

Consumer knowledge and perceptions on milk fat in Denmark, United States and United Kingdom

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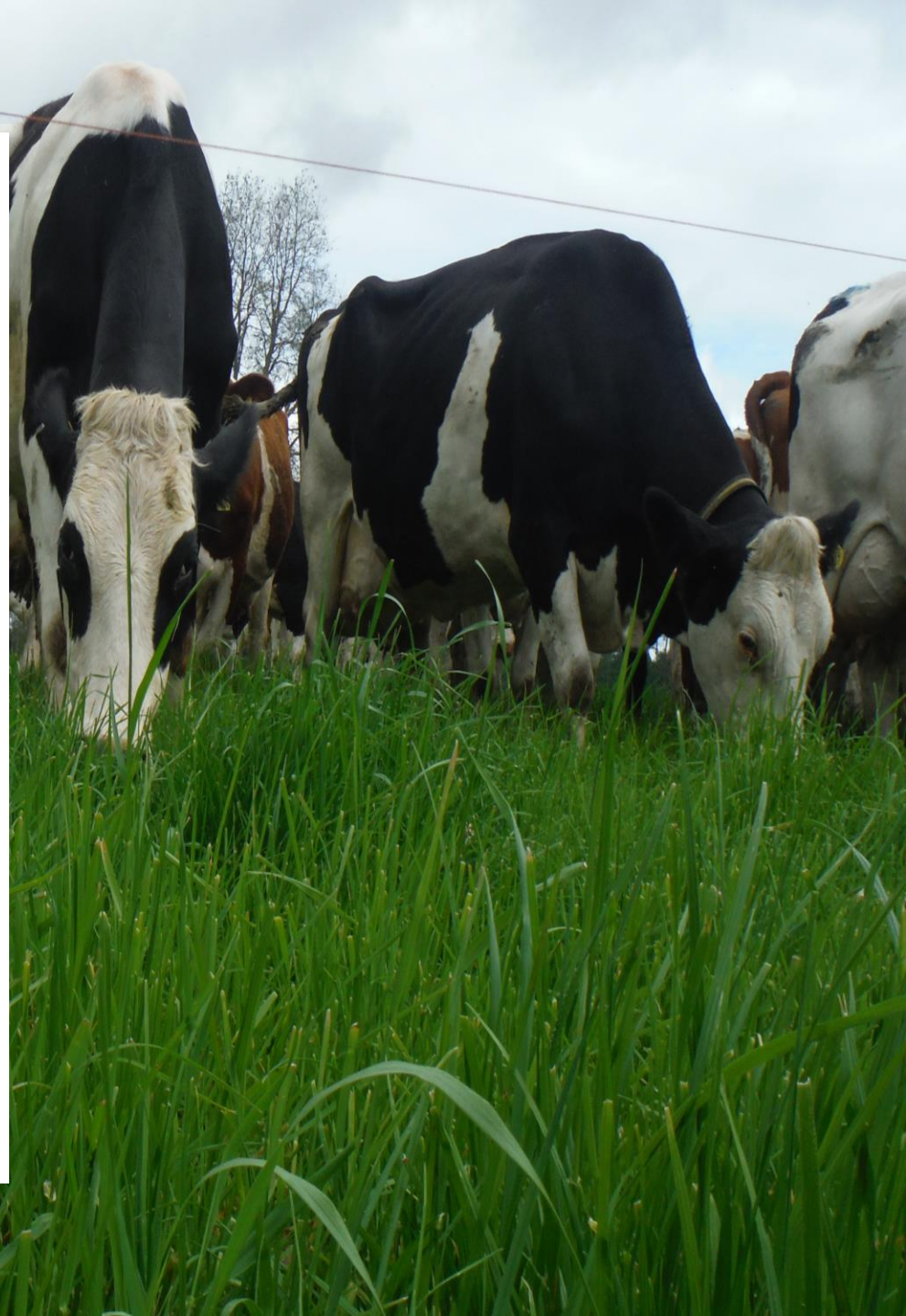
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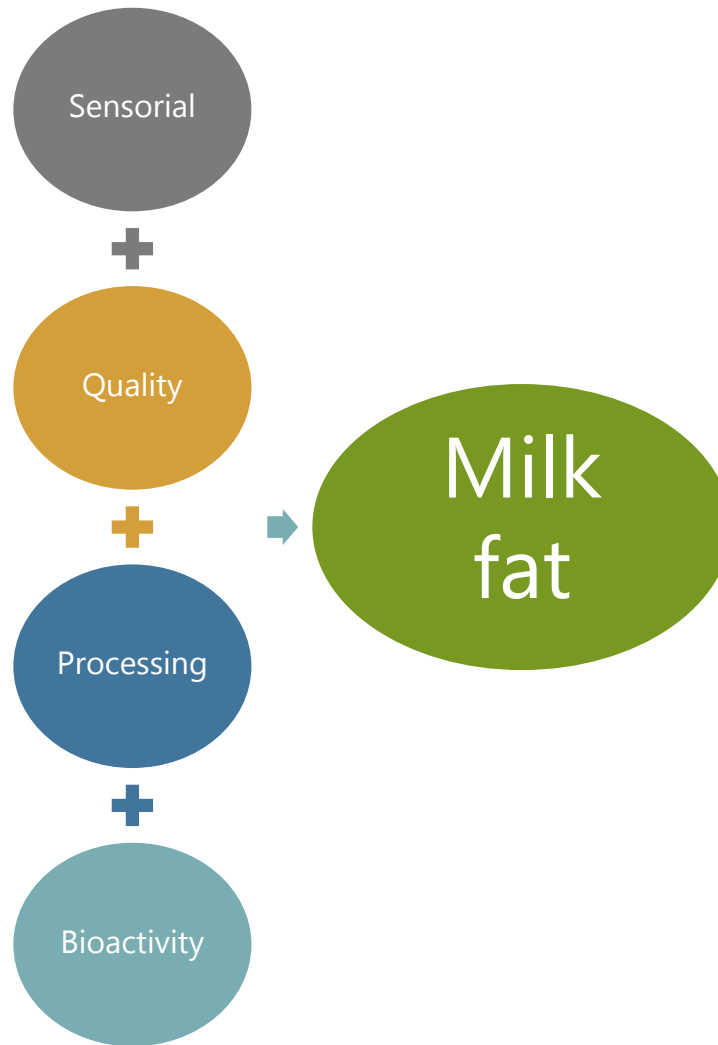
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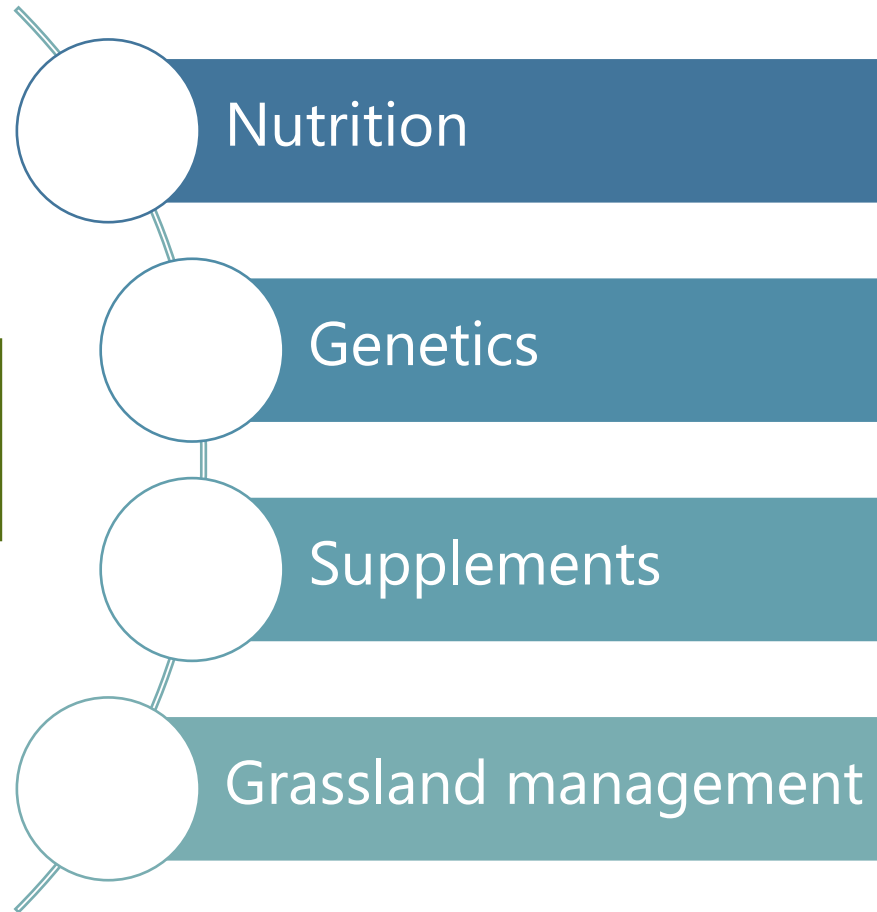
Introduction: importance of milk fat



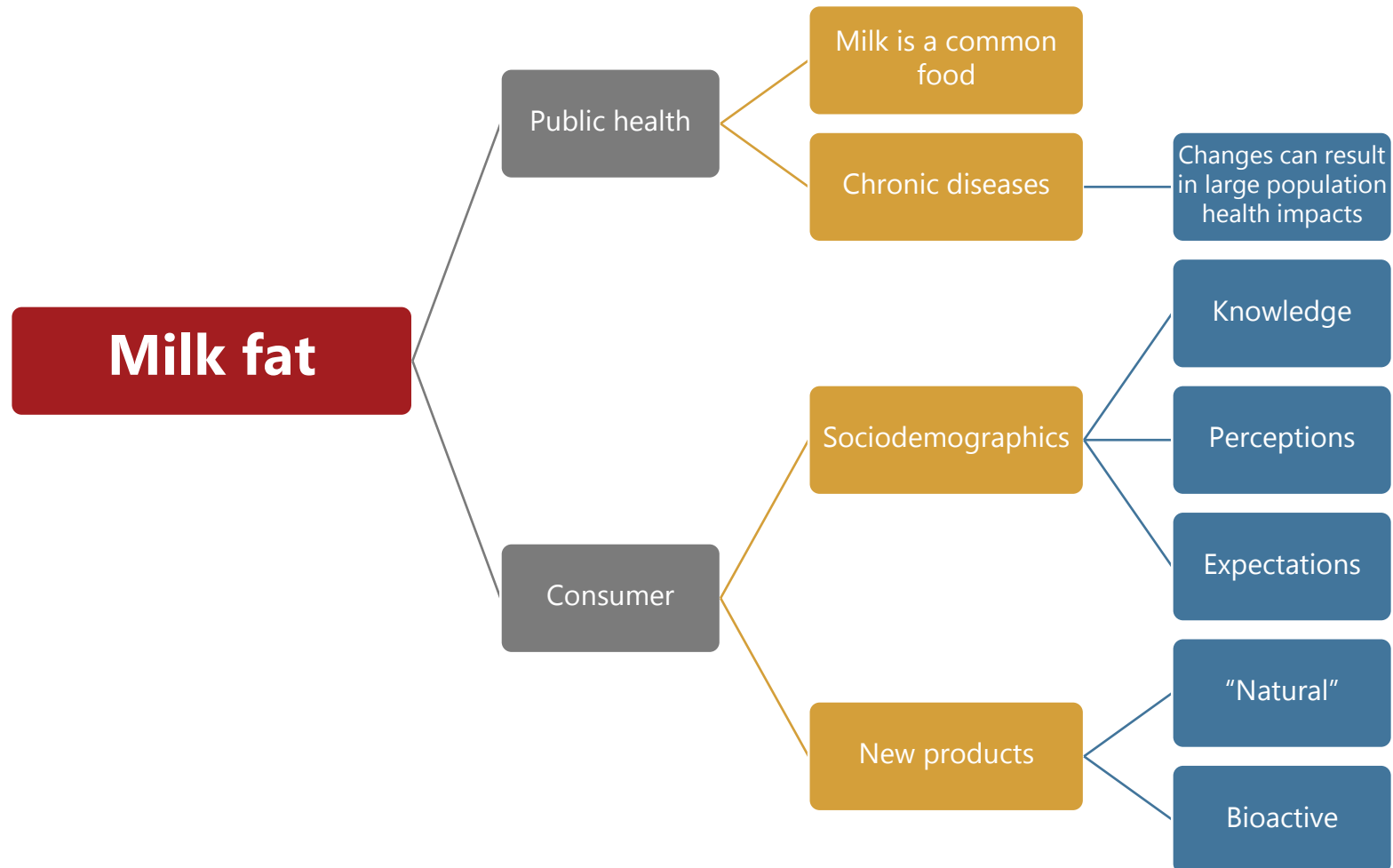


Introduction: animal production

Modulation
of milk fat



Introduction: social studies



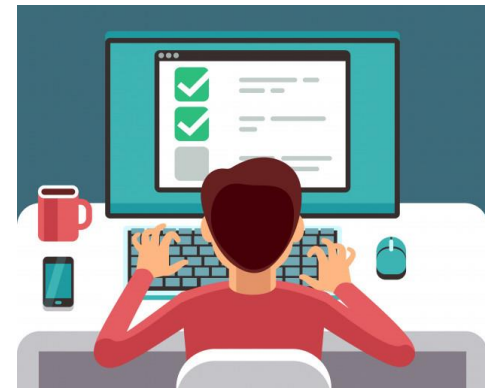
Objective

- To determine the influence of consumer sociodemographic and country of origin [Denmark (DK), United States (US) and United Kingdom (UK)] on their knowledge and perceptions on milk fat



Methods

- Survey
 - 21 questions available in Danish and English:
 - sociodemographic information
 - milk consumption
 - knowledge about milk nutrients and fatty acids
 - perception about milk fat
 - source of information regarding milk fat
 - Distributed in DK, UK and US:
 - Organizations (e.g. universities)
 - Social media outlets (e.g. Facebook and Twitter)
 - Data were collected via SurveyXact



Methods

- Statistical analysis was conducted in R version 3.5.0
- Pearson's Chi-square test and Fisher's exact test were used to examine differences between sociodemographic characteristics in:
 - milk consumption
 - knowledge about nutrients in milk
 - perception towards milk fat
- A post-hoc test with pairwise comparisons was performed for significant differences among countries
- P-value <0.05 was set as statistical significance

Results

	Total (n = 694)	DK (n = 264)	UK (n = 203)	US (n = 227)
	n (%)	n (%)	n (%)	n (%)
<i>Age (years)</i>				
18-29	223 (32)	85 (32)	68 (33)	70 (31)
30-39	222 (32)	91 (34)	66 (33)	65 (29)
40-49	114 (16)	40 (15)	36 (18)	38 (17)
50-59	83 (12)	33 (13)	16 (8)	34 (15)
60+	52 (7)	15 (6)	17 (8)	17 (7)
<i>Sex</i>				
Male	185 (27)	54 (20)	73 (36)	58 (26)
Female	509 (73)	210 (80)	130 (64)	169 (74)
<i>Education (highest level achieved)¹</i>				
Primary	9 (1)	3 (1)	0 (0)	6 (3)
Secondary	94 (14)	39 (15)	30 (15)	25 (11)
Superior	591 (85)	222 (84)	173 (85)	196 (86)
<i>Employment status</i>				
Employed	485 (70)	170 (64)	149 (73)	166 (73)
Unemployed	43 (6)	32 (12)	6 (3)	5 (2)
Retired	19 (3)	6 (2)	5 (2)	8 (4)
Student	147 (21)	56 (21)	43 (21)	48 (21)
Grown up in countryside	296 (43)	90 (34)	105 (52)	101 (44)
Milk consumption	618 (89)	238 (90)	182 (90)	198 (87)
Consumption of plant-based drinks ²	220 (32)	75 (28)	70 (34)	75 (33)



¹ Education: Primary: primary education, Secondary: secondary or vocational education, Superior: Bachelor, Master or PhD.

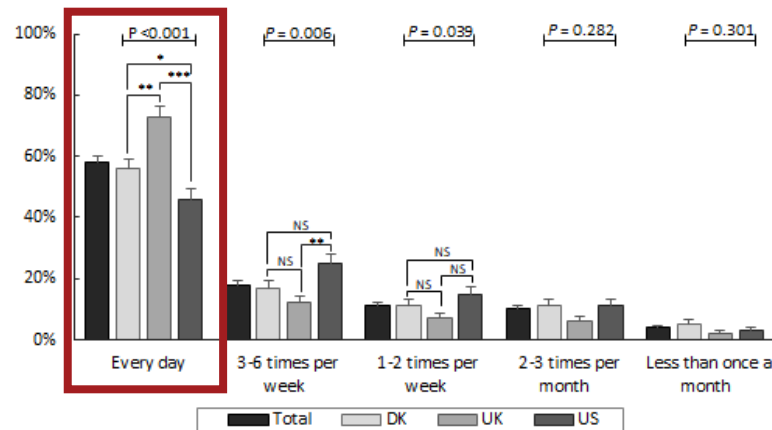
² Based on soybean, oat or almond.

Results

A) Frequency and B) type of milk consumption in Denmark (n = 238), United Kingdom (n = 182) and United States (n = 198)

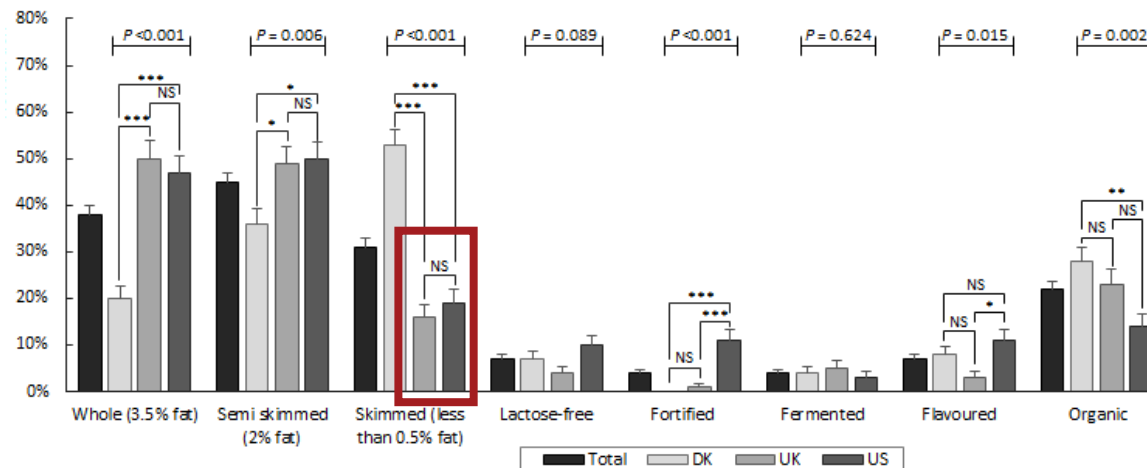
B) A multiple response question for which a maximum of three responses per participant was set

A: Milk consumption frequency



Daily consumption of milk in all countries

B: Types of milk



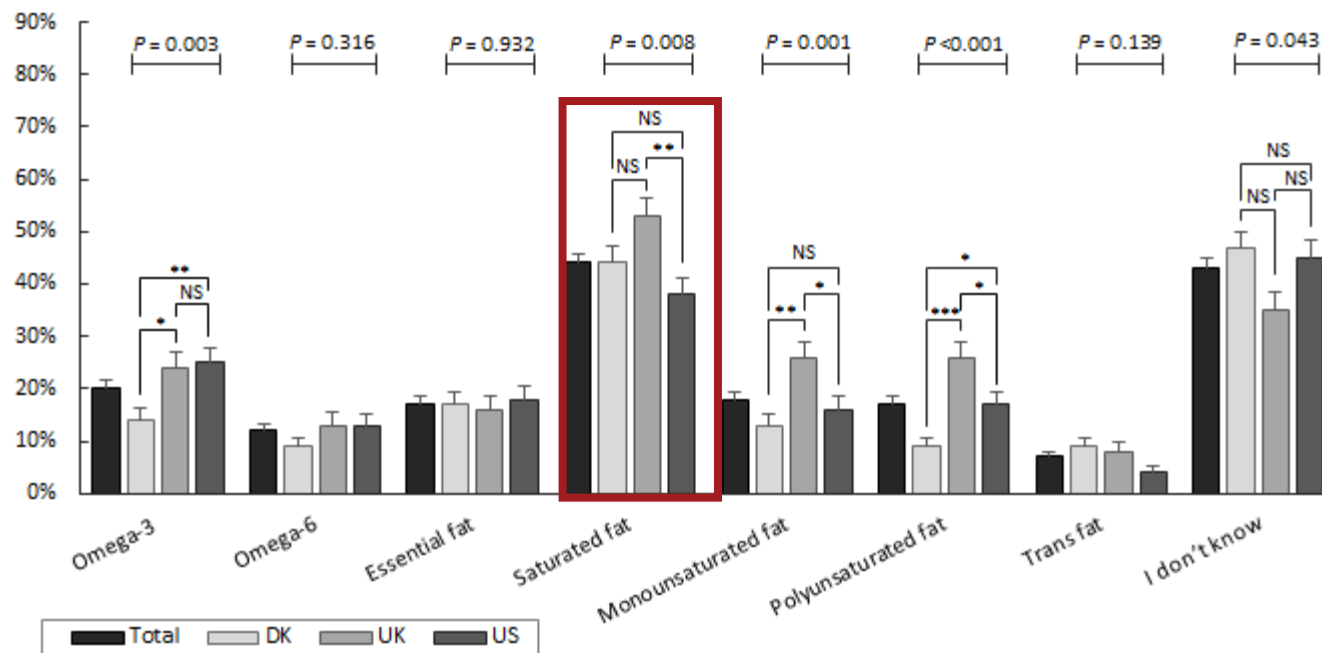
UK and US consume less skimmed milk than DK

Results

Reported awareness of types of fat in milk by participants from Denmark (n = 264), United Kingdom (n = 203) and United States (n = 227)

A multiple response question for which a maximum of three responses per participant was set

*** = <0.001, ** = <0.01, * = <0.05, NS = Not significant

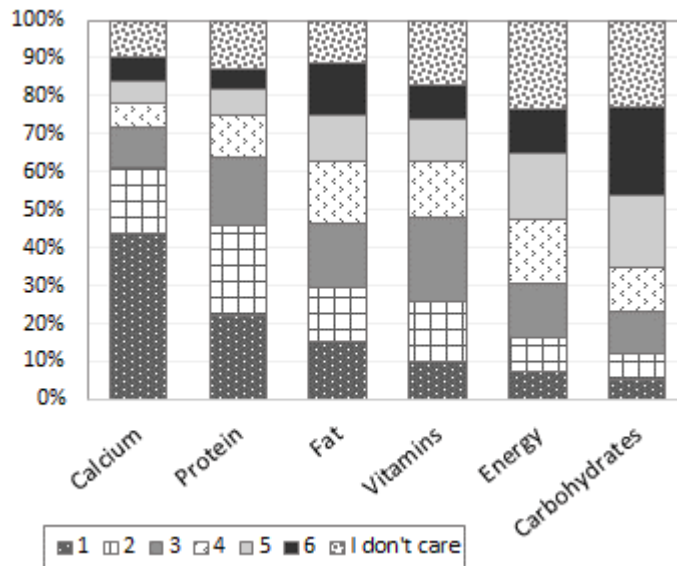


Saturated fat was a well-known type of milk fat among 48% of the respondents



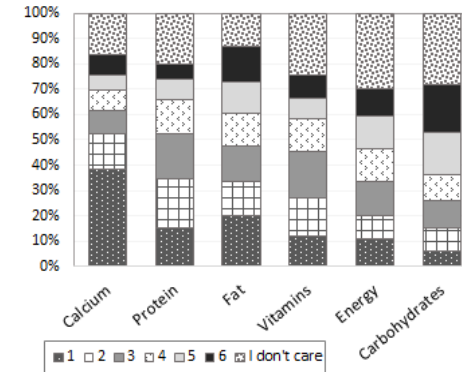
Results

Total respondents

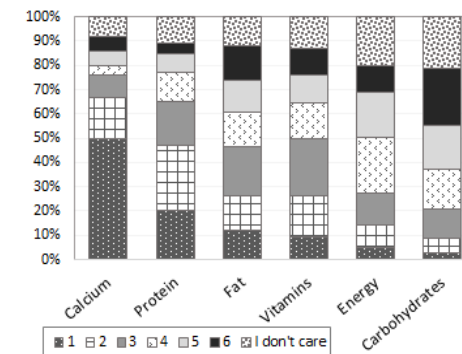


Response options ranged from 1 (most important) to 6 (least important) and I do not care

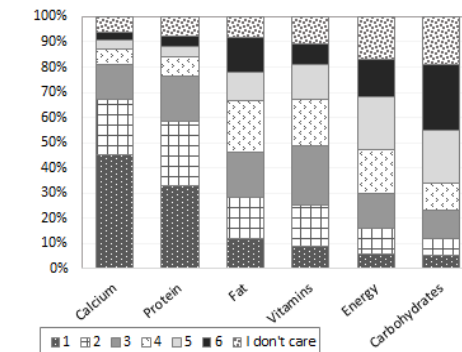
DK



UK



US



Calcium is perceived as the most important nutrient in milk

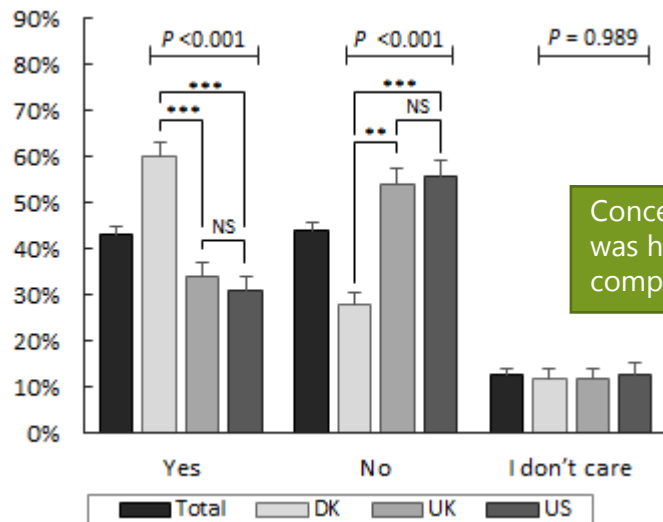


Results

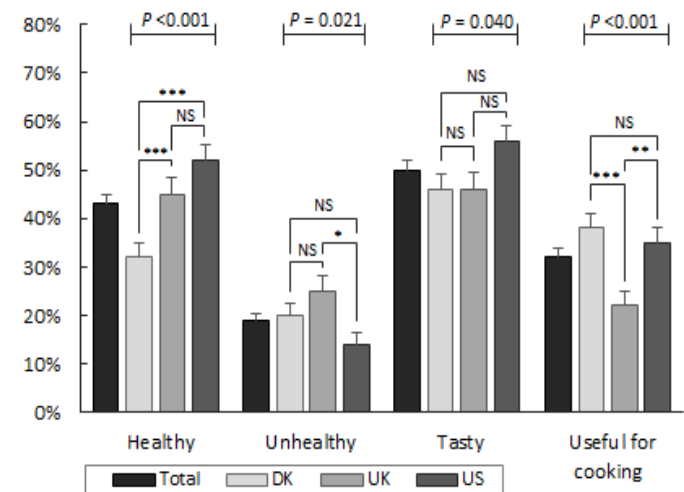
Less participants from DK considered milk fat as healthy

In all countries, more than 50% considered milk fat as tasty

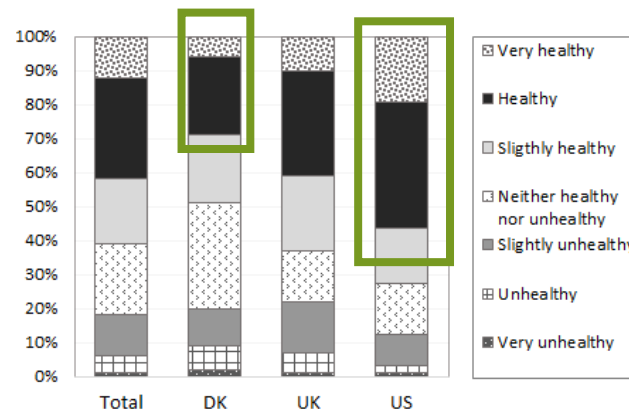
Concern about milk fat



Perception of concepts towards milk fat



Extent to which participants perceive milk fat as healthy or unhealthy

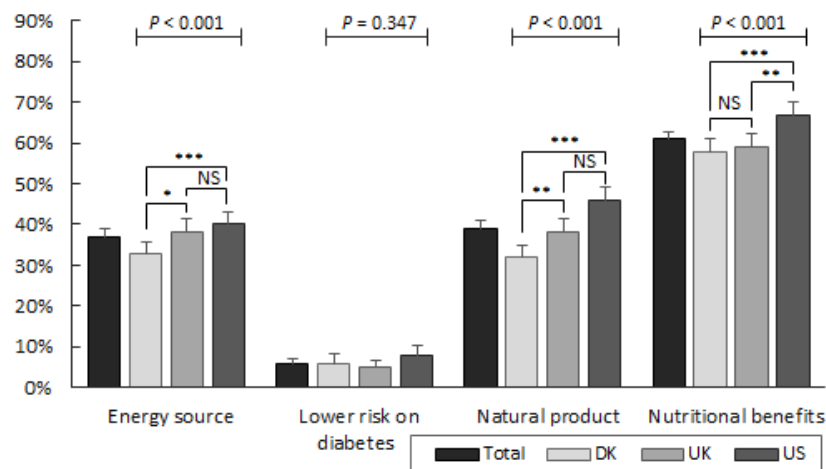


More than 50% of US respondents perceived milk fat as healthy and very healthy while this was only about a third for DK

Results

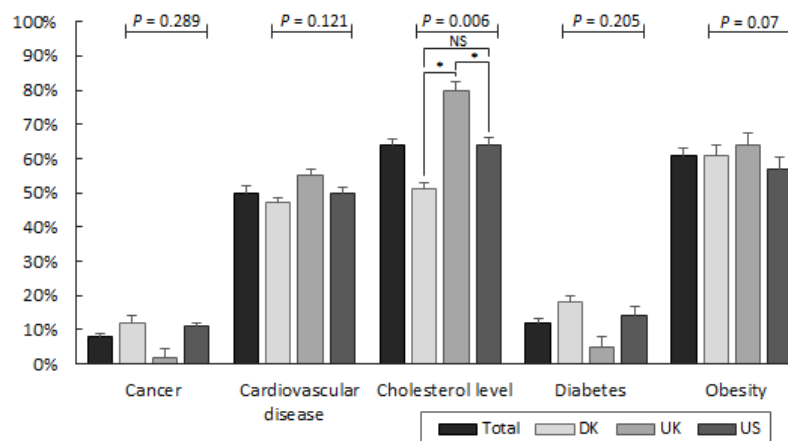
Perceiving milk fat healthy

'Nutritional benefits' was the most reported reason for perceiving milk fat as healthy by US respondents

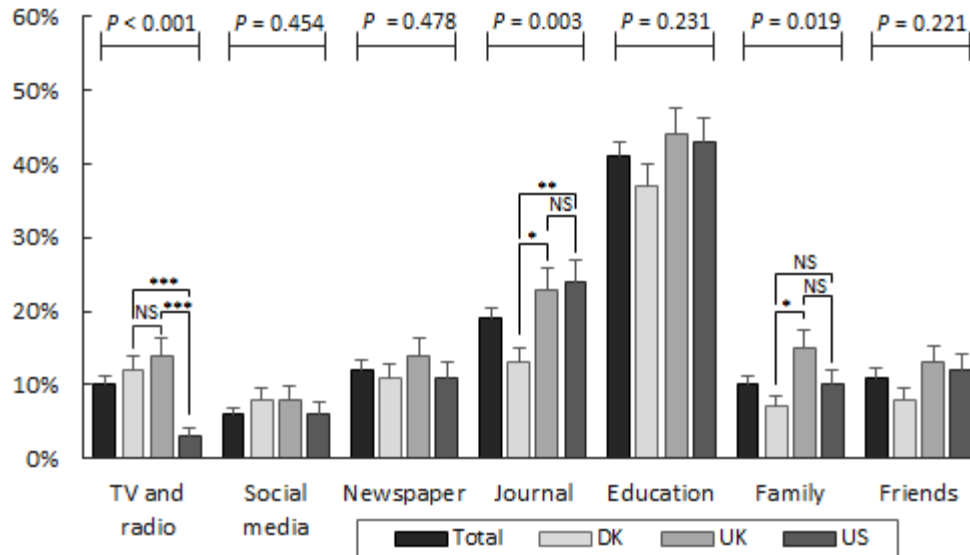


Perceiving milk fat unhealthy

UK respondents perceived milk fat as unhealthy because of 'cholesterol level' compared to DK and US



Results



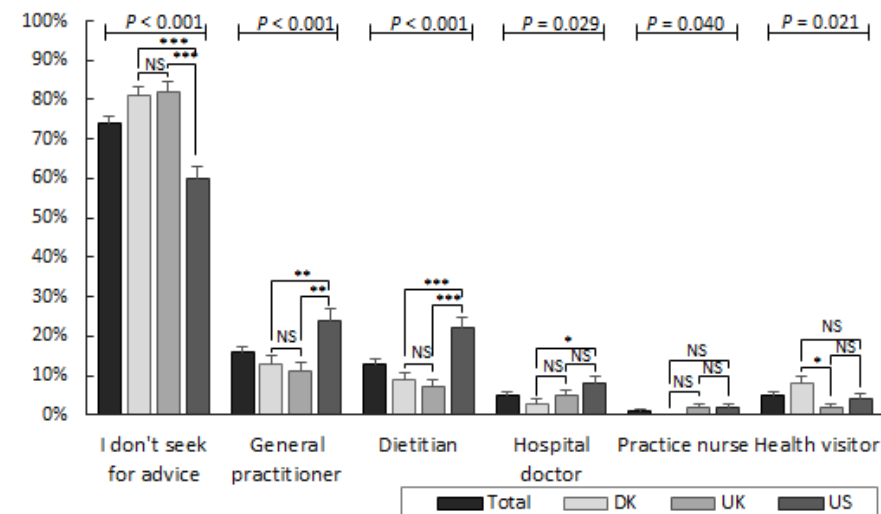
Source of information about milk fat

Consumers got their information on milk fat from schools

Seeking for healthy eating advice

The majority of respondents are not seeking for healthy eating advices

This proportion was higher in DK and UK compared to US



Remarks

UK and US consumed less skimmed milk than DK

Saturated fat was a well-known type of milk fat among 48% of the respondents

64% of DK respondents were concerned about milk fat, while UK and US were less concerned

Respondents from UK and US were more likely to perceive milk's fat as a healthy nutrient than those in DK

Results suggest that consumers in DK are different in their milk consumption patterns and perception towards milk fat, while consumers in UK and US share common characteristics

These data could be useful for future consumer-sensitive dairy beverage innovation and communication strategies

Thank you!

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