

**Comment.** Height assessment in children growing at the outer percentiles with potential morbidity may be flawed if we use WHO standards. In a recent study from Norway and Belgium, proportions of the healthy children outside the  $\pm 2$  SDs of WHO standards were different than expected.<sup>6</sup> Furthermore, Finnish children are 0.2 to 0.8 SD taller on average than the WHO standards.<sup>1,5</sup> Thus, the concept of “similarity” of heights among children from different ethnic backgrounds is questionable because genetic differences have an impact on linear growth.

Our study is, to our knowledge, the first to report the suboptimal accuracy of screening of a height disorder with the WHO standard in comparison with population-specific reference. Further studies in other populations and with other growth disorders are warranted. Before implementing the WHO growth charts in height screening, their performance should ideally be tested in the population they are intended for.

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## Bond, James Bond: A Review of 46 Years of Violence in Films

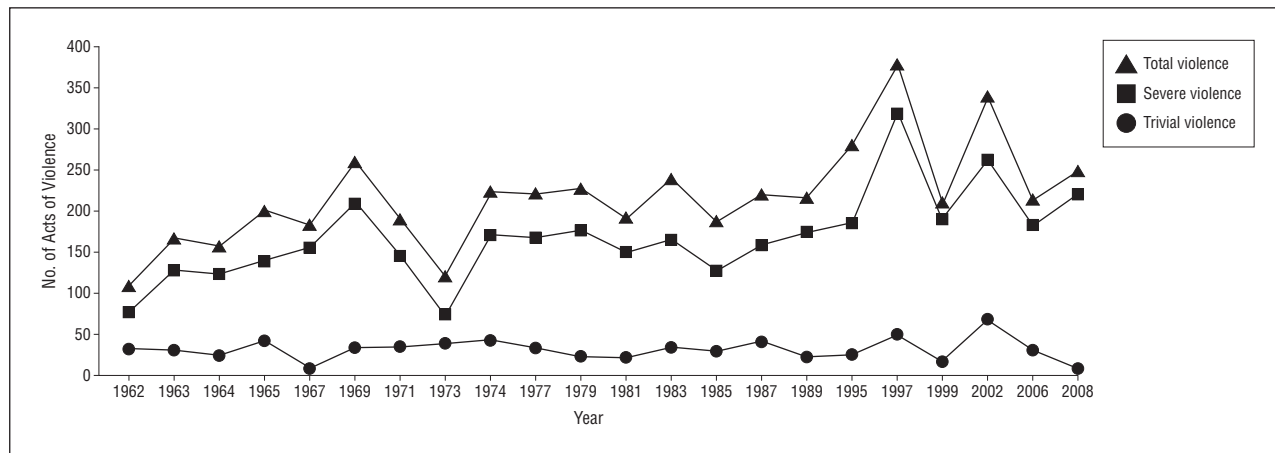
We tested the hypothesis that popular movies are becoming more violent by analyzing James Bond films. This series of 22 films spans 46 years and is one of the world's longest-running and highest-grossing film franchises.<sup>1</sup> As these films are rated either PG or (since 1989) PG-13, they are deemed suitable for, and marketed to, children and adolescents. Given the popularity of the franchise, not only is the probability of exposure to a James Bond film reasonably high, but it is likely that these films reflect the levels of violence in other, similarly rated, popular films. Since ratings systems are generally designed to protect children and adolescents from sexual content, not violence, this is of interest.

**Methods.** DVDs for all 22 James Bond films produced by Eon Productions were viewed in random order and coded for portrayals of violence. Violent imagery was defined as any scene in which there was an intentional attempt by any individual to harm another.<sup>2</sup> This definition includes failed attempts at violence (eg, gunshots that miss) but excludes accidental acts that lead to harm.<sup>2</sup>

Using a scheme modified from the 1997 National Television Violence Study,<sup>3</sup> each time the perpetrator, action, or target (PAT) changed, a new instance of violence was counted.<sup>3</sup> The total violence in each film equaled the number of PATs. Violent acts were further divided into whether the violence was trivial (eg, an open-handed slap) or severe (punching or kicking, attacks with weapons). Mass scenes of violence, in which it was unclear how many people were engaged in a fight and how many were actually harmed, were noted and an arbitrary 10 PATs per mass scene were added to the total violence score for each film. To ensure reliability, 6 randomly selected films were independently coded by a second coder. There were no differences in the mean number of violence instances each coder recorded across these 6 films ( $t=0.258$ ;  $P=.80$ ).

Analyses used Stata (version 10; StataCorp) to determine whether violence increased with time using the Spearman correlation coefficient between year and PAT scores.

**Results.** The total violence in each film was associated with the year the film was released, indicating that portrayals of violence tended to increase over time ( $\rho=0.64$ ;  $P=.001$ ). There was also a significant increase in the portrayals of severe violence over time ( $\rho=0.74$ ;  $P>.001$ ) but not trivial violence ( $\rho=-0.07$ ;  $P=.75$ ) (**Figure**). These findings remained significant when controlling for the length of each film. While the 1997 film had the highest total violence, the most recent film (2008) still contained 250 PATs compared with only 109 in the first film (1962): more than twice as many acts of violence in total and nearly 3 times as many acts of severe violence.



**Figure.** Violence in Bond films by year of release, showing counts of severe and trivial violence as well as total violence. Total violence is higher than the sum of severe and trivial violence because it includes an adjustment for mass scenes of violence.

**Comment.** In this review of 22 films spanning almost half a century, portrayals of violence increased such that rates of violence in 2008 were double those observed in 1962. This was due to an increase in severe rather than trivial violent imagery. The findings support our hypothesis that movies, in general, have become more violent. Others have made similar observations in studies of more diverse samples of films.<sup>4,5</sup>

All Bond films were rated as suitable for children or adolescents with parental guidance. The Bond films will therefore have been seen by many young people and the increase in violent content of these movies represents a general increase in the exposure of young people to media violence. Of further concern is that because young people frequently access R-rated films,<sup>5</sup> they are likely to be exposed to even higher rates of violence in these films. The increase in children and adolescents' exposure to media violence is a matter of concern, given that there is good evidence to suggest that viewing violence has associations with violent behavior.<sup>6</sup> Ratings systems should be reviewed so that there is a greater emphasis on levels and severity of violence.

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## COMMENTS

### Genetic Risk in Childhood Obesity: Implications for Clinical Practice

**W**e wish to comment on the recently published editorial by Fernandez<sup>1</sup> in relation to an article by Belsky et al<sup>2</sup> that validates a gene-based risk tool for obesity in a birth cohort followed up prospectively.

First, given the steeply rising rates of obesity over the last few decades, it is clear that changes in lifestyle (ie, the environment) are "pivotal" to the development of obe-