Ease of use design for food packaging for the elderly

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ABSTRACT. *For the food packaging design of the elderly population, it is necessary to fully consider the special needs of the elderly in terms of psychological and physiological aspects, and to solve the problems of unidentifiable and difficult opening of the elderly. Based on the design concept based on ease of use, this paper proposes that there are mainly related problems in food packaging for the elderly, and proposes the design of easy-to-use food packaging, integrating the advantages of easy-reading, easy-to-recognition and easy access. Improve the comfort level of products for the elderly.*

Keywords: elderly; food packaging; ease of use

0. Introduction

China has gradually entered an aging society. As of 2014, the number of elderly people over 60 years old has reached 210 million, accounting for 5% of the total population. According to the prediction of relevant departments, the number of elderly people will reach 400 million by 2035[1]. The full arrival of an aging society means that old-age products will become one of the potential markets in the 21st century. The development and development of products that meet the emotional needs of the elderly has become a good opportunity for development in the enterprise market competition. How to improve the quality of older products is the top priority of the designer's research.

1. Ease of use design concept and characteristics of the elderly

1.1 ease of use design concept

Ease of use refers to whether the product is easy for the user to learn and use, whether to reduce the memory burden, and whether the satisfaction of use is high. Easy to see, easy to learn, and easy to use are the three basic principles of easy-to-use design[2]. A product with a deep hiding function is invisible to the user. Easy to learn is simply to learn how to use the product with the lowest cost of cognitive ability, and easy to use refers to the skilled and quick use of the product when you are familiar with the product and learn to use the product. These three points are the essence of ease of use design.

1.2 characteristics of the elderly

With the increase of age, the physiology of the elderly produces changes in degeneration, which leads to many obstacles and lesions in the physiological function of this group. The main manifestations are decreased physical activity, decreased hearing, decreased vision, memory and will decline. And many elderly products on the market today do not consider the suitability of their use from the physiological aspects of the elderly. Products that are not suitable for the physiological characteristics of the elderly, such as multi-functional structures[3], strange product shapes, and too small functional labels, are everywhere. Therefore, we should pay attention to the design strategy of product usability under the characteristics of physiology of the elderly. But at the same time, it is also necessary to consider the rejection of high-tech and smart products by the elderly, and it is especially important to ensure that the product design can meet the psychological needs of the elderly.

2, the existing problems of food packaging for the elderly

2.1 cannot be easily identified

At present, food packaging suitable for the elderly in the market generally has problems that are difficult to identify, such as the southern black sesame paste bagged food bag. Although the package has an opening angle[4], the angle is too small to be easily distinguished, which makes the elderly difficult. Find the opening (see Figure 1). In addition, Qingdao calcium milk biscuit packaging, children's

calcium milk and aged calcium milk is difficult to distinguish from the packaging, for the elderly with low education and illiteracy, it is easy to get the wrong product (see Figure 2).

figure 1

figure 2

2.2 is more difficult to open

Canned food packaging is mainly processed from materials such as metal, glass and plastic. This type of packaging has good sealing properties, but it is difficult to open and is not suitable for the packaging of elderly food. There are more canned foods for the elderly in the market today, resulting in

Older people are difficult to open when they use it. For example, canned foods such as protein powder and milk powder used by the elderly (see Figure 3)[5], although achieving good sealing, are not convenient for the elderly. It is easy to scratch your fingers or other injuries and you need to use an auxiliary tool to open it. Plastic bagged foods generally need to be opened with scissors and other tools. On the one hand, there are defects in unsanitary opening, and on the other hand, it is not convenient for the elderly. Therefore, such food packaging brings a lot of inconvenience to the elderly.
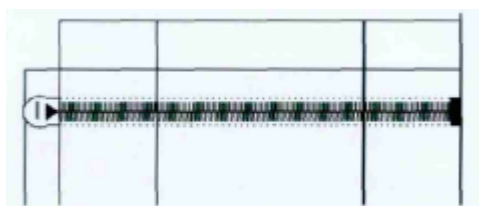
figure 3

3, the elderly food easy to use design

3.1 legibility

(1) Due to the increasing age of the elderly, the visual acuity is gradually decreasing, the flexibility of the fingers is reduced, and the long-distance resolving power is degraded. The designer should carry out the design of the food packaging for the elderly, and to integrate the design. Reorganize scattered information and reinforce important information. The font size of the product features and important information should be large, and the use of professional terminology should be minimized to facilitate the elderly to read the information and understand the product in a short time. The color design should avoid fancy, and it should adopt a form with uniform overall tone and obvious contrast of local colors. Package opening valves, tear strips and important information should use contrasting colors.

There should be clear instructions on the opening design, such as arrows, "openings", etc., or different colors to distinguish them for the elderly. . (See Figure 4) Use the zipper and arrow to indicate the opening, the image is easy to understand, and it is convenient for the elderly to open. The large opening is easy to find, the color difference is easy to distinguish, and the design of the zipper shape is easy to understand, further solving the problem that the elderly can't find a small opening, and the illiterate elderly can see the opening of the package by seeing the arrow icon.

figure   4

(2) The opening device of the food packaging of the elderly can mark the opening position by means of graphics, characters and colors, or can be touch-oriented by the texture of the material. (See Figure 5) The smart and soft cookie package, which has a symbolic reminder at the opening, which is not only convenient for the elderly to understand, but also easy to open, so that the elderly can get good. Emotional experience.

figure 5

(3) Some elderly people with low education level and relatively weak

understanding and judgment ability may miss the product because they do not know the words on the package (especially foreign language). Because the graphics are simple, intuitive and easy to understand, it is convenient for the transmission of product information. It is suitable for people of different ages and different educational levels. Therefore, a simple graphical language can be used in the packaging design to facilitate reading of this part of the elderly. product information. (See Figure 6) The oatmeal package is shown in a windowed and graphical language design. The oatmeal shown in the window is placed on the figure of the bowl, and the elderly who do not know the foreign language are told in a graphical language. It is oatmeal that is soaked in food.

figure 6

3.2 easy to identify

Descriptive texts such as "date, method of consumption, and warm reminders" on food packaging are information that older people care about, but these textual information are generally difficult to identify. In order to ensure the safety of the elderly, you can use the suggestive design to effectively convey descriptive text information such as eating methods on the product packaging. The specific method is as follows:

(1) Tips for important methods. Information such as eating methods, warm reminders, and date of warranty is designed as the slogan or main text on the main display of the package to attract the attention of the elderly and serve as a reminder. For health foods such as protein powders that are consumed by the elderly, information such as eating methods and consumption can be designed on the main

display surface in the form of color blocks and graphics, which is intuitive and easy to find.

(2) Pictures and texts. In the form of pictures and texts, in the form of text attached pictures, the scattered information blocks, the product features, precautions, eating methods and other information are contextualized. The elderly have a poor ability to accept new things, and the textual and graphical form is more convenient for the elderly to read. For example, the black sesame paste is packaged   and the method of eating is designed on the product packaging in a situational pattern. The elderly can see the use of the food when they use it.

(3) The explanatory text color is increased. The use of descriptive text plus emphasis or text color is different from the background color, which can be noticeable, easy to find and distinguish. For example, the font of the shelf life and the preservation method of the oatmeal package is different from the color of the background color, which is eye-catching and intuitive, and is convenient for the elderly to understand the shelf life and preservation method of the product.

3.3 easy to take

Due to the different degrees of degeneration of the elderly's bodily functions, some elderly people may feel trembling and unsteady when taking items. Therefore, the food packaging design of the elderly should focus on easy access. When designing, the packaging structure can be integrated, simplified on the basis of conventional packaging, simplified complex structure, and enhanced important and reusable functional structure. One can design the bottom of the bottled food package into a bottle mouth, and both ends of the bottle can be unscrewed to take the product, which is easy for the elderly to use. The second method can adopt the form of tearable window opening, which can reduce the opening difficulty of the opening structure and is easy to take.

Conclusion

As the age increases, the physical and physiological functions of the elderly will be degraded to varying degrees. In addition to the design of the food packaging for the elderly, the designer must fully consider the legibility of the packaging, easy

identification, and easy Taking care of the sex, etc., should also take into account the psychological care of the elderly, so that the elderly form a healthy, positive and optimistic psychological suggestion.

References

[1]Zheng J , Xu X(2015). Ease-of-Use Design of Elderly Home Medical Products. IEEE International Conference on Computer-aided Industrial Design & Conceptual Design.

[2]Hashizume A , Suzuki N , Nishiuchi N(2014). Investigation into Design Requirements for Easy to Use Shopping Websites among the Elderly. Journal of Computer Science & Software Application, no.8, pp. 12-19.

[3]Talarska D , Pacholska R , Magdalena Strugała, et al(2015). Functional assessment of the elderly with the use of EASY-Care Standard 2010 and Comprehensive Geriatric Assessment. Scandinavian Journal of Caring Sciences, vol.30, no.2, pp. 48-53.

[4]Aberg J(2015). An Evaluation of a Meal Planning System: Ease of Use and Perceived Usefulness. British Hci Group Conference on People & Computers: Celebrating People & Technology.

[5]Roberts C C , Morrison W B , Leslie K O , et al. (2015). Assessment of bone biopsy needles for sample size, specimen quality and ease of use. Skeletal Radiology, vol. 34, no. 6, pp.329.