Food Reformulation

Nothing Else: A Healthier Snack Bar

Presentation by Mary Yan
December 16, 2015

Supervised by
Prof Elaine Rush,
Prof Gillian Whalley,
Prof Andrew Parsons

Dave Brown: branding and creative communication
Background

Diet and the profile of nutrients (quantity and quality) consumed are modifiable factors:
• reduce glycaemic index and glycaemic load of foods
• regulation of hunger and satiety

Aligned with the national science challenge - High Value Nutrition
• foods with validated health claims

(Brand-Miller et al., 2002; Mercer, 2013)
Aim of the study; proof of concept/principle

Development of a relatively healthy snack bar

• using **eight or fewer natural ingredients**
• presented in **a clear front pack label**
• with **verifiable health claims**
• and be **liked** (will be eaten) by **consumers** - taste compared with similar commercial products
Development of a healthier snack bar S1

- Meets the requirements of Nothing Else brand (eight ingredients)
- A good nutrient profiling score (NPS = 0)
- Meets health claims criteria (sugar, fat, fibre ...)
- Shelf-stable (water activity < 0.7)
- A technically verified GI (GI = 52)

(FSANZ, 2007; Brown et al., Food and Nutrition Sciences, 2015)
Consumer liking and effect of branding S2

Method:
• compared to 4 top brands snack products
• evaluation on taste, flavour, texture, and overall liking
• blind and unblinded
• n = 64

Results:
• was least liked
• overall liking was improved by 14% ($p = 0.023$) when branding and health-related information was provided

(Yan et al., Journal of Food Research, 2015)
Glycaemic response and satiety effect S3

Method:
• compared to 2 top-selling snack products
• packed serving size
• 24 healthy subjects
• blood glucose concentration over 2 hours
• self-reported satiety

Results:
• a 30% reduction in iAUC compared to Bar 2
• the highest fullness rating and lowest hunger rating at 30 and 45 minutes
Glycaemic response n = 24

(Paper in preparation)
Satiety effect n = 24

ΔDesire to eat (mm)

ΔHunger (mm)

ΔFullness (mm)

ΔAmount could eat (mm)

ΔNE
ΔBar1
ΔBar2
Intervention study on glycaemic impact and snacking behavior S4

Method:
• 28 healthy snack eaters in two groups
• 13-week trial- 6-week intervention
• 1 bar a day
• half received bars after 6 weeks

Results:
• was acceptable as part of daily dietary pattern
• overall trivial decrease in HbA1c
• 7 increased, 16 dropped, 5 did not change- more favourable than not
Conclusions

The Nothing Else bar

• has a more favorable effect on glycaemic response
• induces a better satiety
• would be liked with branding information
• would be consumed as a regular snack

Proof of principle: a healthier snack can be developed in partnership with the food industry

One food at a time!
References

Thank You!

Qs ?