



Disease occurrence clearly impacts eating behavior: A cross-sectional study among Jordanians

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Background:

Despite the high prevalence of excess weight among the Jordanian population and its related chronic diseases, including T2D and CVD, no study has highlighted the general population's eating behaviors and the shifting of eating behaviors due to disease. As researchers, healthcare professionals, and policymakers, it is crucial to understand the various factors that influence eating behaviors, including disease occurrence.

Aim:

The current study's objectives were to assess eating behaviors among Jordan's healthy population and the impact of disease occurrence on the Jordanians' eating behaviors.

Measured variables:

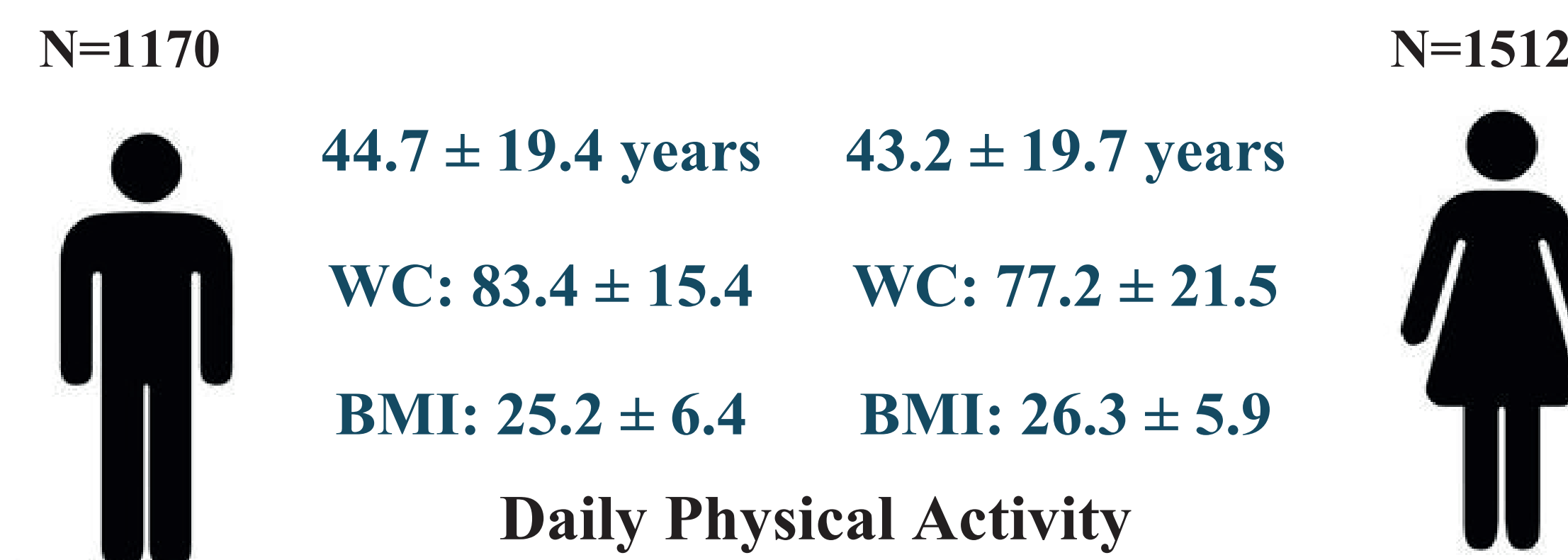
- Weight, height, waist, and hip circumferences were measured, and BMI was calculated.
- Eating behaviors were evaluated, including meal timing and frequency, late-night, and fast-food consumption.
- Participants were categorized into two groups: those with diseases (diabetes, cardiovascular diseases (CVD), and comorbidities) and those without diseases.

Methods:

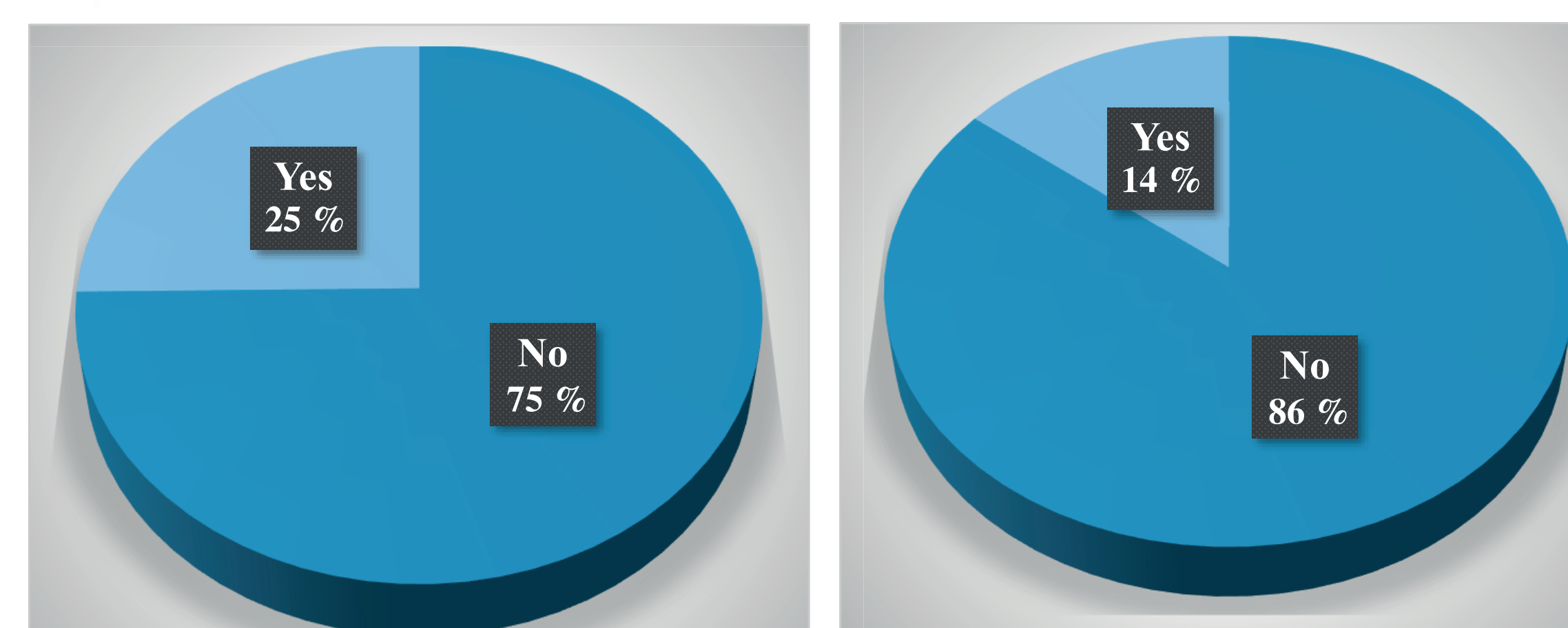
- A cross-sectional study was conducted on 1170 males and 1512 females (>8 years) between March and May 2022.
- All willing and eligible subjects gave oral informed consent for inclusion in the survey before participation. For children and adolescents, their parents gave verbal consent to participate.
- Data were obtained by a team of well-trained and highly qualified nutritionists.
- General demographic information, including age and gender, general health, and questions on the existence of chronic diseases (CVD, diabetes), or other health issues.
- The Institutional Review Board of The Hashemite University (No.192023/2022/1/) and the Jordanian Ministry of Health (MBA/20219) approved the study protocol.

Results:

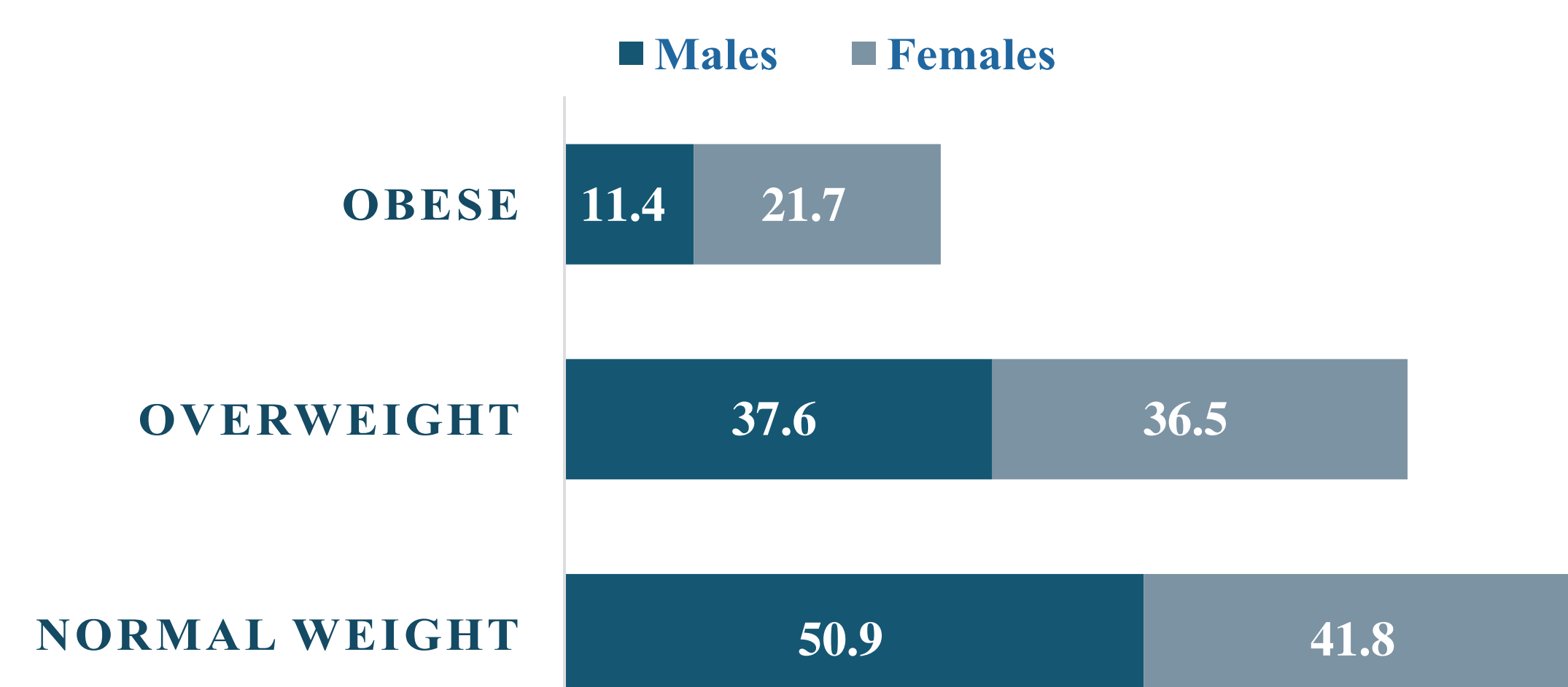
General characteristics of the study participants



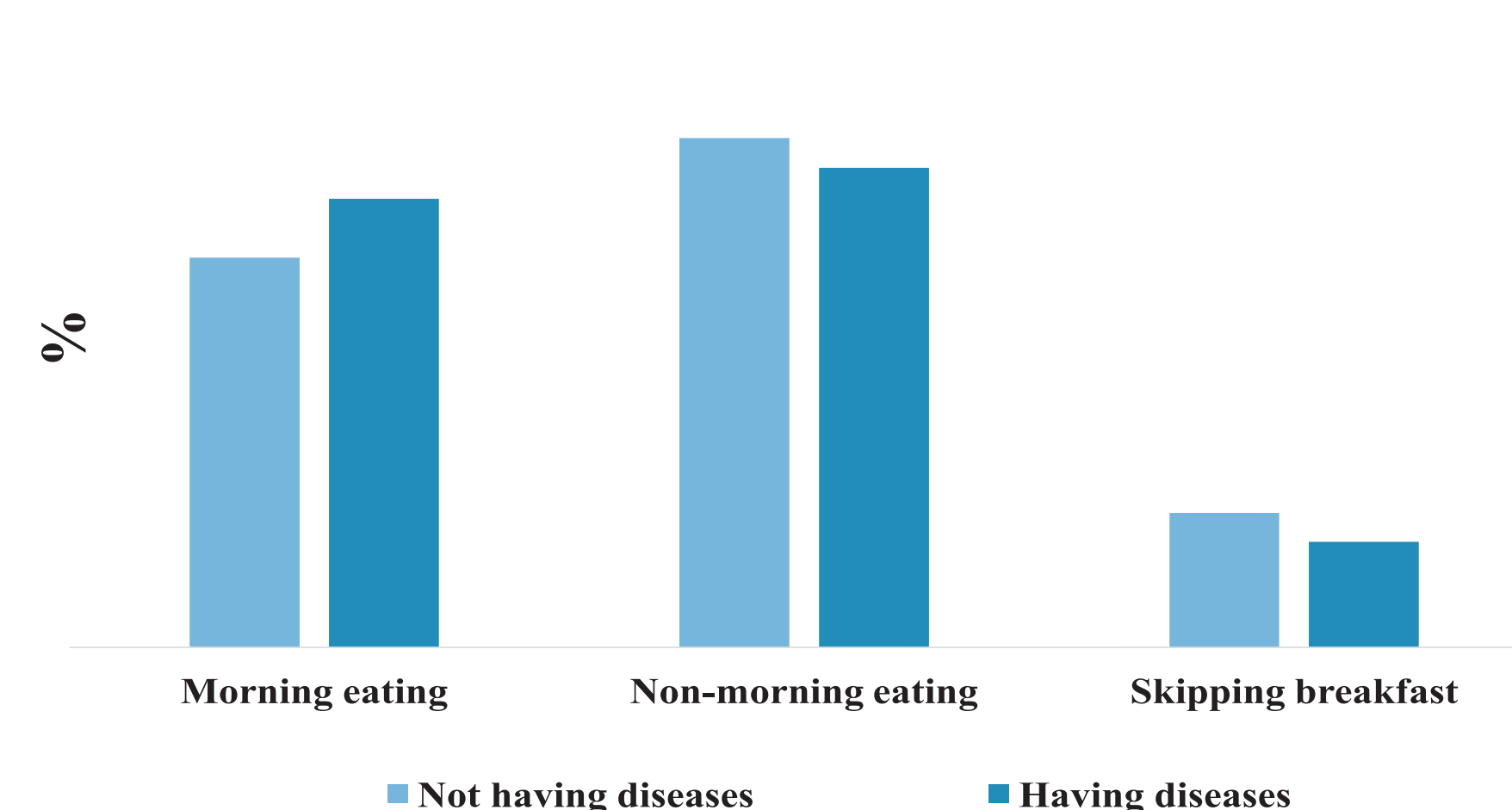
Daily Physical Activity



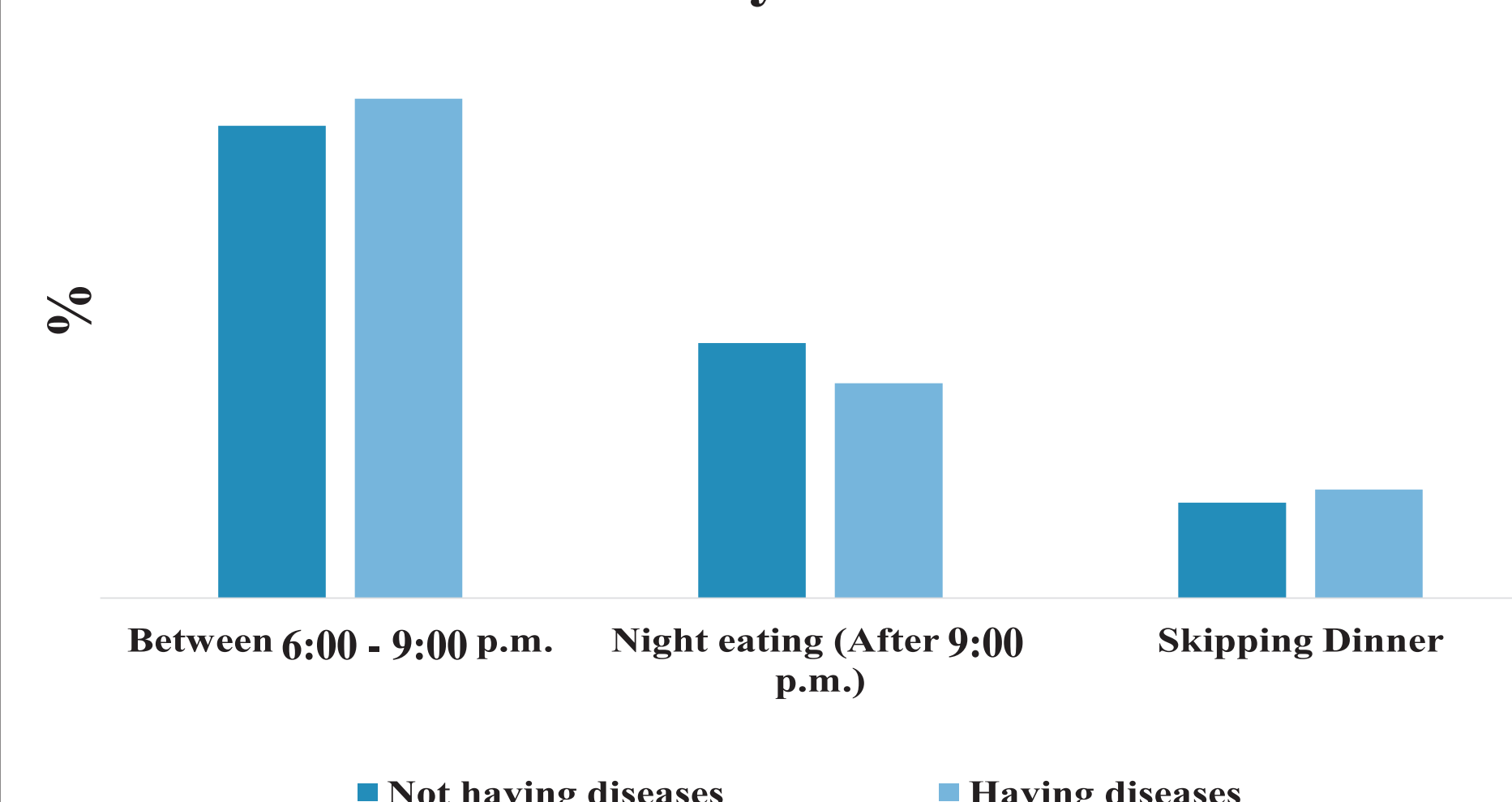
BMI CATEGORIES



Time of Breakfast meal



What time do you have dinner?



Meal frequency and eating behavior among the study population based on having diseases.

	Having Disease n(%)*		p-value**
	No	Yes	
Skipped Meal			
Dinner	208 (13.0)	156 (15.3)	0.231
Lunch	21 (1.3)	9 (0.9)	
Breakfast	299 (18.6)	174 (17.0)	
I don't Skip meals	1078 (67.1)	683 (66.8)	
Number of Meals			
One Meal	14 (0.9)	24 (2.3)	0.009
Two Meals	504 (31.1)	289 (28.3)	
Three Meals	1012 (62.5)	657 (64.2)	
> Three Meals	88 (5.4)	53 (5.2)	
Fast Food Eating			
None	257 (16.0)	305 (30.2)	<0.001
Less Than Once /Week	244 (15.2)	195 (19.3)	
1-5 Times/Week	1089 (67.9)	509 (50.4)	
Once Daily	13 (0.8)	1 (0.1)	
Twice Or More Daily	2 (0.1)	0 (0.0)	
Most Consumed Food Group			
Legumes	42 (2.6)	23 (2.2)	<0.001
Cereals	1047 (65.1)	622 (60.7)	
Dairy products	47 (2.9)	17 (1.7)	
Vegetables	76 (4.7)	105 (10.2)	
Fruits	38 (2.4)	26 (2.5)	
Protein	358 (22.3)	232 (22.6)	
Most Missed Food Groups			
Legumes	373 (23.2)	258 (25.3)	<0.001
Cereals	74 (4.6)	49 (4.8)	
Dairy products	751 (46.7)	413 (40.6)	
Vegetables	140 (8.7)	77 (7.6)	
Fruits	117 (7.3)	54 (5.3)	
Protein	152 (9.5)	167 (16.4)	

*CVD and/or diabetes, **p<0.05 is considered significant.

Conclusions:

- The findings of this study shed light on the complex relationship between disease occurrence and eating behaviors among Jordanians.
- The overall study analysis suggests that the Jordanian population has moved toward adopting healthier dietary behaviors.
- Despite the similarities in eating behaviors between healthy and diseased individuals, Jordanian adults suffering from chronic diseases adhere to more healthful eating behaviors than their disease-free counterparts.
- Our findings thus confirm our original theory that having persistent medical conditions causes patients to become more aware of and concerned about their health, leading them to modify all their eating behaviors.
- Nevertheless, a sizeable portion of the study's participants did not consume dairy products, which is thought to be negative behavior and should be considered.