# Research on the Path of Health Care Product Packaging Design for the Elderly Based on Longevity Culture

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Abstract
Nowadays, China's elderly population base is expanding and the elderly people's health care product industry is booming, thus increasing the requirements for health care product packaging design. Relying on the application of longevity culture elements, we provide a boost to the design of health care products packaging for the elderly. Through field visits and questionnaires, we understand the needs of the elderly for health care products, analyse the shortcomings of the current health care product packaging design for the elderly, and draw up principles and measures for the application of longevity culture elements in the packaging of health care products for the elderly from the perspectives of text layout, colour and general awareness. Through the use of longevity culture elements, it will not only open up new areas for the inheritance and development of traditional longevity culture, but also meet consumers' consumption expectations.

Keywords
Longevity culture; Elderly people; Health care products; Packaging design

## Introduction

"In the traditional Chinese culture of the "five blessings", longevity comes first. For thousands of years, praying for long and healthy life has been deeply rooted in the thinking of the Chinese people, and the resulting longevity culture has become an important part of traditional Chinese culture. Documents such as the National Population Development Plan (2016-2030) and the 13th Five-Year Plan for the Development of the National Ageing Programme and the Construction of the Elderly System show that the level of ageing in China and its growth rate will significantly exceed the world average. It is expected that by 2020, the elderly population will soar to 255 million, accounting for 17.8% of the total population. Behind this huge figure lies the huge market and devel-

opment potential of health care products for the elderly. Older people have dedicated most of their lives to their families and society, and most of them suffer from poor health due to strenuous work and the decline of their physiological mechanisms when they were young, but due to sufficient economic income as well as the heritage of Chinese filial piety culture and the spread of health awareness. The increasing attention paid to the health and longevity of the elderly has made health care products for the elderly increasingly popular. Packaging design is an important part of the production and distribution of health products, and its position cannot be ignored. In market research, the majority of elderly people responded that they are increasingly confused by the packaging of health products, and that many unscientific and unreasonable packages have seriously affected their consumption. They said that they recognise the excellent traditional Chinese culture for a long and healthy life and hope that this culture can be reflected in the packaging. As a form of traditional Chinese culture, longevity culture has been sought after by designers in the design field. The function of health care products and the symbolic meaning of longevity culture coincide, and its application to the packaging design of health care products for the elderly is in line with its value output of maintaining good health, while catering for the emotional needs of the elderly to pray for a long and healthy life.

## Overview of Longevity Culture

The culture of longevity was born out of our ancestors' desire for a long and healthy life. The ancestors believed that life was a "natural destiny", but due to the limitations of ancient medicine and the frequent wars, many people were killed by disease or war, and only a handful of people lived a long life. As a result, the desire and expectation of the ancients for longevity became even more intense, giving rise to a rich and colourful culture of longevity. According to some sources, the culture of longevity was first manifested during the Zhou dynasty, when the word 'longevity' was often used as an inscription on bronze ceremonial vessels (inscriptions in gold and bell and tripod texts). During the pre-Qin period, the concept of the 'five blessings of longevity was developed, which was then gradually recognised and respected by the public, and gradually extended to the fields of health and art. In general, longevity culture is a very broad concept and can be understood as anything that conveys the meaning of praying for longevity.

Longevity, as the first of the five blessings, was known to the ancients as a great blessing for two main reasons: firstly, the harsh natural conditions of ancient times, the low level of science and technology, the poor ability of human beings to resist natural disasters and their generally short life expectancy, so the idea of prolonging life and survival naturally arose. As Lü Shi Chun Qiu states, "The sentiment of man is to live long but not to die young.". Secondly, in primitive agricultural production, which relied mainly on the elders of tribes and clans to pass on their planting experience, and relied on the wisdom of the elders, the social status of the elders in the tribes also continued to

rise, and it became the pursuit of the ancients to revere longevity and respect the elderly and to live longevity as a blessing. Many verses in the Poetic Edda link agricultural activities with longevity, such as "Peeling dates in August and harvesting rice in October. We pounded wine for this purpose, and we pounded wine for the longevity of our eyebrows", and "We poured wine and served lambs and goats on the day. The culture of longevity is still held in high esteem today, and despite the rapid development of medical treatment and a peaceful living environment, the desire and expectation for longevity has not diminished in the slightest.

## Analysis of the Rationality of the Use of Longevity Culture in the Packaging of Health Care Products for the Elderly

### Consistent with the Value Output of Health Products for Older People

Health food products are goods that have specific health benefits or provide special nutritional elements that regulate the body's functions and replenish the nutrients required by the body. As the elderly age and their physiological functions decline, they place greater importance on a long and healthy life. According to the Masnold Hierarchy of Needs analysis, as the physical condition of the elderly gradually declines with age, the consumption of health supplements can regulate their physical functions and improve their physical condition, which is in line with their physiological needs and safety needs. The value output of health care products for the elderly lies in the pursuit of a long and healthy life. Visual packaging design is an important part of product brand output, through the tangible external packaging can convey the intangible internal value.

### In Line with the Knowledge Base of Older People

The majority of older people are less knowledgeable and less able to understand new things. Compared to health care packaging with high technical content and a large number of foreign words, the elderly have a higher degree of acceptance and understanding of traditional longevity culture, and this group has a stronger expectation of longevity, and the transmission of longevity culture since ancient times has been deeply rooted in the cognition of the elderly through word of mouth. This is why the design element is used in the design of health care products for the elderly. Traditional longevity culture is expressed in a variety of forms, mostly in the form of patterns, which are easier to understand and recognise, such as the common longevity, tortoise and crane patterns, which are more visually intuitive than complex, modern technological patterns, and are also in line with the knowledge base of the elderly.

### Meeting the Spiritual Needs of Consumers

Consumers buy goods in order to satisfy both material and spiritual needs. With the improvement of material living standards, consumers are paying more and more attention to the spiritual aspect of their needs. Nowadays, health care products for the elderly are mainly gift sets, and most of the consumers are the children of the elderly. For thousands of years "filial piety" has been a fine tradition of the Chinese people, and children look forward to a long and healthy life for their parents. In Chinese folklore, elderly people start to celebrate their birthday when they are 60 years old, which is a form of prayer for longevity and is one of the main expressions of longevity culture. In the packaging design of health care products for the elderly, it is necessary to capture the spiritual needs of the elderly for a long and healthy life and to integrate cultural elements that reflect longevity into the packaging design of health care products for the elderly.

## Analysis of the Current State of Health Care Packaging for the Elderly

In order to understand the current situation of health care packaging for the elderly and to integrate the elements of longevity culture with modern packaging design, a random questionnaire survey was conducted in pharmacies, supermarkets and parks with a high flow of middle-aged and elderly people, with the third person after the identity of the elderly being the target of the questionnaire to ensure the randomness of the questionnaire. A total of 400 questionnaires were distributed and 367 valid questionnaires were returned, with an effective rate of 91.75%. The questionnaires were based on consumers' demand levels and perceived preferences for health products. The final results of the survey showed that 50.13% of consumers were willing to buy health products, 27.15% were unwilling and 22.72% did not clearly express their willingness (potential users). Among those who are willing to buy, 66.3% of the total number of people have a vague understanding of the content of the health product packaging; 21.74% of the total number of people think that the colour of the health product packaging is convenient for differentiation; and 74.46% of the total number of people think that the font size is too small. From the analysis of the questionnaire data results, it is concluded that the following aspects of health care product packaging for the elderly exist today.

### Too Much Technology

In the context of economic globalisation, the packaging of health care products has become "international" and "technological". At present, the packaging of health products in China is full of English language and chemical structure elements, which causes great problems for the elderly in terms of product awareness. Due to the age and education level of the elderly, they are generally not well educated in science and cannot accept complex information.

### Poor Colour Recognition

The research found that the choice of colours on the packaging of health products for the elderly is mainly aesthetically pleasing and not very recognisable. As the elderly age, their body functions continue to age and deteriorate. Visual deterioration is one of the most obvious phenomena of ageing, often resulting in blurred vision and presbyopia. Therefore, the choice of colours should not be purely aesthetic.

### Unreasonable Layout Text

Text on the packaging of health products for older people is one of the main ways of communicating information about the product. But too small text, too much text content and poor layout make it more difficult for older people to access information. In some cases, the amount of text on the packaging is so large that the font size has to be reduced, adding to the strain on older people's deteriorating visual abilities.

## Needs and Principles for the Application of Longevity Culture in the Packaging of Health Care Products for the Elderly

### Demand for Life Culture Applications

According to research, graphic elements have strong visual expressive power, and in modern packaging design, they are responsible for the effective transmission of information and narrative expression. By refining the elements of longevity culture and applying them to the packaging design of health products for the elderly, the product's own characteristics can be more effectively conveyed and understood, and the corresponding consumer's desire to buy can also be better stimulated and mobilised. As an important part of Chinese culture, longevity culture has been developed and precipitated for thousands of years, from mythology, written records, patterns and pictures to different areas of human life, creating a variety of longevity cultures. By appropriately incorporating the rich and colourful elements of longevity culture into the packaging design for the elderly, we can not only ensure the correct transmission of the message of traditional longevity culture, but also beautify the image of health care products for the elderly.

(1) Colour Positioning

According to research, colour is often the most impressive of the packaging design elements at first glance. Packaging colour is not only used to highlight the aesthetics of a product, it is also one of how a product can present its message. The choice of packaging colour is usually based on the

target characteristics of the audience, as well as the colour's symbolic associations. To integrate the elements of longevity culture into the packaging design of health care products for the elderly, it is necessary to firstly consider the characteristics of the target group, which is mainly characterised by visual deterioration and a weak ability to perceive colours. In this way, we can understand the degree of colour bias in the actual design application. For the physical characteristics of the elderly, the appropriate brightness and purity of colours should be chosen to facilitate the screening and perception of colours by the elderly, while the attributes of the elements of the longevity culture should be considered festive, lively and vibrant colours with good symbolic meaning. Through the above selection of the colour characteristics of health care packaging for the elderly, the colours will be filtered and red, yellow, green, white, purple and orange can be selected as the packaging colour composition, see Table 1 for details.

*Table 1. Colour positioning analysis*

| Colour | Colours | Colour RGB attributes | Colour Mood | Colour association |
|---|---|---|---|---|
| Red | | R:255 G:0 B:0 | Lively, enthusiastic and festive | Flame, blood, sun |
| Yellow | | R:255 G:255 B:0 | Harvest, Vitality, Warning | Rape, lemon and warning signs |
| Green | | R:0 G:255 B:0 | Health, life, hope | Spring, meadow, wheat field |
| White | | R:255 G:255 B:255 | Pure, bright and clean | White clouds, snow and hada |
| Purple | | R:128 G:0 B:128 | Elegant, auspicious and mysterious | Grapes, blueberries, eustoma |
| Orange | | R:255 G:165 B:0 | Lively, dynamic and warm | Carrots, persimmons and oranges |

(2) Typography

Graphics, text and colour are like twins in packaging design, complementing each other. The colour of the packaging attracts the consumer's attention, the graphics add substance and interest to the packaging, while the typography and font size of the text determine the effectiveness and accuracy of the information received by the consumer. For the elderly, the recognisability of the health prod-

uct information is also an important feature of the packaging. As older people's memory declines with age, they often repeatedly view product information in a vertical format, making it easier to view the information in a more complex way. As the visual ability of the elderly deteriorates, the font size should be chosen according to the actual layout size. The font size that is commonly readable by the elderly should be within the range of 12pt and above so that the overall product packaging is more suitable for the elderly to receive product information.

(3) Material Selection

Nowadays, there are various types of packaging materials, and different materials have their unique material characteristics, see Table 2. The choice of packaging material is based on the nature of the product. Therefore, when choosing materials for the packaging of health care products for the elderly, the physical and chemical properties of the health care products themselves should be fully considered to ensure the rationality and safety of the packaging materials. In addition, in the context of environmental protection and sustainable development, the choice of packaging materials should be based on the above-mentioned basic points, as well as the use of green packaging materials.

*Table 2. Analysis of packaging material properties*

| Packaging material | Material Benefits | Material defects |
|---|---|---|
| Metal packaging | Robust construction | Easy precipitation of metal ions, high weight |
| Plastic packaging | Easy to shape | High additive content, not easily degradable |
| Glass packaging | Transparent, robust, highly airtight and water-resistant | Heavyweight and fragile |
| Paper packaging | Biodegradable, low cost, easy to store and transport, easy to print, lightweight | Poor barrier properties |

## Principles of Applying Elements of Shou Culture

(1) The Principle of Logic

A complex and unclear product packaging will not only fail to increase the desire of the elderly to consume, but will only gradually wear out their patience and thus give up buying. In the process of designing and applying the elements of longevity culture, it is important to eliminate too much irrelevant information, reduce the content of information that is not highly relevant to the product, highlight the theme of "longevity culture" connotation, so that the elderly can understand the actual positioning of the product. In addition, it is important to strengthen the standard of product information and the clarity of the hierarchy, so that the health care products for the elderly will appear more standardised and easy for the elderly to quickly access the product information, and then accepted

by the consumer groups.

(2) The Principle of Caring

The gradual ageing of the body functions of the elderly, especially the weakening of visual functions, and the large amount of textual information and complex patterned composition will cause cognitive impairment and visual fatigue in the elderly, resulting in the elderly consumers not being able to understand the details of the product. Therefore, when using longevity culture in the packaging design of health care products for the elderly, attention should be paid to the recognition of the graphic and textual information on the packaging, through the simple composition of longevity culture elements, the use of colours that match the visual characteristics of the elderly and the characteristics of longevity culture elements, so that the elderly can quickly understand the role of health care products for the elderly. In the application of textual information, the most important thing is to focus on the choice of font size, as mentioned above, the font size should be within the range of 12pt and above, to ensure that the elderly can quickly understand the nature and composition of the product.

(3) Principle of Aesthetics

As one of the more classic ideas and cultures in traditional Chinese culture, longevity culture has a rich cultural connotation and various forms of expression, often in the form of words and patterns, with beautiful styles and auspicious meanings, which coincide with the product positioning of health care products for the elderly. In practice, the packaging of health care products for the elderly should be considered as a whole, highlighting the cultural connotations of the product, but also combining modern aesthetic concepts with traditional elements of longevity culture, in line with the characteristics of the times. To achieve this, it is necessary to deconstruct and reorganise the elements of longevity culture through modern design methods, and to ensure that the nature of the cultural connotation remains unchanged so that the traditional longevity culture is brought to life and the aesthetics of health care packaging for the elderly is improved.

## Conclusion

The introduction of longevity culture elements makes the packaging of health care products for the elderly more culturally rich, not only broadening the way for the innovative development of longevity culture, but in line with the market positioning and development concept of health care products for the elderly but also closer to the original intention of consumers to buy. The rationalised design for the actual needs of the elderly is more humane and socially caring, satisfying the basic material needs of consumers as well as rising to the spiritual level of satisfaction.

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