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Understanding the Need for Affordable Adaptive Clothing and Recommendations for a Resolution

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The World Health Organization (2020) states that over one billion people throughout the world have some form of disability. A Statistics Canada (2018) survey on Canadian persons with disability (PWD) in 2017, reported that PWD had a lower income than those without and those with a severe disability had the highest rates of poverty. According to Elflein (2021) in 2019, as many as 25.9% of Americans with disabilities lived below the poverty line. PWD experience persistent and chronic limitations in accomplishing simple everyday tasks like pulling up a zipper or buttoning a shirt. In the current retail market clothing specifically made to cater to the needs of the PWD is sold as 'Adaptive Clothing'. Adaptive clothing is preferred by persons who may have arthritis, seniors with limited mobility or persons with any other physical disability that limits their mobility. Although adaptive clothes are available in the retail market, there is very little available to PWD living on a limited income. In this concept paper, the authors will examine the creation of affordable adaptive apparel and recommend future applications.

Relevant Literature

Prior to the second world war, clothing was commonly altered at home due to economic reasons. Although tailoring services existed to repair or alter the garments, they were prohibitively expensive (Gwilt & Rissanen, 2011). Assistance for home sewers or their family members came mainly through publications like women's home magazines that offered instructions on sewing and mending garments. Carroll (2015) mentions Clarice Scott of the U.S. Department of Agriculture Research Service who published 20 garment patterns for women with disabilities. Directions with visuals were included on constructing the garments. These designs, which emphasized both fashion and function, were created after interviewing 70 women with physical disabilities.

The 60's was an era of increased interest in self-help and recommendations on how to alter ready to wear clothing. According to Carroll (2015) the greatest improvements in designs for adaptive clothing has come from family members of PWD. They have provided solutions by adapting ready to wear clothing to the needs of the PWD. Adaptive clothing is available today both online and in brick-and-mortar stores in North America, but it is priced for the wealthy customer with a disability. PWD often have a low income which can limit their power to buy apparel specifically made for them (Reich & Shannon,1978, 1980).

According to Reich and Otten (1987), changes in the elderly due to economic position, status, age, and physical disabilities has created a need and preference for certain types of fabrics and design elements in purchasing clothing. Cost is an important factor for most consumers, the

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option of purchasing adaptive clothing is limited to a handful of PWD. O'Bannon et al. (1988) found financial concerns over the price of acquiring garments was a decisive factor for consumers with disabilities. Currently, retailers such as Tommy Hilfiger and Target carry adaptive clothing lines along with RTW clothing in their stores. This line is expensive making it unaffordable for most PWD living on limited disposable incomes who would not ordinarily shop there. As Twigg (2013) states fashionable apparel creates a self-image and lifestyle of hope to those persons who are sidelined due to age. PWD are no different from able bodied persons in their hope to express individuality and assurance (Kwon & Parham, 1994). The ready to wear (RTW) market for the able-bodied is trendy, fashionable, and easily available at affordable prices. This is the garment of choice for a PWD. Measures can be taken to better improve the existing RTW garments they have by making simple modifications to make them adaptive. One design aesthetics study (Jung et al., 2010) found that altering RTW clothing was worthwhile for the participants in terms of price, resource recycling, and ease of accessibility than buying stylish functional adaptive clothing. To accommodate ease of dressing, functional changes can be added to the RTW garment belonging to the PWD by their caregiver, family member or themselves. For example, changing the fasteners by adding Velcro or creating garment openings within the seams that allow easy inconspicuous access to catheters or other devices (Eggleston et al., 1994; Dallas & Wilson, 1981; Pereira et al., 2007). The practicality of making these simple alterations to the existing RTW garments owned by PWD adds a convenience for ease of dressing, is economical and simultaneously supports the re-use of garments within their closet.

Future Directions

Academic internships in collaboration with disability organizations can be created to launch workshops for PWD and their family members/caregivers. These workshops would educate the disability community on simple designs to upcycle their current garments and make them adaptive. Clothing retailers can be approached to donate previous seasons unsold clothing. These can be financially helpful to the PWD on a budget, the educators, and students when conducting the workshops. By connecting with the disability community, fashion students will be offered unique opportunities to learn through interaction and collaboration. The most effective community engagement, service-learning, and volunteer experiences extensively offer reciprocal benefits to the community and the students as well as educators. Simultaneously, students will strengthen their knowledge on sustainability through upcycling of garments to adaptive apparel for PWD.

Educators can incorporate sustainable adaptive design into their curriculum hence preparing fashion design students to the apparel needs of PWD who have a limited disposable income. By participating in learning to design for this population, future designers will be contributing immensely to society and social justice. Having workshops could be effective to teach hands-on skills as they offer PWD, including their caregivers, a chance to learn how to alter existing RTW garments and make them adaptive. Simple design solutions can be used to improve donning and doffing such as, replacing buttons with Velcro, using elastic waistbands in the back of pants for

comfort, attaching a zipper pull for easy grip, and shortening upper body garments in the back for persons in wheelchairs (Adaptive Clothing Patterns, n.d.).

Finally, as Young and Hui (2020) recommend for the Hong Kong Government to expand their definition of assistive devices, the authors similarly believe this should be universal with all progressive countries. The definition of assistive devices should include adaptive clothing as they assist in aiding and able-ing PWD, and therefore should be perceived equally essential as a wheelchair. Government subsidies and grants received could fully pay for adaptive clothing as they do for assistive devices hence, enabling PWD on a lower income to access adaptive clothing.

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