

Association between dietary profiles and chronic disease patterns

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INTRODUCTION & AIM

The global rise of non-communicable diseases necessitates a deeper understanding of the modifiable lifestyle factors involved. While the link between diet and health is established, specific dietary patterns associated with distinct disease categories require further investigation. This study examines the associations between dietary habits, lifestyle choices, and the prevalence of major disease categories, including cardiovascular, nervous system, and inflammatory diseases. This cross-sectional study was conducted in Algeria using an online questionnaire administered to over 300 adults.

RESULTS & DISCUSSION

Protective foods associated with reduced NCDs risk

The results reveal highly significant correlations between dietary profiles and specific pathologies. A strong association was found between cardiovascular diseases and the infrequent consumption of protective foods, including vegetables ($P < 0.0001$), whole grains ($P=0.002$), and legumes ($P=0.004$).

Table 01: Protective foods/NCDs

Food	Frequency	Metabolic diseases	P	Digestive diseases	P	Cardiovascular diseases	P	Inflammatory diseases	P	Nervous diseases	P	P
Vegetables	Daily	60.90%	0.895	69.70%	0.566	46.20%	<0.0001	53.10%	0.025	25.00%	0.009	0.611
	Frequently	33.30%		24.20%		23.10%		34.70%		50.00%		
	Occasionnement	5.80%		6.10%		30.80%		12.20%		25.00%		
Fruits	Daily	38.20%	0.236	35.30%	0.578	42.90%	0.017	44.90%	0.543	22.20%	0.36	0.882
	Frequently	52.90%		58.80%		35.70%		46.90%		66.70%		
	Occasionnement	8.80%		5.90%		21.40%		8.20%		11.10%		
Meats	Daily	13.80%	0.644	9.70%	0.595	14.30%	0.094	21.70%	0.06	11.10%	0.19	0.462
	Frequently	81.50%		80.60%		64.30%		65.20%		66.70%		
	Occasionnement	4.60%		9.70%		21.40%		13.00%		22.20%		
Fish	Daily	0.00%	0.586	0.00%	0.881	0.00%	0.829	0.00%	0.694	0.00%	0.969	0.829
	Frequently	69.80%		74.20%		66.70%		77.50%		71.40%		
	Occasionnement	30.20%		25.80%		33.30%		22.50%		28.60%		
Whole grains	Daily	16.10%	0.383	9.70%	0.488	0.00%	0.002	16.30%	0.629	16.70%	0.978	0.227
	Frequently	64.50%		71.00%		53.80%		65.10%		66.70%		
	Occasionnement	19.40%		19.40%		46.20%		18.60%		16.70%		
Legumes	Daily	7.50%	0.543	3.00%	0.658	0.00%	0.004	2.10%	0.391	14.30%	0.533	0.62
	Frequently	88.10%		87.90%		69.20%		89.60%		71.40%		
	Occasionnement	4.50%		9.10%		30.80%		8.30%		14.30%		

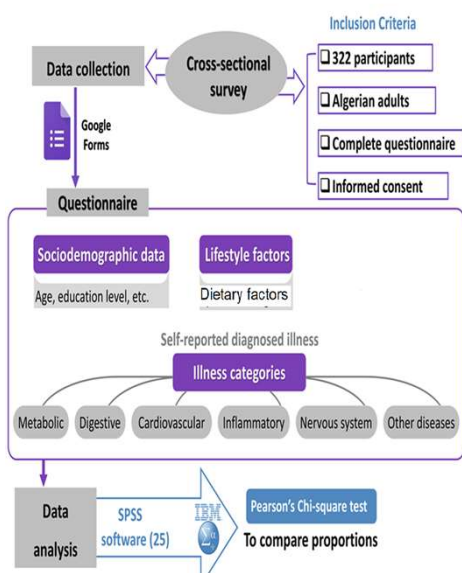
Hazard foods associated with NCDs risk

Nervous system disorders were significantly linked to the daily consumption of "risky" items, with 50% of this group consuming sweets ($P=0.005$) and 50% consuming fizzy drinks ($P=0.006$) on a daily basis.

Table 02: Hazard foods/NCDs

Food	Frequency	Metabolic diseases	P	Digestive diseases	P	Cardiovascular diseases	P	Inflammatory diseases	P	Nervous system diseases	P	P
Fast-food restaurant	Daily	7.20%	0.091	5.90%	0.348	0.00%	0.229	2.00%	0.205	18.20%	0.01	
	Frequently	36.20%		32.40%		64.30%		32.70%		54.50%		
	Occasion	56.50%		61.80%		35.70%		65.30%		27.30%		
Sandwiches	Daily	7.70%	0.439	3.20%	0.675	0.00%	0.443	2.30%	0.048	11.10%	0.626	
	Frequently	40.00%		38.70%		66.70%		29.50%		55.60%		
	Occasionally	6.20%		9.70%		0.00%		9.10%		0.00%		
Sweets	Daily	9.40%	0.383	15.60%	0.146	16.70%	0.879	17.80%	0.025	50.00%	0.005	
	Frequently	54.70%		34.40%		58.30%		46.70%		30.00%		
	Never	1.60%		6.30%		0.00%		11.10%		10.00%		
Fried foods	Occasionally	34.40%		43.80%		25.00%		24.40%		10.00%		
	Daily	9.10%	0.378	6.50%	0.12	9.10%	0.393	2.20%	0.255	33.30%	0.099	
	Frequently	71.20%		71.00%		90.90%		73.90%		44.40%		
Fizzy drinks	Never	0.00%		9.70%		0.00%		4.30%		0.00%		
	Occasionally	19.70%		12.90%		0.00%		19.60%		22.20%		
	Daily	9.20%	0.109	16.10%	0.159	9.10%	0.513	10.90%	0.672	50.00%	0.006	
Coffee and Tea	Frequently	30.80%		29.00%		36.40%		34.80%		20.00%		
	Never	30.80%		35.50%		9.10%		19.60%		20.00%		
	Occasionally	29.20%		19.40%		45.50%		34.80%		10.00%		
Foods made from white flour	Daily	53.70%	0.795	39.40%	0.007	69.20%	0.634	71.10%	0.182	37.50%	0.236	
	Frequently	25.40%		33.30%		15.40%		15.60%		50.00%		
	Never	9.00%		0.00%		0.00%		6.70%		0.00%		
	Occasionally	11.90%		27.30%		15.40%		6.70%		12.50%		
	Daily	50.70%	0.911	56.30%	0.82	36.40%	0.555	59.60%	0.104	66.70%	0.639	
	Frequently	40.30%		34.40%		54.50%		29.80%		33.30%		
	Never	3.00%		3.10%		9.10%		8.50%		0.00%		
	Occasionally	6.00%		6.30%		0.00%		2.10%		0.00%		

METHOD



CONCLUSION

These findings highlight the significance of encouraging balanced dietary patterns full of preventive foods while restricting the use of highly processed and sugary foods.

FUTURE WORK / REFERENCES

More work is required to make healthy eating accessible, attainable, and sustainable as well as to include these wholesome food and lifestyle choices into the everyday lives of Algerian communities.