## MEN'S INTIMATES APPAREL: DEVELOPMENT OF A SIZING SYSTEM TO ALIGN WITH THE NEEDS OF CONSUMERS OF THE MEN'S UNDERWEAR MARKET

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## ABSTRACT

Men's undergarments options have a limited set of size ratios from waist to pouch. While some brands offer specialized pouches, all continue to follow a sizing system focusing on waist size yet does not address varying anatomy. Therefore, this project's purpose is to focus on this market gap and address the problem through reflective practice when designing a new sizing system for men's underwear.

Textile technology and innovations have improved this market in terms of functionality, wearability, and overall comfort. However, garment fit in the pouch area has been widely neglected by the industry, yet research has proven it to be an important component of the garment for both health and comfort purposes. There are many health issues that surround ill-fitting underwear such as skin irritation, testicular torsion, lower hormone levels, and low sperm count. A lack of support can cause testicular torsion, an injury in which the testicles are twisted around the spermatic cord causing severe pain and swelling. However, too tightly fit underwear causes a low sperm count. In a study conducted in France in 2012, men wore underwear that held the scrotum tightly to the body, resulting in a significant decline in sperm count during the research. These issues confirm the need for fit to be addressed more specifically in this garment.

The solution proposed here is to create a separate pouch sizing system that is independent of the waist sizing system for men's underwear. The suggested sizing system is similar to the evolution of women's bra cups which have independent cup sizes and chest measurements. The pouches would range from smallest to largest using an alphabetical system for identification purposes. These pouches would be assigned alongside the traditional waist measurement sizing system so the consumer will not be limited to fit according to only their waist measurements. The size options would offer a variety of pouch volumes to support different shapes and sizes of men's genitals for a better fit that supports men's health. The two measurements for the pouch system would be width and length. The width measurement would be measured from the fullest side of the genitals to the other side where the leg meets. The length measurement would measure from the top center of the genitals around and underneath the perineum.

Consumers want more customer options that align with their needs. Through the use of digital patternmaking software such as Clo3D, this model could provide more exact fits and mass customization to these sorts of products. This will result in the production of fewer products that get added to landfills and resources being used more effectively. This concept addresses these problems and offers a solution to many issues and concerns surrounding poorly fitted underwear's effect on men's genitals. Future research implications include surveys of consumers to understand if this model accounts for the majority of fit needs or if additional pouch size extensions are necessary, and studies surrounding the health, fit, and comfort of this sizing model.