



Creating affordable adaptive garments by extending the clothing lifecycle.

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Introduction:

The connection between poverty and disability is a never-ending circle. Poverty creates more of a possibility of developing a disability due to lack of access to good nutrition, health care, sanitation, shelter, and safe working conditions. (Disabled world, 2023). Persons with disabilities (PWD) face a range of impediments to their independence and self-care in accomplishing daily tasks, such as pulling up a zipper, buttoning a shirt or putting on a pair of pants. They have similar attitudes as able-bodied persons regarding modesty, self-awareness, and interest in clothing and fashion. They experience difficulties to don and doff ready-to-wear (RTW) clothing and often require assistance. The limited affordable adaptive clothing choices available to them affects an independent lifestyle (MacDonald et al., 1994). Today, adaptive clothing is mostly available through online stores, denying PWD the opportunity to try on the garment. Some adaptive clothing is available in stores. These are more expensive making them unaffordable for most PWD living on limited disposable incomes. From the perspective of environmental sustainability, the production of new clothing has a harmful impact on the planet. According to Lee (2003), fast fashion or McFashion, because of its global uniformity and low price, is an essential trait of today's textile and clothing market. The website of Global Fashion Agenda (globalfashionagenda.com) informs that as the market for new clothing grows, it also decreases the reuse of a garment and multiplies the harmful impacts to the environment. Thrift stores are operated by registered charities that sell donated used goods to generate revenue for their mission-driven activities for the greater public good. According to the Thredup website (Thredup.com), thrift stores constituted over 70% of all second-hand retail stores' revenue in 2018. Recycling donated garments to expand the fashion choices available to PWD through an adaptive design approach to form and function, may represent a significant way to reduce the impact on the environment. Additionally, it keeps the price point for these garments within an affordable range for those persons living on limited disposable incomes.

Objective:

The objective of this project was to collaborate with a community organization serving PWD and creating upcycled adaptive garments which would be sold at an affordable price.

Methodology:

The project was designed in four phases: Phase 1: Interviews. Phase 2: Selection of garments and upcycling them, Phase 3: Field Testing, Phase 4: Sale of garments.

Phase 1: Interviews: Thirty PWD's were recruited as participants from community agencies and support networks. The participants had developmental disabilities or acquired disabilities. The participants were able to comprehend questions asked of them but some of them had caregivers who helped in the translation of answers. Participants consented to the collection of demographic information and interviews conducted by Fashion students. They were encouraged to describe challenges and concerns while donning and doffing their garments independently or with the assistance of a caregiver. A Semi-structured interview guide was used and the topics covered included current clothing design concerns, desired price points, needs related to disability, fabric textures that may cause discomfort to affected limbs, aesthetic needs and functional concerns (e.g., with closures, fit, ease of laundering, weight and ease of mobility in the garment). A Questionnaire evaluation tool was used that included Likert-type questions covering usability, safety and specific features of aesthetic, expressive and functional needs. Data collected was transcribed and thematically analyzed to develop design criteria for the clothing.

Phase 2: The community organization we collaborated with had a thrift store. They donated clothing for this project from the store. The Fashion student researchers identified clothing they could upcycle based on quality, need and style. They had to choose garments of a larger size so they could make changes to it and still have it fit the participant. The existing, garments underwent an adaptive design process, with modifications ranging from closures to a complete redesign of the garment. This was also dependent on the types of physical disability. For example, persons with paraplegia (loss of mobility in the lower body) who are wheelchair bound, had the back of a coat cut out so they would not be seated on it and it would not pull at the neck (Image 1.). Eighty garments were chosen and upcycled to make them adaptive. The garments included: men's suits, jeans, pants, dresses, skirts, winter coats, denim jackets, blouses, shirts, capes. The garments were priced and labelled with tags from \$8 to \$30 (considering the pricing at the thrift store, notions, labour).

Phase 3: For the field testing, a mock shop with the finished garments was created and the participants were invited to choose two garments of their choice and try them on as they would in a real store and discuss the reason for their choice. When asked about the reason for choosing the garment 77% liked the style, 38% said it was easy to don and doff, 4% comfort for seated disability, 81% liked the weight of the garment, 100% liked the price. When asked whether they would buy this at a thrift store. 22% as long as it's clean, 9%

should be in good condition, 88% loved the idea of having an adaptive clothing section in a thrift store, 4% said the location of thrift store should be accessible.

Phase 4: The clothes were then taken to the community organizations thrift store where an adaptive clothing section was created. All 80 garments were put on sale, and there was a soft opening for the participants before it was opened to the public. There were 25 sales. After the sales there were only 5 of the adaptive garments remaining which were not sold. There was an after-sale survey done with the customers. 96% of the customers liked the price, 96% liked the style, 80% liked that the clothing was upcycled, 100% liked the idea of having adaptive clothing in a thrift store.

Discussion and Results: The adaptive clothing solutions produced by this research project supports effective rehabilitation of PWD by meeting their stylistic and functional needs and improving their quality of life. The clothes developed were available at the thrift store which catered to able bodied persons and PWD. The store created a unique experience as it eliminates the common divide between the two groups while shopping. The public is educated on the needs of PWD, simultaneously, the PWD can be integrated into society. The project provides a solution for those PWD who cannot afford to buy high priced adaptive garments. To have the option of purchasing reasonably priced adaptive clothing whether for a permanent or temporary disability would be beneficial for those living on a limited income. The affordable adaptive clothing in this project is made from second-hand garments. Purchasing this clothing would easily connect the customer to such values as consuming goods while being environmentally conscious. Encouraging the reuse of these garments is one way of making consumption more sustainable. In conclusion, the results of this research project were very encouraging to the team and the community partner. Future thoughts by the community partner is to have a permanent adaptive clothing section in the thrift store.

(Image 1)

Shirt with Velcro opening

Dress with sleeve opening.



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