMA-ScR reporting standards for scoping reviews (Tricco et al., 2018) were integrated throughout the extraction and synthesis process.

Search strategy

Preliminary searches in Google Scholar to identify examples of coaching interventions carried out in nature yielded limited results. Indeed, only one article describing such an intervention could be found at the time (see van den Berg & Beute, 2021). Considering the similarities shared between the processes of professional coaching and psychotherapy, a second preliminary search on Google, this time looking at psychotherapy interventions in nature, yielded more eligible results, notably the book titled *Walk and Talk Therapy: A Clinician's Guide to Incorporating Movement and Nature into Your Practice* (Udler, 2023). Written by a licensed clinical social worker, this book detailed how professionals could move their intervention outside, in nature. The expression "Walk and talk therapy" was subsequently found to be used to describe the interventions where psychotherapy was conducted in nature, in empirical as well as experiential and grey literature. As such, "walk and talk" was chosen as a primary keyword to look for relevant empirical studies evaluating coaching or psychotherapeutic interventions. Moreover, keywords pertaining to the latter domain of intervention were also added to the search strategy to capture more data on this type of nature-based intervention.

The final keyword list formed the following search phrase: (Walk* OR "walk and talk") AND (Therapy OR counselling OR psychotherapy OR coaching OR intervention OR "adventure therapy" OR "outdoor therapy" OR ecotherapy OR "Wilderness therapy" OR treatment OR "therapeutic intervention" OR "mental health intervention" OR "green therapy" OR "nature-based therapy") AND (nature OR "green spaces" OR "natural environment*" OR outdoor* OR forest OR park OR parks OR "natur* environment*" OR "green exercise" OR "green play" OR "natur* setting" OR "natur* exposure") AND ("psychological health" OR burnout OR depression OR "suicidal ideation" OR "suicidal risk" OR "mental health" OR "psychological distress" OR "well being").

Studies available in English and published before February 18, 2026 (final extraction date), were identified using a total of 10 databases. This wide range of databases covered three disciplines which can contain literature of coaching or psychotherapeutic intervention: psychology (Academic Source Complete, APA PsycInfo, APA PsycArticles, APA PsycExtra, Psychology and Behavioral Sciences Collection, and Érudit), health sciences (CINAHL, MEDLINE and PubMed), and management (Business Source Complete).

Inclusion and exclusion criteria

Articles that were included in this review needed to (1) show results stemming from an intervention aimed at reducing psychological symptoms of any kind; (2) have at least one of its experimental conditions taking place outdoors; (3) present mixed, qualitative or quantitative results; (4) present results pertaining to mental health; and (5) be peer-reviewed. Studies were to be excluded if: (1) the intervention described did not constitute psychotherapy or coaching; (2) they were not written in English; (3) were not available for consultation by the researchers; and (4) the intervention was not delivered by qualified professionals (e.g., psychologists, certified coaches, licensed psychotherapist).

Study Selection

The search strategy led to the identification of 897 sources, of which 473 remained once duplicates were removed. These articles were subsequently saved to Zotero (version 7.0.32) and uploaded to Covidence for two independent reviewers (P-OP and JP) to screen. At every step of the process, reviewers met to discuss any disagreements. Most articles were excluded based on their title or abstract, with 34 being assessed for eligibility via full-text screening, 27 of which were excluded for having either the wrong intervention ($n = 14$; e.g., walking under the supervision of a therapist) or the wrong study design ($n = 13$; e.g., interviews with former walk and talk participants and/or therapists). The reference sections of each extracted research article were then screened for additional articles, leading to the addition of two studies. A total of nine studies were included in the present scoping review and uploaded to MaxQDA (version 26.1.0) for analysis. The complete PRISMA diagram is shown in Figure 1.

Two of the included articles report on the same randomized controlled trial. Corazon et al. (2018) is a long-term follow-up of the trial reported by Stigsdotter et al. (2018), analyzing healthcare consumption and sick-leave absence; no additional intervention was delivered or tested. Both articles met the inclusion criteria and were retained, but the intervention they describe was charted only once, so that it would not be counted twice.

The unit of analysis in this review was the intervention itself: the nine included articles describe eight distinct nature-based interventions, with Stigsdotter et al. (2018) used as the source of record for the one they share.

Data charting

Articles included were coded for any relevant information which contributed to the research question. As such, data was extracted from MaxQDA in a predefined charting form inspired from the Template for Intervention Description and Replication (TIDieR) checklist (Hoffmann et al., 2014) that was iteratively refined as coding proceeded. The charting form included categories such as the title of the paper, the authors, year and country of publication, the research design reported in the article, the sample size and its available description (e.g., mean age, gender), the discipline of intervention (i.e., coaching, psychotherapy or counselling), along with the intervention modality (e.g., session duration and frequency), the session content (e.g., techniques, methods or activities used in-session), and therapeutic approaches.

Results

Study characteristics

Amongst the nine articles, one was published in 2004, another in 2009, and the other eight between 2018 and 2025. Articles were described studies from the United States ($N = 2$), Denmark ($N = 2$), Canada ($N = 1$), the United Kingdom ($N = 1$), the Netherlands ($N = 1$), South Korea ($N = 1$), and Australia ($N = 1$). Six studies reported quantitative designs, two had a qualitative design, and the final study presented a mixed methods design. Reported sample sizes ranged between 3 and 84, totalling 257 participants across all interventions. Individuals making up the samples were adults with no reported mental health conditions (Carrico, 2018; Prince-Llewellyn & McCarthy, 2025), men with mild to severe depression scores

(Dickmeyer et al., 2025), a major depressive disorder (Kim et al., 2009), women with Post-Traumatic Stress Disorder symptoms (Koziel et al., 2022), an adjustment disorder and/or a reaction to severe stress combined with incapacity to work (Corazon et al., 2018; Stigsdotter et al., 2018), or burnout- and stress-related complaints (van den Berg & Beute, 2021). One study targeted middle-school students with a conduct disorder (Doucette, 2004). Six of the nine articles reported psychotherapy as the discipline of intervention, two reported counselling and only one coaching. The intervention studies by both Stigsdotter et al.'s (2018) and Corazon et al.'s (2018) were the only ones describing a group intervention (mean group size = 6), along with individualized activities. Characteristics of the retained studies can be found in Table 1, while Table 2 provides the details on the interventions' characteristics (i.e., their modality, the session content, and therapeutic approaches).

Table 1 – Study characteristics

Title	Authors (year); country	Reported research design	Sample (N)	Sample description (average age)	Discipline
Walk and Talk Nature Therapy: A Multiple Case Study	Carrico (2018); United States	Qualitative: Descriptive multiple case study	N = 3	Adults (mean = 50 years old)	Psychotherapy
A Long-Term Follow-Up of the Efficacy of Nature-Based Therapy for Adults Suffering from Stress-Related Illnesses on Levels of Healthcare Consumption and Sick-Leave Absence: A Randomized Controlled Trial	Corazon et al. (2018); Denmark	Quantitative: Long-term follow-up of a randomized controlled trial	N = 84 (<i>Identical sample as Stigsdotter et al., 2018</i>)		Psychotherapy
Walk-and-Talk Therapy Versus Conventional Indoor Therapy for Men With Low Mood: A Randomized Pilot Study	Dickmeyer et al. (2025); Australia	Quantitative: Randomized feasibility pilot study	N = 37	Adult men with mild to severe depression scores (mean = 44.1 years old)	Counselling
Walk and Talk: An Intervention for Behaviorally Challenged Youths	Doucette (2004); United States	Qualitative: Phenomenological approach	N = 8	Middle-school students with conduct disorder (age not specified)	Counselling
The Effect of Cognitive Behavior Therapy-Based Psychotherapy Applied in a Forest Environment on Physiological Changes and Remission of Major Depressive Disorder	Kim et al. (2009); South Korea	Quantitative: Quasi-experimental longitudinal study with a non-equivalent group design	N = 63	Adults with a major depressive disorder (mean = 45.44 years old)	Psychotherapy
Walking Psychotherapy As a Health Promotion Strategy to Improve Mental and Physical Health for Patients and Therapists: Clinical Open-Label Feasibility Trial	Koziel et al. (2022); Canada	Quantitative: Open pilot trial	N = 17	Adult women with PTSD symptoms (mean = 46.3 years old)	Psychotherapy
Walking and talking for well-being: Exploring the effectiveness of walk and talk therapy	Prince-Llewellyn and McCarthy (2025); United Kingdom	Quantitative: Multiple baseline design	N = 5	Adult Caucasians with no disclosed mental health conditions (between 25 and 40 years old)	Psychotherapy
Efficacy of nature-based therapy for individuals with stress-related illnesses: randomized controlled trial	Stigsdotter et al. (2018); Denmark	Quantitative: Randomized controlled trial	N = 84	Adults incapacitated from work and with a psychiatric diagnosis of adjustment disorder and/or reaction to severe stress (between 20 and 60 years old)	Psychotherapy

Walk it off! The effectiveness of walk and talk coaching in nature for individuals with burnout- and stress-related complaints	Van den Berg and Beute (2021); Netherlands	Mixed methods: Quasi-experimental design with control group and qualitative survey questionnaire	<i>N</i> = 40	Adults with burnout- and stress-related complaints (age not specified)	Coaching
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Table 2 – Intervention characteristics

Citation	Intervention modality				Session content	Therapeutic approaches
	Intervention duration	Session duration	Session frequency	Environment		
Carrico (2018)	4 sessions (4 to 8 weeks)	60 to 70 minutes	Weekly or every other week	Local park containing a body of water.	Use of nature: nurture client's connection with nature Relaxation and grounding exercises Homework and assignment In-session journaling	Ecopsychology and ecotherapy Humanistic psychotherapy Transpersonal psychotherapy Mind-body medicine
Corazon et al. (2018)	Identical to Stigsdotter et al. (2018). This study builds on the same data and tested intervention.					
Dickmeyer et al. (2025)	6 sessions (6 weeks)	60 minutes	Weekly	University campus route containing built elements and a nature reserve	Use of nature: background for intervention, beneficial effects of nature exposition	Non-directive supportive therapy
Doucette (2004)	6 sessions (6 weeks)	30 to 45 minutes	Weekly	School grounds	Use of nature: nurture client's connection with nature Psychoeducation	Ecopsychology Solution-focused brief psychotherapy Humanistic psychotherapy
Kim et al. (2009)	4 sessions (4 weeks)	180 minutes	Weekly	Arboretum (44 hectare garden of wild forest)	Use of nature: intermediary to facilitate therapeutic exercises Relaxation and grounding exercises Behavioural activities Positive psychology exercises	Cognitive behavioural therapy Positive psychology
Koziel et al. (2022)	26 sessions (26 weeks)	45 to 50 minutes	Weekly	City park with well-maintained paths	Use of nature: background for intervention, beneficial effects of nature exposition	Relational therapy
Prince-Llewellyn and McCarthy (2025)	6 to 8 sessions	Not specified	Not specified	Botanical garden (N = 4) Local rural route (N = 1)	Use of nature: background for intervention, beneficial effects of nature exposition Homework and assignment	Cognitive behavioural therapy Humanistic psychotherapy
Stigsdotter et al. (2018)	30 sessions (10 weeks)	180 minutes	Three times per week	Arboretum (1.4-hectare garden of wild forest)	Use of nature: intermediary to facilitate therapeutic exercises Relaxation and	Cognitive behavioural therapy Mindfulness-based stress reduction Theories from

					grounding exercises Psychoeducation Gardening activities Homework and assignments	environmental psychology
Van den Berg and Beute (2021)	4 sessions (12 to 18 weeks)	90 minutes	Every 3 to 4 weeks	Country estate (Amelisweerd, Netherlands)	Use of nature: source of inspiration and metaphor for content Relaxation and grounding exercises Homework and assignment	Not specified

Intervention modality

Intervention duration

Reviewed interventions lasted, generally, between four and six sessions, although there were some variations across interventions. Three interventions presented interventions with a duration of four sessions (Carrico, 2018; Kim et al., 2009; van den Berg & Beute, 2021). Two other lasted for six sessions (Dickmeyer et al., 2025; Doucette, 2004), while one had a reported variable duration of six to eight sessions (Prince-Llewellyn & McCarthy, 2025). Finally, two interventions reported a much greater intervention duration, with one lasting for 26 sessions (Koziel et al., 2022), and the other lasting for 30 sessions (Stigsdotter et al., 2018).

Session duration

The exact duration of any given session was different for each intervention included. The shortest sessions lasted for about 30 to 45 minutes (Doucette, 2004). Others had session durations of 45 to 50 minutes (Koziel et al., 2022), 60 minutes (Dickmeyer et al., 2025), 60 to 70 minutes (Carrico, 2018), and 90 minutes (van den Berg & Beute, 2021). The longest duration reported was 180 minutes, shared by two interventions (Kim et al., 2009; Stigsdotter et al., 2018). One article did not specify the session duration (Prince-Llewellyn & McCarthy, 2025).

Session frequency

One of the included interventions reported a frequency of three sessions per week (Stigsdotter et al., 2018). Five other reported a frequency of one session per week (Dickmeyer et al., 2025; Doucette, 2004; Kim et al., 2009; Koziel et al., 2022), although one specified that frequency could be altered to every two weeks based on weather and participants' preferences and needs (Carrico, 2018). Another intervention held sessions every three to four weeks (van den Berg & Beute, 2021). One article made no mention of the frequency at which sessions were held (Prince-Llewellyn & McCarthy, 2025).

Type of natural environment

All eight interventions were delivered outdoors. The settings reported were at a local park containing a body of water (Carrico, 2018); a university campus route combining man-made elements and a nature reserve (Dickmeyer et al.,

2025); schools ground (Doucette, 2004); arboretums, which are “living museums” dedicated to the cultivation, study, and display of various species of trees, shrubs, and other woody plants (Kim et al., 2009; Stigsdotter et al., 2018); a city park (Koziel et al., 2022); and a country estate (van den Berg & Beute, 2021). The final intervention took place in a botanical garden for all but one of the participants, which instead used a rural route (Prince-Llewellyn & McCarthy, 2025).

Session content

Session content was documented to report on skills, methods, techniques or tools actively used in the course of the intervention. In the majority of included interventions, common counselling or psychotherapeutic skills were listed by authors. Examples include developing a good therapeutic or working relationship with clients, flexibility in accommodating clients, using reflection, empathic listening, encouragement, and assisting individuals in exploring their experiences and emotions. In some interventions, listed skills were more specific to the therapeutic approach, such as providing unconditional positive regard (i.e., humanistic therapy) (Doucette, 2004); or beginning sessions with a check-in using a measure adapted to the client, typical of cognitive behavioural therapy (Prince-Llewellyn & McCarthy, 2025). Overall, sessions included more than one type of content or approach, in conjunction with the more general skills listed above. The following subsections each present a type of session content that was used in at least two of the included interventions, in order from most widely used, to least widely used. The final subsection presents the few types of session content which were presented only by single interventions.

Continuum in the use of nature

While every intervention made use of nature in one way or another, its role varied considerably across interventions, forming a continuum in which nature’s role was progressively more pronounced. On one end of this spectrum, nature had a passive role in which the intervention took place. Two interventions were closer to this end of the spectrum, attempting to tap into the benefits of being exposed to nature and of physical exercise (i.e., walking), while also noting potential benefits to the therapeutic process (Koziel et al., 2022; Prince-Llewellyn & McCarthy, 2025). In these two cases, nature did not seem to influence the sessions’ content any further. The other end of the spectrum was characterized by an intentional and active use of nature as a healing factor in the therapeutic process, including a clearly stated goal of improving one’s relationship with nature. For example, in Carrico’s study (2018), different exercises (see following subsections) were used with the explicit intention of providing participants with the opportunity to connect with nature during every session, with the goal of nurturing their relationship with the natural world. Similarly, Doucette (2004) described that “by walking outdoors, the outdoor connection is nurtured” (p. 4), highlighting the more prominent role of nature in the intervention. Van den Berg & Beute’s (2021) study fell somewhere between both ends of the spectrum. Indeed, the authors explained how nature “serves both as a natural background for the program and as a metaphor and source of inspiration for discussing problems and challenges” (p. 3), showing that nature was actively influencing the content of sessions, without being itself a central topic of discussion. In a similar fashion, Kim et al. (2009) and Stigsdotter et al. (2018) reported that their respective intervention actively used the forest environment as an intermediary to facilitate therapeutic exercises (e.g., reflecting on their problems while observing trees or conducting various gardening activities, complemented by mindfulness). Finally, Dickmeyer et al. (2025) discussed incorporating natural surroundings into therapy sessions only upon the clients’ request. However, the way these were incorporated was not specified, making it difficult to identify the intervention’s position relative to the nature inclusion spectrum.

Homework and assignments

Four of the eight interventions (Carrico, 2018; Prince-Llewellyn & McCarthy, 2025; Stigsdotter et al., 2018; van den Berg & Beute, 2021) were comprised of homework or assignments in between sessions. In two interventions, no description was

provided beyond mentioning the use of homework (Prince-Llewellyn & McCarthy, 2025; van den Berg & Beute, 2021). Carrico (2018) reported that “homework assignments were given to encourage the participants to continue the work done during the [intervention] session” (p. 46). They also explained how assigning time in nature or outdoor activities in between therapy sessions was typical of ecotherapy. As for the intervention presented by Stigsdotter et al. (2018), the authors explained that homework was meant to “practise the different techniques and methods” (p. 405), referring to other content included in the sessions (e.g., mindfulness-based stress reduction techniques, see next subsection).

Relaxation and grounding exercises

Exercises aimed at anchoring clients’ awareness in the here and now were used in four interventions (Carrico, 2018; Kim et al., 2009; Stigsdotter et al., 2018; van den Berg & Beute, 2021). Such exercises were an integral part of Carrico’s (2018) intervention, as every session began with a five-minute grounding exercise, referred to as a “soft belly exercise” (p. 45), and included a ten-minute mindfulness meditation combined to a nature-centred exercise. Kim et al. (2009) also utilized mindfulness meditation throughout their intervention, bringing participants’ awareness “on breath, wind in the forest, and sounds” (p. 248). For their part, Stigsdotter et al. (2018) reported including both group awareness exercises and relating them to nature experiences (e.g., mindful walk in the garden); and individual reflection and relaxation moments in the garden. Finally, van den Berg & Beute (2021) intervention made no mention of mindfulness, but comprised moments where clients were asked “to breathe in the air of the forest as a relaxation exercise, or to take the position of a blue heron by standing on one leg” (p. 3).

Psychoeducation

Two interventions included in this review were also comprised of psychoeducation activities (Doucette, 2004; Stigsdotter et al., 2018). Doucette (2004) described assisting clients in building a “psychological toolkit” comprised of various methods and techniques aimed at improving overall functioning and emotional regulation in between sessions. In this intervention, psychoeducational exercises were grouped into four broad categories: (1) cognitive regulation (i.e., positive self-talk, cognitive strategies such as stop-think-do); (2) emotional regulation (i.e., stress management, relaxation exercise, managing and understanding the physiology of anger); (3) attentional skills (i.e., focusing and refocusing exercise, mental visualization/imagery); and (4) interpersonal skills (i.e., communicating using “I” statement). Additionally, these skills were practised in mock scenarios during sessions, when appropriate. Stigsdotter et al.’s (2018) study also mentions the use of psychoeducation, however, with limited description (i.e., that therapeutic conversations included psychoeducation based on MBSR).

Other intervention content

Carrico’s (2018) intervention is the only one who included the use of journalling as a method to help meet therapeutic goals. During each weekly session, participants were asked to complete a short journal entry immediately following the mindfulness meditation and nature-centred exercise. To facilitate this process – aimed at expressing their experience or any insights they might have gained – they were also asked to take a photograph of a landscape relevant to the current session. All journal entries were completed using one of two templates containing pre-written prompts. For every session except the final one, the first template was used, questioning participants on four points: (1) their experience of the session; (2) their experience of five elements pertaining to the intervention (walking and talking, the breathing exercise, the mindfulness meditation and nature-centred exercise, the experience of nature itself, and the photograph they took); (3) how they felt in the present moment; and (4) what had been helpful and/or unhelpful during the day’s session. During the final session, the second journalling template was used, which contained four open-ended questions aimed at evaluating participants’ overall experience during the intervention, including how they would compare it to other “traditional” (indoors)

psychotherapy, what the intervention helped them with, and how they planned to apply what they had learned in their everyday lives.

The intervention deployed by Kim et al. (2009) further included nature-mediated cognitive restructuring, described as using the forest environment to have participants “reflect on their problems and try to reconstruct cognitive error after strolling in the forest or hearing stories about trees” (p. 248). Authors also reported on the inclusion of behavioural interventions, which were “implemented to stimulate the vitality of patients with decreased activity levels” (p. 248). Finally, drawing from Seligman et al. (2005), the intervention used positive psychology exercises in an attempt to evoke positive emotions and decrease depressive moods by practising “‘gratitude to others’ and ‘using my strengths’” (p. 248).

Finally, Stigsdotter et al.'s (2018) intervention featured gardening activities, which integrated mindful awareness. One of the goals of this exercise was to assist participants in developing the ability to notice “non-beneficial behavioural patterns that could lead to stress” (p. 405).

Therapeutic approaches

According to the American Psychological Association (2009), therapeutic approaches (e.g., humanistic, cognitive behavioural, psychodynamic) are structured methods to conceptualize, treat or work with clients, constituting the foundation of a therapeutic intervention. Practitioners may also develop an integrative use of multiple approaches, borrowing various techniques and tools from different theoretical and clinical approaches, leading to an intervention better tailored to each client. Appropriately describing such complex interventions requires that all of its facets be presented together as a coherent whole. However, included studies did not provide an equal number of details pertaining to their therapeutic approach. As such, the following subsections break from the previously established structure. Instead, they present four interventions in which theoretical groundings were described in greater detail (Carrico, 2018; Doucette, 2004; Kim et al., 2009; Stigsdotter et al., 2018), allowing for a richer description. Then, the remaining four interventions, described only succinctly, will be summarized within a single subsection.

Carrico (2018)

Carrico (2018) presents their intervention as a holistic model, incorporating various therapeutic approaches, namely both humanistic and transpersonal psychotherapies, as well as ecopsychology. Ecopsychology is a field combining psychology and ecology (see Roszak et al., 1995). This foundation regroups three concepts or components, namely (1) integral ecopsychology, or “the idea that human beings need to rediscover the innate connections within the web of life, which includes the Earth, human beings, and the sacred, for health and healing” (p. 19); (2) ecotherapy, which is essentially the clinical application of ecopsychology (see Jordan, 2014); and (3) ecosomatic psychology, which combines ecopsychology principles to somatic practices (e.g., deep abdominal breathing) in order to facilitate one’s experience of one’s own body within the context of the natural environment, in turn developing one’s relationship with nature. Carrico's (2018) also uses concepts derived from mind-body medicine (MBM). According to the author, MBM “addresses the person through a holistic approach to the mind, body, and spirit” (p. 22). It incorporates spirituality into the scope of the intervention, while also bringing into greater focus the mind-body connection (e.g., through mindfulness, breathing, and yoga exercises).

Doucette (2004)

The walk and talk intervention carried out by Doucette (2004) is also described as comprised of various theoretical influences. Its most fundamental component lies in the social ecological theory of behaviour (see Bronfenbrenner, 1979), which “views the child, family, school, work, peers, neighbourhood, and community as interconnected systems” (p. 374). As such, it is understood that youths’ problematic behaviour can be attributed to dysfunctions between parts of these

systems. They break down their intervention into counselling, ecopsychology and physiological components. The counselling component draws on principles borrowed from the Orinoco program (see Moore et al., 1997), which are informed by attachment theory. Doucette (2004) explains that this component also makes integrative use of both humanistic and solution-focused brief psychotherapy (SFBP). Finally, the ecopsychological component is specified as resting on the assumption that walking outdoors will nurture one's connection and awareness of nature, in turn providing health benefits. Finally, the physiological component of the intervention takes the form of engaging in mild aerobic exercise by walking during the intervention.

Kim et al. (2009)

Kim et al. (2009) described their treatment program as integrating two main theoretical foundations. Cognitive-behavioural therapy (CBT) occupies a large place in their intervention, where activities are meant to address cognitive distortions, which "cause negative thoughts in depression" (p. 248). The intervention is also presented as relying on the natural environment to act as an intermediary for its CBT component (e.g., using nature to facilitate behavioural interventions or mindfulness meditation). Exercises from positive psychology are also included in their intervention (e.g., using one's strengths).

Stigsdotter et al. (2018) and Corazon et al. (2018)

The intervention deployed by Stigsdotter et al. (2018), and Corazon et al. (2018), was originally developed in a conceptual paper authored earlier by Corazon et al. (2010). Titled the Nacadia Nature-Based Therapy (NNBT), the intervention is comprised of both group and individual activities. On this matter, Stigsdotter et al. (2018) explain that "although NNBT was carried out with a group of participants [...], most of the activities were individual, and participants were encouraged not to interact during the sessions and to keep talk to a minimum" (p. 405). As such, the authors consider the intervention as a crossover between group-based and individual treatment. Overall, NNBT rests on three theoretical pillars. The first is mindfulness-based stress reduction (MBSR), which informs the psychoeducational portion of the intervention. The second is CBT, which was used mostly in the context of individual therapeutic conversations. The third pillar was environmental psychology, "especially attention restoration theory" (p. 405), although no further elaboration on this third component can be found in the team's papers, including the one which originated the NNTB intervention (Corazon et al., 2010).

Remaining interventions

In their article, Dickmeyer et al. (2025) describe a therapeutic approach called non-directive supportive therapy. The authors define this approach as "an unstructured therapy without specific psychological techniques other than those belonging to the basic interpersonal skills of the therapist" (p. 3), citing a meta-analysis on the topic (see Cuijpers et al., 2012). For their part, Koziel et al. (2022) provide a very brief description of their intervention. It is not manualized and uses a relational therapy frame, following the "Judith Heman's staged model" (p. 154). This model begins with establishing safety and building coping skills, before moving into processing traumatic memories, and ending with reconnection and integration into everyday life (see Herman, 1997). The intervention presented by Koziel et al. (2022) is based on an integrative approach. In this instance, the authors draw from both person-centred and cognitive-behavioural therapeutic approaches. Finally, the only study reporting specifically on a coaching intervention provided scant information regarding the foundational approach forming of their intervention (van den Berg & Beute, 2021). The authors explain that the three coaches involved "had a background in clinical psychology" (p. 3) and that they "developed their expertise [...]" by following a variety of courses and master classes in complementary areas including mindfulness, character strength, provocative and solution-based training" (p. 3).

Quality of intervention reporting

As was previously mentioned, the data charting step of this scoping review was done using a predefined form that took its inspiration from the TIDieR checklist (Hoffmann et al., 2014). This checklist was designed to improve the quality and completeness of reporting on interventions, with the subsequent goal of improving replicability. Given that one of the aims of the present study is to support evidence-based practice by allowing practitioners to draw from the literature, the TIDieR checklist's purpose aligns directly with ours. Indeed, interventions can only be drawn from, replicated, or adapted if they are adequately reported. Authors using the checklist to make sure no valuable information is left out would cover the following elements: a brief name; the logic underlying the intervention; its components and procedure; who is providing it; how it is carried out; where it unfolds; whether and how it is tailored and modified or adjusted; and how adherence is to be evaluated, along with the outcome of any such evaluation. For a more detailed view of the checklist's content, see Appendix A.

The checklist's items were not used to systematically assess each intervention. However, as we went from one section to the next, the descriptive quality of the reported information decreased. Indeed, information pertaining to the intervention modality (e.g., session duration and frequency) was detailed enough to understand clearly how the various reported interventions unfolded. However, it is arguably the simplest part of the intervention to describe, requiring much less information to be understandable. Moving into session content, the quantity of details reported was inconsistent. In some instances, activities or methods were only very briefly described, while in other cases, session content would be more vastly illustrated. Finally, therapeutic approaches should have called for the most detailed reporting, describing complex theoretical perspectives, often in intricate combinations; yet the articles sometimes provided little data in this regard. Here, most authors at least named their theoretical approach(es), but many omitted to further explain their underpinnings and how they were articulated through the various choices they made in designing their intervention. This issue is discussed further in the coming discussion section.

Discussion

This scoping review aimed to record the breadth of current empirically evaluated walk and talk interventions, modalities and components reported in the literature, so as to support the development of evidence-informed practices in this domain. After a systematic search of the existing literature, nine articles, describing eight nature-based walk and talk interventions with various populations, were included. Based on the TIDieR framework for evaluation of the quality of intervention reporting, this study's descriptive objective was met for the modality and logistical aspects of the interventions. However, as established above, the descriptive quality of the charted data was insufficient for many aspects of the existing literature on this topic. This gradient greatly informs the following sections and restricts the aim of this review to bolster evidence-based practice.

In general, the results of the present scoping review paint a picture of heterogeneity and flexibility across interventions, as opposed to convergence. Indeed, the empirical literature, which accounts for interventions that have been tested and documented, is broad and diverse. This contrasts with the existing clinical literature, written by and for interveners to help develop their practice, particularly when it comes to session content and therapeutic approaches (see Jordan, 2014; Parashar, 2022; Passmore et al., 2026; Passmore & Lloyd-Jones, 2026; Roberts, 2022; Udlér, 2023). The clinical literature offers more comprehensive descriptions of the techniques, tools and methods it presents. Additionally, it offers a substantially more robust and in-depth portrayal of the therapeutic approaches that clinicians could use within the context of walk and talk interventions, which could not be found in the existing empirical literature on the topic. Thus, the remainder of this discussion section will explore the complementary combination of both types of literature, bringing a more contextualized perspective on the possibilities offered by such interventions. In doing so, we subdivide this section in accordance with the previous results section: intervention modality, session content, and therapeutic approach.

Intervention modality

The modalities in which interventions were offered reflect the flexibility with which one can approach walk and talk therapy or coaching. While the bulk of the reviewed interventions spanned four to six weekly sessions (Carrico, 2018; Dickmeyer et al., 2025; Doucette, 2004; Kim et al., 2009), one program went as far as having 30 sessions, at a rate of three sessions per week (Corazon et al., 2018; Stigsdotter et al., 2018). The duration of sessions varied greatly, and there was openness to adjust the frequency at which sessions were held, depending on clients' needs and availability. No two interventions were identical with regards to these parameters. This heterogeneity is echoed in the clinical literature, and signals that there is likely not one best set of logistical choices (e.g., location, session duration, adjustments around weather conditions, payment modality) to be made when designing and carrying out such walk and talk interventions, as flexibility and adaptability with each client appears to be a viable strategy (Jordan, 2014; Passmore et al., 2026; Passmore & Lloyd-Jones, 2026; Roberts, 2022; Udler, 2023). One notable absence from the empirical literature is "enabling activities", although there is a possibility that these were used in the interventions without being reported in the surveyed studies. A few examples of such activities are preparing clients for the differences brought to the therapeutic frame by being outdoors (e.g., managing confidentiality, effort levels); bringing suitable clothing for multiple sorts of weather, and instructing or preparing clients to do as well; bringing sufficient water and potentially snacks; having sunscreen, umbrellas and sitting pads; and undergoing first-aid training for remote locations, depending on where the intervention takes place. These are typically described in greater detail in the clinical literature and aimed at equipping practitioners to transition toward outdoor interventions (Jordan, 2014; Passmore et al., 2026; Passmore & Lloyd-Jones, 2026; Roberts, 2022; Udler, 2023).

The type of natural environment chosen for each intervention was also quite diverse in the surveyed studies. The quality of the reporting on the environment was as varied, with some authors providing very limited descriptions of where the intervention took place (e.g., "school grounds"; Doucette, 2004). This is not a new issue in the literature on nature-based interventions, as many authors have noted that all kinds of natural environments can be found across studies, with little attention devoted to how "natural" the chosen location is (Djernis et al., 2019; Hansen et al., 2017; Jimenez et al., 2021). However, with regards to the benefits of nature exposure, it has been shown that more natural environments, with fewer urban elements, tend to lead to better outcomes when compared to environments with more urban or man-made elements (Beil & Hanes, 2013). Passmore et al. (2026) also refers to this when discussing coaching in more urban area, indicating that a higher level of greenery (i.e. natural elements such as trees) is preferable. This suggests that practitioners should be mindful of the environment in which they choose to carry out their intervention.

Session content

The types of methods, activities and techniques making up the content of sessions in the included interventions varied greatly, including their relation to nature. Some examples of content, such as psychoeducation (Doucette, 2004; Stigsdotter et al., 2018) or positive psychology exercises (Kim et al., 2009), were described in ways that made it apparent they had no connection to the natural setting in which the intervention was taking place. Others, such as relaxation and grounding exercises, were shown to have different ties to this setting across interventions. For example, two of the four interventions using relaxation and grounding described their exercises in a way that framed them as not directly engaging nature (Carrico, 2018; Stigsdotter et al., 2018). The other two made a point to explicitly engage with elements of nature (i.e., wind, forest air, sounds; (Kim et al., 2009; van den Berg & Beute, 2021). Lastly, the use of gardening activities by Stigsdotter et al. (2018) was the sole example of session content which could not be done without the natural setting. In sum, this suggests that session content can be quite diversified in both the types of content, as well as the degree to which the content relates to nature.

As such, it appears as though some session content could have been carried out indoors just as well as in a natural setting. This variation appears not only across interventions, but within them as well. Indeed, an intervention can have some of its content relating to nature, and some other content unrelated the natural context. For example, Kim et al. (2009) had participants partake in a mindfulness meditation connected to nature, while also conducting positive psychology exercises with no relation to natural elements.

The depth and scope of the existing scientific and clinical literature on walk and talk therapies are different. The former contains interventions covering a much wider range of session content, although the accompanying description more often lacked in depth. The latter, instead, provides specific examples of session content spanning a much narrower range, with the majority of instances clustering around three main categories: (1) relaxation and grounding exercises, (2) the use of nature to support metaphor and projection, and (3) developing or nurturing one's relationship with nature. Each example of exercise, method or activity is described with much depth, sometimes going as far as offering step-by-step instruction on how to use them. The three categories are presented below in order, ranging from least to most involved with the natural setting.

First, the clinical literature contains an abundance of examples of relaxation and grounding exercises to draw from in order to help clients be in the present moment and aware of their sensory experience, while being surrounded by nature (Jordan, 2014; Passmore et al., 2026; Roberts, 2022; Udler, 2023). For instance, Jordan (2014) describes various activities, or what the author calls "therapeutic processes", including mindfulness, focusing on one's inner experience of nature, or engagement with the senses. Udler (2023) provides more examples, such as noticing one's senses, appreciating the changes in seasons, taking a moment to notice what is taking place around us in nature, breathing exercises, and basic body scans. These are but some examples of content that can be brought into each session with clients. Overall, mindfulness-related exercises seem to have the potential to play a large role in walk and talk interventions. However, whether these exercises actively involve nature could be left to the discretion of the intervener, as previously mentioned (Carrico, 2018; Stigsdotter et al., 2018).

Second, the use of nature as a support for metaphor and projection is prevalent across many practitioner books (Jordan, 2014; Passmore et al., 2026; Passmore & Lloyd-Jones, 2026; Roberts, 2022; Udler, 2023). In these exercises, natural elements serve as a canvas used to externalize personal feelings, issues, challenges, or situations. Evidently, unlike some other forms of session content, this one cannot be carried out without bringing nature at the forefront of the intervention. Roberts (2022) provides a compelling sample of exercises that make use of metaphor and projection to mirror clients' experience. A simple example is the check-in and check-out exercise, where a client is asked "at the beginning of a session to pick something from the surroundings that represents how they are currently feeling [...], then check back in at the end of the session with the same question" (p. 133), and to then observe any possible shift between both. A similar example includes asking clients to choose a natural element to represent something they are contending with and then exploring with them why and how it is represented in this specifically chosen element. This form of session content was used in only two of the eight empirically validated interventions included in this review (Kim et al., 2009; van den Berg & Beute, 2021), even though the clinical literature puts much more emphasis on its usefulness.

Exercises meant to develop or nurture the client's relationship with nature to produce therapeutic change are also quite prevalent in the clinical literature. Jordan (2014) describes these as "personal/transpersonal" (p. 70) processes, highlighting "the meaning that the natural world gives to our lives and existence" (p. 70). Exercises and methods aimed at exploring and developing a client's relationship to nature include the following: working with the seasons; reflecting on one's emotional, cognitive and physiological experience of nature; and making art out of natural elements (e.g., mandalas) (Jordan, 2014; Passmore et al., 2026; Roberts, 2022; Udler, 2023). Although this type of content seems widespread in the clinical literature, the same cannot be said in the interventions reviewed in this study. Only Carrico (2018) and Doucette (2004) deliberately invoke the goal of developing their clients' relationship with nature. Their interventions also happen to be the only two that were expressly built using ecopsychological and ecotherapeutic foundations (see next section for

therapeutic approaches). Stemming from this, we can see a clear gap between the scientific and clinical literatures. Practitioners basing their interventions on the clinical literature could be led to believe that, while there is great flexibility in walk and talk therapy or coaching, nurturing their clients' connection to nature should be a cornerstone of the intervention. This, however, appears to be absent from the empirical literature.

Therapeutic approach

The surveyed literature on walk and talk interventions shows a variety of therapeutic grounding. Therapeutic approaches included CBT (Corazon et al., 2018; Kim et al., 2009; Prince-Llewellyn & McCarthy, 2025; Stigsdotter et al., 2018), humanistic psychotherapy (Carrico, 2018; Doucette, 2004; Prince-Llewellyn & McCarthy, 2025), positive psychology (Kim et al., 2009), relational therapy (Koziel et al., 2022), and Solution-Focused Brief Psychotherapy (Doucette, 2004), to name a few. Likewise, the available clinical literature also includes varied theoretical grounds, including person-centred (Roberts, 2022), trauma-informed therapy (Udler, 2023), positive psychology (Parashar, 2022), and others. Jordan (2014) grounds their walk and talk interventions in the “relational perspective” (p. 45), an approach that puts a heavy emphasis on the roles and influences of relationships, but also highlighting that “there is no one-size-fits-all therapeutic approach to working in nature” (p. 58). Among the approaches listed above, ecopsychology and ecotherapy hold a distinct position. These hold the relationship between people and the natural world as their very object: ecopsychology combines psychology and ecology (see Roszak et al., 1995), while ecotherapy constitutes its clinical application (Jordan, 2014). What sets them apart from the other approaches encountered in the reviewed interventions is therefore that nature is theorized as part of the therapeutic process, rather than as a mere context in which that process simply unfolds. This conception finds its strongest expression in the clinical literature, with the notion of nature as a “co-therapist” (Jordan, 2014; Udler, 2023) or “co-facilitator” (Roberts, 2022), which Carrico (2018) also discusses. The two interventions expressly built on ecopsychological and ecotherapeutic foundations, Carrico (2018) and Doucette (2004), are also the two situated at the active end of the continuum in use of nature. This is where nature is intentionally engaged as a healing factor. The interventions in which nature plays a passive role (Koziel et al., 2022; Prince-Llewellyn & McCarthy, 2025), in contrast, are grounded in approaches that assign no therapeutic role to the natural setting itself. The therapeutic approach underlying an intervention therefore appears to shape how deliberately nature is brought into its session, as alluded to in the previous section on session content. That said, while both empirical and clinical literature discuss ecopsychology and ecotherapy, these approaches have a substantially larger presence within the clinical literature. However, although ecotherapy is closely tied to interventions taking place in nature, it does not translate into a sustained presence in the reviewed scientific literature. It might be the case that the empirical literature therefore documents a narrower version of walk and talk interventions than what the clinical literature describes. Whether this reflects the difficulty of evaluating interventions that give nature a more active and prominent role, or something else this review cannot assess, remains open.

Implications for practice

Results from this scoping review have notable implications for practice. First, walk and talk interventions are adaptable rather than fixed, and this remains true across modality, session content, and therapeutic approach. They appear to be shaped to the intervention's goals and to the clients that take part in them. No two reviewed interventions were alike on these parameters, and the clinical literature echoes this openness (Jordan, 2014; Passmore et al., 2026; Passmore & Lloyd-Jones, 2026; Roberts, 2022; Udler, 2023). Practitioners can therefore build on their existing orientation(s) and adjust the content and logistics of their intervention to fit their therapeutic goals, rather than seeking a single “correct” protocol. That is not to say that new interventions should be developed without consulting relevant empirical and clinical sources.

Indeed, the second implication for practice posits that designing walk and talk interventions is best served by drawing on both the complementary empirical and clinical literatures. While the former shows tested, but sometimes thinly described content and approaches, the latter, instead, is a rich source of largely invalidated content. For example, enabling activities

(e.g., preparing clients for the altered outdoor frame of the intervention, managing confidentiality in a public setting, etc.) appear to be very important to walk and talk interventions, yet are discussed at length only in the clinical literature (Jordan, 2014; Passmore et al., 2026; Roberts, 2022; Udler, 2023). Their near absence from the reviewed empirical studies constitutes a reporting gap, given the professional and ethical obligations bearing on qualified practitioners working outdoors.

Lastly, practitioners should choose the natural setting by prioritizing less-urban environments, when feasible. Natural environments with fewer built elements could be expected to yield better outcomes (Beil & Hanes, 2013; Passmore et al., 2026). However, this preference should always be weighed against practical trade-offs, such as the location's distance, potential safety concerns, and the client's needs and capacities.

Implications for research

This study also identifies several avenues for future research. First, moving forward, studies should aim to report more information about the interventions, for example by using a tool such as the TIDieR checklist (Hoffmann et al., 2014). This would enable practitioners and researchers to more fully draw from, replicate, or adapt interventions. This is especially true with regards to intervention modality, content, and approach; the natural environment used, including how “natural” the setting is; and the enabling activities done to facilitate the deployment of the intervention. Studies should also report on adherence and fidelity to the intervention protocol, including whether it was assessed at all, and, if assessed, the extent to which the intervention was delivered as planned.

A second avenue for future research pertains to the content examples presented in the clinical literature (e.g., specific step-by-step visualization or mindfulness exercises) but sparsely evaluated in the studies reviewed. This warrants empirical testing, particularly in the case of nature-as-metaphor and exercises developing nature connectedness, which were at the forefront of the clinical literature, yet appeared in few reviewed interventions. Future work could also investigate whether outcomes differ in relation to an intervention's position on the continuum in the use of nature (Roberts, 2022), which has been discussed in the clinical literature, but not yet been validated empirically.

Limits of the present scoping review

The present study has four main limitations. First, the search and inclusion criteria were restricted to English-language sources. Studies published in other languages were necessarily excluded, meaning that the picture painted by the present review might under-represent the field. Second, the clinical and grey literatures were not searched systematically. These sources were identified through preliminary searches and reference-searching, rather than through a systematically applied strategy. Third, consistent with its descriptive claim, the review mapped *how* interventions were constructed and did not compare nor synthesize their outcomes. Therefore, results from this review cannot indicate which interventions, or any particular combination of components, are more effective. A meta-analysis or systematic review looking specifically at the outcome of such interventions could be the next step in helping practitioners develop more optimal empirically based interventions. The fourth and final notable limitation is that no formal methodological quality or bias appraisal was conducted, beyond the information use of the TIDieR checklist (Hoffmann et al., 2014). The review makes no claim about the methodological rigor of the included studies, and the patterns reported should be understood from a descriptive angle.

Conclusion

This scoping review mapped how walk and talk interventions are constructed across coaching, counselling, and psychotherapy. Drawing from nine articles describing eight interventions, results were marked by heterogeneity and

flexibility, with no two alike in modality, session content, or therapeutic approach. However, the completeness of reporting declined along that same order, with therapeutic approaches most often left minimally explained. This review also underlines the distance between two bodies of literature, as the content and approaches most richly developed in the clinical literature remain largely untested in the empirical studies reviewed. Although the identified literature lays the groundwork for walk and talk interventions, more complete reporting, so that intervention can be drawn from, replicated, or adapted, and empirical testing of practitioner-developed content is needed to support evidence-informed practice.

Declarations

Other declarations

Ethics, Consent to Participate, and Consent to Publish declarations: not applicable.

Funding

The main researcher, P-OP, was funded for his doctoral degree by the Fonds de Recherche du Québec – Société et culture (FRQSC) (Dossier #348323). No other author received funding for this work.

Author Contribution

P.-O.P. designed the review, developed and conducted the literature search, and charted the data. P.-O.P. and J.P. performed the study screening and selection. P.-O.P. wrote the manuscript and prepared all figures and tables. All authors reviewed the manuscript.

Data Availability

All data analyzed in this scoping review are drawn from the published studies included in the review, which are cited in the reference list and available from their original sources. The data charted from these studies are presented in full within the article and its tables.

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Figures

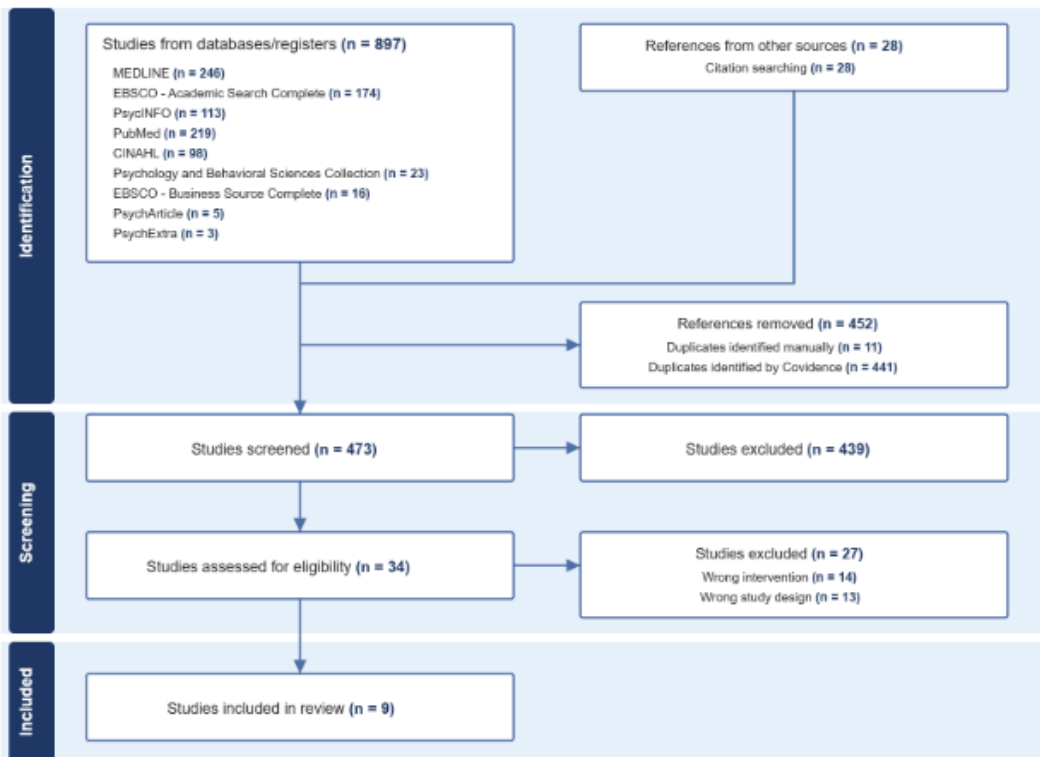


Figure 1

PRISMA diagram

Supplementary Files

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- [AppendixA.docx](#)