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Clinical Approach for Lifestyle Medicine: Almoutaz Model - Integrate, Individualise, Support (IIS)

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Abstract

Lifestyle medicine uses proven methods to help prevent and manage long-term diseases. It considers what we eat, how much we move, how well we sleep, how we manage stress, and our relationships. The Almoutaz Model is a novel, simple way to apply this in real-life healthcare. Its novelty lies in three linked ideas: integrating different areas of our lives, creating personalized plans for each patient, and providing ongoing support to help them reach their goals. Unlike broader lifestyle medicine approaches, this model emphasizes these three features together. Large studies on lifestyle and behaviour change support this model. The goal is to make lifestyle medicine a regular part of healthcare that is easy to measure, sustainable, and compatible with other medical treatments. This could help people make lasting changes and improve their overall health.

Keywords: Lifestyle medicine; Almoutaz Model; Patient-centred care; Behaviour change.

Introduction

Lifestyle medicine is a way to treat health problems based on facts and research. It uses the things we do every day, like what we eat, how much we move, and how well we sleep, to help prevent and manage long-term illnesses. Lifestyle medicine includes eating well, staying active, getting enough rest, protecting mental health, avoiding harmful exposures, and maintaining strong social connections [1].

Lifestyle medicine is most effective when its core components are integrated within a comprehensive therapeutic strategy rather than delivered as isolated recommendations [2]. Dietary modification, physical activity, sleep optimization, stress management, avoidance of toxic substances, and social support are interrelated behaviours that may jointly affect health outcomes [1,2]. Accordingly, clinical interventions must consider the patient's broader lifestyle context and translate evidence-based recommendations into practical, enduring changes that fit within daily life [2].

The rationale for the Almoutaz Model: Integrate, Individualize, Support (IIS Model)

The Almoutaz Model is a simple way to help doctors take care of patients using lifestyle medicine. It's based on three main ideas: Integrate, Individualize, and Support. This means considering all the factors that affect a person's health, such as what they eat, how much they exercise, how well they sleep, and how much stress they have. It also includes things like whether they use harmful substances or have good social connections. All these factors are connected and can affect any medical conditions they have or the treatments they're receiving. So, instead of looking at one thing at a time, the Almoutaz Model helps doctors see the whole picture and create a plan that fits each patient. This way, they can provide the best possible care and help patients get healthier. This approach to healthcare is built around three main ideas that work together.

First, it's about bringing everything together - that means looking at all parts of a person's life, their health risks, symptoms, how well they can function, and the medical treatment they need, and creating a single plan that takes care of all these things. Then, it's about making sure this plan is customized to the individual, taking into account what matters most to them, what health risks they face, what they can and can't do, their cultural background, what resources they have available, how ready they are to make changes, and what they hope to achieve.

Lastly, it acknowledges that changing habits and behaviours is an ongoing process that needs ongoing support, frequent check-ins to see how things are going, help to overcome obstacles, along with adjustments to the plan as needed to keep moving forward. The rationale for IIS is to move lifestyle medicine from general lifestyle advice to a structured, patient-centered clinical process.

IIS Model practical philosophy can be summarised as:

The model intends to make lifestyle medicine evidence informed, clinically integrated, realistic, measurable, and sustainable, while complementing rather than replacing appropriate medical therapy.

Almoutaz Model; Integrate, Individualize, Support (IIS) is a proposed functional framework for translating established lifestyle medicine and behaviour-change principles into routine clinical practice (Figure 1).

The framework has three interrelated components: integrate lifestyle interventions across multiple health domains; individualize recommendations based on the patient's symptoms, risks, preferences, circumstances, and willingness to change; and facilitate sustainable behaviour change through goal setting, monitoring, follow-up, and modification. The IIS model draws on established principles of lifestyle medicine, person-centered care, motivational interviewing, goal setting, and behaviour-change science [3-5]. The Pillars of Almoutaz Model; Integrate, Individualize, Support (IIS). The Almoutaz Model (IIS) provides a practical, patient-centered framework for applying lifestyle medicine in clinical practice. It recognizes that lifestyle behaviours are interconnected and that effective care entails comprehensive assessment, customized interventions, and continuing support.

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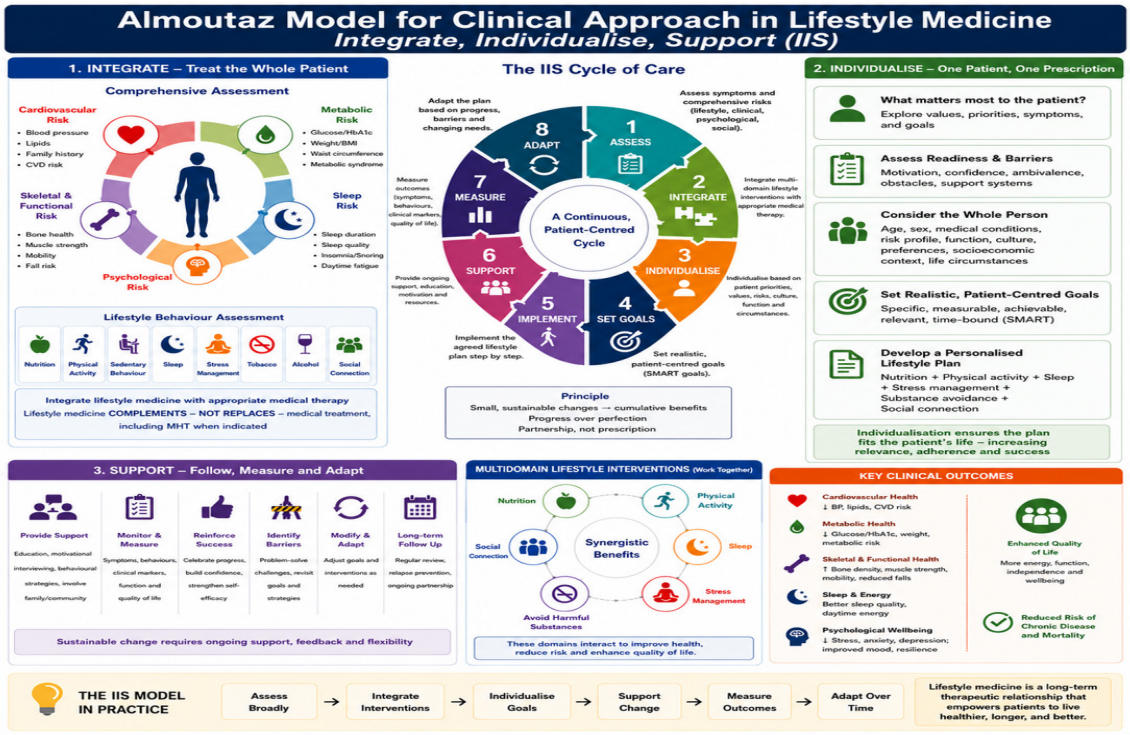

Figure 1: *Almoutaz Model for Clinical Approach in Lifestyle Medicine.*

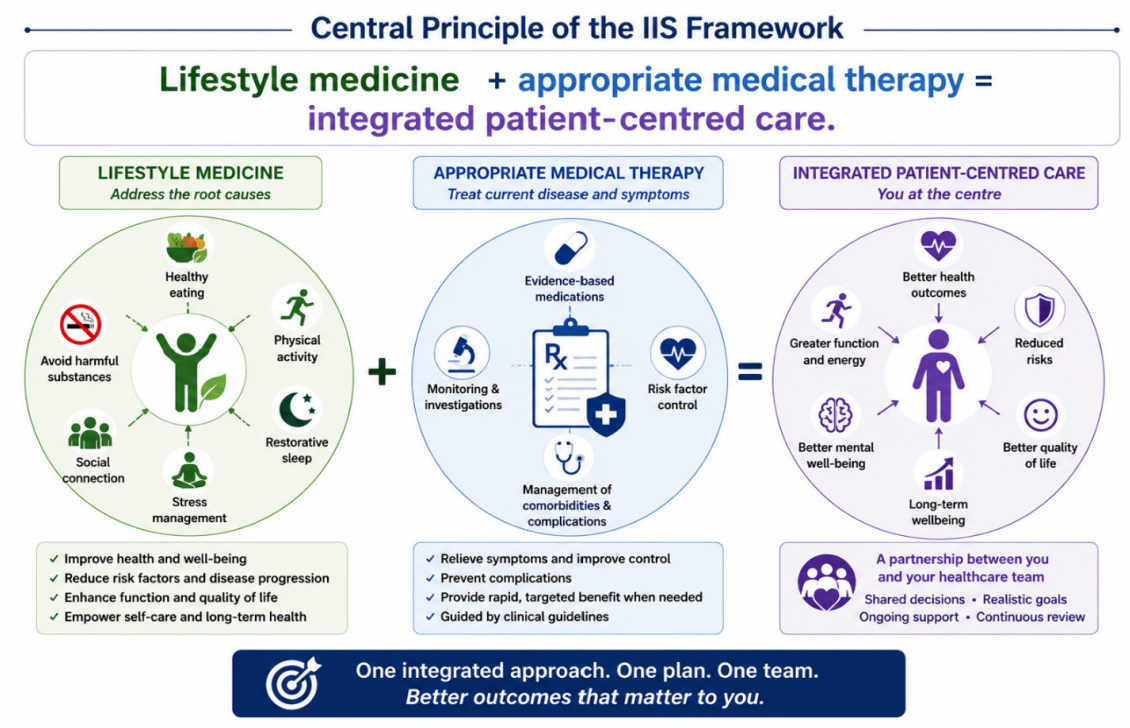

Figure 2: *Central principle of the IIS framework..*

Integrate (Table 1):

Treat the Whole Patient. The first component of the Almoutaz Model is Integrate. Lifestyle-related risk factors rarely occur in isolation. Physical inactivity, unhealthy dietary patterns, inadequate sleep, psychological stress, tobacco exposure, and social isolation can interact and contribute to cardiovascular disease, obesity, type 2 diabetes, poor psychological wellbeing, and premature mortality [6,7]. The IIS approach therefore starts with a comprehensive clinical assessment. This should include the patient's presenting symptoms and their cardiovascular, metabolic, skeletal, sleep, and psychological risks. Traditional clinical information; including medical history, medications, blood pressure, body weight, body mass index, waist circumference, glucose or HbA1c, lipid profile, and relevant laboratory investigations should be integrated with a structured assessment of lifestyle behaviours [1,2,8]. Clinicians should explore dietary patterns, physical activity, sedentary behaviour, sleep duration and quality, perceived stress, psychological wellbeing, tobacco exposure, alcohol consumption, and social relationships. Functional status is particularly important in older adults and individuals at risk of sarcopenia, osteoporosis, falls, or frailty. Current international recommendations emphasize combining aerobic activity, muscle-strengthening exercise, and reduction of sedentary behaviour according to the individual's capacity

and clinical condition [9]. This detailed assessment changes the clinical question from "Which lifestyle behaviour should be treated?" to "Which set of lifestyle factors is causing this patient's symptoms and future health risk?"

Lifestyle interventions must subsequently be combined wherever appropriate. For example, recommending resistance exercise without considering nutrition, protein intake, sleep, pain, functional capacity, and recovery may limit adherence or benefit. Similarly, dietary advice delivered without considering psychological stress, sleep deprivation, family eating patterns, cultural preferences, affordability, and the patient's readiness to change may be difficult to sustain [10-12]. The IIS model therefore promotes a multidomain lifestyle intervention. Nutrition, physical activity, sleep, stress management, avoidance of deleterious substances, and social connection should be considered components of a unified therapeutic strategy rather than independent prescriptions [7,13]. Lifestyle changes can also work well with traditional medical care. They should add to, not replace, proven medical treatments. Studies show that lifestyle changes can markedly lower the risk of major health problems. For instance, a big study called the Diabetes Prevention Program [14] found that people who made significant lifestyle changes were 58% less likely to get type 2 diabetes. We've seen similar results in other studies, like the Finnish Diabetes Prevention Study [15], which shows that lifestyle changes can markedly lower your risk of heart problems and diabetes. But this doesn't mean you should stop taking your medicine if you need it. Instead, combine healthy living with the right medical treatment for the best care possible. This way, you can support your overall health, not just one part of it. By doing this, you can benefit from both lifestyle changes and medical treatment, which can lead to better overall health. It's all about achieving a balance that works for you and your healthcare team.

Another example when managing menopause, one key principle is the value of lifestyle interventions. By making healthy changes to your daily habits, you can improve your overall health in several areas, including your heart and metabolism, weight, physical function, sleep, mental wellbeing, and even reduce your risk of long-term diseases. However, it's important to remember that lifestyle changes shouldn't replace proper treatment for bothersome menopausal symptoms. For some women, menopausal hormone therapy, or MHT, can be a highly effective treatment option, especially for managing hot flashes and night sweats. But you should decide whether to start MHT on an individual basis, considering several factors. These include how severe your symptoms are, how old you are, how long it's been since you entered menopause, whether you have any health conditions that might make MHT riskier, and what your personal preferences are. You should make this decision with your healthcare provider through a process called shared decision-making. By working with your provider and considering all relevant factors, you can make an informed choice about whether MHT is right for you and develop a personalized plan to manage your menopausal symptoms and maintain your overall health. This approach helps ensure you receive the most appropriate care for your needs and circumstances.

Evidence that the "Integrate" part of the IIS model works comes from large studies showing that combining different lifestyle and behaviour changes can be beneficial (table). When you look at all these studies together, they suggest that using an approach that evaluates many areas - like what you eat, how active you are, getting support, staying healthy, sleeping well, and managing risks to your heart's health - can be a good way to treat people. This approach brings all these different areas together into one coordinated plan.

Table 1: *Trials support first pillar (I = Integrate).*

Trial	Population	Integrated intervention	Main finding	Relevance to IIS "Integrate"
FINGER – Ngandu et al. [16]	1,260 adults aged 60–77 at increased dementia risk	Diet + exercise + cognitive training + vascular/metabolic risk monitoring	Multidomain intervention maintained cognitive function	Strong support for IIS integration through simultaneous multidomain risk management
Diabetes Prevention Program (DPP) [14]	3,234 adults at high risk of T2DM	Weight reduction, healthy diet, activity, behavioural support.	Lifestyle intervention reduced diabetes incidence by 58% versus placebo	Supports Combines nutrition, activity, weight management, and behavioural prevention.
Finnish Diabetes Prevention Study [15]	522 adults with overweight and impaired glucose tolerance	Weight reduction + dietary modification + increased physical activity	Diabetes risk reduced by 58%	Simultaneous lifestyle modifications can substantially reduce metabolic risk.
PREDIMED-Plus [17]	Older adults with overweight/obesity and metabolic syndrome	Energy-restricted Mediterranean diet + physical activity + behavioural support	Greater weight loss improved waist, glucose, lipids, insulin resistance.	Supports unified nutrition, exercise, and behavioural therapeutic strategies effectively
Look AHEAD [18]	5,145 adults with overweight/obesity and T2DM	Caloric restriction + physical activity + behavioural weight-management programme	Sustained weight loss improved HbA1c, fitness, and CVD risks, without endpoint reduction	Integrated lifestyle treatment improves risks but does not replace medical therapy. .
PREDIMED [19]	7,447 adults at high cardiovascular risk	Mediterranean dietary pattern supplemented with EVOO or nuts	Reduced major cardiovascular events	Supports dietary intervention for comprehensive cardiovascular prevention.
LIFE – Pahor et al., [20]	1,635 sedentary adults aged 70–89 with physical limitations	Structured programme incorporating aerobic + resistance + flexibility exercise	Major mobility disability: 30.1% vs 35.5%; HR 0.82	Supports functional assessment and combined exercise in older adults.
REACT – Stathi et al., [21]	Adults ≥65 years with mobility limitations	Physical activity programme incorporating behavioural maintenance strategies	Better preservation of lower-limb physical function	Supports integrating function, exercise, and behavioural support in older adults.
MsFLASH CBT-I trial [22]	Peri/postmenopausal women with insomnia and vasomotor symptoms	Multicomponent CBT-I addressing sleep behaviour and cognition	Greater improvement in insomnia and sleep quality	Supports sleep and psychological assessment in menopause care.

Individualize (Table 2):

One Patient, One Lifestyle Prescription. The second component of the model is Individualize. No single lifestyle prescription fits every patient. Individuals differ considerably in age, sex, medical conditions, cardiovascular and metabolic risk, physical capacity, psychological well-being, cultural background, socioeconomic circumstances, family responsibilities, motivation, and readiness for behavioural change (11,12,25). When helping patients make lifestyle changes, it's essential to initiate by identifying what matters most to them. Rather than tackling everything at once, doctors should work with patients to set priorities together. One helpful approach is motivational interviewing, which explores the patient's motivations, confidence, and any mixed feelings about making changes. By understanding what's driving their desire to change, as well as any obstacles that might get in the way, clinicians can provide more effective support. This approach may help patients feel more in control of their own health and more likely to make lasting changes. For instance, someone struggling with serious sleep issues and feeling extremely tired might find it more helpful to focus on getting better sleep and starting with small amounts of exercise, rather than jumping into a tough workout routine right away. Sleep is closely linked to heart health and other habits, so reviewing sleep patterns is a key part of living a healthy lifestyle.

Similarly, an older patient with osteoporosis, weakened muscle strength, or increased falls risk requires a different exercise program from a younger individual whose main goal is prevention of diabetes or weight management. Physical activity recommendations should therefore be adapted to functional ability, medical conditions, baseline activity, and treatment objectives (6,7). Nutrition should also be personalized. Rather than prescribing a rigid “healthy diet,” clinicians should consider the patient's existing dietary pattern, metabolic risk, preferences, cultural foods, affordability, cooking skills, body composition, and willingness to change. Evidence from major dietary intervention studies shows that high-quality dietary patterns, including Mediterranean dietary approaches, can produce clinically important cardiovascular benefits (8). So, it's not only about giving people information on what to eat but finding science-backed ways to help them change their diet and stick with it long term. This means looking at what works best for each person and making sure they can make those changes a part of their daily life.

Table 2: *Trials support second pillar (I = Individualise).*

Trial	Population	Individualised/patient-centred feature	Main outcome	How it supports IIS
DPP study [14]	3,234 adults at high risk of T2DM	Personalized coaching, goals, problem-solving, weight loss, and activity.	58% reduction in diabetes incidence vs placebo	Standardized targets achieved through individualized behavioural plans.
Finnish DPS study [15]	522 adults with impaired glucose tolerance	Individualised dietary and exercise counselling guided by goals.	58% reduction in T2DM risk	Supports tailored nutrition, weight, and physical-activity counselling.
Look AHEAD study [18]	5,145 adults with overweight/obesity and T2DM	Individualised diet, activity, weight-loss and behavioural strategies	Supports tailored nutrition, weight, and activity counselling.	Tailors’ lifestyle interventions for people with chronic disease.
LIFE study [20]	1,635 sedentary adults aged 70–89 with functional limitations	Exercise adapted to individual health and physical capacity	Major mobility disability 30.1% vs 35.5%; HR 0.82	Excellent evidence for adapting exercise to age and functional capacity
LiFE study [23]	317 adults ≥70 years at increased falls risk	Balance and strength activities integrated into daily routines.	Falls rate reduced by approximately 31%	Strong support for individualized function-based lifestyle prescriptions.
PREDIMED study [19]	7,447 adults at high CVD risk	Mediterranean dietary intervention applied within participants' habitual food patterns	Reduced major cardiovascular events	Supports evidence-based dietary patterns over restrictive diets.
DIETFITS study [24]	609 adults with overweight/obesity	Compared healthy diets and examined predictors of response.	Both diets achieved weight loss without genotype interaction.	No single macronutrient prescription is universally superior.
CALERIE study [25]	Healthy non-obese adults	Individual energy-restriction strategies targeting sustained caloric reduction	Improved multiple cardiometabolic risk factors	Supports adapting dietary intervention to achievable individual energy reduction
McCurry/ MsFLASH CBT-I – [22]	Peri/postmenopausal women with insomnia and vasomotor symptoms	Symptom-focused CBT-I	Markedly improved insomnia and sleep quality	Supports prioritizes dominant symptoms rather than providing generic lifestyle advice.
Ogedegbe et al. – Motivational interviewing [26]	Adults with hypertension	Patient-centred motivational interviewing targeting medication/ lifestyle adherence	Improved adherence with favourable BP effects	Supports collaborative goals, motivation, and addressing barriers.

3.Support: Follow, Measure and Adapt (Table 3)

The third component of the Almoutaz Model is Support. Lifestyle medicine should not be treated as a one-time prescription. Sustainable behaviour change often requires repeated contact, reinforcement, feedback, problem solving, and goal modification [11,13,24]. Behaviour is dynamic. Motivation changes, barriers emerge, medical conditions change, and goals that were initially realistic may subsequently become either too difficult or insufficiently challenging. Regular follow-up is therefore fundamental to the IIS approach. Select clinical outcomes based on the patient's original symptoms, risks, and treatment goals. Measures may include body weight, waist circumference, blood pressure, HbA1c, lipid profile, physical activity, exercise capacity, muscle strength, sleep quality, tobacco status, psychological wellbeing, functional capacity, menopausal symptoms, and quality of life. It's not only about the number on the scale. Being successful isn't only about losing weight. You can make big lifestyle changes that improve your health, even if you don't lose much weight. For example, you might see improvements in how well your heart works, your blood pressure, how your body regulates sugar, how well you sleep, how strong you are, and how good you feel mentally. You might also be able to do more things physically, even if the weight loss is small. Follow-up within the IIS model ought to address three practical questions:

What improved?

What prevented progress?

What should be continued, modified, stopped, or added? If you don't reach your lifestyle goals, don't blame yourself. Instead, take a closer look at what went wrong. Maybe your goal was too hard to achieve, or your plan didn't fit your life. Sometimes, other health issues or personal problems can get in the way, or you might need more help and support to stay on track.

Table 3: *Trials support third pillar (S = Support).*

Trial	Population	Follow-up/support strategy	Main findings	Relevance to IIS Support
Weight Loss Maintenance (WLM) Trial [27]	1,032 adults with overweight/obesity and CVD risk factors	Monthly contact, technology, or self-directed care-maintained weight loss.	Personal-contact participants regained 1.5 kg less weight.	Continued contact, monitoring, feedback, and problem-solving improve maintenance.
DPP study [14]	3,234 adults at high diabetes risk	Lifestyle coaches, frequent sessions, monitoring, goals, and problem-solving.	Lifestyle intervention reduced diabetes incidence by 58%	Supports continuing coaching rather than one-time lifestyle advice
DPP Outcomes Study (DPPOS) [28]	DPP participants followed long-term	Continued lifestyle reinforcement and group support	Diabetes prevention benefit persisted during long-term follow-up	Shows lifestyle treatment requires a maintenance phase
Look AHEAD [18]	5,145 adults with overweight/obesity and T2DM	Intensive initial contact followed by sustained long-term support.	Sustained weight loss improved HbA1c, fitness, CVD risks.	Supports long-term monitoring of multiple outcomes beyond weight.
PREMIER study [29]	810 adults with above-optimal BP/stage 1 HTN	Repeated counselling addressed weight, activity, sodium, alcohol, diet.	Clinically important BP reductions and improved lifestyle behaviours.	Supports repeated measurement and reinforcement of several lifestyle targets
TOHP study [30]	Adults with high-normal BP	Weekly behavioural sessions followed by monthly maintenance sessions	Sustained weight reduction associated with lower BP	Supports transition from intensive intervention to maintenance follow-up
mHealth + coaching RCT [31]	Adults with overweight/obesity	Digital self-monitoring of diet/activity + repeated telephone coaching	Additional 3.9 kg weight loss compared with standard treatment	Supports measurement-feedback-coaching loops
Patient-delivered continuous-care WLM trial [32]	287 adults with overweight/obesity	Ongoing peer/mentor support following weight loss	Better maintenance than standard professional maintenance care	Supports continued social and behavioural support

Translating the Almoutaz IIS Model into Clinical Practice: From Assessment to Sustainable Lifestyle Change (Figure 3).

After a complete assessment that considers each person's particular needs, the IIS model turns important health goals into real, lasting actions. To do this, it's essential to set realistic, patient-focused goals, help them make healthy lifestyle changes, avoid things that can harm them, and provide the right social support. Instead of trying to change everything at once, this approach focuses on small, achievable changes that can be built on, tracked, and adjusted over time. This way, patients can make progress without feeling stressed, and medical professionals can help them make enduring changes that really work. By taking it one step at a time, patients can develop healthy habits that stick and improve their general well-being.

1. Set Realistic, Patient-Centred Goals: Setting goals is a key step in turning assessment into action [33]. Simply telling someone to "lose weight", "get more exercise", "sleep better", or "reduce stress" doesn't give them much to work with [33]. The IIS model takes a different approach by encouraging goals that are specific, realistic, and customized to the individual. This approach is backed up by goal-setting theory, which shows that having clear and specific goals can increase motivation and performance, especially when you get feedback on how you're doing [33]. By setting meaningful, achievable goals, people are more likely to stay motivated and make real progress. For someone who doesn't get much exercise, it's not realistic to expect them to start doing a lot right away. A better approach might be to start small, like taking a 10–15-minute walk after dinner, five days a week. Then, as they get more comfortable, they can gradually increase how long they walk, how often they walk, or even try walking a bit faster. The goal is to work up to the exercise amount recommended by health experts, but in a method that feels manageable for the person. This way, they can make progress without feeling stressed and eventually reach a point where they meet those international standards for physical activity. Instead of just telling a patient to eat better, a good starting point might be to make small changes. For example, you could try replacing sugary drinks with water, adding veggies to main meals, eating more unprocessed foods, or cooking more meals at home. This way, the patient can start making progress without feeling stressed. By taking it one step at a time, they can form healthier habits that will last. The underlying principle is progress rather than perfection. Small changes can help people feel more confident and capable of caring for themselves. Once a change becomes a habit, it's easier to add more goals and keep making progress. This approach is especially helpful for people who must deal with multiple health issues, have busy jobs, are caring for others, lack confidence, or have tried to make lifestyle changes before but weren't successful. By starting small and building up gradually, people can set themselves up for success and make lasting improvements to their health and wellbeing.

2. Combine Lifestyle Interventions. A central feature of the IIS model is that lifestyle interventions must work together rather than compete for attention. Physical activity can improve cardiovascular fitness, insulin sensitivity, blood pressure, muscle strength, functional capacity, and psychological wellbeing [9]. Proper sleep is associated with cardiometabolic health and can influence appetite, energy, emotional wellbeing, and engagement with other healthy behaviours [34]. Healthy dietary patterns can improve cardiovascular and metabolic risk [14,19], while psychological and behavioural strategies can facilitate adherence to multiple lifestyle interventions [4,10]. The treatment plan should therefore identify interactions between lifestyle domains. A comprehensive behavioural prescription may include an appropriate dietary pattern, regular aerobic activity, progressive resistance exercise, reduced sedentary time, adequate and regular sleep, stress-management strategies, tobacco avoidance, and maintenance of meaningful social relationships [2]. Lifestyle changes don't have to happen all at once. It's more about finding an overall plan that works for you, then deciding which changes to make first and when. This way, you can focus on one thing at a time and make progress without feeling stressed. It's about achieving a balance and taking small steps toward a fitter life.

3. Address Tobacco, Alcohol, and Harmful Exposures. We should always check if people are around tobacco directly or indirectly and help those who use it to quit for good. Instead of just giving advice, we should use proven methods [35]. Helping people change their behaviour and, when needed, giving them medicine can make it more likely that they'll stop using tobacco for good [35,36]. Alcohol consumption should similarly be assessed using a non-judgmental, patient-centered approach, considering the amount and pattern of consumption, potential interactions with medications, effects on sleep and psychological wellbeing, and coexisting medical conditions for which alcohol reduction or avoidance may be indicated [35,36].
It's important to look at tobacco and alcohol use as part of a bigger picture, including people's behaviour and the social situations they're in. Things like stress, trouble sleeping, and the people around them can all play a role in whether they use these substances. By realizing what drives their use, doctors can help people reduce their risk of harm with strategies customized to their needs, rather than simply telling them to cut back or quit [35,36]. This approach may lead to more effective and lasting solutions. For example, if someone's tobacco use is linked to stress, their doctor might suggest stress-relief techniques or activities to help them manage their stress in healthier way [35,36]. By addressing the root causes, people can make positive changes that improve their overall health and well-being.

4. Strengthen Social Connection. Health behaviour occurs within a social environment. Family members, friends, workplaces, communities, and cultural expectations can either facilitate or obstruct lifestyle change. Social connection also affects health outcomes. Meta-analytic evidence has demonstrated associations between social relationships, loneliness, social isolation, and mortality risk [37,38]. The IIS model therefore clearly incorporates social support and social connection into lifestyle assessment and treatment planning. A patient attempting to improve dietary habits may find change difficult when the household does not support healthier food choices. Similarly, someone beginning physical activity may adhere better by walking with a partner, joining group activities, or exercising with family members. Individuals experiencing loneliness or social isolation may benefit from interventions that increase meaningful social engagement. Clinicians should therefore ask not only: “What will you change?” but also: “Who or what can support you in making that change?” This way of thinking acknowledges that lasting lifestyle change is not simply about individual motivation, but also about the people around us, our surroundings, and our social and economic situation. The IIS model can therefore be considered a continuous clinical cycle.

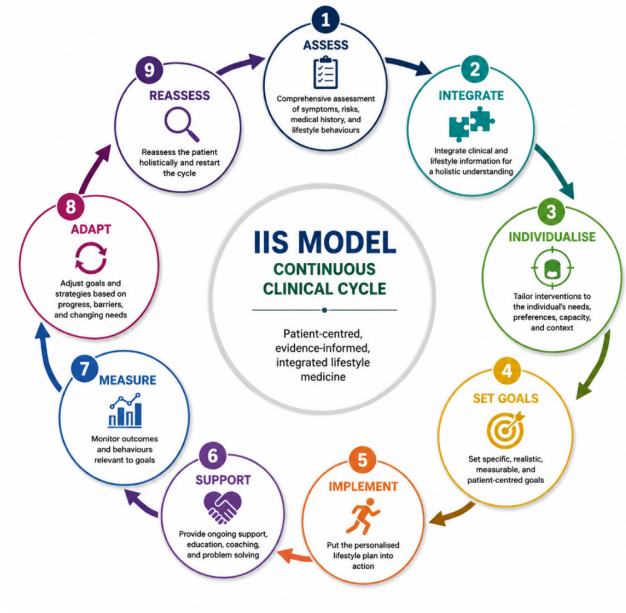

Figure 3: Translating the Almoutaz IIS Model into Clinical Practice.

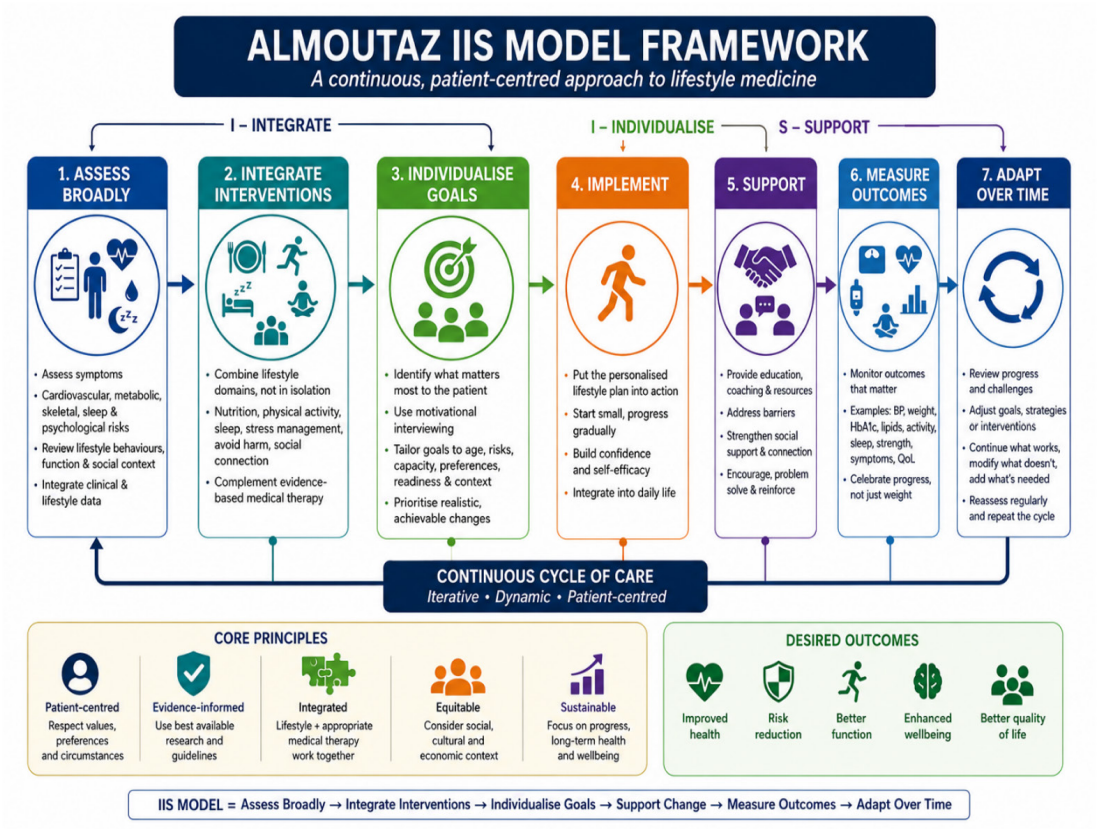

Figure 4: *Almoutaz IIS Model framework.*

Conclusion

The Almoutaz Integrate-Individualise-Support model is a new way to help doctors put lifestyle medicine into practice. This approach draws on extensive research showing the value of addressing many areas of a person's life, such as physical activity, nutrition, sleep, and relationships. It also includes strategies to help people change their behaviour, quit smoking, and manage stress (Figure 4). By using this system, doctors can provide personalized care that focuses on preventing chronic disease and promoting overall health. The idea is to bring together all the different aspects of lifestyle medicine into one structured approach that puts the patient at the center. This way, doctors can help patients make healthy changes that last over time. Integrate recognizes that nutrition, physical activity, sleep, stress, harmful substance exposure, social relationships, and medical treatment interact and should be considered together. Individualize ensures lifestyle prescriptions reflect the patient's symptoms, clinical risks, priorities, preferences, culture, functional capacity, and readiness for change. Support recognizes that sustainable behavioural change requires follow-up, measurement, reinforcement, and modification [10,14]. Lifestyle medicine is not only about advising; it should be part of a wider plan to help patients improve. This plan needs to include reviewing the latest research and using the best available treatments, such as medication or hormone therapy, when needed. It's not about selecting between lifestyle medicine and other medical treatments, but about using them together to get the best results.

References

1. Lippman D, Stump M, Veazey E, Guimarães ST, Rosenfeld R, et al. (2024) Foundations of lifestyle medicine and its evolution. Mayo Clinic Proceedings: Innovations, Quality & Outcomes 8(1): 97-111.
2. Grega ML, Shalz JT, Rosenfeld RM, Bidwell JH, Bonnet JP, et al. (2024) American College of Lifestyle Medicine expert consensus statement: lifestyle medicine for optimal outcomes in primary care. American journal of lifestyle medicine 18(2): 269-293.
3. Miller WR, Rollnick S (2012) Motivational interviewing: Helping people change. Guilford press.
4. Michie S, Van Stralen MM, West R (2011) The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation science 6(1):42.
5. Locke EA, Latham GP (2002) Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American psychologist 57(9): 705.
6. Rippe JM (2018) Lifestyle medicine: the health promoting power of daily habits and practices. American journal of lifestyle medicine 12(6): 499-512.
7. Arena R, McNeil A, Sagner M, Hills AP (2017) The current global state of key lifestyle characteristics: health and economic implications. Progress in cardiovascular diseases 59(5): 422-429.
8. Lianov L, Johnson M (2010) Physician competencies for prescribing lifestyle medicine. Jama 304(2): 202-203.
9. Bull FC, Al-Ansari SS, Biddle S, Borodulin K, Buman MP, et al. (2020) World Health Organization 2020 guidelines on physical activity and sedentary behaviour. British journal of sports medicine 54(24): 1451-1462.
10. Miller WR, Rollnick S (2012) Motivational interviewing: Helping people change. Guilford press.
11. Michie S, Van Stralen MM, West R (2011) The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation science 6(1): 42.
12. Kelly MP, Barker M (2016) Why is changing health-related behaviour so difficult?. Public health 136: 109-116.
13. Sagner M, Egger G, Binns A, Rossner S (2017) Lifestyle medicine: lifestyle, the environment and preventive medicine in health and disease. Academic Press.
14. Diabetes Prevention Program Research Group (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. New England journal of medicine 346(6): 393-403.
15. Tuomilehto J, Lindström J, Eriksson JG, Valle TT, Hämäläinen H, et al. (2001) Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. New England journal of medicine 344(18): 1343-1350.
16. Ngandu T, Lehtisalo J, Solomon A, Levälahti E, Ahtiluoto S, et al. (2015) A 2 year multidomain intervention of diet, exercise, cognitive training, and vascular risk monitoring versus control to prevent cognitive decline in at-risk elderly people (FINGER): a randomised controlled trial. The Lancet 385(9984): 2255-2263.
17. Goday A, Pinto Sala X, Vila Estape J, Camafort M, Martinez-Pastor JC, et al. (2018) Effect of a Lifestyle Intervention Program With Energy-Restricted Mediterranean Diet and Exercise on Weight Loss and Cardiovascular Risk Factors: One-Year Results of the PREDIMED-Plus Trial. Diabetes Care 42(5): 777-788.
18. Look AHEAD Research Group (2013) Cardiovascular effects of intensive lifestyle intervention in type 2 diabetes. New England journal of medicine 369(2): 145-154.
19. Estruch R, Ros E, Salas-Salvadó J, Covas MI, Corella D, et al. (2018) Primary prevention of cardiovascular disease with a Mediterranean diet supplemented with extra-virgin olive oil or nuts. New England journal of medicine 378(25): e34.
20. Pahor M, Guralnik JM, Ambrosius WT, Blair S, Bonds DE, et al. (2014) Effect of structured physical activity on prevention of major mobility disability in older adults: the LIFE study randomized clinical trial. Jama 311(23): 2387-2396.
21. Stathi A, Greaves CJ, Thompson JL, Withall J, Ladlow P, et al. (2022) Effect of a physical activity and behaviour maintenance programme on functional mobility decline in older adults: the REACT (Retirement in Action) randomised controlled trial. The Lancet Public Health 7(4): e316-326.
22. McCurry SM, Guthrie KA, Morin CM, Woods NF, Landis CA, et al. (2016) Telephone delivered cognitive-behavior therapy for insomnia in midlife women with vasomotor symptoms: an Ms-FLASH randomized trial. JAMA internal medicine 176(7): 913.
23. Clemson L, Singh MA, Bundy A, Cumming RG, Manollaras K, et al. (2012) Integration of balance and strength training into daily life activity to reduce rate of falls in older people (the LiFE study): randomised parallel trial. Bmj pp. 345.
24. Gardner CD, Trepanowski JF, Del Gobbo LC, Hauser ME, Rigdon J, et al. (2018) Effect of low-fat vs low-carbohydrate diet on 12-month weight loss in overweight adults and the association with genotype pattern or insulin secretion: the DIETFITS randomized clinical trial. Jama 319(7): 667-679.
25. Kraus WE, Bhapkar M, Huffman KM, Pieper CF, Das SK, et al. (2019) 2 years of calorie restriction and cardiometabolic risk (CALERIE): exploratory outcomes of a multicentre, phase 2, randomised controlled trial. The lancet Diabetes & endocrinology 7(9): 673-683.
26. Ogedegbe G, Chaplin W, Schoenthaler A, Statman D, Berger D, et al. (2008) A practice-based trial of motivational interviewing and adherence in hypertensive African Americans. American journal of hypertension 21(10): 1137-1143.
27. Svetkey LP, Stevens VJ, Brantley PJ, Appel LJ, Hollis JF, et al. (2008) Comparison of strategies for sustaining weight loss: the weight loss maintenance randomized controlled trial. Jama 299(10): 1139-1148.
28. Diabetes Prevention Program Research Group (2009) 10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study. The Lancet 374(9702): 1677-1686.
29. Appel LJ, Champagne CM, Harsha DW, Cooper LS, Obarzanek E, et al. (2003) Effects of comprehensive lifestyle modification on blood pressure control: main results of the PREMIER clinical trial. Jama 289(16): 2083-2093.
30. Stevens VJ, Obarzanek E, Cook NR, Lee IM, Appel LJ, et al. (2001) Long-term weight loss and changes in blood pressure: results of the Trials of Hypertension Prevention, phase II. Annals of internal medicine 134(1):1-11.
31. Spring B, Duncan JM, Janke EA, Kozak AT, McFadden HG, et al. (2013) Integrating technology into standard weight loss treatment: a randomized controlled trial. JAMA internal medicine 173(2): 105-111.
32. Leahey TM, Wing RR (2013) A randomized controlled pilot study testing three types of health coaches for obesity treatment: professional, peer, and mentor. Obesity 21(5): 928-934.
33. Locke EA, Latham GP (2002) Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American psychologist 57(9): 705.
34. St-Onge MP, Grandner MA, Brown D, Conroy MB, Jean-Louis G, et al. (2016) Sleep duration and quality: impact on lifestyle behaviours and cardiometabolic health: a scientific statement from the American Heart Association. Circulation 134(18): e367-386.
35. Department of Health and Human Services US (2020) Smoking cessation: a report of the surgeon general. The Chemical Components of Tobacco and Tobacco Smoke.
36. guideline NG209 NI (2021) Tobacco: preventing uptake, promoting quitting and treating dependence (update). Methods.
37. Holt-Lunstad J, Smith TB, Baker M, Harris T, Stephenson D (2015) Loneliness and social isolation as risk factors for mortality: a meta-analytic review. Perspectives on psychological science. 10(2): 227-237.
38. HOLT LJ, Smith TB, Layton B (2010) Social relationships and mortality risk: A meta-analytic review.