

Tulipa ‘Rococo’ I

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Contextual Review and Concept Statement: The adaptive apparel global market is set to grow to \$400 billion by 2026 (Coherent Market Insights, 2018). Adaptive apparel must work for everyone, not just people living with disabilities (PLWD) if it is to be successful in the marketplace (Council of Fashion Designers of America, 2021b). PLWD do not want to be singled out but wants to purchase apparel in the same stores as non-PLWD and be able to dress independently. Working-age PLWD possess approximately \$490 billion in discretionary income (Coherent Market Insights, 2018). Despite this, PLWD continues to have difficulties finding stylish adaptive apparel to meet its attire needs (Council of Fashion Designers of America, 2021a). This consumer group has been gaining a larger voice in the apparel industry whereby their needs are starting to be heard (Council of Fashion Designers of America, 2021a, 2021b, 2021c, 2021d). PLWD are voicing for designers to incorporate adaptive features into all types of attire from couture to athleticwear (Council of Fashion Designers of America, 2021b). Many PLWD designers develop apparel for one category, such as sports, career, evening, children, etc., but trends show individuals want apparel that can be adaptable throughout the day (Kidd, 2006; Klecker & Sokolowski, 2020; Kratz et al., 2009; Morris, 2019, 2020, 2022; Orlando et al., 2020; Roelse, 2020; Target.com, 2018). With that in mind, this project’s goal was to incorporate multiple adaptive features to aid various PLWD while also being able to be fashionable throughout the day without a complete garment change.

Process, Technique, and Execution: This ensemble consists of a two-part modular jacket, a pair of pants, and an attachable skirt. All garment patterns were executed using flat pattern techniques and woven and knit block patterns adapted to achieve the desired size and style (Armstrong, 2010). Garment samples were made and adjusted for proper fit and ease, seated and non-seated, before the final garments were constructed. As many disabilities involve dexterity and mobility problems, from strokes to amputees, there are alternative closure options on these garments to aid in independent donning and doffing (Na, 2007).

The jacket is two-parts; the left is a tri-colored wool tweed, and the right is black Super 150 wool. Each jacket side was extended 3-4” beyond the centerline for overlap. The jacket has black metal rings at the waistline, front and back, with ¼” knit elastic attached to a lobster clasp at each end. This allows the jacket to be secured around the body while having ease of movement due to the elastic. Hooks and clasps can be easier than buttons for many people with dexterity problems so there is a coat hook and eye at the back collar to secure the two-piece together (Coherent Market Insights, 2018; Na, 2007). The two-part sleeves were designed to have a cape-like slit from wrist to elbow. This is not only a design feature but allows PLWD using forearm crutches to easily use their crutches without the sleeve bunched in the crutch. There are welt pockets on the jacket front. The jacket pieces were designed and constructed to be worn together or separately as a fashion statement.

The pants have a detachable skirt that attaches to the waistband with a hidden Soflex® stretch zipper. The pants were designed for a wheelchair user or a person who sits for long periods. The front waist was lowered, and the back waist was raised for body coverage and comfort while being in a seated position. The pants are made of 4-way stretch sportswear knit with a wool-like appearance, so they match the texture of the jacket while also allowing for more comfort and movement due to the 4-way stretch. The pant has an L pocket front flap that allows the wearer the ability to don and doff without a zipper. The front flap opening allows for easy access to the abdomen for individuals with a stoma or other medical device. The pocket is also functional despite it being part of the pant opening. The waistband has a hidden Soflex® stretch zipper along with a pant hook and bar closures on the front flap. The outer seam from calf to ankle has an invisible zipper to aid in donning and doffing with shoes. There are also additional pockets on both front thighs for those seated along with a back welt pocket.

The detachable skirt attaches with a 5” Soflex® stretch zipper at the front flap and a 21” Soflex® stretch zipper for the remainder of the waistband. There are placket openings in the same location as the L pocket opening to allow for it to go over the body and access the pant pocket. The designer used Soflex® stretch zippers as they allow for ~10% stretch along curved edges (YKK Corporation, 2017); thereby allowing the zipper to not catch on the teeth when being attached around the body or cause discomfort when seated. The full-length skirt curves upward to the center front waist to create visual appeal but also allows for leg movement while walking so the skirt does not become a tripping hazard which is common for those with walking aids (Kidd, 2006).

Lastly, the fabric flowers were created by hand using millinery flower-making tools, tweed wool, tulle, and artificial flower stamens. The petal shape was created in Adobe Illustrator by the designer, then a Glowforge™ laser (speed 225, power 75, thickness 0.04”) cut out 100 petals from the tweed wool. The cut petals were then removed, washed, towel-dried, and a fabric stiffener applied to each petal. The petals were shaped in a two-step process with a 16 mm ball for roundness and a small knife to shape the petal edges outward on a medium foam pad. Four petals were placed together along with gathered black tulle and a yellow/red stamen in the center then hand sewn together for proper shaping. A total of 25 flowers were constructed and hand-stitched to the jacket and skirt.

Cohesion: The ensemble allows a PLWD or non-PLWD to wear different components of the ensemble for their fashion style while also having adaptive features integrated into the design process to aid in independent dressing. The jacket pieces can be worn together or separately. The ensemble has a career and high-end designer look due to the fabrics and handmade fabric flowers applied to the jacket, but it can also be paired with the skirt for dressy occasions. The pants are a 4-way stretch allowing for better mobility and comfort than a woven fabric especially when seated for long periods. The pants can be worn as either career or athleisure due to the fabric and design. While being aesthetically pleasing, this ensemble allows the wearer to have their style with mix and match pieces while also being very functional for PLWD.

Significance, Rationale, and Contribution: This ensemble adds to the limited but growing adaptive design research and creative scholarship by adding garment modularity, wearability in

multiple apparel categories, and high-end designer details to the pieces. PLWD and non-PLWD can wear any piece of this ensemble and have their sense of style while also having dressing independence. The ensemble was fitted and evaluated in seated and non-seated positions along with ease of walking with aids or a wheelchair before the final ensemble was constructed.

Originality and Innovation: This ensemble is significantly different from other adaptive apparel in the marketplace or creative scholarship exhibits. It addresses current apparel needs being expressed by PLWD while also applying to the non-PLWD wearer. The ensemble features high-end wool and knit sportswear fabrics, handmade fabric flowers, and multiple types of alternative closures, thereby giving PLWD more apparel options to choose from.

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