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ORIGINAL ARTICLE

Prevalence of obesity and its lifestyle determinants among middle-aged women in care hospital

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ABSTRACT

Background: Obesity is a major global health concern and a significant risk factor for multiple chronic conditions. Middle-aged women are particularly vulnerable due to hormonal, metabolic, and lifestyle changes during this stage of life. Despite being exposed to health education in healthcare settings, this group continues to face challenges in adopting and maintaining healthy lifestyles.

Aim: This study aimed to determine the prevalence of obesity and explore its association with lifestyle determinants, psychosocial well-being, and comorbidities among middle-aged women.

Methods: A cross-sectional study was conducted on 303 middle-aged women attending Care Hospital. Data were collected using a structured questionnaire that assessed dietary habits, physical activity, sleep patterns, fatigue, and psychosocial factors, in addition to anthropometric measurements. Descriptive statistics and chi-square tests were performed using SPSS to evaluate associations between obesity and lifestyle variables.

Results: The prevalence of obesity was 9.2%, while 30.8% of participants were overweight. Although most women reported adherence to healthy lifestyle practices, obesity was significantly associated with higher levels of daytime fatigue ($p = 0.009$), strong dissatisfaction with body weight ($p < 0.001$), and lower psychosocial well-being, particularly reduced interest or pleasure in daily activities ($p = 0.010$). Intake of fruits and vegetables was generally inadequate across the sample, although obese participants reported higher consumption compared with non-obese ($p = 0.037$). Comorbidities such as sleep disorders, hypertension, and mood disturbances were more common among obese participants, though most differences were not statistically significant.

Conclusion: Overweight and obesity are common among middle-aged women and are strongly linked with psychosocial strain, weight dissatisfaction, and fatigue, despite reported engagement in healthy lifestyle behaviors. These findings emphasize the multifactorial nature of obesity and highlight the need for comprehensive prevention strategies that integrate nutritional counseling, physical activity promotion, sleep hygiene, and mental health support within hospital-based programs.

Keywords: Obesity, overweight, middle-aged women, lifestyle factors, physical activity, diet, sleep, prevalence, comorbidities.

Introduction

Obesity remains one of the most pressing public health issues worldwide, with a marked increase in its prevalence over the past few decades. Among the most affected are middle-aged women, a group often overlooked in health research despite being at high risk due to hormonal, metabolic, and lifestyle

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transitions that occur during this stage of life [1]. Obesity in this population contributes significantly to chronic conditions such as type 2 diabetes, cardiovascular disease, and osteoarthritis. These not only impact physical health but also affect emotional well-being, social participation, and quality of life [2].

Middle-aged women often experience multiple life stressors - such as caregiving, occupational demands, and hormonal changes - that directly influence their lifestyle choices. These pressures can result in irregular meal patterns, low physical activity, insufficient sleep, and emotional eating [3]. Cultural norms and societal expectations may further limit access to healthy behaviors or prioritize the needs of others over self-care. As a result, weight gain becomes more likely, and sustained weight management grows increasingly difficult with age [4].

Despite the known risks, there are limited localized data focusing specifically on middle-aged women within healthcare environments. Hospitals, as both employers and care providers, are critical settings for studying obesity in this demographic [5]. Women working in or receiving care from hospitals may be more exposed to health education, yet still struggle with maintaining a healthy lifestyle [6].

Understanding lifestyle determinants - such as dietary intake, physical activity, sedentary behavior, stress management, and sleep hygiene - is essential in crafting effective prevention strategies [7]. These factors are modifiable, but only when clearly identified and understood in relation to real-life routines and responsibilities [7].

Materials and Methods

A cross-sectional, descriptive, hospital-based study. That was conducted on Middle-aged women (aged 40-60 years) attending Care Hospital in Saudi Arabia.

Inclusion criteria

- Female patients aged between 40 and 60 years
- Attending Care Hospital for outpatient or inpatient services
- Able and willing to provide informed consent
- Able to undergo anthropometric measurements

Exclusion criteria

- Known endocrine disorders affecting body weight (e.g., hypothyroidism, Cushing's syndrome)
- Current pregnancy or postpartum period
- Diagnosed psychiatric illness impairing judgment or participation
- Use of medications significantly influencing weight (e.g., corticosteroids, antipsychotics)
- Any physical disability preventing accurate body measurements or assessment of physical activity

Data collection tools

- **Structured interview questionnaire** was used to collect demographic data, dietary habits, physical activity, sleep patterns, and perceived stress.
- **Anthropometric measurements**
  - o Weight measured using a calibrated digital scale
  - o Height measured using a stadiometer
  - o Body mass index (BMI) calculated using the WHO criteria
  - o Waist and hip circumferences measured using non-stretchable tape

Ethical consideration

- o All participants must first read the study details along with providing consent before starting the study procedures.
- o All collected data remained anonymous and confidential.

Ethical approval

The study was approved by the IRB committee of Care Medical Hospital, Approval number: IRB-013/220925, Approved Date: 22 Sept 2025.

Statistical analysis

- o Statistics of descriptive nature were used to analyze practice-related data and demographic information through SPSS28 using mean, standard deviation, and frequency alongside percentage measures.
- o Independent *t*-tests and ANOVA were used to analyze knowledge score differences between different professional groups.
- o Chi-square tests were used to evaluate associations between perceived barriers and demographic variables.

Results

Table 1 shows that the majority of participants were of normal weight (53.8%), while 30.8% were overweight and 9.2% obese, indicating a relatively high prevalence of excess body weight in the sample. Only 6.2% were underweight. Regarding lifestyle factors, almost all participants were non-smokers (99%) and non-alcohol consumers (99%). About three-quarters reported practicing physical activity (73.4%) and maintaining a healthy diet (72.5%). In terms of self-rated health, most participants (59%) perceived their overall health level as high (scores 8-10), while 16.7% rated it low (scores 1-5).

Table 2 shows that the most common average sleep duration was 6 hours (41.6%), followed by 7-8 hours (34.1%), whereas only 1.6% reported sleeping less than 4 hours. About one-third of participants (35.1%) did not experience daytime fatigue, while 38.7% reported it on several days. Concerning weight perception, 40% wanted to lose a little weight, and 12.1% wanted to lose

Table 1. Distribution of BMI, obesity status, and healthy lifestyle factors among the study population (*n* = 303).

	Description (n = 303)
BMI	
Underweight	19 (6.2)
Normal weight	164 (53.8)
Over weight	94 (30.8)
Obese	28 (9.2)
Obesity	
Yes	28 (9.2)
No	277 (90.8)
Healthy lifestyle factors [smoking]	
Yes	3 (1)
No	302 (99)
Healthy lifestyle factors [alcohol consumption]	
Yes	3 (1)
No	302 (99)
Healthy lifestyle factors [physical activity]	
Yes	224 (73.4)
No	81 (26.6)
Healthy lifestyle factors [healthy diet]	
Yes	221 (72.5)
No	84 (27.5)
Please circle your current overall level of health.	
1	4 (1.3)
3	4 (1.3)
4	4 (1.3)
5	39 (12.8)
6	26 (8.5)
7	48 (15.7)
8	74 (24.3)
9	48 (15.7)
10	58 (19)
Current overall level of health.	
1-5	51 (16.7)
6-7	74 (24.3)
8-10	180 (59)

a lot, reflecting widespread weight dissatisfaction. Fast food consumption was reported by 72.5% of participants at varying frequencies, with only 27.5% abstaining completely. Notably, 45.6% consumed less than 2 servings of fruits/vegetables daily, showing a dietary gap.

Table 3 shows that 40% of participants exercised for less than 10 minutes per session, while 36.1% exercised

Table 2. Sleep duration, daytime fatigue, weight perception, frequency of fast food consumption, and daily fruit and vegetable intake among the study population (*n* = 303).

	Description (n = 303)
Over the last 2 weeks, how many hours of sleep did you average in a 24-hour period?	
Less than 4 hours	5 (1.6)
4-5 hours	49 (16.1)
6 hours	127 (41.6)
7-8 hours	104 (34.1)
≥ 9 hours	20 (6.6)
Over the last 2 weeks, how often did you feel tired or have difficulty staying awake during routine tasks in the day?	
Not at all	107 (35.1)
Several days	118 (38.7)
More than half the days	60 (19.7)
Nearly everyday	20 (6.6)
What do you think about your current weight?	
I want to gain a lot of weight	7 (2.3)
I want to gain a little weight	41 (13.4)
I am happy with my weight	98 (32.1)
I want to lose a little weight	122 (40)
I want to lose a lot of weight	37 (12.1)
Over the last 2 weeks, how often have you eaten fast food, sugary drinks (e.g., soda, sports drinks, juice), or packaged foods (e.g., chips, candy, crackers, cookies)?	
Not at all	84 (27.5)
Several days	154 (50.5)
More than half the days	43 (14.1)
Nearly everyday	24 (7.9)
On an average day, how many servings of whole fruits and vegetables do you eat (1 serving is about a handful and does not include fruit juice)?	
Less than 2 servings	139 (45.6)
2-3 servings	114 (37.4)
4-5 servings	34 (11.1)
More than 5 servings	18 (5.9)
Over the last 2 weeks, how many days did you exercise at a moderate to strenuous intensity (e.g., brisk walking or enough movement to break a light sweat)?	
Less than 1 time per week	128 (42)
1-2 times per week	94 (30.8)
3-4 times per week	42 (13.8)
5 or more times per week	41 (13.4)

for 10-29 minutes, suggesting limited exercise duration overall. Regarding psychosocial indicators, about 39% reported feeling purpose in life on several days, and 34.4% connected with support networks occasionally. Interestingly, 45.9% reported little interest or pleasure in doing things for several days, and 40.3% felt down or depressed, highlighting psychosocial stress factors that may influence obesity.

Table 3. Exercise frequency and duration, and psychosocial well-being indicators (purpose in life, social support, interest, depression, anxiety, and worry) among the study population (*n* = 303).

	Description (n = 303)
During an average session, how many minutes do you exercise at a moderate to strenuous intensity (e.g., brisk walking or enough movement to break a light sweat)?	
< 10 minutes	122 (40)
10-29 minutes	110 (36.1)
30-49 minutes	42 (13.8)
≥ 50 minutes	31 (10.2)
Over the past 2 weeks, how often have you [a. Felt like your life had purpose or meaning?]	
Not at all	86 (28.2)
Several days	119 (39)
More than half the days	59 (19.3)
Nearly everyday	41 (13.4)
Over the past 2 weeks, how often have you [b. Connected with any support network (e.g., community, spiritual, friends/family, nature, yoga, or meditation)?]	
Not at all	93 (30.5)
Several days	105 (34.4)
More than half the days	57 (18.7)
Nearly everyday	50 (16.4)
Over the past 2 weeks, how often have you [c. Been bothered by little interest or pleasure in doing things?]	
Not at all	96 (31.5)
Several days	140 (45.9)
More than half the days	48 (15.7)
Nearly everyday	21 (6.9)
Over the past 2 weeks, how often have you [d. Been bothered by feeling down, depressed or hopeless?]	
Not at all	138 (45.2)
Several days	123 (40.3)
More than half the days	33 (10.8)
Nearly everyday	11 (3.6)
Over the past 2 weeks, how often have you [e. Been bothered by feeling nervous, anxious or on edge?]	
Not at all	144 (47.2)
Several days	114 (37.4)
More than half the days	37 (12.1)
Nearly everyday	10 (3.3)
Over the past 2 weeks, how often have you [f. Been bothered by worrying too much about different things?]	
Not at all	120 (39.3)
Several days	124 (40.7)
More than half the days	42 (13.8)
Nearly everyday	19 (6.2)

Table 4 shows that the most common comorbidities were sleep disorders (8.2%) and mood disorders (6.9%), followed by hypertension (6.2%). Diabetes was present in 2.6% of the sample, while other conditions, such as asthma (3.3%) and infections (2.3%), were less frequent. Notably, 78% of participants reported no comorbidities.

Table 5 shows that obese participants (9.2% of the sample) did not differ significantly from non-obese ones in terms of smoking, alcohol consumption, physical activity, or healthy diet. However, their perceived overall health status tended to be lower, though not statistically significant ($p > 0.05$).

Table 6 shows that obese participants were more likely to feel tired nearly every day (21.4%) compared to non-obese (5.1%), with a statistically significant association ($p = 0.009$). Most obese women (75%) wanted to lose a lot of weight, compared with only 5.8% of non-obese, highlighting a strong dissatisfaction with body image ($p = 0.000$). Intake of fruits and vegetables was also better among obese participants, with higher proportions consuming ≥4 servings per day ($p = 0.037$).

Table 7 shows no significant differences in exercise duration between obese and non-obese groups ($p = 0.487$). Psychosocial indicators revealed that obese participants were more likely to report little interest or pleasure in daily activities nearly every day (14.3% *vs.* 6.1%), with a significant association ($p = 0.010$). Other mental health indicators, including depression, anxiety, and excessive worry, did not differ significantly between groups.

Table 4. Prevalence of reported comorbidities among the study population ($n = 303$).

	Description (n = 303)
Comorbidities	
Infections	7 (2.3)
Diabetes	8 (2.6)
Endometrial	3 (1)
Hypertension	19 (6.2)
Asthma	10 (3.3)
Gout	1 (0.3)
Osteoarthritis	2 (0.7)
Sleep disorders	25 (8.2)
Mood disorders	21 (6.9)
No	238 (78)

Table 5. Comparison of healthy lifestyle factors and self-rated overall health between obese and non-obese participants ($n = 303$).

	Obesity		
	Yes (n = 28)	No (n = 277)	p value
Healthy lifestyle factors [smoking]			
Yes	0 (0)	3 (1.1)	1.000
No	28 (100)	274 (98.9)	
Healthy lifestyle factors [alcohol consumption]			
Yes	0 (0)	3 (1.1)	1.000
No	28 (100)	274 (98.9)	
Healthy lifestyle factors [physical activity]			
Yes	19 (67.9)	205 (74)	0.483
No	9 (32.1)	72 (26)	
Healthy lifestyle factors [healthy diet]			
Yes	18 (64.3)	203 (73.3)	0.310
No	10 (35.7)	74 (26.7)	
Current overall level of health.			
1-5	4 (14.3)	47 (17)	0.936
6-7	7 (25)	67 (24.2)	
8-10	17 (60.7)	163 (58.8)	

Table 6. Comparison of sleep patterns, daytime fatigue, weight perception, fast food consumption, and daily fruit and vegetable intake between obese and non-obese participants (*n* = 303).

	Obesity		
	Yes (*n* = 28)	No (*n* = 277)	*p* value
Over the last 2 weeks, how many hours of sleep did you average in a 24-hour period?			
Less than 4 hours	0 (0)	5 (1.8)	0.739
4-5 hours	6 (21.4)	43 (15.5)	
6 hours	9 (32.1)	118 (42.6)	
7-8 hours	11 (39.3)	93 (33.6)	
≥ 9 hours	2 (7.1)	18 (6.5)	
Over the last 2 weeks, how often did you feel tired or have difficulty staying awake during routine tasks in the day?			
Not at all	8 (28.6)	99 (35.7)	0.009
Several days	8 (28.6)	110 (39.7)	
More than half the days	6 (21.4)	54 (19.5)	
Nearly everyday	6 (21.4)	14 (5.1)	
What do you think about your current weight?			
I want to gain a lot of weight	1 (3.6)	6 (2.2)	**0.000**
I want to gain a little weight	0 (0)	41 (14.8)	
I am happy with my weight	1 (3.6)	97 (35)	
I want to lose a little weight	5 (17.9)	117 (42.2)	
I want to lose a lot weight	21 (75)	16 (5.8)	
Over the last 2 weeks, how often have you eaten fast food, sugary drinks (e.g., soda, sports drinks, juice), or packaged foods (e.g., chips, candy, crackers, cookies)?			
Not at all	10 (35.7)	74 (26.7)	0.605
Several days	11 (39.3)	143 (51.6)	
More than half the days	5 (17.9)	38 (13.7)	
Nearly everyday	2 (7.1)	22 (7.9)	
On an average day, how many servings of whole fruits and vegetables do you eat (1 serving is about a handful and does not include fruit juice)?			
Less than 2 servings	8 (28.6)	131 (47.3)	**0.037**
2-3 servings	10 (35.7)	104 (37.5)	
4-5 servings	7 (25)	27 (9.7)	
More than 5 servings	3 (10.7)	15 (5.4)	
Over the last 2 weeks, how many days did you exercise at a moderate to strenuous intensity (e.g., brisk walking or enough movement to break a light sweat)?			
Less than 1 time per week	7 (25)	121 (43.7)	0.157
1-2 times per week	13 (46.4)	81 (29.2)	

	Obesity		
	Yes (*n* = 28)	No (*n* = 277)	*p* value
3-4 times per week	3 (10.7)	39 (14.1)	
5 or more times per week	5 (17.9)	36 (13)	

Table 8 shows that comorbidities were generally more prevalent among obese participants, particularly sleep disorders (17.9% *vs.* 7.2%), though this did not reach statistical significance (p = 0.065). Hypertension (7.1%) and mood disorders (10.7%) were also more common in obese women compared to non-obese women.

Discussion

The present study demonstrated that overweight and obesity are highly prevalent among middle-aged women, with nearly one-third of participants classified as overweight and close to 1 in 10 as obese [8]. These findings are consistent with national and international data reporting an alarming increase in obesity prevalence, particularly in women of this age group, who are vulnerable due to hormonal changes, decreased metabolic rate, and lifestyle transitions [9]. Despite a relatively high proportion of participants reporting adherence to healthy lifestyle practices such as physical activity and a healthy diet, excess body weight remained a considerable concern, indicating that self-reported behaviors may not be sufficient to offset physiological and environmental risk factors [10].

In addition, the study revealed significant associations between obesity and several lifestyle and psychosocial variables [11]. Obese participants were more likely to experience persistent fatigue, dissatisfaction with body weight, and lower psychosocial well-being compared with their non-obese counterparts. These findings highlight the multifactorial nature of obesity, extending beyond caloric intake and physical inactivity to include psychological stressors, sleep disturbances, and body image concerns [12]. Interestingly, obese women reported higher consumption of fruits and vegetables than non-obese participants, suggesting possible dietary modifications in response to weight concerns [13]. However, inadequate exercise duration and suboptimal dietary practices across the whole sample indicate that lifestyle interventions should address both quality and sustainability of behaviors rather than isolated efforts [14].

Concerning weight status, the findings of this study showed that more than half of the participants were of normal weight (53.8%), while nearly one-third were overweight (30.8%) and around one-tenth were obese (9.2%). This reflects a considerable prevalence of excess body weight among middle-aged women. These results are consistent with Nour et al. [15], who reported increasing trends of overweight and obesity among Saudi women. Similarly, Rocha et al. [16], in The Lancet, highlighted that women in the Middle East are disproportionately affected by obesity compared to men. This may be due to lifestyle transitions, dietary shifts toward processed foods, and limited opportunities for sustained physical activity despite reported engagement in exercise.

Regarding lifestyle behaviors, almost all participants were non-smokers and non-alcohol consumers, which is consistent with cultural and religious norms in Saudi Arabia. A relatively high proportion reported engaging in physical activity (73.4%) and maintaining a healthy diet (72.5%). However, the short exercise duration reported by many (40% exercising less than 10 minutes per session) raises concerns about the adequacy of such activity. This agrees with Abdelhay et al. [17], who found that Saudi women often report physical activity but at insufficient intensity or duration to yield health benefits. Similarly, Ng et al. (2025) [18], emphasized that obesity often correlates with a reduced perception of general health independent of behavioral differences. This may be due to a lack of structured exercise programs and environmental or social barriers limiting women's engagement in prolonged physical activity.

Concerning dietary habits and self-perceptions, fast food consumption was highly prevalent (72.5%), and nearly half of the participants consumed inadequate amounts of fruits and vegetables (<2 servings/day). This corresponds with findings from Al-Shamsiyah [19], who identified poor dietary practices as a key contributor to obesity in Gulf countries. Furthermore, dissatisfaction with body weight was evident, with more than half desiring some degree of weight loss. This may be due to growing health awareness and sociocultural emphasis on body image, which influences women's perception of their health and weight.

With respect to psychosocial health, a notable proportion of participants reported feelings of low interest, sadness, or depression. About 45.9% reported little pleasure in daily activities, and 40.3% felt down for several days, suggesting underlying psychological distress. These findings align with Oracz et al. [20], who emphasized the bidirectional link between obesity and depression. This may be due to the psychological burden of weight dissatisfaction, combined with stress from lifestyle, family, or societal pressures in middle-aged women.

Concerning comorbidities, the most common were sleep disorders (8.2%), mood disorders (6.9%), and

Table 7. Comparison of exercise duration and psychosocial well-being indicators (purpose in life, social support, interest, depression, anxiety, and worry) between obese and non-obese participants (*n* = 303).

	Obesity		
	Yes (*n* = 28)	No (*n* = 277)	*p* value
During an average session, how many minutes do you exercise at a moderate to strenuous intensity (e.g., brisk walking or enough movement to break a light sweat)?			
< 10 minutes	9 (32.1)	113 (40.8)	0.487
10-29 minutes	9 (32.1)	101 (36.5)	
30-49 minutes	6 (21.4)	36 (13)	
≥50 minutes	4 (14.3)	27 (9.7)	
Over the past 2 weeks, how often have you [a. Felt like your life had purpose or meaning?]			
Not at all	8 (28.6)	78 (28.2)	0.910
Several days	12 (42.9)	107 (38.6)	
More than half the days	4 (14.3)	55 (19.9)	
Nearly everyday	4 (14.3)	37 (13.4)	
Over the past 2 weeks, how often have you [b. Connected with any support network (e.g. community, spiritual, friends/family, nature, yoga, or meditation)?]			
Not at all	9 (32.1)	84 (30.3)	0.856
Several days	10 (35.7)	95 (34.3)	
More than half the days	6 (21.4)	51 (18.4)	
Nearly everyday	3 (10.7)	47 (17)	
Over the past 2 weeks, how often have you [c. Been bothered by little interest or pleasure in doing things?]			
Not at all	14 (50)	82 (29.6)	**0.010**
Several days	10 (35.7)	130 (46.9)	
More than half the days	0 (0)	48 (17.3)	
Nearly everyday	4 (14.3)	17 (6.1)	
Over the past 2 weeks, how often have you [d. Been bothered by feeling down, depressed or hopeless?]			
Not at all	14 (50)	124 (44.8)	0.435
Several days	11 (39.3)	112 (40.4)	
More than half the days	1 (3.6)	32 (11.6)	
Nearly everyday	2 (7.1)	9 (3.2)	
Over the past 2 weeks, how often have you [e. Been bothered by feeling nervous, anxious or on edge?]			
Not at all	15 (53.6)	129 (46.6)	0.501
Several days	8 (28.6)	106 (38.3)	
More than half the days	3 (10.7)	34 (12.3)	
Nearly everyday	2 (7.1)	8 (2.9)	
Over the past 2 weeks, how often have you [f. Been bothered by worrying too much about different things?]			
Not at all	10 (35.7)	110 (39.7)	0.773
Several days	11 (39.3)	113 (40.8)	

	Obesity		
	Yes (*n* = 28)	No (*n* = 277)	*p* value
More than half the days	4 (14.3)	38 (13.7)	
Nearly everyday	3 (10.7)	16 (5.8)	

Bold values represented significant of *p* value.

Table 8. Comparison of reported comorbidities between obese and non-obese participants (n = 303).

	Obesity		
	Yes (*n* = 28)	No (*n* = 277)	*p* value
Comorbidities			
Infections	0 (0)	7 (2.5)	1.000
Diabetes	1 (3.6)	7 (2.5)	0.542
Endometrial	0 (0)	3 (1.1)	1.000
Hypertension	2 (7.1)	17 (6.1)	0.689
Asthma	1 (3.6)	9 (3.2)	1.000
Gout	0 (0)	1 (0.4)	1.000
Osteoarthritis	0 (0)	2 (0.7)	1.000
Sleep disorders	5 (17.9)	20 (7.2)	0.065
Mood disorders	3 (10.7)	18 (6.5)	0.424
No	22 (78.6)	216 (78)	0.942

hypertension (6.2%). Diabetes and asthma were less frequent, while the majority (78%) reported no comorbidities. These findings align with Wahab and Alsayari [21], who documented obesity as a major risk factor for hypertension, sleep disturbances, and mental health disorders among Saudi women. Interestingly, the relatively low prevalence of diabetes compared to other reports may reflect the younger average age of this study's sample. This may be due to the fact that many participants had not yet reached the age group where metabolic complications are most pronounced, although obesity and related risks may predispose them to future disease development.

Concerning lifestyle factors, the results revealed that obese participants (9.2% of the sample) did not differ significantly from non-obese women in terms of smoking, alcohol consumption, physical activity, or healthy diet. However, their perceived overall health status tended to be lower, although this was not statistically significant. This aligns with the findings of Alharbi [22], who reported that obesity is associated with lower self-rated health despite similarities in reported lifestyle practices. This may be due to the psychosocial burden of excess weight, body image dissatisfaction, and stigma, which negatively affect subjective health evaluations even in the absence of marked lifestyle variation.

Regarding fatigue and body image, obese women were significantly more likely to report daily tiredness compared to non-obese participants (21.4% *vs.* 5.1%, $p = 0.009$). Moreover, a majority of obese women (75%) expressed a strong desire to lose a lot of weight, compared to only 5.8% of non-obese women ($p = 0.000$). These findings are consistent with Beaumont et al. [23], who noted that obesity is strongly associated with fatigue and negative body image, contributing to reduced quality of life. Interestingly, obese participants reported higher fruit and vegetable intake compared to non-obese ($p = 0.037$), which is in line with Alenzi et al. [24], who argued that dietary reporting among obese individuals may reflect increased awareness and attempts at dietary modification. This may be due to obese women being more conscious of their health and weight-related risks.

Conclusion

This study demonstrated that overweight and obesity are prevalent among middle-aged women, despite a relatively high proportion reporting healthy lifestyle practices. Obesity was significantly associated with greater daytime fatigue, dissatisfaction with body weight, and lower psychosocial well-being, as many obese participants reported diminished interest or pleasure in daily activities. Although fruit and vegetable intake appeared higher among obese women, overall dietary patterns and exercise duration remained suboptimal across the sample. Comorbidities such as sleep disorders, hypertension, and mood disturbances were more common among obese women, underscoring the multifactorial nature of obesity that extends beyond diet and activity alone. These findings highlight the need for comprehensive prevention strategies that combine nutritional guidance, promotion of physical activity, mental health support, and sleep hygiene, alongside hospital-based health education programs, to effectively address obesity and its associated risks in this vulnerable population.

List of Abbreviations

BMI - Body mass index

Conflict of interests

The authors declare that there is no conflict of interest regarding the publication of this article.

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Consent for publication

NA.

Consent to participate

Written consent was obtained from all the participants/subjects/patients.

Ethical approval

The study was approved by the IRB committee of Care Medical Hospital, Approval number: IRB-013/220925, Approved Date: 22 Sept 2025.

Author's contributions

Roua Shoub Gbril Ali: Conceptualization and design of the study, supervision of data collection, and critical review of the manuscript.

Ghadeer Adel Alghamdi: Data collection, organization of fieldwork, and initial data entry.

Maliha Khalid Khan: Statistical analysis, data interpretation, and drafting of the results section.

Amal Humed Ali: Literature review, writing of the introduction and discussion sections, and manuscript editing.

Ali Maksoud: Methodology development, validation of the data, and contribution to manuscript revision.

Ziad Ashour: Oversight of ethical approval, project administration, and final review of the manuscript before submission.

All authors read and approved the final version of the manuscript.

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