

Requirements for Designing Eco- Friendly Clothes for Children with Cancer Inspired by Their Drawings

Dr. Rasha Wagdy Khalil

Assistant. Professor, Apparel Design Management and Technology Dept., Faculty of App. Arts, Helwan University, rasha_wagdi@yahoo.com

Prof. Ghada Abdullah EL-Kholy

Professor, Apparel Design Management and Technology Dept., Faculty of App. Arts, Helwan University, Ghada_elkholy@hotmail.com

Dina Abdou Mohamed

Assistant lecturer at the Higher Institute of Applied Arts, 6th of October, Dandona884@yahoo.com

Abstract:

There is an increasing global approach to attention and caring of childhood. The Arab Republic of Egypt is caring particularly in establishing many institutions that are concerned with childhood and their requirements. As confirmed by The World Health Organization (WHO) in (September 2018), children's cancer has become one of the most common diseases. The most common side-effect of this disease is its long-term psychological effects associated with chemotherapy and radiotherapy. The previous studies proved that children with cancer respond well psychologically. Hence, psychological care must be one of the basic standards of treatment for children with cancer. The researchers found that clothing plays a major role in the psychological well-being of the child in terms of feeling comfortable and secure when wearing these clothing especially for sick children. Therefore, it is necessary to pay attention for the accessibility requirements of clothing design that provides the psychological comfort and the functional aspects of the sick children, while maintaining their health. **The problem of the research** is how to create and implement innovative clothing designs for cancer patients' children, inspired by their drawing, so that the functional and aesthetic requirements can be achieved and be safe for the health of the sick children. In addition, the research aims to create clothing designs that meet functional and aesthetic requirements and fit the therapeutic needs of a children with cancer which could be worn during the treatment sessions. Furthermore, the designs are inspired by their drawings and implemented using eco-friendly fabrics and natural dyes that are safe for the health of cancer children. **The importance of the research** is to provide the psychological support to children with cancer during the treatment session through their clothes, so that they meet their functional and therapeutic requirements and raise their psychological response. Interviews were done with children with cancer, their parents, and with treating doctors and nurses. The interviews highlighted the functional requirements of the clothes which worn by children during treatment, and their needs in terms of stages which the children pass through during their chemotherapy in the hospital. **The researchers applied two questionnaires**, the first one is for specialists in clothing design, and the second one is for non-specialists (the category of children under studying). The two questionnaires targeted assessment the proposed designs in terms of achieving the objective of the research. Based on statistical analysis of the results of both questionnaires (using SPSS program) edition (27), four designs were implemented as they achieved the highest acceptance among specialists and non-specialists (second design, seventh design, fourth design, eighth design).

Keywords:

Children's Clothing Design, Middle Childhood ,Child's drawing, leukemia, Eco- Friendly fabrics.

References:

- 1- Abdou Mohammed, D., El kholy, G., Wagdy, R. (2022). 'The effect of using natural dyes on physical and mechanical properties of eco-friendly fabrics', *The Arab association of civilization and Islamic Arts*. Retrieved at : doi: 10.21608/mjaf.2022.150282.2806
- 2- Abdul Zahra, Fadel, Thabet, Abdul Karim Khalaf. (2015). Psychological characteristics in the drawings of primary school pupils. *Journal of Studies and Research in Physical Education* 42. Retrieved at <https://www.iasj.net/iasj/download/f325c41fafa59b06>
- 3- Abdel-Maqsoud, Safinaz Samir, El-Sayed, Ghada Abdel-Fattah. (2012). Enriching the aesthetic value of middle stage children's clothing using various techniques. *Journal of Specific Education Research*. Number 26. Retrieved at <http://search.mandumah.com/Record/910739>
- 4- Al-Aqeel, Muhammad bin Abdul Rahman. (2013): Everything you need to know about leukemia. pp. 8,13. Retrieved at <https://saudicancer.org/know.pdf>
- 5- Al-Duhaim, Bandar bin Saud, Abu Nayan, Fawaz. (2019). Characteristics of drawings of children with cancer, *Journal of Scientific Research in Education*. Volume 6, p. 20, pp. 709-731. Retrieved at <http://search.mandumah.com/Record/1035713>
- 6- Ali, M.A., (2010). Sustainable and environmental friendly fibers in textile fashion a study of organic cotton and bamboo fiber. *Applied textile management*. Retrieved at.
- 7- Al-Sayed, Sana Ali. (2003). *Book of children's drawings - analysis and significance*, 2nd edition. Dar Al-Zahraa for publication and distribution.
- 8- An, S. K., Gam, H.J., (2013). Evaluating thermal and sensorial performance of organic cotton and bamboo. *Clothing*

- and textiles research journal.vol.31. Retrieved at <https://journals.sagepub.com/doi/full/10.1177/0887302X13490069>
- 9- Avinc, O., and Yavas, A., (2017). Soybean: for textile applications. Retrieved at
 - 10- Bahauddin, Muhammad Shamil. (2005). Statistics without suffering: concepts and applications using SPSS. Riyadh, Department of Printing and Publishing, Institute of Public Administration. C 1.
 - 11- Brahemyah, Jihad. (2016). Health care and its relationship to psychological pain in cancer patients. Ph.D. Faculty of Humanities and Social Sciences, Algeria. University of Kasdi Merbah, Ouargla, pp. 74-75. Retrieved at <https://dspace.univ-ouargla.dz/jspui/bitstream/123456789/19662/1/BRAHIMIA.Djihad.pdf>
 - 12- Cook, C., (2010). Handbook of textile fibers, vol.1, Retrieved at <https://www.pdfdrive.com/handbook-of-textile-fibres-volume-1-natural-fibres-e165872666.html>
 - 13- Cronbach, L. J., (2004). My current thoughts on coefficient alpha and successor procedures. Cse report642. National Center for research on evaluation. Los Angeles. University of California
 - 14- Darwasha, Fares. (2018). Leukemia leukemia. Retrieved at <https://www.tebtime.com>
<https://cdn.intechopen.com/pdfs/53674.pdf>
[https://www.semanticscholar.org/paper/Sustainable-and-Environmental-freindly-fibers-in-\(A-Ali-Sarwar/6d263e1621c8ef3814a8e8d7f5ce3ab4f5bbae89](https://www.semanticscholar.org/paper/Sustainable-and-Environmental-freindly-fibers-in-(A-Ali-Sarwar/6d263e1621c8ef3814a8e8d7f5ce3ab4f5bbae89).
 - 15- Ibrahim, Noha Magdy. (2018). Innovating green designs for functional clothing with a suggested marketing plan. Ph.D. thesis. Faculty of Applied Arts, Helwan University.
 - 16- Kamel, Maha Mazen. (2013). Artistic expression in children's formal perception and its relationship to some variables. Journal of Humanities and Social Sciences. Vol. 2 No. 205. 199-218. Retrieved at <https://search.mandumah.com/Record/466805>
 - 17- Mubadil, Naglaa Bint Rashid. 2018. The effectiveness of visual arts as a rehabilitation strategy for children with cancer. Research in qualitative arts and sciences. Number 9, pp. 3-19. Retrieved at <https://search.emarefa.net/detail/BIM-930489>
 - 18- Muhammad, Ibtisam Ibrahim, Ghaleb, Mona Musa. (2014). The effect of some physical and mechanical properties of knitted fabrics on the physiological comfort of clothes. Alexandria Journal of Agricultural Research, Faculty of Specific Education, Alexandria University. Vol. 59 No. 3, p. 317. Retrieved at <http://agr.p.alexu.edu.eg/Data/Sites/1/pdffiles/2014,%2059,%203,%20317-329.pdf>
 - 19- Mustafa, Dina. (2015). Art therapy and the development of social skills in children with autism disorders. Specialized International Journal of Education, Vol. 4, No. 4, 107-127. Retrieved at <https://search.mandumah.com/Record/843632>
 - 20- Olayan, Ribhi. Ghoneim, Muhammad (2008). Theoretical and applied scientific research methods. Amman. Dar Safa for publication and distribution.

Paper History:

Paper received 20th October 2022, Accepted 17th December 2022, Published 1st of January 2023