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Hyperhidrosis and fashion: A deeper look into an underserved market segment

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Mentor Statement: This outfit is part of a collection designed and constructed by the student as an Honors Senior project. The student researched hyperhidrosis and researched available apparel for perspiration control. She found a significant lack of variety in fashions targeted at people with hyperhidrosis. After wear-testing garments of different fabrications, she designed a group of garments more suitable for professional settings than traditional athleisure. As the mentor, I guided the student's design process, advised her on patterning and fitting prototypes, and guided the final construction of the group. This outfit was selected for submission due to the novelty of the design, quality of construction, and efficacy of the design for hyperhidrosis comfort.

Designer Statement: The inspiration for these garments developed after seeing a lack of options in the fashion industry for people who have hyperhidrosis. Hyperhidrosis (HH) is best described as "excessive sweating that exceeds the thermoregulatory needs of the body and is caused by overstimulation of the normal eccrine glands" (Hoverson & Kandula, 2020). This overstimulation usually occurs on the palms, soles of the feet, and axilla areas, but can also be targeted on the back and craniofacial regions. Someone with HH may feel the need to change clothes many times each day due to staining caused by sweat or antiperspirants. In addition, the absorbing properties of different textiles can determine what is most comfortable for people with HH to wear. For instance, natural fibers, such as linen and cotton are the most breathable options, but synthetics, like polyester, can actually be better at preventing staining. Before beginning the process of making garments, I performed a week-long series of tests with garments made of different fabrics to determine which would work best to prevent staining and sweating while providing maximum comfort. I tested garments made of 100% cotton fibers, 100% acrylic fibers, 100% polyester fibers, and a blend of rayon and spandex fibers. The results from testing showed that while synthetic fabrics worked well to prevent staining, the garments made from natural fibers were more effective at absorbing sweat and maximizing breathability. Therefore, I chose to work with natural fibers when creating my garments.

Currently, the fashion industry is not doing enough to meet the needs of consumers with HH; the main source of "sweatproof" clothing exists in the athleisure segment, but this would not be appropriate apparel for a professional or formal event (Nardi, 2020). There are some companies who offer garment specifically for those with HH, such as Thompson Tees or NanoDri Sweat-Proof Garments, but these only include plain T-shirts or undershirts in shades of black, grey and white. My goal with these garments was to provide greater options for women with HH, without sacrificing bright colors and unique silhouettes.

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The two garments showcased here are a yellow short-sleeve blouse and a pair of bright green linen trousers. Both of these items were dyed by hand, so I could control the intensity of the colors. The blouse has a midriff panel, gathered bust, and puffed sleeves with a cutout under the armpit to allow for breathability. There is also a center back zipper and neck facing for the classic scoop neckline. The essential feature of this garment is the cutout, strategically placed in the axilla area because this is a point of concern for those with HH. Having a hidden cutout can allow for greater comfort and prevent both sweating and stains. The other garment is a pair of wide-leg linen pants, with a side seam invisible zipper and hook-and-eye in the waistband. There is also a seam down the center of each front panel - a purely stylistic choice to elongate the body. The natural fibers of the pants make them very breathable and although they are not sweat wicking, they do dry very fast, meaning staining would not be a concern for someone with HH. To make the pants as comfortable as possible, I created a wide-leg pattern to separate the fabric from the body so it would feel less restrictive.

For this project, I used a combination of draping and drafting flat patterns to achieve the perfect fit. I also used the technique of piece-dyeing rather than dyeing my garments after assembly, so I could make changes, if necessary, to the individual pieces. For the blouse, I chose a 100% cotton sateen fabric; although this natural fiber means that the garment will not wick sweat away, the cutout under the arm is the method of controlling staining and providing breathability for comfort. For the pants, I also chose a fabric that was made of natural fibers, but I chose linen for its light weight and flattering drape. Once again, this does not wick away sweat like some synthetic fibers, but it does create more breathability and comfort for the wearer. These garments were designed as one ensemble, but they also work as stand-alone pieces to be paired with other items. The inspiration for silhouettes, fabrics, and colors were all gathered from the Worth Global Style Network trend forecasting website, for the Spring/Summer 2021 forecast (Ross, 2020). The bright, analogous hues keep the outfit cohesive and are a welcome change from the dull palette of most existing apparel for sweat prevention.

The significance of designing for people with HH is not just one of aesthetic or style, it is a way of building confidence and lessening social anxiety. HH can impact quality of life with reported effects including social embarrassment, lack of confidence, unhappiness or depression, interference with daily tasks and psychological difficulties. Many people with HH have also expressed frustration over changing their type of leisure activities, decreasing the amount of time they spend doing leisure activities or missing events and outings altogether for fear of embarrassment (Glaser, et al, 2018). Creating garments that prevent this embarrassment can help people get back to enjoying public events or leisure activities. Ensuring that these garments are appropriate for business or professional settings can also prevent embarrassment and anxiety in the workplace. These garments were designed with the target market of women ages 18-35 in mind, because these women will most likely be starting jobs or internships for the first time or beginning their first long-term career. Additionally, hyperhidrosis most commonly begins during the ages of 20 and 25, so women who suddenly find themselves dealing with HH will not be left without options (Glaser, et al, 2018).

These garments are stand out pieces, because based on my research, there is not a brand that currently offers sophisticated options for consumers specifically with hyperhidrosis. There is clearly a gap within this niche market that needs to be served. I believe the needs of consumers with HH can be met with my garments because they manage to be trendy and functional all at once, without sacrificing style or comfort. Through the use of strategic cutouts, natural fibers, flattering silhouettes and bright colors, I have created garments that can help improve the quality of life of those with hyperhidrosis.

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