

## Lifestyle Coaching in Primary Care: Evidence Base, Clinical Applications, and Future Directions

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### Abstract

**Background:** Non-communicable diseases (NCDs), including cardiovascular disease, type 2 diabetes mellitus, obesity, and chronic respiratory conditions, remain leading causes of morbidity and mortality worldwide. The development and progression of these disorders are strongly influenced by modifiable lifestyle behaviours, underscoring the importance of effective behavioural interventions. Primary care provides an optimal setting for the delivery of lifestyle interventions owing to its accessibility, continuity, and established longitudinal relationships between patients and healthcare professionals. Within this context, lifestyle coaching has gained increasing recognition as a patient-centred approach to facilitating sustained behavioural change and reducing chronic disease burden.

**Objective:** To critically examine the theoretical underpinnings, clinical applications, effectiveness, and implementation challenges of lifestyle coaching in primary care, with particular emphasis on evidence-based strategies for behaviour modification and chronic disease prevention and management.

**Methods:** This narrative review integrates evidence from behavioural science frameworks, randomized controlled trials, systematic reviews, and meta-analyses assessing lifestyle coaching interventions in primary care populations. Areas of focus include obesity management, diabetes care, cardiovascular risk reduction, smoking cessation, promotion of physical activity, nutritional counselling, and psychological wellbeing.

**Results:** Lifestyle coaching is informed by established behavioural theories, including Social Cognitive Theory, Self-Determination Theory, the Transtheoretical Model of Behaviour Change, and motivational interviewing principles. Current evidence suggests that lifestyle coaching enhances patient engagement, strengthens self-efficacy, and promotes adherence to self-management behaviours. Reported clinical outcomes include modest but clinically significant reductions in body weight, improved glycaemic control, favourable changes in cardiovascular risk factors, increased levels of physical activity, and improved smoking cessation outcomes. Nevertheless, the magnitude and durability of these benefits vary across studies because of differences in intervention design, coaching intensity, practitioner expertise, follow-up duration, and participant characteristics. Sustaining long-term behavioural change remains a persistent challenge.

**Conclusion:** Lifestyle coaching represents an important component of contemporary primary care and aligns closely with healthcare priorities centred on disease prevention, patient empowerment, and chronic disease self-management. Although substantial evidence supports its effectiveness across a range of health outcomes, further research is needed to determine optimal models of delivery, evaluate cost-effectiveness, enhance long-term sustainability, and address health inequities. The integration of multidisciplinary care pathways and digital health technologies may further improve the reach, scalability, and effectiveness of lifestyle coaching interventions.

**Keywords:** lifestyle coaching; primary care; behaviour change; chronic disease prevention; motivational interviewing; self-management; health promotion; patient-centred care..

### Introduction

Non-communicable diseases (NCDs), including cardiovascular disease, type 2 diabetes mellitus (T2DM), obesity, chronic respiratory disorders, and several forms of cancer, constitute the predominant causes of morbidity and death worldwide [1]. The rising burden of these conditions is largely attributable to modifiable behavioural risk factors, including physical inactivity, unhealthy dietary habits, tobacco use, excessive alcohol consumption, inadequate sleep, and persistent psychosocial stress [2]. As a result, increasing emphasis has been placed on interventions that target the behavioural determinants of health, recognizing that successful prevention and management of chronic disease go beyond pharmacological treatment alone [3].

Primary care plays a central role in medical care delivery and provides an appropriate setting for health promotion and disease prevention initiatives. Its approachability, continuity of care, and sustained pa-

tient-provider relationships facilitate the implementation of longitudinal behavioural interventions. Furthermore, contemporary healthcare strategies progressively prioritize preventive medicine, patient engagement, and self-management, thereby creating favourable conditions for incorporating lifestyle-based approaches into routine clinical practice [4]. Lifestyle coaching has gained recognition as an effective, patient-centred intervention to support sustainable health behaviour change [5]. In contrast to classic educational approaches that primarily focus on information provision and prescriptive counselling, lifestyle coaching stresses collaboration, empowerment, and individualized goal attainment [6]. Drawing on techniques such as motivational interviewing, structured goal setting, self-monitoring, problem-solving, and ongoing support, lifestyle coaching seeks to strengthen intrinsic motivation, enhance self-efficacy, and promote long-lasting behavioural self-regulation [6].

An expanding evidence base suggests that lifestyle coaching may

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yield meaningful improvements in both behavioural and clinical outcomes across a range of chronic conditions [1]. Nevertheless, considerable heterogeneity in intervention design, coaching frameworks, delivery methods, and healthcare settings has led to variable findings on effectiveness and extensibility. This review carefully examines the conceptual foundations, current evidence, clinical applications, execution considerations, and future directions of lifestyle coaching within primary care, with particular attention to its role in chronic disease prevention and management.

### Pioneers in Wellness Coaching

The development of wellness coaching as an organized approach to health behaviour change has been shaped by multiple prominent scholars and practitioners in psychology, behavioural science, and coaching. Although wellness coaching has emerged relatively recently as a healthcare intervention, its conceptual foundations are rooted in well-established models of human motivation, self-regulation, and patient-focused care.

One of the most influential contributors is Carl Rogers, whose person-centred approach to psychotherapy emphasized empathy, active listening, authenticity, and unconditional positive regard [7]. Rogers advocated for collaborative relationships that support individual autonomy and self-directed growth, principles that have become central to contemporary wellness coaching practices. Abraham Maslow's humanistic psychology also provided an important conceptual foundation [8]. Through his hierarchy of needs and theory of self-actualization, Maslow pointed out the importance of individual development, fulfilment, and optimal functioning. These concepts correspond closely with the holistic philosophy of wellness coaching, which focuses not only on disease prevention and management but also on advancing overall well-being and quality of life.

The practical application of coaching principles was further advanced by Timothy Gallwey [9], whose "Inner Game" methodology stressed the role of self-awareness, mental processes, and internal barriers in shaping performance. His work demonstrated how individuals can improve outcomes by reducing self-limiting beliefs and strengthening self-regulation, concepts that are widely incorporated into health and wellness coaching interventions. A significant contribution to the professionalization of coaching was made by Thomas J. Leonard [10], often regarded as a pioneer of the modern coaching movement. Leonard established coaching frameworks, competency standards, and training programs that helped define coaching as a distinct professional discipline with applications reaching into healthcare and personal development.

More recently, Margaret Moore [11] has played a central role in incorporating wellness coaching into clinical practice. Her work has promoted evidence-based coaching approaches grounded in motivational interviewing, positive psychology, and self-determination theory. These contributions have facilitated the incorporation of wellness coaching into preventive medicine, chronic disease management, and primary care settings. Collectively, the contributions of these pioneers have formed wellness coaching into an evidence-informed, patient-centred discipline. Their work continues to influence contemporary coaching models that intend to enhance self-efficacy, sustain behavioural change, and improve long-term health and well-being outcomes.

informed behaviour change techniques [12]. Drawing on principles from health psychology, behavioural medicine, coaching science, and patient-focused care, lifestyle coaching seeks to empower individuals to develop sustainable health behaviours and sustain well-being [12]. A fundamental principle of coaching is the belief that individuals possess untapped potential that can be harnessed to improve performance and outcomes [13]. As described in coaching theory, the objective of coaching is to bridge the gap between an individual's current state and their potential capabilities [13]. This concept is often summarised by the equation:

$$\text{Performance} = \text{Potential} - \text{Interference}$$

where "interference" refers to internal and external barriers such as limiting beliefs, lack of confidence, environmental constraints, or competing priorities that impede behavioural change. The defining characteristic of lifestyle coaching lies in its emphasis on alliance rather than directive instruction. In contrast to traditional clinician-centred models, in which healthcare professionals provide advice and patients are required to follow recommendations, lifestyle coaching adopts a collaborative approach that emphasizes patient autonomy, self-determination, and intrinsic motivation. Although health education remains important, evidence indicates that increased knowledge alone rarely results in sustained behavioural change. Lifestyle coaching fills this gap by supporting individuals in developing the skills, confidence, and motivation required for long-term self-management [13].

The coaching process generally includes a comprehensive assessment of lifestyle behaviours, exploration of personal values and motivations, collaborative goal setting, action planning, self-monitoring, problem-solving, and continuous assessment of progress [14]. These components are designed to strengthen self-efficacy, promote accountability, and boost resilience when difficulties or setbacks occur. Despite its growing inclusion in healthcare practice, lifestyle coaching lacks a universally accepted definition [15]. Interventions vary considerably in terms of theoretical bases, delivery methods, practitioner qualifications, and intensity. Programs may be delivered by physicians, nurses, dietitians, psychologists, certified health coaches, or digital health platforms. This heterogeneity creates challenges for standardization, comparison of outcomes across studies, and synthesis of evidence within the lifestyle coaching literature. Nevertheless, the core philosophy remains consistent: enabling individuals to be active participants in their own health and behaviour-change journey.

### Theoretical Foundations of Lifestyle Coaching

The effectiveness of lifestyle coaching is supported by several well-established behavioural theories that explain how individuals initiate, adopt, and maintain health-related behavioural changes [16].

**Social Cognitive Theory:** Social Cognitive Theory (SCT) [17] posits that behaviour occurs from the active interaction among personal factors, surrounding conditions, and prior behavioural experiences. A key construct within SCT is self-efficacy, which refers to an individual's confidence in their ability to perform a specific behaviour successfully.

Extensive research has demonstrated that higher levels of self-efficacy are associated with greater adherence to health-promoting behaviours, including regular physical exercise, healthy eating habits, medication adherence, and smoking cessation. Lifestyle coaching aims to strengthen self-efficacy through goal attainment, positive reinforcement, skills development, and structured problem-solving

### Conceptual Framework of Lifestyle Coaching

Lifestyle coaching is a structured, patient-centred behavioural intervention that facilitates the achievement of personally meaningful health goals through collaborative engagement and evidence-

methods. Although self-efficacy is widely recognized as a determinant of behaviour change, some scholars suggest that it may also emerge because of successful behaviour change, making the direction of causality difficult to establish.

**Transtheoretical Model:** The Transtheoretical Model (TTM) [18] conceptualizes behaviour change as a progressive process occurring through a series of stages: precontemplation, contemplation, preparation, action, and maintenance. Lifestyle coaching frequently uses stage-matched interventions, tailoring strategies and support to an individual's readiness to change. The model has informed numerous health behaviour interventions and remains widely applied in clinical practice. However, critics have questioned the assumption that individuals move through discrete stages, arguing instead that behaviour change may occur along a continuum. Despite these limitations, the TTM provides a functional framework for guiding client-centred communication, assessing readiness for change, and establishing realistic behavioural goals.

**Self-Determination Theory:** Self-Determination Theory (SDT) [19] illustrates the role of intrinsic motivation in achieving sustainable behavioural change. The theory proposes that long-term adherence to health behaviours is more likely when three fundamental psychological needs are met: autonomy, competence, and relatedness. Lifestyle coaching closely reflects these principles by supporting collaborative goal setting, patient autonomy, and collaborative decision-making. Evidence from behavioural medicine indicates that programs that foster autonomous motivation are associated with superior longitudinal behavioural outcomes compared with approaches that rely primarily on external rewards or directives. Nevertheless, implementing SDT-based coaching strategies within primary care can be difficult due to limited consultation time, workload pressures, and organizational constraints.

### Carl Rogers' Principles of Coaching

The person-centred coaching approach developed by Carl Rogers is founded on six essential conditions for facilitating constructive personal change [20]. These conditions include:

Psychological contact between coach and client

Client incongruence or vulnerability

Coach congruence, characterized by genuineness and empathic understanding

Unconditional positive regard, reflecting acceptance without evaluation

Empathic understanding of the client's internal perspective

The client's perception of the coach's care and acceptance.

Together, these conditions establish a helpful therapeutic relationship that encourages self-reflection, enhances self-awareness, reduces defensiveness, and promotes individual development. Within lifestyle coaching, Rogers' principles facilitate the development of intrinsic motivation, strengthen the coach–client alliance, and facilitate sustainable behavioural change through empowerment and self-directed action [21]. The continuing influence of the person-centred approach is evident in contemporary coaching models, where empathy, collaboration, and respect for individual autonomy remain fundamental aspects of effective practice.

### Core Coaching Skills for Clinical Practice

**Establishing Rapport:** Establishing rapport is a key part of effective coaching and patient-focused care. It means building a trusting, collaborative, and respectful relationship with patients. Rapport forms the base for engagement and behaviour change [22]. Clinicians can build rapport through verbal and nonverbal skills, empathy, and a

caring environment [23]. Early interactions, such as introductions, are especially important. They shape first impressions and can have a long-lasting impact on patient involvement and satisfaction, as well as adherence to agreed plans [24]. Good rapport leads to better communication, more trust, and improved health outcomes.

**Contracting (Agenda Setting):** Contracting, or agenda setting, is a collaborative process. It defines the purpose, goals, expectations, and limits of the coaching interaction [16]. This process mirrors agenda-setting strategies used in clinical consultations. It enables clinicians to apply communication skills within a coaching framework. A shared agenda encourages a patient-centred method. It guarantees patient priorities are met and helps use consultation time well. Evidence shows agenda setting boosts satisfaction, strengthens the alliance, and leads to better clinical encounters [16].

**Active Listening:** Active listening is an important coaching skill. It means fully focusing on and correctly understanding the patient's verbal and non-verbal messages [25]. Active listening is more than just hearing. It requires active engagement with the patient's story, feelings, and point of view. You can improve these skills with practice, feedback, and reflection. Good listening is attentive, empathetic, and responsive. Techniques include paraphrasing, summarizing, clarifying, and reflective response. These demonstrate comprehension and support self-exploration. They also encourage patient self-reflection. On the other hand, interrupting, judging, changing the topic, or offering solutions too soon can block communication and reduce engagement [25].

**Effective Questioning:** Questioning is a key coaching skill. It helps with awareness, exploration, and motivation for change [26]. Open-ended questions are very useful. They let patients talk in detail about their experiences and concerns. These often use terms such as what, how, when, where, and who. Such questions prompt deeper reflection instead of brief answers [26]. Closed-ended questions collect specific facts but limit discussion. Coaching works best with clear, concise, and reflective questions. Reflective questions, which combine observation and inquiry, deepen insight. They encourage patients to explore motivations and strategies for change [26].

**Providing Feedback:** Giving feedback means sharing observations, information, or your professional view in a helpful manner [27]. Feedback, in coaching, aims to build self-awareness and reflection. It supports sound decision-making while preserving patient autonomy. Good feedback focuses on actions and what you notice, not on judging the person. It invites patients to find their own lessons and chances to improve. Insight and self-efficacy grow from feedback. This helps patients stay engaged and make lasting changes [27].

**Reflective Learning:** Reflective learning is a structured way to review your experiences, thoughts, feelings, and beliefs [27]. This process builds self-awareness and helps you grow as a professional. Reflective learning supports coaching skills and lifelong learning. Regular reflection assists clinicians in assessing what works, recognizing areas for improvement, and adjusting their approach to better serve patients [27]. Reflective practice promotes career development and improves clinical care.

**Motivational Interviewing:** Motivational interviewing (MI) is among the most widely used communication techniques in lifestyle coaching and behavioural change [28]. It is a collaborative, person-centred approach. MI works to enhance intrinsic motivation and commitment to change [28]. It does so through empathetic, non-judgemental, and non-confrontational conversations. The main goal is to help in-

dividuals resolve ambivalence, strengthen self-efficacy, and identify their motivations for healthier behaviours. Systematic reviews and meta-analyses show that motivational interviewing leads to modest yet clinically meaningful changes [29-32]. These improvements span weight management, smoking cessation, diabetes self-management, and physical activity. However, effectiveness depends on the practitioner's competence. It is also influenced by adherence to MI principles and sufficient follow-up support.

**Distinguishing Coaching from Other Clinical Approaches:** Coaching differs significantly from traditional healthcare models [33]. It stresses a collaborative partnership between the coach and the individual [1]. In healthcare, this means active engagement from both the professional and the patient. This differs from standard models where professionals provide expertise and solutions. Coaching, however, uses a patient-centred philosophy. It enables people to make informed choices concerning their health and wellbeing [1]. At its core, coaching is a non-directive process [34]. It facilitates self-discovery rather than offering explicit advice or predetermined solutions. Via reflective questioning, exploration, and guided problem-solving, individuals can identify their own goals and paths to change. In health coaching, giving information may sometimes be necessary [27]. This occurs when individuals need knowledge or explanation to support decision-making. Information is shared in a way that preserves autonomy [27]. Individuals then decide its importance and how to apply it in their circumstances.

The overarching goal of coaching is to raise awareness. Individuals explore their behaviours, beliefs, and circumstances, as well as the factors that influence them. This increased awareness can promote personal responsibility and support well-informed decision-making [35]. It also encourages early involvement in health management. Through this process, coaching strengthens self-management and self-care [35]. This leads to long-term improvements in health and wellbeing [35].

**Evidence for Effectiveness in Primary Care:** The evidence base supporting lifestyle coaching in primary care has grown considerably over the last two decades [6]. Systematic reviews and meta-analyses generally indicate beneficial effects across a range of health outcomes, although the magnitude of these effects varies [36]. In the context of obesity management, lifestyle coaching interventions are consistently associated with modest reductions in body weight and body mass index [37]. Although average weight loss is typically limited, reductions of approximately 5–10% of initial body weight are associated with considerable improvements in metabolic health [37]. Notably, evidence suggests that programs involving frequent coaching interactions are more effective than brief, education-only interventions [37].

For individuals with type 2 diabetes mellitus (T2DM), lifestyle coaching has been shown to improve glycaemic control, support weight loss, increase physical activity, and enhance medication adherence [38]. Meta-analytic findings commonly demonstrate small but significant reductions in glycated haemoglobin (HbA1c), although these benefits often decline over time [39]. Maintaining longitudinal behavioural change is a major limitation, underscoring the need for sustained follow-up and reinforcement strategies.

Regarding cardiovascular risk, lifestyle coaching has been associated with improvements in blood pressure, lipid levels, smoking cessation rates, and composite cardiovascular risk scores [40]. However, relatively few studies are powered to assess definitive clinical endpoints such as myocardial infarction, stroke, or cardiovascular mortality,

meaning that much of the evidence relies on surrogate outcomes. Mental health outcomes have also been explored, with studies showing possible improvements in psychological well-being, self-efficacy, and health-related quality of life [41]. Nevertheless, effect sizes are inconsistent across populations, and the mechanisms underlying these benefits remain only partially understood.

**Critical Appraisal of Current Evidence** [50 -52]: Overall, the evidence supporting lifestyle coaching is largely favourable; however, several methodological constraints warrant acknowledgment. A key issue is the marked heterogeneity of interventions across studies. Variations in coaching intensity, duration, delivery format, conceptual foundations, and practitioner training make comparisons difficult and limit the ability to isolate the most effective components. In addition, a substantial proportion of studies depend on self-reported outcomes, which are vulnerable to recall inaccuracies and social desirability bias. Objective assessments of behaviours such as physical activity and dietary intake are less frequently incorporated, reducing measurement exactness.

Another limitation is the scarcity of long-term follow-up data. Although short-term improvements are consistently reported, evidence for sustained behavioural change beyond one to two years remains limited. This is particularly important given the chronic, relapsing nature of lifestyle-related conditions. Selection bias further limits generalisability, as participants in intervention studies are often more motivated than those in typical primary care populations. This may lead to an overestimation of real-world effectiveness.

Finally, broader socioeconomic and structural determinants of health are often insufficiently addressed within coaching interventions. Factors such as financial insecurity, food access, and environmental constraints may significantly limit behavioural change. As a result, lifestyle coaching is best understood as one component of a wider public health strategy rather than a standalone solution.

**Critical Appraisal of Trials in Lifestyle Coaching in Primary Care:** Over the past two decades, a range of randomized controlled trials (RCTs) and pragmatic implementation studies have examined lifestyle coaching within primary care and community settings [29–32]. While findings generally demonstrate improvements in behavioural and metabolic outcomes, several methodological considerations influence interpretation and external validity. The following section critically reviews key landmark trials.

**Diabetes Prevention Program (DPP):** The Diabetes Prevention Program (DPP) (42) is a landmark multicentre randomized controlled trial assessing the efficacy of intensive lifestyle intervention in preventing type 2 diabetes mellitus. The study included 3,234 adults with impaired glucose tolerance and compared lifestyle modification with metformin therapy and placebo. The lifestyle arm aimed for a 7% weight reduction and at least 150 minutes of moderate physical activity per week, delivered by structured behavioural coaching, individual counselling, and ongoing reinforcement. Over a mean follow-up of 2.8 years, the intervention reduced the incidence of diabetes by 58% compared with placebo, outperforming metformin.

Strengths of the DPP include its exacting design, large sample size, high retention rates, and use of clinically meaningful outcomes. Long-term follow-up further demonstrated sustained risk reduction, supporting the durability of behavioural interventions. The program was grounded in behavioural theory and incorporated core coaching techniques such as goal setting, self-monitoring, and issue resolution. However, the intervention was highly resource-intensive, requiring

frequent contact with trained coaches, thereby limiting scalability in routine primary care. Additionally, participants were self-selected and highly motivated, which introduced potential selection bias and limited generalisability toward broader populations.

**Finnish Diabetes Prevention Study (DPS):** The Finnish Diabetes Prevention Study (DPS) [43] independently confirmed the effectiveness of lifestyle intervention in preventing type 2 diabetes. This randomized trial included 522 overweight adults with impaired glucose tolerance assigned to either intensive lifestyle counselling or standard care. The intervention targeted weight loss, dietary change, enhanced physical activity, and individualized behavioural support. Consistent with the DPP, the DPS demonstrated a 58% reduction in diabetes incidence among the intervention group. Key strengths comprise robust randomization, clearly defined behavioural targets, and extended follow-up, which allowed assessment of sustained effects. The replication of findings in a European cohort strengthens the external validity of lifestyle interventions. Limitations include a relatively small sample size and intensive counselling requirements, which may limit relevance to routine healthcare settings. Nonetheless, the DPS remains a foundational study supporting structured lifestyle coaching in diabetes prevention.

**Action for Health in Diabetes (Look AHEAD) Trial:** The Look AHEAD trial (44) evaluated whether intensive lifestyle intervention could reduce cardiovascular morbidity and mortality in overweight or obese adults with type 2 diabetes. A total of 5,145 participants were randomized to either intensive lifestyle intervention or diabetes support and education. The intervention included frequent coaching sessions, caloric restriction, structured physical activity, and behavioural strategies. Participants achieved considerable improvements in weight, fitness, glycaemic control, quality of life, and cardiovascular risk factors.

Strengths include its large sample size, long follow-up exceeding 10 years, and comprehensive outcome assessment. The trial gives valuable insight into the long-term feasibility of intensive behavioural interventions in established diabetes. However, the study did not show a significant reduction in the primary cardiovascular composite endpoint and was ultimately stopped for futility. This emphasizes the challenge of translating improvements in surrogate outcomes into reductions in hard clinical endpoints. Declining adherence and high resource demand further limit real-life applicability.

**EUROACTION Trial:** The EUROACTION trial [45] evaluated a nurse-led, multidisciplinary cardiovascular prevention program implemented in primary care across Europe. The intervention combined lifestyle coaching, dietary counselling, physical activity promotion, smoking cessation support, and family involvement. The study demonstrated improvements in diet, physical activity, smoking cessation, and cardiovascular risk factors. Its delivery within routine health care settings improves its real-world relevance. A key strength was its family-centred design, considering the social context of behaviour change. The nurse-led model also offers a potentially expandable approach to embedding coaching into primary care. Limitations encompass the cluster-randomized design, which may introduce contamination between groups, and variability in intervention delivery across sites, which may affect the consistency of outcomes.

**Coaching Patients on Achieving Cardiovascular Health (COACH) Trial:** The COACH trial [46] examined nurse-led coaching for cardiovascular risk management. Participants received organized support targeting lifestyle change, medication adherence, and self-management. The intervention improved lipid profiles, blood pressure con-

trol, and observance behaviours, supporting coaching as an adjunct to standard cardiovascular care. Strengths include its pragmatic design and clinically relevant outcomes. However, the lack of blinding introduces potential performance bias, and the relatively short follow-up limits conclusions regarding long-term viability.

**Patient Engagement and Coaching for Health (PEACH) Trial:** The PEACH trial [47] assessed the impact of health coaching on patient activation, self-efficacy, and self-management in individuals with chronic disease in primary care. Findings indicated improvements in confidence and activation, as well as adherence to recommended behaviours, highlighting important psychological mechanisms in chronic disease management. Limitations include a small sample size, reliance on self-reported outcomes, and limited evaluation of objective clinical endpoints, leaving uncertainty regarding long-term health effects.

**Evidence from Systematic Reviews and Meta-Analyses:** Several systematic reviews and meta-analyses have evaluated the effectiveness of lifestyle coaching interventions in primary care. Reviews conducted by Wolever and colleagues [48] and Kivelä and colleagues [49] consistently report modest-to-moderate benefits in outcomes such as body weight, glycaemic control, self-management behaviours, medication adherence, and patient activation. A key strength of this evidence base is the synthesis of findings across a wide range of populations and healthcare contexts. Overall, the literature indicates that lifestyle coaching can lead to clinically relevant improvements in behavioural outcomes and intermediate metabolic markers. However, substantial heterogeneity is evident across studies. Differences in intervention design, coaching intensity, follow-up duration, outcome measures, and practitioners' backgrounds limit comparability and make it difficult to determine which specific components are most effective.

#### **Methodological Considerations Across the Evidence Base**

**Intervention Heterogeneity:** A universally accepted definition of lifestyle coaching has yet to be established. Interventions vary widely in their conceptual bases, behavioural techniques, frequency and duration of contact, and coach training. This difference limits standardization and weakens inter-study comparisons [53].

**Risk of Performance Bias:** Blinding is largely not feasible in behavioural interventions, meaning that observed effects may be influenced by participant expectations, increased attention, or the Hawthorne effect rather than by the intervention alone [54].

**Selection Bias and Generalisability:** Many studies recruit individuals who are already motivated to engage in behavioural change programs. Consequently, study samples may not mirror the broader primary care population, particularly individuals with low health literacy, socioeconomic disadvantage, or limited readiness for change [54].

**Sustainability of Behaviour Change:** Although short-term improvements in weight, physical activity, and metabolic outcomes are commonly reported, continuing these gains over time remains difficult. Weight regains and declining adherence are frequently observed, signalling a need for longer-term support mechanisms.

**Outcome Measurement:** A significant proportion of studies rely on self-reported behavioural data, which are vulnerable to recall bias and social desirability effects. Subsequent research should incorporate more objective measures, such as accelerometry, digital health tracking tools, continuous glucose monitoring, and validated biochemical markers.

**Overall Evidence Synthesis:** Evidence from primary care settings indicates that lifestyle coaching can improve health behaviours, weight management, glycaemic control, cardiovascular risk factors, and patient engagement in self-care. Strong supporting evidence is provided by landmark studies such as the Diabetes Prevention Program and the Finnish Diabetes Prevention Study, both of which demonstrated substantial reductions in the incidence of type 2 diabetes among high-risk populations. Despite these positive findings, limitations remain. Many interventions are resource-intensive, study populations are often selectively recruited, and extended effectiveness and economic efficiency are not yet fully established. In addition, variability in intervention design and outcome reporting continues to hinder clear interpretation of the evidence base.

Overall, lifestyle coaching is an evidence-informed, patient-focused approach to chronic disease prevention and management in primary care (). Upcoming research should prioritize pragmatic trial designs, the application of digital health technologies, comprehensive economic evaluations, and the development of scalable models capable of sustaining long-term behaviour change at the population level.

### Conclusion

Lifestyle coaching has become an increasingly important element of modern primary care, demonstrating a broader shift toward preventive healthcare, patient empowerment, and self-management of chronic disease. Current evidence supports its effectiveness at improving behavioural risk factors, metabolic outcomes, cardiovascular health, and quality of life. However, the magnitude of benefit varies across studies, and the long-term maintenance of behaviour change remains a key challenge.

Future research needs to focus on standardizing intervention frameworks, extending follow-up durations, using objective outcome measures, and strengthening evidence on cost-effectiveness. Greater

emphasis is also needed on targeting social determinants of health plus reducing health inequalities. When embedded within multidisciplinary, patient-focused care models, lifestyle coaching has strong potential to contribute meaningfully to chronic disease prevention and management in primary care.

#### Appendix 1: The coaching skills self-assessment

Rate yourself on a scale of 1-5 for each of the following areas. (7 = I never do this; 2 = I sometimes do this; 3 = I often do this; 4 = I usually do this; 5 = I always do this)

<p><b>Establishing rapport</b></p> <ul style="list-style-type: none"><li><input type="radio"/> I develop a positive relationship with the patient</li><li><input type="radio"/> I learn something interesting about the patient</li><li><input type="radio"/> I greet the patient with a smile</li><li><input type="radio"/> I introduce myself</li></ul> <p><b>Contracting</b></p> <ul style="list-style-type: none"><li><input type="radio"/> I ask what the patient would like to address in the consultation</li><li><input type="radio"/> I establish boundaries about how the consultation can work (e.g. time) and explain this</li><li><input type="radio"/> I understand what the patient would like to achieve from the consultation</li></ul> <p><b>Listening</b></p> <ul style="list-style-type: none"><li><input type="radio"/> I listen without interrupting</li><li><input type="radio"/> I pay attention without distractions</li><li><input type="radio"/> I understand what the patient is worried about</li></ul> <p><b>Questioning</b></p> <ul style="list-style-type: none"><li><input type="radio"/> I ask open questions</li><li><input type="radio"/> I avoid leading questions</li><li><input type="radio"/> I predict the answers as I am asking questions</li></ul> <p><b>Providing Feedback</b></p> <ul style="list-style-type: none"><li><input type="radio"/> I give information in a way that the patient understands</li><li><input type="radio"/> I check that the patient understands any new health information</li><li><input type="radio"/> I provide options to the patient in a neutral way</li><li><input type="radio"/> I tell the patient what they should do</li></ul> <p><b>Reflective Practice</b></p> <ul style="list-style-type: none"><li><input type="radio"/> I have a regular time to reflect on the day's or week's practice</li><li><input type="radio"/> I have a regular meeting with a coach or mentor or peer colleague to discuss and reflect on things that have happened in practice recently</li><li><input type="radio"/> I am part of a peer support group</li><li><input type="radio"/> I have a method for reflective practice that supports me</li></ul>
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