

Abstract

This presentation explores adaptive design for people with the spinal defect scoliosis. Scoliosis affects roughly two to three percent of the American population, with approximately 30,000 new cases diagnosed each year, the majority being girls between the ages of 10-15. The age of diagnosis tends to align with puberty, a time when many girls struggle with self-esteem and loving their changing bodies. The most common brace worn is the 'Boston Brace', which supports the spine from the shoulders to the hips and is worn 23 hours daily. Scoliosis requires wearing looser clothing, limiting the styles that one can wear, necessitating the need for adaptive clothing. Although there is adaptive clothing on the market, it is targeted to the elderly, and those with limiting disabilities. The fashion industry needs to realize that young people have special clothing needs as well. This need is particularly seen in special occasion wear. Most prom dresses on the market contain cropped bodices, plunging necklines, and body-hugging skirts, which are not conducive to brace wearing. As braces are made in standard sizes, large scale manufacturing of clothing for a scoliosis target market is an attainable goal. This research was applied through the draping of a special occasion garment on a half scale model. A model brace was structured out of cardboard. Patterned fabric was chosen for the bodice to distract from any lines created by the brace. A pleated skirt was draped with a high-low hem to lessen the appearance of an uneven posture. The top and bottom were designed to allow flexibility in the positioning of the skirt that could not be obtained with a dress. As visible differences are being acknowledged and celebrated in a culture of growing inclusion, the fashion industry needs to design clothing for all body

types, including those with scoliosis.