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Brief research report

Change in sociocultural ideal male physique: An examination of past and present action figures

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Abstract

The physical dimensions of five contemporary action figures were measured and compared to their original counterparts to determine whether their physiques have become more muscular from their original designs. The circumferences of the neck, chest, arm, forearm, waist, thigh, and calf were measured three separate times using a Scale Master II model 6325. The mean score was then used in subsequent analyses. Except for the waist, it was determined that the body parts of current action figures were significantly larger when compared to those of their original counterparts. The results of this study indicate that action figures have become more muscular and larger over the last 25 years. Furthermore, the increase in action figure dimensions may contribute to the multifactoral development of an idealized body type that focuses on a lean, muscular physique. This occurrence may particularly influence the perceptions of preadolescent males.

Keywords: Muscle dysmorphia; Body image; Action figure; Muscularity; Adonix complex; Steroids; Eating disorders; Preadolescents

Introduction

For over four decades Western society has been transforming its gender roles and identity (Alexander, 2003; Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986). This transformation in gender – distinguished from sex which is biological – has been a culturally defined change (Peoples, 2001). It has caused many men to search for an identity, which distinguishes them from females (Klein, 1993). One such sexually based identity is muscularity.

Muscles traditionally have been a symbol differentiating genders with large muscles signifying masculinity (Bordo, 1997; Klein, 1993). To both boys and men, a muscular physique can portray traits that include power, dominance, strength, sexual virility, and self-esteem (Mishkind et al., 1986; Pope, Phillips, & Olivardia, 2000).

This emphasis on the mesomorphic, idealistic physique has left many males in current society with an identity crisis (Pope et al., 2000). They view their bodies as defective or imperfect resulting in the physical and mental struggle of obtaining perfection in body and appearance (Pope et al., 2000).

The drive to improve physique can often result in dangerous behavior, and can lead to the development of muscle dysmorphia (Pope et al., 2000). Muscle dysmorphia is predominantly evident in men (Pope et al., 2000), and is characterized as, "... a preoccupation with overall muscularity and drive to gain weight without gaining fat" (Morgan, 2000, p.

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1373). Features of muscle dysmorphia include impairment or clinically significant distress in occupational, social, or other areas of functioning that are important to the individual (Olivardia, 2001). In addition, muscle dysmorphia primarily focuses on a perceived lack of physical size or muscularity. These properties distinguish muscle dysmorphia from similar disorders such as anorexia nervosa where the focus is a strive for thinness, or other appearance related features found in other forms of body dismorphic disorder (Olivardia, 2001). Consequences of muscle dysmorphia can include anabolic steroid use, cosmetic surgery, and eating disorders (Miller, Barnes, Sabo, Melnick, & Farrell, 2002; Pope et al., 2000).

The underlying causes of muscle dysmorphia remain unclear. However, it has been hypothesized that the occurrence of muscle dysmorphia may be related to the media's portrayal of a supermale. The concept of the supermale is promoted in movies, advertising (Pope et al., 2000), and through toys (Morgan, 2000). According to Morgan (2000, p. 1372), dolls are, ''totems of human aspirations''. These totems convey meaning; meaning that is interpreted by the child playing with them (White, 2001). For example, preadolescents have been found to attribute either violent behavior or pro-social behavior with action toys dependant on the interpretation of the action figure's role presented to them (Kline, 1999, 2002).

As indicated by sales statistics, action figures are an integral part of a boy's upbringing. In 1995, the sale of male action figures grossed US$ 687 million, compared with US$ 464 million in 1993 (Leccese, 1995). Hasbro, the producer of G.I. Joe, estimates G.I. Joe action figure sales alone to be 375 million units worldwide (Fitzgerald, 2004). Boys in particular prefer action figures to other toys because they demonstrate masculinity, strength, and invincibility (Varney, 2002).

Brownell and Napolitano (1995) did one of the first studies examining the physical dimensions of toy figures. They determined that these types of toys portray ideals in weight and shape that are highly unrealistic. The measurements of Barbie and Ken dolls were compared to a male and female participant using the hip measurement as a ratio guideline in comparisons. The comparison of hip, waist, chest, neck length, and neck circumference demonstrated that both Barbie and Ken were disproportionate to the male and female measured (Brownell & Napolitano, 1995). Barbie, for example, had a 40% greater chest size than the female participant while Ken had a 27.5% larger chest than the male participant, suggesting that doll designs do not pattern a typical human physique.

A similar study also noted the differences in physical dimensions of Barbie and Ken against a human population (Norton, Olds, Olive, & Dank, 1996). The anthropometric details of five Barbie dolls and five Ken dolls were measured and compared to allometric measurements of a group of adults. Results were similar to those of Brownell and Napolitano (1995) in that the probability that a male could obtain Ken's body shape was only 1 out of 50. Part of the study's sample included professional Australian Rules Football players. Therefore, when comparing Ken's dimensions against a typical population, the actual probability of obtaining Ken's body shape would be even more unlikely.

However, Ken is classed as a doll, not an action figure. To date, only one study has considered the change in action figure dimensions over time (Pope, Olivardia, Gruber, & Borowiecki, 1999). In this study, the physical dimensions of original and newer G.I. Joe and Star Wars action figures were measured. Measurements for the waist, chest, and bicep circumference were taken for all four figures and scaled using classical allometry to a height of 1.78 m (70 in.). It was found that the newer figures possessed larger body sizes and greater muscle definition compared with the same figure produced 25 years ago. The authors highlighted the impossible muscular dimensions of the current action figures—dimensions that could not be obtained even with the use of steroids (Pope et al., 1999).

Although this line of research suggests apparent discrepancies between current action figure dimensions and men in the general population, the findings of Pope et al. (1999) must be considered with caution. First, although the action figures in the study were popular, only two figure types were selected. Selection bias may have contributed to the findings (Pope et al., 1999). Second, differences between the size of early and recent action figures were observed, but the authors did not examine whether this was a statistically significant difference. While numerically it appeared that the original figures were smaller than the current figures, no statistical confirmation was achieved. Third, only three body parts were measured. Similar differences in other body part circumferences such as thigh, calf, forearm, and neck may have provided further evidence for the conclusion.

Consequently, the aim of this research was to build upon and further contribute to the research investigating the evolving physical dimensions of action figures.

Method

An action figure is usually a depiction of a superhero, made of plastic, articulated, intended to be able to stand