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Research on the Path of Packaging Design for Elderly Health Care Products Based on Longevity Culture (Postprint)

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Abstract

Currently, China's elderly population base is continuously expanding, and the health product industry for the elderly is experiencing robust growth, thereby escalating the requirements for health product packaging design. This study leverages the application of longevity culture elements to provide an impetus for the design of health product packaging targeting the elderly population. Through field research and questionnaire surveys, we investigate the needs of the elderly regarding health products, analyze the deficiencies in existing health product packaging design for this demographic, and formulate principles and measures for integrating longevity culture elements into elderly-oriented health product packaging from the perspectives of typography, color scheme, and overall cognitive perception. The utilization of longevity culture elements will not only pioneer new avenues for the inheritance and development of traditional longevity culture, but also fulfill consumer expectations.

Full Text

Preamble

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

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Abstract

As China's elderly population continues to expand, the health care product industry for seniors is experiencing rapid growth, which has heightened demands for effective packaging design. This study explores how integrating longevity culture elements can enhance health care product packaging for the elderly. Through field visits and questionnaire surveys, we investigated elderly consumers' needs regarding health care products and analyzed current deficiencies in packaging design. We subsequently formulated principles and strategies for applying longevity culture elements to elderly health care product packaging from the perspectives of text layout, color usage, and general design awareness. The incorporation of longevity culture elements not only opens new avenues for the inheritance and development of traditional longevity culture but also aligns with consumer expectations and purchasing motivations.

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

Introduction

In traditional Chinese culture, the “five blessings” place longevity as the foremost virtue. For millennia, the aspiration for a long and healthy life has been deeply embedded in Chinese consciousness, giving rise to a rich longevity culture that constitutes an important component of traditional Chinese heritage. National policy documents such as the National Population Development Plan (2016-2030) and the 13th Five-Year Plan for the Development of the National Ageing Programme indicate that China's aging level and growth rate will significantly exceed global averages. By 2020, the elderly population is projected to reach 255 million, representing 17.8% of the total population. This demographic shift reveals enormous market potential for elderly health care products.

Having dedicated their lives to family and society, many elderly individuals now face health challenges due to strenuous past labor and declining physiological functions. However, with adequate economic resources, the influence of Chinese filial piety culture, and growing health awareness, increasing attention is being paid to senior health and longevity, making health care products increasingly popular among this demographic. Packaging design plays a crucial role in product manufacturing and distribution, yet market research reveals that most elderly consumers find current health product packaging confusing. Many unscientific and unreasonable designs have seriously impacted their purchasing decisions. Elderly consumers express strong recognition of traditional Chinese longevity culture and desire its reflection in product packaging. As a form of traditional culture, longevity culture has long attracted designers' interest. The functional benefits of health care products align perfectly with the symbolic meaning of longevity culture, making its application to elderly health care product packaging both consistent with the products' health-promoting values and responsive to elderly consumers' emotional needs for longevity and well-being.

Overview of Longevity Culture

Longevity culture emerged from ancient ancestors' desires for long and healthy lives. Believing life to be a "natural destiny" yet constrained by limited medical knowledge and frequent warfare, ancient people often fell victim to disease and conflict, with only a select few achieving longevity. This intensified their longing for extended life, giving rise to a vibrant longevity culture. Historical sources indicate that longevity culture first manifested during the Zhou Dynasty, when the character for "longevity" frequently appeared in inscriptions on bronze ceremonial vessels.

During the pre-Qin period, the concept of the "five blessings" with longevity as the foremost blessing gradually gained public recognition and respect, eventually extending into health and artistic domains. Broadly understood, longevity culture encompasses any expression conveying prayers for longevity. As the premier blessing, longevity was considered a great fortune for two primary reasons: first, harsh natural conditions and low technological levels in ancient times resulted in short life expectancies, naturally fostering desires for survival and longevity, as articulated in Lü Shi Chun Qiu: "The sentiment of man is to live long but not to die young." Second, primitive agriculture relied heavily on elders to transmit planting experience and wisdom, elevating their social status within tribes and clans. Consequently, revering longevity and respecting the elderly became cherished pursuits. 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." Despite modern medical advances and peaceful living conditions, contemporary society continues to hold longevity culture in high esteem, with desires and expectations for longevity remaining undiminished.

Analysis of the Rationality of Applying Longevity Culture to Elderly Health Care Product Packaging

Consistent with the Value Output of Health Products for Older People

Health care products provide specific health benefits or special nutritional elements that regulate bodily functions and supplement required nutrients. As elderly individuals experience declining physiological functions with age, they place greater importance on long and healthy lives. According to Maslow's Hierarchy of Needs analysis, health supplements can regulate physical functions and improve condition, satisfying elderly consumers' physiological and safety needs. The value output of health care products for the elderly centers on the pursuit of long and healthy lives. Visual packaging design constitutes a crucial component of product brand communication, enabling tangible external packaging to convey intangible internal values.

Aligned with the Knowledge Base of Older People

Most elderly individuals possess limited knowledge and reduced capacity to understand novel concepts. Compared to health care packaging featuring high technical content and numerous foreign terms, elderly consumers demonstrate greater acceptance and comprehension of traditional longevity culture. This demographic harbors stronger expectations for longevity, and the transmission of longevity culture through generations has become deeply rooted in their cognition. Longevity culture manifests primarily through patterns and visual motifs that are easier to understand and recognize than complex modern technological designs. Common symbols such as longevity characters, tortoises, and cranes offer greater visual intuitiveness, aligning well with elderly consumers' knowledge frameworks.

Meeting the Spiritual Needs of Consumers

Consumers purchase goods to satisfy both material and spiritual needs. With improving material living standards, attention to spiritual fulfillment has grown increasingly important. Health care products for the elderly are predominantly purchased as gift sets by adult children. For millennia, "filial piety" has been a cherished Chinese tradition, with children earnestly wishing long and healthy lives for their parents. In Chinese folklore, individuals begin celebrating birthdays at age sixty as a form of longevity prayer, representing a primary expression of longevity culture. Packaging design for elderly health care products must therefore capture seniors' spiritual needs for longevity and integrate cultural elements that reflect this aspiration.

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

To understand the current state of health care packaging for the elderly and explore integration of longevity culture elements with modern design, we conducted a random questionnaire survey in pharmacies, supermarkets, and parks with high foot traffic among middle-aged and elderly populations. To ensure randomness, we targeted every third elderly person for participation. A total of 400 questionnaires were distributed, yielding 367 valid responses for an effective rate of 91.75%. The survey assessed consumer demand levels and perceived preferences for health products.

Results revealed that 50.13% of consumers were willing to purchase health products, 27.15% were unwilling, and 22.72% did not clearly express willingness (potential users). Among willing purchasers, 66.3% had vague understanding of packaging content; 21.74% believed packaging color facilitated product differentiation; and 74.46% considered font sizes too small. These findings indicate several persistent problems in current elderly health care product packaging.

Excessive Technological Emphasis

In the context of economic globalization, health care product packaging has become increasingly "internationalized" and "technological." Current Chinese health

product packaging prominently features English text and chemical structure elements, creating significant barriers to product comprehension for elderly consumers. Due to age and educational background limitations, elderly individuals generally lack scientific education and struggle to process complex information.

Poor Color Recognition

Research indicates that color selection in elderly health care product packaging prioritizes aesthetic appeal over functional recognition. As aging progresses, bodily functions deteriorate, with visual decline being among the most pronounced manifestations, often resulting in blurred vision and presbyopia. Therefore, color choices should not be based purely on aesthetic considerations.

Unreasonable Text Layout

Text on health product packaging serves as a primary channel for communicating product information. However, excessively small fonts, dense content, and poor layout significantly impede elderly consumers' access to information. In some cases, packaging contains such large amounts of text that font sizes must be reduced, further straining elderly users' already deteriorating visual capabilities.

Needs and Principles for Applying Longevity Culture in Elderly Health Care Product Packaging

Demand for Longevity Culture Applications Research demonstrates that graphic elements possess strong visual expressive power and play a crucial role in effective information transmission and narrative expression in modern packaging design. By refining longevity culture elements and applying them to elderly health care product packaging, designers can more effectively convey product characteristics and stimulate consumer purchasing desire. As an important component of Chinese culture, longevity culture has evolved over millennia, permeating mythology, written records, patterns, and various aspects of human life to create diverse cultural expressions. Appropriately incorporating these rich longevity culture elements into elderly health care packaging not only ensures proper transmission of traditional longevity culture but also enhances the aesthetic appeal of health care products for seniors.

Design Application Principles (1) Color Positioning

Research indicates that color is often the most memorable element in packaging design at first glance. Packaging color serves not only aesthetic purposes but also as a medium for conveying product messages. Color selection typically depends on target audience characteristics and symbolic associations. To integrate longevity culture elements into elderly health care packaging, designers must first consider the target group's characteristics, particularly visual deterioration and weakened color perception. For elderly users, colors with appropriate brightness and purity should be selected to facilitate color discrimination, while

also considering the festive, lively, and vibrant attributes of longevity culture elements with positive symbolic meaning. Based on these criteria, red, yellow, green, white, purple, and orange were selected as suitable packaging colors, detailed in Table 1 .

(2) Typography

Graphics, text, and color function as complementary triplets in packaging design. Color attracts consumer attention, graphics add substance and interest, while typography and font size determine information reception effectiveness and accuracy. For elderly consumers, the recognizability of health product information represents a crucial packaging feature. As memory declines with age, elderly individuals often repeatedly view product information, making vertical layouts easier to process. Given deteriorating visual abilities, font sizes should be selected according to actual layout dimensions, with readable fonts for elderly consumers typically requiring 12pt or larger to ensure effective information reception.

(3) Material Selection

Contemporary packaging materials offer diverse options with unique characteristics, as shown in Table 2 . Material selection should be based on product nature, requiring full consideration of health care products' physical and chemical properties to ensure packaging rationality and safety. Additionally, within the context of environmental protection and sustainable development, green packaging materials should be prioritized.

Principles for Applying Longevity Culture Elements (1) The Principle of Logic

Complex and unclear packaging design not only fails to stimulate elderly consumption but also erodes patience and discourages purchase. When applying longevity culture elements, designers must eliminate irrelevant information, reduce content with low product relevance, and highlight the “longevity culture” theme to enable elderly consumers to understand product positioning. Furthermore, product information standards and hierarchical clarity must be strengthened to make health care products appear more standardized and facilitate quick access to product information for elderly consumers.

(2) The Principle of Caring

The gradual aging of bodily functions, particularly weakening visual capabilities, means that large amounts of textual information and complex pattern compositions can cause cognitive impairment and visual fatigue, preventing elderly consumers from understanding product details. Therefore, longevity culture applications in elderly health care packaging must emphasize recognition of graphic and textual information through simple composition of longevity culture elements, colors matching elderly visual characteristics, and longevity culture

attributes. This enables elderly consumers to quickly understand product functions. For textual information, font size selection is paramount—maintaining 12pt or larger ensures elderly consumers can readily comprehend product nature and composition.

(3) The Principle of Aesthetics

As a classic concept in traditional Chinese culture, longevity culture possesses rich cultural connotations and diverse expressive forms, often manifested through words and patterns with beautiful styles and auspicious meanings that align perfectly with elderly health care product positioning. In practice, packaging design should be considered holistically, highlighting cultural connotations while integrating modern aesthetic concepts with traditional longevity culture elements in a manner consistent with contemporary characteristics. This requires deconstructing and reorganizing longevity culture elements through modern design methods while preserving cultural essence, thereby revitalizing traditional longevity culture and enhancing the aesthetic appeal of elderly health care packaging.

Conclusion

Integrating longevity culture elements enriches elderly health care product packaging with cultural depth, broadening innovative development pathways for longevity culture while aligning with market positioning and development concepts for senior health care products. This approach also resonates with consumers' original purchasing intentions. Rationalized design addressing elderly consumers' actual needs demonstrates greater humanity and social care, satisfying both basic material requirements and elevating fulfillment to the spiritual level.

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