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Suggestions for Supporting a Weight Management Policy at Grocery Stores

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Abstract: Weight management is affected by food choice. It is important to show how challenging an environment a grocery store is from a weight management perspective. The subjects were recruited by delivering 1,000 questionnaires in November-December 2009 at the K-Citymarket Kolmisoppi, Kuopio, Finland. The subjects (n = 36, age 18-65) were recruited to represent consumers of varied experience in weight management. The subjects' shopping behavior was studied using verbal analysis protocol combined with wireless audio-visual observation, questionnaires and interviews in the K-Citymarket in April-May 2010. For two consecutive tasks, the subjects were given a shopping list of 11 food categories. During the first task, they were asked to select a product they usually buy and during the second task, a product they would use for weight management. The subjects made their decisions routinely as there were none stimuli available at a supermarket in relation to weight management choices apart from versatile, abundant and small-sized labels all over food packages. The subjects had challenges while choosing food, such as the time taken (maximum 225 s) to find a suitable product among all the options of a wide product category, for example, 459 ready meals per product category with the energy variation from 30 to 330 kcal/100 g, and understanding all package labels properly, such as the GDA-label in relation to the nutrition content table. The subjects had practical suggestions, such as colored labels in shelves, how consumer-oriented marketing communication and services should be developed and provided by retailers cooperatively with health-care actors to promote consumers' awareness of food choices from the weight management perspective in groceries. For a consumer, it is important to be able to easily find and compare suitable products from a weight management point of view. Successful consumer marketing will achieve desirable results for manufacturers, retailers and consumers as well as benefit the society's welfare in the long run.

Key words: Nutrition, marketing, consumer behavior, grocery store.

1. Introduction

Weight management is affected by food choice [1]. Simultaneous needs of consumers determine food selection process [2, 3]. It is important to show in practice how challenging a food selection environment a grocery store is to consumers from a weight management perspective [4-8].

Retailers can design versatile, desirable and attractive product assortments and services for consumers. Therefore, actors in retail sector have an enormous power to influence on product assortments and food product development of food industry [9, 10]. Groceries worldwide present the enormous variety of products and the variation of packaging and labelling.

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Versatile and desirable assortments should be designed based on consumer needs [9-12].

Consumers will require guidance and services supported by retailers [4, 7, 13]. Enormous and versatile product assortments at groceries possess several challenges to consumer's daily life [4, 7, 14, 15]. For a consumer, it is not an easy task to find and select easily healthier products among all products available as the time is often limited for shopping [4-7, 16]. In addition, variations of energy profiles in relation to one product category possess challenges for product selection [4, 7, 17-20]. Therefore, it is important to point out in practice how environments of grocery stores could support consumers' food choices from the weight management perspective. The main aim of this paper is to summarize key findings and aspects related to the title and five publications

separately made by the author of this manuscript; i.e., it is a thesis, not an original research [4-8].

2. Materials and Methods

The overall study design in a real-life setting, the think aloud combined to wireless audio-visual observation are described in more detail by all the previously published papers by Saarela et al. [4-8]. As a summary of the whole field experiment, the study subjects were recruited by delivering 1,000 questionnaires in Nov-Dec at the K-Citymarket Kolmisoppi, Kuopio. The subjects (n = 36, age 18-65) were recruited to represent consumers of varied experience in weight management during their lifespan.

The subjects' shopping behavior was studied using verbal analysis protocol combined with wireless audio-visual observation, questionnaires and interviews in the K-Citymarket in Apr-May 2010. For two consecutive shopping tasks, the study subjects were given a shopping list of 11 food categories. During the first task, they were asked to select a product they usually buy and during the second task, a product they would use for weight management. The level of nutritional knowledge of the study subjects was also assessed and related to the choices made.

3. Results and Discussion

In the figure 1, there is a summary of all key findings related to previously published results [4-8]. For example, according to the observations and the verbalizations collected in a real life-setting, the subjects made their shopping decisions routinely during the typical selection task. Also, there were none stimuli available at a supermarket in relation to choices from the weight management perspective apart from versatile, abundant and small-sized labels all over food packages. Usually, consumers make their product selections quickly without considering any other options [8, 21-23]. Information overload and confusing package can labels lead consumers to select product routinely [7, 8, 23-25]. The familiar

design of the product helps consumers to find the familiar product [5, 8, 23, 26].

During the second weight management task, the subjects had several challenges while choosing food, such as the time taken (maximum 225 sec) to find a suitable product among all the options of a wide product category, for example, 459 ready meals per product category with the energy variation from 30 to 330 kcal/100 g, and understanding all package labels properly, such as the GDA-label (Guideline Daily Amount) in relation to the nutrition content table. For successful weight management, it is essential to have the ability to find the low-energy products among high-energy ones [4, 16, 27].

Generally, consumers have pointed out package labels to be complicated [4, 7, 20, 28-30]. However, consumers agree package labels to be useful [4, 7, 31]. Labels must be simple using bigger letters [4, 7, 16, 32]. Consumers also require simple product layouts [4, 33] with specific shelf labelling arrangements [4, 28, 32, 33] as well as appreciate health-oriented services provided by retailers [4, 13, 34].

According to the key findings and comments by the study subjects [4-8], the needs of consumers who are actively managing their weight should be better taken into consideration in grocery stores. The subjects had several practical suggestions, such as colored labels in consumer-oriented shelves, how marketing communication and services should be developed and provided by retailers cooperatively with health-care actors to promote consumers' awareness of food choices from the weight management perspective in grocery stores [20, 35-38]. In the figure 2, there is a summary of suggestions how to support weight management at grocery stores.

For a consumer, it is important to be able to easily find, identify and compare suitable products from a weight management point of view [4-7, 16, 27]. Retailers could also take into consideration to utilize more efficiently possible new services and technologies to support consumer's product selection from the weight

THINK-ALOUD PROTOCOL COMBINED TO WIRELESS AUDIO-VISUAL OBSERVATION



STUDY SUBJECTS IN A REAL-LIFE SETTING AT A SUPERMARKET—THINK-ALOUD PROTOCOL COMBINED TO WIRELESS AUDIO-VISUAL OBSERVATION

- 22 women, 14 men, over 50% of families with children and highly educated
- 70% over weight, several weight-loss trials during lifetime, 33% other disorders
- variation in the level of nutrition knowledge, no difference between the subjects reducing least/most energy

PRODUCT SELECTION AT THE SUPERMARKET

SELECTION

Typical

Weight management

- routine product selections, active package labels little movements
- 65% product selections within few seconds and led by intrinsic cues
- package labels were rarely never read
- 33% consumers look at a price of a product
- selection criteria: taste/familiarity
- energy variations wide in product selections
- 33% thinking of weight management
- the more familiar product the better consumers knew its energy content

- readiness
- · selections time extended three times longer
- 75% knew/wanted to select low-energy products
- selection criteria: energy/fat, also taste/price important
- energy reductions 10-46%, energy level variation decreased
- criteria by subjects reducing most energy: taste, subjects reducing least energy: price
- nutritional quality of products improved

PRODUCTS AND FOOD SELECTION **ENVIRONMENT**

Observation:

- wide variation of energy profiles in the same product category
- versatile, abundant and small-sized labels all over food packages, such as 18 different energy labels were observed
- GDA-label widely used, especially in soft drinks, rarely observed in cheeses, wide variation of portion sizes and display outcomes in relation to GDA labels in the same product category
- in front of a package even 8 different nutritional labels

Verbalizations:

- 1/3 consumers have used GDA- and/or heart symbol in product selection
- package labels important, 1/2 of consumers wanted to have more information about labelling, 1/4 guidance for product selection
- package labels should be bigger, more simple and more
- product layout, easily identified number and coloring systems would help product selections

Fig. 1 A summary of all previous results published [4-8].

CONSUMERS AND FOOD CHOICES AT GROCERY STORES

How to identify the needs of consumers?

Consumers with different kind of orientations, knowledge and skills in relation to healthy food choices need support and guidance whilst often routinely and quickly selecting food among enormous selection of products available

GROCERY STORE ENVIRONMENT

How retailers are able to support consumers' food choices from the weight management perspective among enormous selection of products available?

- developing health-oriented service concept throughout the whole service chain
- innovative technological solutions in nutrition communication
- personalized and guided shop tours with a nutritid
- continual health campaigns/weeks with discount coupons
- increasing health-oriented advertisements; shelf labels, recipes available, tasters
- development of selections and product categories in relation to health issues, positioning

PRODUCTS AND LABELS

How consumers are able to find more easily food products from the weight management perspective?

- developing new products or improving existing products for targeted consumer groups such as highlighting more specifically health oriented products
 - take advantage of industrial insider information in relation to coloring codes which have been used to categorize and to find out more easily different kind of products produced
- harmonize and standardize package information used in food products and highlight relevant issues more
- cooperation within food industry and retail sector in relation to healthier food choices, such as pricing strategies

Fig. 2 Summary of practical suggestions how to improve food choices from the weight management perspective at grocery stores.

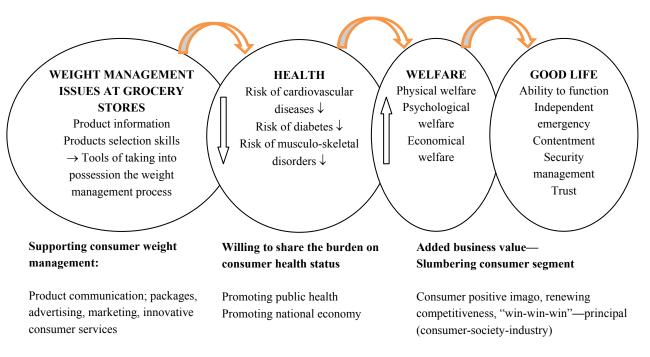


Fig. 3 Weight management strategy for supporting the welfare of individuals, public health and food business.

management perspective in real-life environments, such as mobile phone applications with personalized assistants, interactive discussion tools, personalized face-to-face counselling at supermarkets, individual recipe services, navigation applications to scan product information in shopping trolleys [4, 9, 19, 39-41]. Successful consumer marketing will achieve desirable results for manufacturers, retailers and consumers as well as benefit the welfare of society's welfare in the long run (Fig. 3) [4, 7, 42].

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