

척수재활

게시일시 및 장소 : 10 월 19 일(토) 08:30-12:30 Room G(3F)

질의응답 일시 및 장소 : 10 월 19 일(토) 11:00-11:30 Room G(3F)

P 3-126

Development of Functional and Fashionable Clothing for Wheelchair Users: A Case Report

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Background and aims

Wheelchair users with disabilities show different physical characteristics from those of non-disabled persons. The majority of wheelchair users are complaining about the lack of physical fitness and mobility of functioning by purchasing general ready-to-wear. Therefore, special functional clothing products have been developed for wheelchair users. However, they want to build a positive interpersonal relationship by wearing clothing that is not distinguishable from non-disabled persons. The purpose of this study is to develop functional and fashionable clothes for the wheelchair users.

Methods

The new clothes with universal design were developed considering the physical functional characteristics for wheelchair users. We considered increased circumference of neck, arm, chest according to wheelchair propulsion and kyphotic posture. And we elongated total length and back waist length of pants considering the patient's sitting position and also we increased waist size considering larger circumference of waist due to long term wheelchair bound lifestyle. In terms of fashionable design, the newly developed clothes were not distinguishable from ordinary clothes and reflected today's fashion trends for the patient's satisfaction of the design. The developed clothes were worn by two wheelchair users with spinal cord injuries. One disabled person was a 28-year-old man, paralyzed at the T11 level (ASIA-C), and the other person was a 40-year-old female, paralyzed at the C7/C8 level (ASIA-B). The caregiver by male disabled person who needed help to wear clothes was asked about the degree of help for dressing. To assess functional changes, Spinal Cord Independence Measure (SCIM) version III was used. In addition, the satisfaction survey for clothing design was done.

Results

Male disabled person showed functional improvements in each dressing upper body and lower body of SCIM III. His caregiver showed a less help for dressing. The newly developed trouser could be changed more easily than usual one in female disabled person who could

dress independently. In addition, both disabled persons showed high aesthetic satisfaction of the newly developed clothing.

Conclusions

This study showed that properly developed clothing can improve not only functional aspects but also satisfaction fashion. In the future, it would be necessary to develop improved apparel through further study with more participants.

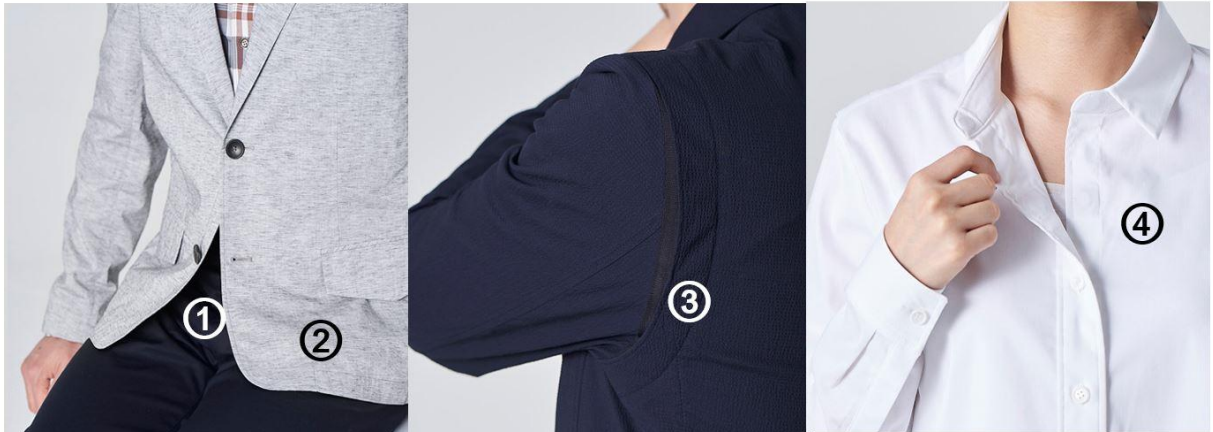


Figure. 1 Characteristics of shirts and jackets



Figure. 2 Characteristics of pants