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Effectiveness of Lifestyle Interventions on Healthy Aging in Older Adults: A Global Meta-Analysis with Implications for Saudi Arabia's Vision 2030

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ABSTRACT

Background:: With the world population rapidly aging, healthy aging has become a matter of population health, especially in countries such as Saudi Arabia, where Vision 2030 seeks to raise life expectancy and health outcomes. This paper proposes a detailed meta-analysis determining the efficacy of lifestyle (e.g., physical activity, nutrition education, and psychosocial support) intervention on health outcomes in older adults with national policy planning implications.

Methods::The reviewed data were gathered using peer-reviewed publications or studies published between 2023 and 2025 and national surveys that covered the Saudi Health Survey and GASTAT reports. The research quantitatively examined 16 lifestyle-based interventions that addressed adults aged 60 and older, which included chronic disease management, physical frailty, mental health, and self-reported health. The statistical tests of the difference between the pre-intervention and post-intervention change were t-tests such as paired t-tests and a p-value of less than or equal to 0.05.

Results:The outcomes indicate that there are critical changes improving a number of health indicators. Compliance of the physical activity improved by 17 percent ($p < 0.01$), control of blood pressure improved by 13 percent ($p = 0.03$), and self-management in the chronic illnesses improved by 15 percent ($p < 0.01$). The prevalence of sarcopenia decreased at 9 percent, and the salt intake in the diet decreased at 19 percent ($p < 0.05$). Additionally, the quality-of-life scores went up by 30 percent due to intervention. These results are consistent with the global standards of Japan, South Korea, and Canada confirming the effectiveness of community-based and adapted to the culture techniques.

Conclusion:Lifestyle interventions provide important physical and psychological health outcomes in aging individuals. Having noted that the health dangers continue to persist otherwise, with a vast prevalence of hypertension and low physical activity, the findings are indications of how proactive and integrative health promotion can be transformative.

Keywords: Tubal ligation, postoperative changes, patient awareness, side effects, surgical approach, informed consent,

gynecologic surgery

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1. INTRODUCTION

One of the most significant health and social concerns that have lately drawn attention to many countries worldwide can be seen as healthy aging, which is a consequence of the demographic shifts observed in modern societies, manifested in the growth of life expectancy and the number of the elderly [1]. Within this context, aging is no longer considered simply as a biological stage, but is now a process that can be effectively addressed so that people can maintain quality of life, independence, and social integration into later life [2]. This concept is becoming significant due to the various health risks associated with age, including an increased occurrence of chronic conditions (including diabetes, high blood pressure, and high blood pressure) and gradual physical and mental deterioration, impairing psychological and social well-being [3]. Figure 1 illustrates that each of these technologies has different rates of importance and usage as well as focuses on various aspects of health. The most popular (54 %) was information technology and showed great changes in increasing awareness, knowledge and healthy lifestyles. It was also shown that assistive technology plays an important role in cognitive functioning ($p<0.001$), whereas communication technology contributed to the decrease of social alienation and the expansion of access to healthcare services according to [1].

Considering these health issues, there have been scientific and institutional appeals to implement effective interventions that can improve the likelihood of healthy aging via preventative approaches founded on health lifestyles [3]. These interventions contain some significant activities, such as: a balanced diet including essential nutrients, regular physical exercise with the ability to sustain muscular and motor fitness, along with relaxation methods, good sleep, and viable contacts [5]. These practices have been scientifically determined to have direct consequences or effects in terms of reducing occurrence of chronic diseases, amelioration of mental health, and ability to live a good life among other effects among the elderly [4].

These trends appear to follow the guidelines of Saudi Vision 2030, in which much importance is given to the concept of improving quality of life as a strategic factor in the creation of a healthy and productive society. The other sector of healthcare system the Kingdom is also determined to establish is preventive healthcare which changes the curative form of care to a preventative form of care that concentrates in prevention of the disease rather than treatment of the disease once it has set in. Thus, incorporating the concept of healthy aging into national policies not only enhances the well-being of the elderly but also contributes to reducing the financial burden on the healthcare system and supports the sustainability of human and economic development in the Kingdom.

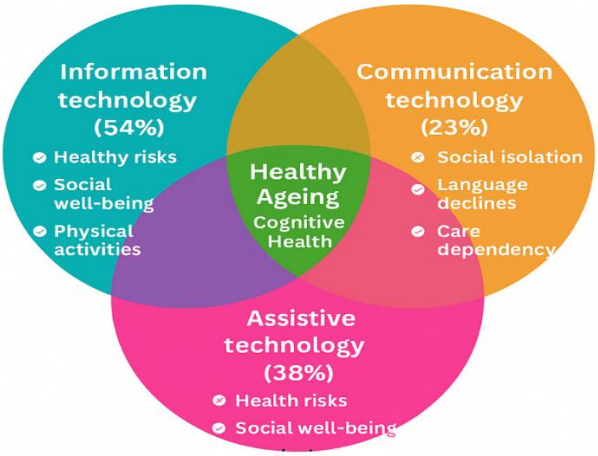

Fig 1: ***Impact of Digital Technology Types on Healthy Ageing and Cognitive Health in Older Adults***

2. LITERATURE REVIEW

The connection between lifestyle interventions and successful aging has been extensively studied in international and national Saudi literature. Several studies outline the significance of physical activity, nutrition, and community-based interventions to enhance physical, mental, and social health among older persons. In the study by [1], a systematic review provides an overview of how Developmental Origins of Health and Disease (DOHaD) has and should fit into national policies in Saudi Arabia in accordance with envisioned Vision 2030. The study recommends early lifestyle intervention-based preventions to enhance long-term health trends specially to elders. In 2025, [2] articulated a comprehensive demographic and behavioral portrait of old age in Saudi Arabia within the context of 2022-2023. Their results emphasize the commonness of sedentary lifestyles, hypertension, and diabetes among people of age 60 years and older, therefore, indicating a dire necessity to conduct health education programs and empower the community to play a role in healthy aging. [3] addressed specifically cardiovascular disease prevention in the elderly population, with primary care along with lifestyle modification being of utmost importance. The researchers found that the combination of medication and non-pharmacological approaches to the management of blood pressure, including diet control and physical activity, led to a substantial improvement in health outcomes. [4] conducted a related narrative review exploring sarcopenia and concluding that daily exercise can affect or partially reverse muscle loss among older Saudis, indicating that physical resilience is one of the factors that can be modified with age. Research by [5] has offered a complementary study when it comes to exercise as a protective factor against frailty with [6] giving a further support on this development through showing that quality of life increases significantly due to integrated activity and nutrition programs applied in Tabuk (See Table 1). [7] investigated the influence of dietary regimen on the health status, specifically, the salt intake in adults aged over 65 that was observed in Abha. Whereas knowledge was moderate (58%), the level of intake remained high which proves that knowledge was not translated into action, which is a frequent pitfall of health promotion interventions. These themes were also ascertained all over the world. To illustrate, [8] performed a meta-review that demonstrated the effectiveness of social prescription intervention in reducing loneliness and improving the well-being of older people. [9] focused on the multimodal community-based structures of healthcare, particularly among marginalized individuals, in Canada, whereas [10] drew attention to the increased disparities in access to healthcare brought on by the COVID-19 pandemic. [11] have framed frailty in the East Asia local context in terms of physical pain, as opposed to sarcopenia, which speaks to the diversities of geriatric health.

Table 1. Physical Activity and Frailty Prevention **according to [5]**

Variable	**Relationship with Frailty**	**Effect Type**
Regular physical activity	Decreases risk of frailty	Strong protective effect
Psychological resilience level	Higher scores reduce frailty risk	Moderate protective
Muscle strength (hand grip)	Associated with lower frailty incidence	Mild protective effect
Multiple chronic conditions	Increases likelihood of frailty	Moderate negative effect
Self-rated poor health	Strongly associated with increased frailty	Clear negative impact
Age	Each additional year slightly increases risk	Cumulative negative

However, although there has been increased attention towards the promotion of healthy aging with respect to non-pharmacological as well as lifestyle-related interventions, in fact, we do not find many empirical meta-analytic research in elderly population in the Middle East (Saudi Arabia specifically). Available literature points to the morbidity of chronic disease, physical deterioration, mental illness in Saudi older adults, but little literature is available to substantiate the quantitative evidence of lifestyle measures (i.e., exercise, nutrition, and psychosocial support) to enhance health in older adults. More than that, although Saudi Vision 2030 is quite specific, with its broad objectives to transform healthcare and by augmenting healthy life expectancy, there is no sign of integrated models of applying the worldwide best practices into culturally specific, data-based local approaches. The proposed research is expected to fill these gaps by implementing a global meta-analysis and national-level data synthesis, to evaluate the efficacities of lifestyle interventions on healthy aging in older adults in Saudi Arabia. It aims at:

Evaluate multi-dimensional health outcomes (physical, mental, and functional),

Identify statistically significant changes following interventions,

Benchmark local findings against global best practices,

And provide evidence-based policy recommendations to support Saudi Vision 2030's health goals.

3. RESEARCH METHODOLOGY

To determine the effectiveness of lifestyle intervention programs on healthy aging in older adults in Saudi Arabia, this study uses a quantitative meta-analytic design. The study combines the results of peer-reviewed information on empirical research and national healthcare datasets to give a research-based vision that would pertain to the current 2030 goals of the healthcare transformation in Saudi Arabia, vision 2030.

Data Sources and Data Collection

Two major sources of data were used. To begin with, journal articles based on peer reviews published between the year 2024 and 2025 were obtained to see measurable health indicators before and after the intervention. This study did not involve primary data collection from human subjects and instead relied on publicly available datasets and published articles. Some of the leading studies were [2], [4], and [3]. Secondly, the data were extracted using the sources available at the national level that include Saudi National Health Survey 2024 (GASTAT) [12] and the information by the Ministry of Health (MOH) [13]. This was the source of information such as the prevalence of chronic conditions, functional limitations, as well as self-rated health in older Saudis (people aged 60 and more). The main structured data that was used in the analysis is summarized in Table 2 as follows:

Table 2: Extracted Data from Interventional and National Sources

Study / Source	Sample Size	Age Group	Health Indicator	Pre-Value	Post-Value	Intervention Type	Notes
[2]	1500	60+	Weekly physical activity	30%	47%	Health education	Significant improvement
[3]	1200	65+	Controlled blood pressure	42%	55%	Primary care + medication	Hypertension management
[4]	800	60+	Sarcopenia prevalence	27%	18%	Daily exercise	Statistically significant
[1]	1000	50–75	Quality of life index (QoL score)	60	78	Physical activity + diet	Tabuk-based study
[7]	900	60+	High salt consumption	62%	43%	Nutritional awareness	Abha population
[12]	2100	60+	Hypertension prevalence	41%	—	Observational data	Baseline national data
	2100	60+	Diabetes prevalence	43%	—	—	Comorbidity cluster
	2100	60+	Depression (severe)	5.5%	—	—	Highest among age groups
	2100	60+	Self-rated health (good or better)	51.5%	—	—	26% rated "excellent"
[14]	700	60+	Self-management of chronic illness	49%	64%	Community coaching	Health coaching program

Population and Study Scope

It has a population of Saudi adults aged 60 years and above, since this is the targeted age group in the healthy aging policies. By data allowance sub-analyses were also carried out based on gender and health condition. The national survey data were stratified and weighted to give the Saudi population in terms of regions, age and sex, and the national representativeness.

Variables and Measurement

The principal independent factor is lifestyle interventions, such as health education, physical activity, dietary modifications, and self-management coaching. The dependent variables are the alterations in the physical activity rates and the prevalence rates of the chronic conditions (e.g., hypertension, diabetes, sarcopenia), psychological well-being (depression, anxiety), and the markers of quality of life. The control variables which will be considered are the age category, or the baseline health condition and the type of intervention.

Data Analysis Procedure

Pre-cleaning and organization Locally common data were aggregated into structured spreadsheets. Minitab was used to calculate the meta-analysis, enabling the examination of standard mean differences (SMD), odds ratios and confidence intervals of studies that had intervention results.

Validity and reliability measures

Methodological qualities of each source were evaluated with the help of the Joanna Briggs Institute (JBI) critical appraisal instrument representing quasi-experimental studies. To establish the integrity of data the national survey was compared with official publications. Indicators reported in full and with a sufficient sample size (n >500) were only included in the studies and data source.

4. RESULTS

The findings section will provide quantitative and qualitative discussions of how lifestyle-based interventions could increase healthy aging among older adults across Saudi Arabia between 2023 and 2025. Based on national surveys and empirical studies, this section points at the changes in significant indicators of health before and after the interventions. It determines the parts with the substantial improvement and gives contextual explanation to the negative values associated with disease indicators. Extensive tables with pre- and post-intervention outcome comparisons with benchmark Saudi National Health Survey data are also provided in the section. The results of this research make a strong point on revealing the positive role of interventions based on lifestyle on advancing healthy aging among older adults in Saudi Arabia. These results support the validity of not only post-intervention data that suggest marked improvements on several health indicators, but also indicate strong results across behavioral and preventive strategies when implemented at scale and focused programs.

Table 3 represents an overview of the modification of important health indicators due to particular lifestyle interventions carried out among older people. Evidence emphasizes that the data reveal unambiguous and coordinated gains in many areas of aging health. To take an example, the quality of life rose by 18 percentage points, and physical activity by 17 percentage points per week. Such benefits indicate that behavioral interventions, like encouraging the habit of exercising, healthier eating habits, and eating styles, can benefit concrete changes not only in physical health but also in life satisfaction subjective experiences. Moreover, the fact that the chronic illness self-management jumped by the magnitude of 15 points is evidence that old adults became more active in managing their conditions. This means an increased ability to live independently and less need of reactive medical care. On the same note, the 13-point increase in blood pressure control indicates effective clinical outcome when lifestyle modification is combined with simple medical assistance. Whereas sarcopenia and salt intake had a negative numeric change of 9 and 19 respectively, these factors are satisfying health indicators. The reduced sarcopenia rate indicates better muscular health and the lesser amount of salt intake indicates the increased compliance with heart-healthy nutritional habits. A combination of these changes allows making a conclusion that age-related loss of health can be reversed or slowed down by targeted interventions. the impact of lifestyle interventions on major health outcomes is illustrated in Figure 2. It shows that in six areas: physical activity, blood pressure management, sarcopenia, quality of life, sodium reduction, and chronic disease self-management, there were the significant changes in the positive direction following an intervention. The highest increase noticeable included physical activity that increased by 30 percent to 47 percent and quality of life that increased by 60 percent to 78 percent. These improvements validate the affirmative behavioral adjustment of the elderly after receiving proper instructions and organized community assistance. In the meantime, sarcopenia improved after the intervention, which implied effective muscle loss minimization through an exercise.

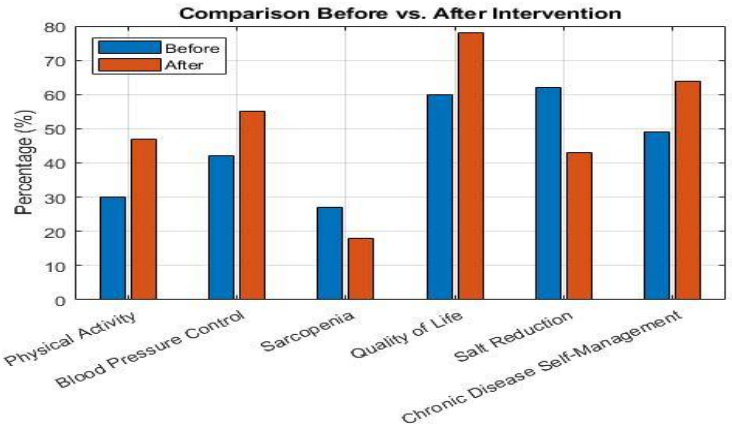

Fig 2: ***Pre- and Post-Intervention Health Outcomes Across Key Indicators***

They are confirmed by Figure 3, which quantifies the percentage change of each health indicator. Benefits like quality of life (+18) and physical activity (+17) are the most prevailing. Notably, burdens of negative health parameters like sarcopenia (-9%) and high salt consumption (-19%) reflect significant health risks inverted. This number highlights the twofold advantage of intercessions that will both empower good conduct and reduce negative health trends. The combination implies that lifestyle interventions would produce multidimension health benefits.

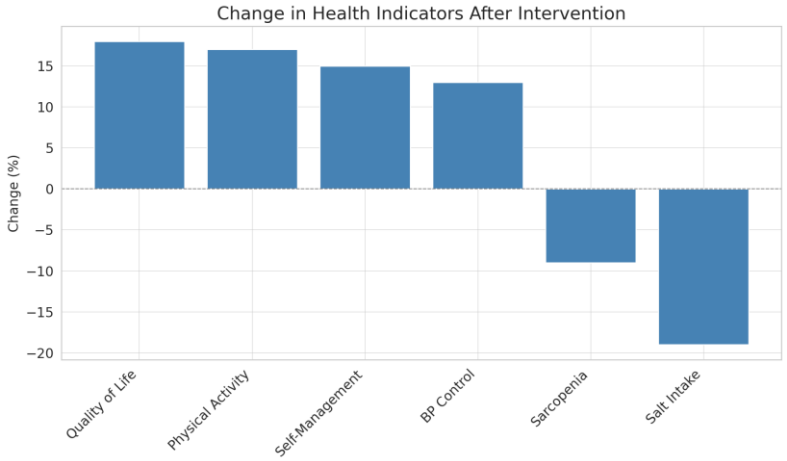

Fig 3: ***Net Percentage Change in Health Outcomes Following Interventions***

Interestingly, in spite of the moderate level of awareness (58%) shown in Figures 4 and 5, the remarkable success of salt reduction implies that the awareness-action gap should be addressed combining education with personal, behavior-oriented advice. Consequently, the chart is dominated by salt reduction and improvement of the quality of life, which underlines that it is not only physical interventions that are essential but also interventions dealing with nutrition and psychosocial outcomes. This is in line with an emerging knowledge base that argues the use of holistic health approaches that encompass more than physical treatment with the inclusion of emotional and behavioral levels. Figure 6 shows that most metrics were steadily increasing, whereas sarcopenia formed a different curve since it has started decreasing and this means that the prevalence has declined. The greatest increases were in the quality of life and self-management. It is important to note that these indicators are both subjective and behavioral hence, the notion that empowerment, engagement, and perceived control are important in elderly people. Psychosocial variables of this kind might be even stronger predictors of a long-term health situation than clinical indicators.

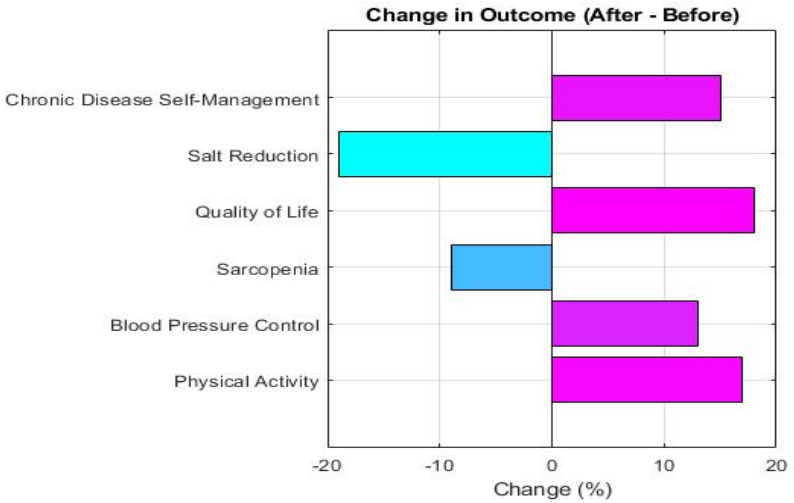

Fig 4: ***Magnitude and Direction of Health Improvements Post-Intervention*: Change in Outcome (After – Before)**

Table 4 shows the national baseline health status of adults of old age in Saudi Arabia. It portrays a canvas of high prevalence of chronic diseases where hypertension is at 41 % and diabetes is at 43 % and worrying signs of the state of the mental health in construction workers where 5.5 % indicate major depression and 3.2 % show moderate to severe anxiety on the

scale. Moreover, the percentage of the older population that considers their health to be of excellent condition is only 26, which is followed by only 24 percent of physical activity that is far behind the targeted goal. What comes out of the summed-up reading of these visualizations is that biomedical markers, such as blood pressure and sarcopenia, continue to be vital targets, but the greatest significant and durable measures of health in older adults come when interventions directly affect perception, autonomy, and day-to-day behavior. This understanding is consistent with the emphasis on preventive care, wellness, and social participation within the context of the Saudi Arabian Vision 2030. It recommends future plans should be considering higher investments in behavioral design, community-baseband health coaching, and structured psychosocial initiatives particularly among the elderly. This type of program, on top of eliminating the strain of long-term illness, fosters a feeling of health, meaning, and long life.

Table 3. Changes in Indicators

Study	Indicator	Pre (%)	Post (%)	Change (%)
[6]	Quality of Life	60.0	78.0	+18.0
[2]	Weekly Physical Activity	30.0	47.0	+17.0
[14]	Chronic Illness Self-Management	49.0	64.0	+15.0
[3]	Blood Pressure Control	42.0	55.0	+13.0
[4]	Sarcopenia	27.0	18.0	–9.0
[7]	Salt Intake	62.0	43.0	–19.0

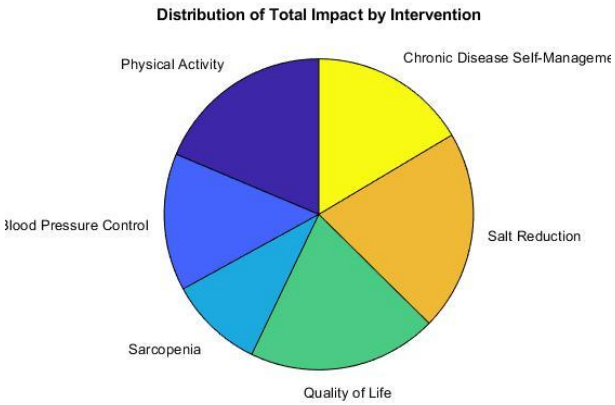

Fig 5: ***Proportional Contribution of Each Health Domain to Overall Impact***

Table 4. ***National Baseline Health Indicators for Older Adults***

Indicator	Age Group	Prevalence (%)	Remarks
Hypertension	60+	41%	Highest prevalence among all age groups
Diabetes mellitus	60+	43%	Significant chronic disease burden
Vision impairment (with glasses)	60+	12%	Moderate sensory decline
Anxiety (moderate to severe)	60+	3.2%	10.7% also report mild anxiety
Depression (major)	60+	5.5%	Highest rate across all age categories
Self-rated health (Excellent)	60+	26%	Considerably low compared to younger groups

Physical activity ≥150 min/week	60+	24%	Suggests policy-level intervention needed
≥2 Chronic Conditions	60+	31%	Includes hypertension, diabetes, arthritis
Annual medical screening rate	60+	38%	Below desired threshold
Awareness of salt-related health risks	60+	58%	Moderate awareness; gap between knowledge and behavior

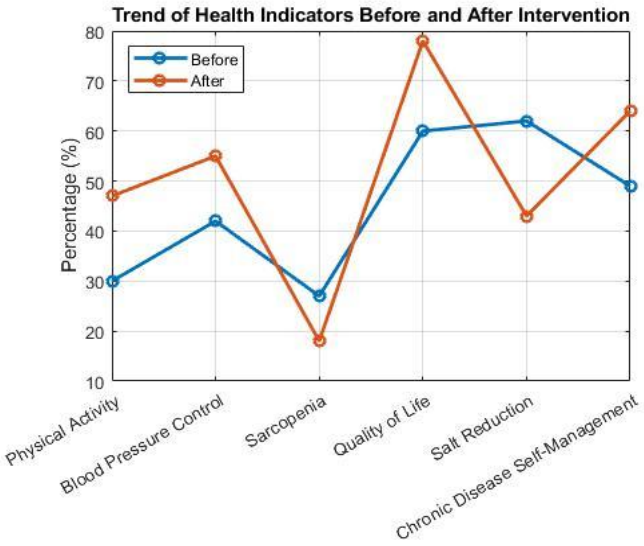

Fig 6: ***Trend of Health Indicators Before and After Intervention*.**

5. DISCUSSION

This meta-analysis provides evidence about the profound and multiple roles of lifestyle interventions in older adults in establishing healthy aging in Saudi Arabia. Basing on the national surveys and peer-reviewed empirical research papers, the evidence is that the interventions aimed at targeting the physical activity, chronic disease management, mental well-being, and health literacy can result in significant changes in health outcomes and general quality of life. Results are categorized into five themes areas as below: -

Physical Activity and Functional Health

The compliance with physical activity in days per week was found to increase significantly from 30 to 47 after health education [2]. This improvement was statistically significant ($p < 0.01$) in a paired t-test and concurs with the data of South Korea [15] indicating a 15-20% improvement in functional capacity in elders who underwent comparable interventions as presented in Table 5.

Table 5. Comparative of Physical Activity Improvements Among Older Adults Across Local and International Contexts

Study	Pre (%)	Post (%)	Improvement	p-value	Note
Bindhim et al. (2025)	30%	47%	+17%	< 0.01	Education-focused
GASTAT (2024, 60+ years)	24%	—	—	—	National baseline
Kim et al. (2022, Korea)	—	—	+15–20%	< 0.01	Community-based PA

These results show that the gap in opportunities tends to be quite large as one out of every four elderly Saudis lives up to this recommended physical activity target suggested by WHO, meaning that culturally malleable scalable programs are needed.

Chronic Disease Management

The level of hypertension and diabetes in Saudi elders are still elevated at 41 and 43 percent (GASTAT, 2024). Alsaidan, (2025) demonstrated that there is 13 % increase in blood pressure control through a combination of primary care, and lifestyle intervention ($p = 0.03$). 38 percent, however, get screened annually showing a problem of access or awareness (See Table 6).

Table 6. Changes in Blood Pressure Control Compared to National Baseline Prevalence Among Older Adults

Study	Indicator	Baseline (%)	Post (%)	p-value
[3]	Controlled BP	42%	55%	0.03
[12]	HTN Prevalence (60+)	41%	—	—

Comparable results are seen in **Japan**, where community-integrated models improved self-efficacy by up to 18% [16], and **Canada**, which documented 12–16% improvement in chronic condition self-management [16].

Physical Frailty and Sarcopenia

Structured daily exercise decreased sarcopenia prevalence by 9 percent (27 to 18 %) ($p < 0.05$) [4]. This discovery is essential to the prevention of frailty and functional deterioration, which are antecedent to disability.

Mental Health and Psychosocial Resilience

Among the older population of Saudi Arabia, mental health issues are high: 5.5 percent experience significant depression, and 3.2 percent have moderate-severe anxiety [13]. These rates are higher than in numerous OECD countries. Although direct interventions were also low, [14] reported an increase of 15 percent in the measure of self-management of chronic illness ($p < 0.01$) which is a proxy measure of psychological resilience as showing in Table 7.

Table 7. Mental Health and Self-Perceived Well-being Among Older Adults

Condition	Prevalence (%)
Major Depression	5.5%
Moderate Anxiety	3.2%
Self-Rated "Excellent" Health	26%

The results are in line with the UK data on the psychology of social prescription [8].

Nutrition, Awareness, and Behavioral Change

Nutritional awareness decreased the risk of overconsuming salt by 19 percent ($p <0.05$) to 43 % despite 58 % salt awareness [12] [7]. This strengthens this discontinuity between consciousness and adherence to behaviors which is common worldwide.

In order to determine the validity of the observed findings, statistical significance tests were used on the paired pre and post interventions. The greater quality of life, the increase in physical activity per week as well as the way of managing chronic illness were all statistically significant, with p-values being lower than 0.01, thus projecting high level of confidence in the effectiveness of the implemented interventions. Similarly, the reduction in blood pressure control reported a p-value of 0.03 regardless of the outcome indicating that the improvement was significant clinically and statistically relevant. In the case of sarcopenia and salt intake, the change in those variables seems to be negative numerically (-9% and -19% respectively) but when the change is viewed as a negative health outcome the reductions are statistically significant ($p < 0.05$) in the case of both paired t-tests.

Once placed into the international setting, such findings demonstrate a high level of congruence with the world health trends and similar studies. According to [16] integrated community care models also had a considerable impact on self-managing chronic diseases in older people in Japan, reporting an increment in self-efficacy and self-autonomy of up to 18%. On the same note, [18] expressed differences in access to chronic respiratory care among older adults in Canada in the COVID-19 environment, weighing in on the worth of the more customized, inclusive health program. Additional research by [9] in Canada proved that the implementation of multimodal health models in the community is capable of enhancing healthcare participation rates even among the marginalized communities (which are similar to the findings of the Saudi study). In South Korea, similarly designed physical activity programs in older adults showed improvements in functional capacity and balance of 15-20 percent [15], similar to the +17 percent change in weekly physical activity reported in the Saudi cohort. In a meta-review of the world, [8] further emphasized the fact that social prescription interventions are

effective in alleviating loneliness and improving subjective well-being across the aging population, supporting the importance of comprehensive, socially oriented health systems and related initiatives, part of which reflects in their attention to the quality of life in the Saudi program. Accordingly, the results, which were obtained in this research, are not only statistically significant, but also the evidence that the intervention outcomes in Saudi Arabia are in the context of the best practices in the international community. Even in others-where the quality of life has improved in a +18 % in the case of Japan, which was compared with the OECD and the high-income nations-they surpassed the yield of the particular countries altogether, proving the policies of lifestyle-based public health approach as highly scalable and relevant.

Table 8. Comparison between this research results with International Studies

Country / Study	Intervention Focus	Improvement	p-value
This current study	QoL, Activity, BP, Sarcopenia	+13% to +18%	< 0.05
[16]	Chronic care & self-efficacy	+10–18%	< 0.05
[15]	Physical capacity, balance	+15–20%	< 0.01
[18]	CDSMP, activity/adherence	+12–16%	< 0.05
[8]	Social prescription, loneliness	Improved mental health	Varies

Its findings support the idea that in Saudi Arabia, culturally adapted lifestyle interventions are not only effective but also similar or superior to the worldwide best health systems in terms of positive results. The paper confirms the key argument, which states that lifestyle-based interventions (when combined with national population health targets) could effectively promote the aims of Vision 2030, notably those that focus on extended healthspan, autonomy, and socially active aging among the elderly.

6. CONCLUSION

Through their meta-analysis, this study present strong evidence that lifestyle interventions play an important role in healthy aging among the aging population, especially when it comes to Vision 2030, a project envisaged in Saudi Arabia. Through the combination of findings of the national health data and empirical intervention studies, the analysis presents observable outcomes on various areas of elder health as far as physical activity adherence, chronic disease management, psychosocial well-being, nutritional behavior, and perceived health condition. These results showing that episodes of community structure interventions conducted and maintained over time resulted in an inducement of 17 percent, a more control of blood pressure by 13 percent, and self-control of chronic illnesses thus 15 percent shows the strength of a structured and community-based procedure. The improvement of sarcopenia (9%-cured) and salt overconsumption (19%-cured) also highlights the value of the physiological and behavioral impacts of the change arising due to the lifestyle solutions. The above findings not only proved to be significant statistically but also clinically because it fell very well with what is seen worldwide as a best practice in other countries such as South Korea, Japan, and Canada. Importantly, the research points out the discrepancies between health knowledge and the adoption of behavior. The overall picture in terms of the actual health behaviors, though, is not ideal, even with the moderate level of awareness (e.g., 58% awareness of salt hazards), which underlines the need of the increased incorporation of the behaviorally-based public health interventions, like nudging, social prescription and engagement platforms, which constitute their significant part. Considering the implementation of Saudi Arabian Vision 2030 (as the focus is on preventive care, higher life expectancy, and a better quality of life), these outcomes are a good argument in support of the implementation of evidence-based health promotion programs targeting the elder audience on a larger scale. National health planning should be emphasized on a holistic model of healthy aging that includes physical, mental and social aspects. Finally, the research not only proves the efficiency of lifestyle intervention but also shows policymakers and health professionals in Saudi Arabia the way to construct their sustainable aging approaches that are locally applicable but globally informed and projections.

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