

Study of Information Visual Design for Adolescent Depression Science from an Artistic Perspective

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Abstract: *This study addresses the global underestimation of adolescent depression by redefining its scientific communication through innovative information visual design. Critiquing conventional text-heavy approaches, the research integrates artistic practice and data-driven methodologies to develop youth-centric visual strategies. Key contributions include minimalist illustrations, high-saturation color schemes, and spatially hierarchical layouts that enhance cognitive engagement while conveying emotional nuance. Iterative design practices—such as self-assessment infographics and culturally resonant derivatives (e.g., pendants, badges)—demonstrate how visual narratives can reduce stigma and foster mental health literacy. By merging aesthetic rigor with scientific accuracy, the work establishes a framework for cross-disciplinary collaboration, emphasizing art's capacity to transcend linguistic barriers and reshape societal responses to adolescent psychological distress. The findings advocate for scalable, inclusive design solutions that prioritize adolescent agency in mental health advocacy.*

Keywords: *Adolescent Depression; Information Visualization; Artistic Design; Mental Health Literacy; Cross-disciplinary Collaboration*

1. Introduction

With the rapid development of the social economy, the pace of life has accelerated, competition pressure has increased, and mental health issues have become increasingly prominent. However, the issue of adolescent depression has not received widespread attention and has been severely underestimated. Adolescence is a critical period for the development of an individual's psychological, physiological, and social functions. During this time, adolescents face multiple pressures, including academic, family, and social challenges, which makes them susceptible to emotional fluctuations and psychological distress. In the information age, scientific popularization has become an important way for people to acquire knowledge. However, current scientific information about adolescent depression has several issues, such as incomplete content, insufficiently clear and understandable expression, and a lack of specificity, which results in limited understanding and a lack of attention to adolescent-related issues. Therefore, how to design mental health information on depression that is suitable for adolescents, in order to enhance awareness and understanding of adolescent depression, has become an urgent issue to address.

According to a report by the World Health Organization, the incidence and prevalence of adolescent depression have been rising year by year, becoming one of the main issues affecting the mental health of adolescents. It can lead to learning difficulties, social barriers, and persistent insomnia, which also increases the risk of depression^[1], severely impacting adolescents' physical and mental health as well as their social adaptability. Currently, there is limited awareness and promotion of adolescent depression, or it is mostly introduced through other means. Therefore, strengthening the publicity and education on adolescent depression is of particular importance. With the advancement of information visualization, information design has gained increasing attention, and its scope has gradually expanded to include key dimensions such as emotional design and human-centered design^[2]. The purpose of this study is that through the promotion of popularized information on adolescent depression, it can draw the attention of all sectors of society to adolescent mental health problems and enhance the society's awareness of adolescent depression. And through effective information dissemination, it can make people more aware of the symptoms, so that they can more keenly recognize their own and other people's depressive symptoms in daily life and seek help in time. By designing messages that are easy to understand and

accept, it is possible to help adolescents, their parents and society to understand the importance of mental health more comprehensively.

2. Related Concept Elaboration

Today, information design permeates every aspect of our lives. Information visualization design is the use of science and technology combined with design to present abstract data in a more intuitive way. The sense of interaction it brings to us makes people not just a one-way data receiver, but can interact with the data and information, enhancing the user's interactive experience. Multivariate visualization design has received increasing attention in the current context, because it can express monotonous knowledge and simplify complex systems. As a solution for the digital age, information visualization ensures that information is accurately conveyed through scientific visual presentation, while also achieving the unity of functionality and aesthetic value.

About teenage depression related materials have been more adequate, in the relevant design, many designers use large text without corresponding integration, resulting in the mode of expression, communication is not prominent. And many expressions are too common and not attractive enough to increase the difficulty of visualization design. The role of the visualization design itself is to allow the viewer to quickly understand the content of the creation and where the title is located. Therefore, a good presentation model is particularly important in the popularization of adolescent depression. Designers need to balance both personal and audience perspectives to achieve emotional resonance^[3].

In the digital communication environment, information visualization design has developed into a primary channel and method of information transmission due to its intuitive and efficient characteristics^[4]. With the advancement of society and the development of the internet, many experts, scholars, and students are actively engaged in research on information visualization design. Through this research, a detailed explanation of the related knowledge of information visualization design was provided, along with the theoretical foundation and practical implementation methods, helping to understand the specific steps and methods of information visualization. In the process of investigating various aspects of adolescent depression, including background, symptoms, behavioral manifestations, and data, relevant information was gathered and reviewed. By using visual graphic representations, information was transformed into visuals, extending and displaying a visual effect. The intuitiveness, specificity, and accuracy of information graphic language effectively express information about depressed adolescents, helping to better understand them. When learning about and engaging with adolescents suffering from depression, it is important for more people to accept and support these individuals. Additionally, professionals from different fields must provide expert support to help adolescents with depression.

Some information design pays too much attention to the form of expression and neglects the study of information content; some designers pay too much attention to the content of visual design and neglect the simplicity and design of visual design. All these inappropriate expressions will lead to the viewer not being able to understand the meaning expressed in time. Some common visualization designs of adolescent depression are relatively single, and the bland images and dense text make the viewers think that they are boring and old-fashioned, which makes the readers uninterested and have a poor sense of reading. In the context of the digital fusion of technology and art, visual creativity is undergoing significant changes. This evolution not only gives designers a new dimension of artistic expression, but also builds an unlimited resource base and inspiration system for future designers^[5]. With the development of information visualization, there exists a multidisciplinary cross-cutting feature. The advent of the new media era, the network and various types of information technology for visualization design provides a good foundation. Visualization design is a comprehensive research involving many fields such as computer graphics, image processing, computer vision, computer-aided design and so on.

In conclusion, although there is an increasing amount of research on adolescent depression, many of the existing cases are still incomplete, and the analysis is insufficiently thorough, lacking differentiation. Additionally, the design presentations lack recognizability and are too uniform, which increases the difficulty of popularization and communication, making it harder for the audience to accept. We must combine the designer's experience, not only focusing on content and form but also ensuring the transmission of both humanistic care and scientific accuracy.

3. Strategic Communication and Impact Mechanisms

Depression is a common mental health issue, particularly prevalent among adolescents. This age group is at a critical stage of puberty and development, facing various challenges and pressures from academics, family, and social relationships. Therefore, it is essential to build a comprehensive visual design strategy for the popularization of adolescent depression, starting with the structure, target audience, and needs of the information. This strategy should effectively convey information about adolescent depression, aiding in the promotion of awareness and understanding of the issue.

3.1 Visual Design Strategy

In the design creation process, typography as a key execution link, through the systematic organization of text and visual arrangement, to ensure that the information conveyed by the design work is efficient and aesthetic integrity^[6]. Information visualization achieves a combination of rigor and aesthetics, making it easier and clearer for the viewer to understand the information, and improving the efficiency of information communication. First, organize the charts and text, using simple and intuitive methods to help the viewer quickly understand the theme. Emphasize keywords and express them in a way that is easy for the viewer to accept, making the information clear, vivid, and with distinct visual hierarchy.

In terms of visual strategies for content, the evolution of visual sentiment analysis methods has significantly improved their performance, an advancement that opens up more potential creative dimensions and room for development for design practitioners^[7]. Prolonged depression can lead to a decline in self-esteem. A series of designs centered around adolescent depression scientific popularization can help those suffering from depression emerge from the shadows and encourage more people to enter their world. Overly radical designs may lead to extreme enthusiasm or indifference, so it is crucial to ensure that the majority of people can understand and accept the design. After analyzing a large number of outstanding scientific popularization information systems, the designer weighed aspects such as difficulty, scalability, and usability, ultimately choosing simple illustrations for visual representation. The design process aims to fully convey emotions, color, and expressions while ensuring adaptability in various fields. In the visual system, color strategy, as the core design language, not only builds the visual identity of the work, but also deeply affects the emotional communication and cognitive effect of the design output^[8]. Through research, it was found that most individuals suffering from depression have very pure and innocent hearts, with a positive and hopeful outlook. Considering this, the designer decided to avoid metaphors and dark colors in the initial conceptualization phase. Instead, they chose high-brightness, highly saturated colors, and depicted playful and whimsical main characters, adding a sense of innocence and joy to the design.

3.2 Relevant Elements in the Design of Scientific Information on Adolescent Depression

In the era of new media, focusing solely on the layout while neglecting the quality of information is merely superficial and cannot win the audience's approval. To enhance the competitive advantage of visualization in the popularization of adolescent depression, it is not only essential to have a certain level of aesthetic literacy but also to understand the aesthetic needs of the audience. The content selected should be more lively, accurate, and tailored to capture the emotional needs of the viewer.

The production of headlines needs to be concise and vivid to ensure that the information is easy to disseminate. At the same time, it is important to incorporate topics and hot issues of concern to teenagers so that the public will be more willing to accept the knowledge. Designers need to think about how to utilize novel features to quickly attract the attention of the audience and spread them among the audience, expanding the influence of the popularization of teenage depression science. In terms of layout design, improve the planning ability of the layout and use various ways to innovate and enhance the readability of the visualization design. In terms of the use of elements, illustrations and charts are used to highlight the aesthetics of information design and dissemination, enrich the form of dissemination, improve the competitiveness of visualization design, and expand to other fields.

4. Teenage Depression Science Information Design Practice

The core concept of the designers is human-oriented, combining the problem of depression with art in a visual way, showing the inner world of teenage depressives and arousing the society's concern and

attention to this problem. When they are in need, timely and precise help is given. With characters as the main expression, it allows the audience to know more about teenage depression and promotes their psychological rehabilitation. Such a work not only enables depressed people to get more understanding and support, but also motivates them to face their psychological difficulties positively.

In the design process, the first step is to define the theme, understand adolescent depression, and collect relevant information and data. In the process of collecting information, categorize the information and conceptualize the layout. Select, summarize and organize the necessary information in an organized manner. In today's fast-paced lifestyle, people are accustomed to obtaining information quickly, so designers should strive to present information through visualization methods to make charts and graphs more intuitive and easy to use, while ensuring that the information is accurate and organized.

Next, the collected information needs to be sketched, sketches and color schemes need to be determined, and the overall framework needs to be constructed. This method can save a lot of time for later creation. Moreover, by constructing the framework, the main subject can be conceptualized, helping the audience to understand the theme more intuitively and interpret the design more clearly. This is followed by the design of relevant graphics, identifying the main characters and key messages, and applying relevant primary and secondary elements of cultural creativity to the work. Each of the above steps should be optimized repeatedly according to the requirements in order to achieve the desired final effect. Based on the summarized information, the steps are determined as follows: determining the theme, summarizing the information, designing sketches, perfecting drafts, and optimizing repeatedly. As shown in Figure 1.

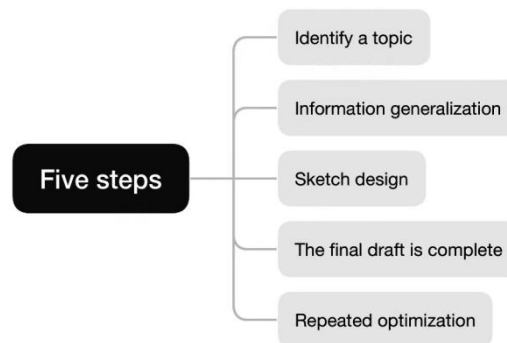


Figure 1: Five steps

4.1 Determination of Content and Layout of Scientific Information Design for Adolescent Depression

After screening and summarizing the information content, the designer needs to select the most representative information content for display. For example, through visualization to show what is depression, the related causes of depression, a good way to effectively control teenage depression, the distribution of teenage disease staging in different regions of China, and so on. It also shows the different behaviors of different parts of the body in the face of depression in the main teenage characters. All these help the audience to understand teenage depression more intuitively. And combined with the form of illustration to visualize the performance of teenagers when suffering from depression, so that more people can understand teenage depression and design related derivatives.

After browsing through the relevant design layouts, I found that people are used to observing and appreciating things from top to bottom, left to right, and that there needs to be a prominent theme in the design process to inspire the designer's work. This will enable the page to achieve harmony and unity.

4.2 Adolescent Depression Science Information Design Presentation

As a carrier of visual language, typography realizes the dialectical unity of information communication function and formal aesthetics through the dual dimensions of character structure and typographic combination. This design practice not only strengthens the visual communication effectiveness of text symbols, but also enhances the overall attractiveness of the design through aesthetic expression^[9]. In textual information design, text has a clear explanatory and guiding function. It not only enhances the readability and comprehensibility of the design, but is also an integral part of

the visual presentation. Excellent text layout requires careful consideration of font styles and combinations, as well as the user's reading habits and emotional experience. In order to promote a positive attitude towards depression to young people, the font size, spacing and colors in the text design use positive elements. The text is more in line with the overall design style and graded according to importance, highlighting the main visual experience.

Secondly, the choice of colors needs to improve the design effect and visual effect, so that the audience can better appreciate the overall atmosphere. Blue is used as the main color in the design to further enhance the expressive power and communication efficiency of the design through the emotional impact, visual effect and psychological effect of the color. Therefore, many primary and secondary colors with numerous bright colors on the basis of blue tones can be closer to the theme and the meaning that the designer wants to express.

In the visualization, the main figure is zoomed in on in the composition, surrounded by basic information about teenage depression. This can clearly see the different problems that will occur in various parts of the body when depression occurs, allowing the viewer to understand teenage depression more intuitively. The design of the derivatives is not only about the popularization of knowledge, but also about meeting the psychological needs of consumers and the market as much as possible in terms of the visual communication method, using positive and bright colors for the presentation. Combine the image of the protagonist with the derivatives to spread the message in various ways, choosing pillows, cell phone cases, depression self-assessment forms and so on as carriers for the popularization of visual design of teenage depression, and applying them to the subway and other public places, presenting them in a way that combines aesthetics and practicality.

5. Conclusion

This study focuses on the phenomenon of depression among adolescents. By collecting many counts and reviewing relevant literature, various current challenges to popularizing the perception of depression were analyzed. Adolescent depression has not been widely explored in contemporary society and its publicity on the internet is not strong. This paper provides a comprehensive discussion of this issue and proposes appropriate solutions. In terms of communication methods, a complementary approach should be adopted to improve the communication effect by utilizing the advantages of various channels, and to convey and express information in an innovative way. The information design study of adolescent depression provides more direct and concise information for quick understanding. The combination of text and pictures bridges the communication with the audience and enhances the audience's identification with teenage depression. This paper is a starting point, not an end point, for the visual design of adolescent depression science from an artistic perspective.

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