METHODOLOGY

Insidious Influence of Gender Socialization on Females' Physical Activity: Rethink Pink

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Abstract

Continually accumulating information on the health risks associated with sedentary lifestyles indicates a severe public health need for increased physical activity, as well as for careful attention to factors that can curtail it. Study and documentation of such factors, however, are not enough to promote widespread change in firmly established sedentary behaviors; if they were, the many existing informants of inactivity's ills would have already done so. Accurate information needs not only to reach those who need it, but also to be communicated in ways that demonstrate relevance and importance. The purpose of this paper is to enhance awareness, specifically among physical education and exercise science majors, of some of the many socializing influences that render girls less physically active than boys from early ages. The underlying intent is to promote changes that could enhance the future health and fitness of the female population.

Honestly ask, "Have I ever…

- helped a young girl perform a task that I allowed a boy of the same age to perform independently?"
- allowed a young girl to perform a skill with improper form, but ensured that a boy learned it properly?"
- complimented a female by comparing her to a male?"

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- employed an expression such as 'You throw like a girl' as a criticism?"
- clothed, or seen a female child clothed, in a way that restricts her ability to play?"
- struggled to find a toy for a young girl in a color other than pink?"
- purchased toys or sports equipment that promote physical activity for young boys, but products that promote sedentary play for girls (e.g., fancy dresses, makeup kits, dolls, tea sets)?"

If you answered yes to any of these questions, or at least recognize that many people would, you are acknowledging a few of many gender socialization practices, which have real ramifications for the health and fitness of the female population. *Gender* has been defined as "sets of traits or behavioral dispositions that people come to possess based on their assignment to a particular sex category" (Wharton, 2005, p. 7) and *socialization* as the "process whereby individuals acquire information about acceptable and unacceptable responses, including developing social, cognitive, and physical skills" (Solmon & Lee, 2008, p. 229). Together, *gender socialization* may be considered the "processes of social expectations, control, and struggle" that sustain male–female traditions (Ferree & Hall, 1996, p. 935). These processes are continuous, are complex, and are shaped by many influences, including family members, peers, teachers, coaches, coworkers, and media agencies (Stromquist, 2007).

Some hold that "aging successfully starts at birth" and that there are "critical points in time where well-timed education, referrals, or interventions by health and fitness professionals could help clients shape a preventive health care game plan for successful aging" (Sanders & Nguyen, 2011, p. 37). However, the potential for successful aging may be at least partially determined before birth, through the establishment of environments that will either promote or impede physically active lifestyles. Definitions of *successful aging* are complex and vary across disciplines (Kanning & Schlicht, 2008), but *physical function* has been the most frequent inclusion across cultures and countries, among academicians and laypeople (Hung, Kempen, & DeVries, 2010). Good physical function empowers diverse daily, occupational, leisure, and social activities and enhances subjective well-being (Kanning & Schlicht, 2008; Rikli, 2005). Therefore, regular physical activity crucially contributes to

successful aging by helping people develop and maintain healthy physical function. The purpose of this article is to enhance mindfulness of the influences of gender socialization on physical activity, health, and successful aging, to promote changes in habits that limit physical activity exposure, competency, and self-efficacy among girls and women.

Sociologists routinely discuss the tendencies of gender traditions to restrain women and men from engagement in certain activities (Lindsey, 2011), and some have specifically identified such restraints on physical activity and sports (Schmalz & Kerstetter, 2006). However, such discussion is less common in other disciplines, including physical education and exercise science. With the curricula of many degree programs now viewable online, it is easy to see that many physical education and exercise science majors require a general sociology course, but not a discipline-specific one. Thus, although most students will study some gender-related issues, they may not specifically examine them with respect to physical activity. Since gender socialization may profoundly affect youth physical activity—a known correlate of adult physical activity (Telama et al., 2005)—this is shortsighted. Physical education and exercise science majors will eventually assume leading roles in administering physical activity programs, and it is imperative that they understand the impact of gender stereotypes on physical activity and health. Thus, in addition to promoting greater awareness of gender socialization effects on physical activity, an important secondary objective is to motivate readers to delve into the related literature. The branches of this topic are extensive, and there is much to learn about how to avoid perpetuating the common gender-stereotyped behaviors that render girls less active than boys in schools, sports, recreational settings, and home environments.

Many researchers have documented that males are more physically active than females, at many stages of development, in many settings, beginning at early ages (Beighle, Morgan, Le Masurier, & Pangrazi, 2006; Eaton et al., 2010; Faucette, 1995; Jago, Anderson, Baranowski, & Watson, 2005; Ridgers, Stratton, Fairclough, & Twisk, 2007; Sallis, Prochaska, & Taylor, 2000; Trost et al., 2002; P. Tucker, 2008). Although research on physical activity among children of preschool age is limited, some findings are noteworthy. P. Tucker (2008) reviewed 39 studies, involving more than 10,000 preschoolers and reported that among the 18 that examined sex differences in physical activity, 16 showed that male preschoolers were

more active than females. These findings from studies of young children indicate how early socialization behaviors may substantially affect children's physical activity levels. Since the gender gap in physical activity levels only widens as children age (Jago et al., 2005; Sherar, Esliger, Baxter-Jones, & Tremblay, 2007), and since adult physical activity is a direct correlate of youth physi¬cal activity (Sallis et al., 1992; J. Tucker et al., 1995), patterns of reduced activity among preschool girls may have profound implications for the activity levels, fitness, and health of adult women.

Recent statistics on adolescent physical activity from the Youth Risk Behavior Surveillance System (YRBSS) reveal significant gender disparities (Eaton et al., 2010). Although only about 37% of ninth to 12th graders nationwide accumulate the recommended levels of weekly physical activity, the percentage of girls that meets recommendations is even lower (girls, 27.7%; boys, 43.6%). Additionally, compared with boys, girls attend fewer physical education classes (Eaton et al., 2010), participate less during physical education (Eaton et al., 2006), belong to fewer sports teams (Eaton et al., 2010; McKenzie, Marshall, Sallis, & Conway, 2000; Pratt, Macera, & Blanton, 1999), and engage in less physical activity during recess and outside of school (Beighle et al., 2006; Pate et al., 2002; Ridgers et al., 2007; Trost et al., 2002).

Important research and modern initiatives indicate that "Exercise is Medicine" (www.exerciseismedicine.org) and that, as a nation, we need higher doses to curb the premature morbidity and mortality associated with physical inactivity (Jonas & Phillips, 2009). To achieve higher effective doses, society needs to counter many factors that contribute to sedentary living, including the overfeminization of girls. Even before babies are born, the environments that await them are often furnished with items that teach girls and boys traditional homemaker and breadwinner roles. Socialization studies, spanning decades, have shown that boys' clothing, surroundings, and toys generally support sports activity and aspirations of future work outside the home (Blakemore & Centers, 2005; Fisher-Thompson, 1990; Rheingold & Cook, 1975). In contrast, girls' surroundings often facilitate early training for less physically demanding domestic chores, parenting, and self-grooming (Basow, 1992; Blakemore & Centers, 2005; Eccles, Jacobs, & Harold, 1990; Tauber, 1979). Essentially, as girls rehearse engaging in home-, child-, and self-care, they also learn to spend less time in physically active, healthful play.

Rethink Pink

Before going further, please list the first five adjectives you associate with *pink*.

Despite that this paper's title and introduction may have led you to scrutinize your replies, past experience and prior evidence (Koller, 2008) suggest that

(A) you did not list *aggressive, capable, strong, powerful, ambitious*, and *driven* and

(B) you did list *pretty, soft, sweet, feminine, delicate, fragile*, and *girly*.

The point of this exercise is to reveal common tendencies to associate (B) or dissociate (A) certain attributes with pink and, arguably, anyone wearing pink. Such tendencies have been documented (Koller, 2008), and one need not be an astute observer to see how few parents dress their boys in pink, presumably to avoid affiliation with a hallmark of femininity (Karniol, 2011). If pink were merely a color, devoid of nuance, boys would be similarly surrounded by it, clad in it, and given toys embellished with it. Instead, boys are blanketed in blue and steered away from anything pink and its soft significance.

Some researchers have proposed biological bases for color preferences (Alexander, 2003; Hulbert & Ling, 2007), but most support social learning as the major determinant (Cohen, 2013; Cunningham & Macrae, 2011; LoBue & DeLoache, 2011). Children begin to learn what they should prefer from the moment they are wrapped in pink and blue blankets and brought home to pink and blue bedrooms. LoBue and DeLoache (2011) investigated whether young children demonstrate color preferences by dividing 192 children into six age groups (7–11 months, 1 year, 2 years, 3 years, 4 years, 5 years) and asking them, over eight trials, to choose their preference of a pair of identical objects of different color. One object within a pair was always pink, and the objects were presented in counterbalanced fashion, with respect to gender, age group, and right or left orientation. Results showed no evidence of gender differences in color preferences within the youngest age groups. However, by age 2, girls' liking for pink increased, whereas it decreased among boys, creating a sizeable difference by age 4. Girls' preferential selection of pink reached significance by ages 3 and 4, and boys' nonselection of it was significant at ages 2, 4, and 5. Thus, it appears that children's tendencies to choose or to avoid pink emerge only with

increasing age, as they observe, learn, and receive reinforcement for adhering to color conventions. In a study specifically designed to investigate color associations in adults, no men (17–96 years) identified pink as their favorite color and 20% listed it as their least favorite (Koller, 2008).

Color and "appropriate" activity stereotypes (Azzarito & Solmon, 2009; Schmalz & Kerstetter, 2006) are so pervasive that many people fail to see them as such, increasing the difficulty of change. *Why change?* First, the fundamental concept of freedom centers on the "power to determine without restraint" ("Freedom," n.d.). Gender conventions subvert this right for children by limiting their acceptable options. *Where there are 10 girls' tops on a rack and seven of them are pink, are there really 10 choices? Where female children are given toy vacuum cleaners, Easy Bake Ovens, dolls, and Rapunzel dresses, what are the chances that they, at some point, will "play house," "take care of their babies," and "wait for rescue by a handsome prince"? Where girls are not given a diversity of sports equipment and action-oriented toys, what are the chances that they will develop diverse motor skills and activity experiences?* Gender stereotypes limit the characteristics and the skills that children can develop.

Second, change is needed because many gender stereotypes perpetuate lower physical activity levels among females, which affect health. The pervasiveness of the stereotypes cannot be adequately characterized here, but a few examples indicate their range. Pomerleau, Bolduc, Malcuit, and Cosette (1990) evidenced parental gender stereotyping, in analyzing the bedrooms, toys, and clothing of children 5–25 months old. Girls had more pink pacifiers, pink clothes, dolls, dollhouses, and toy household appliances (e.g., ovens, vacuum cleaners), and boys had more blue pacifiers, blue clothes, sports equipment, and occupation-oriented toys (e.g., medical kits, tools). Nelson (2000) analyzed 469 Halloween costumes and classified a mere 8.7% as gender neutral (i.e., ads or packaging displayed boys and girls or ambiguous figures as models). The majority targeted a specific gender, with the greatest percentages of female costumes depicting princesses and beauty queens and the most prevalent male costumes portraying villains, superheroes, and warriors. Villains, superheroes, and warriors are perpetrators, saviors, and fighters; princesses and beauty queens are passive figures to be ornamented and admired. Bridges (1993) reported that birth congratulations cards for girls were dominated by pink and images of sedentary activity (e.g., sitting, lying down), and cards for boys

were predominantly blue and depictive of active behaviors (e.g., walking, climbing, reaching).

Readers who question the recency of the previous findings need only attend a baby shower where the sex of the expected child is known and observe the character and colors of the gifts. Explore the website of a children's store, such as Babies "R" Us or The Children's Place, and view the clothing options. A recent search (7-5-13) of the subcategories Baby Clothes, Baby Girl Clothes, and Tops at BabiesRUs.com yielded 42 tops for girls, with 30, or 71%, being or bearing pink. In contrast, only one top among 29 (3%) within the subcategory Baby Boy Clothes contained *any* pink, among many other colors. Investigate children's bedrooms and toy chests, and browse the aisles of a toy store or the products on a toy store website.

Girls' and boys' disparate surroundings directly influence their play activities. Girls spend significantly more time playing with dolls, in "house," and "dress-up" activities, whereas boys spend more time with construction and vehicular toys (Freeman, 2007; Giddings & Halverson, 1981; O'Brien & Huston, 1985). However, kids play with the toys made available to them. Relatively few boys learn young that they will one day have to wash clothes, change diapers, push baby strollers, vacuum, and dust because relatively few people give boys toys that simulate "women's work." Similarly, relatively few girls are given toy excavators, harvesters, race cars, and footballs, and it is therefore not surprising that tremendous gender discrepancies in certain careers and in sports participation remain. Parents have been shown to report much greater support for cross-gender play (e.g., girls playing with trucks, boys playing with dolls) than their children perceive (Freeman, 2007), indicating a discrepancy between what parents profess and what they communicate to children. What is important to recognize is that wider ranges of play experiences allow children to explore wider ranges of roles and skills. Domestic chores are important for everyone to learn—girls and boys—just as regular physical activity is vital to the health and competency of all people to participate fully in life.

State of Affairs: Gender Equity in Sports and Physical Activity

Gender stereotypes and bias *still* limit the physical activities in which girls participate, persist, and succeed. Title IX's prohibition of sex discrimination in federally funded educational programs (U.S. Department of Justice, 2001) has greatly increased athletic partici-

pation among girls and women, yet noncompliance with the act is widespread and inequities persist (Braddock, Sokol-Katz, Greene, & Basinger-Fleischman, 2005; Simon, 1993/1994; Stafford, 2004). Mandatory compliance reports on American public schools showed that in 2000, girls were still 29% less likely than boys to participate in interscholastic athletics, which may partially reflect the 10% fewer sports teams available for girls (Braddock et al., 2005). A recent gender equity report from the National Collegiate Athletic Association (NCAA) substantiates the persistent inequities in total expenditures, personnel, and other forms of support for male compared with female sports; for example, despite that female undergraduates constitute the greater proportion of student bodies at Division I institutions (53.3%), the average number of female student-athletes per institution is 218, compared with 269 for males (DeHass, 2008). At Division I institutions, overall expenditures for women's teams are essentially half those for men's teams (51.4%), and trends are similar for Divisions II and III. The persistence of the inequities is substantiated in the NCAA (2008) gender equity manual:

Problems arise where institutions create spacious and well-furnished locker rooms for football and men's basketball and no similarly appointed locker rooms for women's teams. Access to luxury items in locker rooms also creates compliance problems when those are not distributed equitably between men's and women's teams. (p. 208)

Media coverage is another well-documented area of inequity and means of perpetuating gender stereotypes. Eastman and Billings (2000) reported that throughout 11 weeks of ESPN's *SportsCenter* and CNN's *Sports Today*, 95% and 93% of coverage, respectively, was devoted to male athletes. During the same time frame, *USA Today* dedicated 5 times as much space to male versus female athletes and *The New York Times* 10 times as much. Only 10% of articles and photos from 36 issues of *Sports Illustrated* (Fink & Kensicki, 2002) and only 24% of photos from the same volume of *Sports Illustrated Kids* featured female athletes (Hardin, Lynn, Walsdorf, & Hardin, 2002). An analysis of 602 issues, from 43 daily newspapers, collected over 1 year, showed that more numerous articles, more physical space, more favorable positioning (e.g., front page, higher on page), and more photos were dedicated to male versus female athletes (Pedersen, 2002). In their investigation of media from 39 colleges and universities, ranging in size, location, and socioeconomic status, Huffman, Tuggle, and Rosengard (2004) revealed that

73% of sports stories in campus newspapers and 82% of campus sportscasts covered male athletes. Cooper and Cooper (2009) analyzed 630 intercollegiate athletics Web pages and found that women were underrepresented compared with men in all assessed areas: advertisements (29.7% vs. 70.3%), articles (40.0% vs. 60.0%), multimedia (78.1% vs. 21.9), and photographs (39.7% vs. 60.3%). These findings are particularly noteworthy in that intercollegiate websites should be in compliance with Title IX regulations for gender equality in collegiate athletics, including publicity (U.S. Department of Justice, 2001).

Qualitative differences give even greater dimension to gender bias in the media coverage of male and female athletes. Higgs and Weiller (1994) reported that television networks provided significantly less air time for women's events compared with men's during the Olympic Games and often joined women's events "in progress" (p. 237) while providing preview coverage of many men's events. Analysts distinctly upheld traditional notions of male dominance and female deference, as they spoke at length about males' strengths, abilities, successes, and difficult tasks and about females' weaknesses, appearances, and emotions. They framed male athletes as competitive, strong, powerful, and fast and spoke little about their personal lives or emotions. In contrast, they described female athletes with words and phrases that included "long beautiful legs" (p. 240), "gorgeous," "Cinderella," "fragile" (p. 241), "prettier now with long hair," "babe" (p. 242), "prettiest nails in the competition," and "a little too chunky for this event" (p. 244). Analysts provided extensive coverage of one gymnast's fall off the balance beam and her ensuing tears. Despite that some male athletes are "chunky" and that some cry, there were no parallel commentaries on males' body weights or tears.

Male athletes are more often presented in uniform and in action, with photos that convey competence and strength, whereas female athletes are often presented out of uniform, in passive positions, with images that express femininity, sexuality, and even seduction (Buysse & Embser-Herbert, 2004; Fink & Kensicki, 2002; Hardin et al., 2002; Higgs & Weiller, 1994; Kane & Buysse, 2005).

An example of this is one media guide cover that portrayed the women's basketball team in formal gowns with heavily made up faces and styled hair. The message communicated is not about basketball. There is no evidence anywhere on the cover that suggests that this is a basketball team. Rather, it appears that they might

be candidates for homecoming queen. (Buysse & Embser-Herbert, 2004, p. 79).

A 2010 issue of *Golf Magazine*, a publication that primarily features male golfers, included an article on Michelle Wie (Barrett, 2010). A two-page photo spread, beginning on page 72, showed Wie lying alluringly on the grass, in a lacy top, dress pants, and heels. Nothing in the photo indicates that Wie is a golfer or that she is even lying on golf course grass, as no flagstick, hole, or cut lines are visible. In only one of eight photos within the article, the smallest at about the size of a postage stamp, is Wie demonstrating any physical ability, swinging a club (p. 79). Media framing has been said to trivialize the endeavors of female athletes by focusing on their appearances, emotions, and unrelated life activities (Carty, 2005; Duncan & Messner, 1998; Fink & Kensicki, 2002; Higgs & Weiller, 1994). Examination of local newspapers, major sports magazines, newscasts, and Web pages will verify the persistence of these inequities.

Societal conventions are such that many people often do not recognize as sexist the many things they see, hear, say, and do that are, in fact, sexist. As indicated, sportscasters sustain conventions through the glorification of male and subordination of female athletes. Some show clear tendencies to refer to female athletes as "girls," but not to refer to male athletes of comparable age as "boys" (Higgs & Weiller, 1994; Higgs, Weiller, & Martin, 2003), and to refer to males by their last names, but females by their first (Duncan & Messner, 1998; Halbert & Latimer, 1994). In a study of U.S. Open tennis match commentaries, analysts referred to female players solely by their first names 57% of the time compared with a mere 8% of the time for male players (Duncan & Messner, 1998). Some commentators praise female athletes by comparing them to male counterparts, as one compared Venus Williams to Pete Sampras (Eastman & Billings, 2000). Although the popular press has compared Annika Sorenstam to Tiger Woods, Lisa Leslie to Michael Jordan, Mia Hamm to David Beckham, and Natalie Coughlin to Michael Phelps, few can imagine hearing the reciprocals. The problem with these media tendencies is that many who hear them later mimic them in other venues, including sports practices, physical activity programs, and physical education classes. In her observations of approximately 50 physical education classes, Griffin (1981) noted that teachers made several male-praising comments such as "Mary, you throw as well as the boys" and "Jane is a great athlete for a girl" (p. 15). Though Griffin's report was published decades ago, this author continues to hear such comments frequently. Wright (2001) reported

merely a few of hundreds of examples of language and behaviors provided by physical education teachers, which reinforce restrictive notions of femininity and masculinity, including quotes such as "You can't let a girl beat you" and "Don't pass it to ... she might break a nail", comments made to ridicule boys such as alluding to "playing like a girl", and practices such as bringing in the pitcher's plate because a girl is pitching (p. 15).

Examples such as those above, along with the many subtle day-to-day instances of gender bias, can detract from the fun of sports and physical activities for some girls and women. Golf courses are some of the most fertile ground for sexism. Some course executives still maintain male-only membership policies, and many more restrict women from playing on certain days of the week and at certain times of day (Lenkiewicz, 2011). "Women's tees" and "men's tees" persist as common terms, despite that the United States Golf Association (2008) designates various teeing ground locations as "forward," "middle," and "back tees" and urges golfers to play from those suited to their ability levels, not their gender. Despite the prevalence of slow play on many golf courses, among many types of players, women are commonly assumed to be slow players before ever giving evidence of being so (McGinnis, McQuillan, & Chapple, 2005).

Changing the State of Affairs

For girls to develop comparable levels of physical self-competence as boys, they need to be routinely given the same exposure to sports and physical activities, the same quantity and quality of instruction, the same patience with their mistakes, and the same recognition of their efforts. Inequities in physical activity settings *have* shrunk, but they still exist. Conduct an informal investigation of exposure by surveying the preschool sports programs at a local YMCA or recreation center. If there were gender equity, there would be an approximate 50–50, boy–girl split in commonly offered activities, such as tee-ball, swimming, soccer, and basketball. However, male majorities abound and will continue to do so until more people recognize the harm in providing girls with fewer early opportunities to develop motor skills and active behaviors.

Parents, teachers, and coaches influence children's skill acquisition through the amounts and type of instruction, supervision, and feedback they provide. Research has shown that physical education teachers (Dunbar & O'Sullivan, 1986; Griffin, 1981; MacDonald,

1990; Nicaise, Cogérino, Bois, & Amorose, 2006; Nicaise, Cogérino, Fairclough, Bois, & Davis, 2007), classroom teachers (Sadker, Sadker, & Zittleman, 2009; Vekiri & Chronaki, 2008), and parents (Crowley, Callanan, Tenenbaum, & Allen, 2001; Frome & Eccles, 1998; Jacobs, 1991; Tiedemann, 2000) provide more verbal and nonverbal interaction, more constructive criticism, and more appropriate praise to males than females and demonstrate higher expectations for males' abilities. These differential behaviors can profoundly enhance boys' and limit girls' learning; for example, constructive criticism from competent sources is a form of augmented feedback known to enhance the acquisition of motor skills (Magill, 1994). Although individuals can learn some skills using inherent sources of feedback, such as the senses (e.g., see an object fall short of a target and learn to throw it with more force), augmented feedback is helpful in learning complex skills and attaining higher levels of proficiency (e.g., learn to throw the object with optimum efficiency, power, consistency). When individuals attempt complex skills wherein they cannot discern their own errors and do not receive augmented feedback, their learning may be severely impaired (Schmidt, 1991). When girls err, they are less likely to receive such feedback and therefore to enhance their physical competency. Moreover, since corrective feedback following errors and praise following successes are known to bolster perceived competence (Allen & Howe, 1998), common socialization tendencies may affect girls' actual skills and confidence in their skills.

Girls' confidence in their abilities may be undermined by what some authors have referred to as "short-circuiting" of learning processes. In their compendium of more than three decades of research on gender inequities in schools, Sadker et al. (2009) provided numerous examples of ways that teachers "short-circuit" (p. 109) girls' learning by interrupting their efforts to accomplish tasks on their own. This is a form of sexism, though difficult for some to detect compared with blatant forms. The provision of excessive assistance to females by males is referred to as benevolent sexism because, although it appears caring and chivalrous, it nevertheless perpetuates notions of female incompetence and dependence on males (Becker & Wright, 2011; Dardenne, Dumont, & Bollier, 2007). When cloaked in affection, expressions of male dominance often go unrecognized as sexism by males and females, making them less likely to be challengedBarreto & Ellemers, 2005; Becker & Wright, 2011).

Although researchers have yet to specifically address its effects on motor development, benevolent sexism has been shown to raise

women's self-doubts about job competency, reduce their self-esteem, and undermine their actual performance more than hostile sexism (Dardenne et al., 2007). Unlike hostile sexism, which may inspire anger and motivation to perform, benevolent sexism may raise self-doubting and anxious thoughts, which can interfere with information processing and performance (Dardenne et al., 2007; Dumont, Sarlet, & Dardenne, 2010). In addition, since mastery experiences and verbal persuasion are major contributors to self-efficacy beliefs (Bandura, 1997), social influences that interfere with an individual's ability to perform a task or that raise self-doubt may also weaken self-efficacy. Benevolent sexism, during incidents such as the following, can insidiously impair girls' development of physical skills and self-efficacy, which may impact their future physical activity, fitness, and health. The following was recorded subsequent to the field observation of an exercise science intern:

> Today, I observed Dan leading a youth physical activity program at the YMCA. I was looking forward to the observation, as Dan is academically strong and has a great demeanor for working with kids. I watched Dan lead a small group of four to six year-olds through some warm-up and basketball activities. There were six boys and one girl. The girl was easily identifiable… in pink. I was initially entertained by the awkward, but active disarray, as the youngsters attempted to dribble mini basketballs and heave them towards mini hoops. However, I soon became very frustrated. First, while all of the boys were wearing lace-up athletic shoes, the girl wore slip-on shoes that repeatedly slipped off her heels, as she attempted to run and jump. Her movements were clearly impaired. Second, while they were dribbling, ALL of the children were losing ball control and having to chase down their basketballs. The only one for whom my student retrieved a ball was the little girl. Third, I watched one small boy miss a shot and then, during his next attempt, he squatted a little deeper, jumped a little higher, and projected his arms a little more forcefully. He still missed the basket, but he got closer. He improved. The little girl had no reason to try harder. As she was about to shoot her first shot, Dan hoisted her to the basket rim and allowed her to place the ball through the hoop. Let her try, Dan! If she misses, let her try again! Missing is a part of learning! Once again, a young girl was denied the opportunity (by a good student!)

> to try, fail, receive feedback, and improve skills that could enhance her future participation, and no one but me even noticed. (Mullins, 2010)

The ways that children are dressed greatly promote conformity to gender-stereotyped behavior. Boys are typically dressed to enable active play, whereas girls are often dressed in ways that limit physical activity and competency (Copeland, Sherman, Kendeigh, Saelens, & Kalkwarf, 2009; Norrish, Farringdon, Bulsara, & Hands, 2012; Oliver, Hamzah, & McCaughtry, 2009; Tauber, 1979). Girls are regularly outfitted in dresses, skirts, and fancy shoes, with inappropriate jewelry and painstakingly arranged hair. Albers (1998) showed that the way children are dressed can influence perceptions of appropriate behavior. She showed six photographs to 81 male and female children, aged 5 to 10 years old. Each photo depicted a male or a female child wearing masculine, feminine, or neutral clothing. The masculine outfits were characterized by navy blue, red, stripes, and baseball hats; the feminine ones by pink, ruffles, and flowers; and the neutral ones by the colors white, green, and yellow. Albers also showed the participants six cards, each bearing a black-and-white, gender-neutral silhouette of a child engaged in a specific play activity, and asked them to rank the activities according to what they thought would be the most to the least favorite of the individuals in the photographs. The participants responded in clear accordance with gender stereotypes, assuming that the favorites of the girl wearing the dress would be playing with the doll and cooking set and that the least favorite would involve the trucks and tools. They provided the opposite rankings for the male dressed in masculine attire and rankings reflecting more diverse interests (e.g., reading, working on a puzzle) for the male and female dressed in gender-neutral clothing. The implication is that the way children are dressed can communicate to them how they are supposed to behave. Dressing them elaborately and grooming them extensively communicates that they are to spend significant amounts of time sitting, primping, and staying clean. Spending little time dressing and grooming them communicates expectations to sit little and play much.

Although the primary purpose of this paper is to promote increased sensitivity to factors that limit girls' development, it is also important to recognize that the "over-blueing" of boys can limit their development. A young boy should not have to fear possible repercussions from wearing pink or taking ballet. Girls and boys

should be dressed in all colors and granted equal exposure to leisure, sports, artistic, academic, career, and domestic activities. They should be allowed to further explore activities that interest them as unique individuals and to fully express emotions that accompany their explorations. Stereotypes limit choice, individualism, and holistic development, and they perpetuate discrimination and the status quo. According to system justification theory, "…people are motivated not only to hold favorable attitudes toward themselves and toward members of their own groups (as other theories assume), but also to hold favorable attitudes toward the existing social system and the status quo" (Jost, Banaji, & Nosek, 2004, p. 912). In simple terms, since social systems establish social desirability, the way it is indicates the way it should be (Kay et al., 2009).

Summary: What Can Be Done?

Foremost, health professionals and laypeople alike can enhance awareness of gender-related conventions that may, in any way, undermine physical competency and health. Words, actions, and attitudes can be scrutinized for subtle potential to limit females' activity levels, as can gender traditions during role modeling, supporting, and reinforcing children's physical activity. Adults can address and help stop the perpetuation of phrases such as "You run like a girl." They can increase awareness of benevolent sexism and its abilities to limit females' skills, roles, competence, and self-esteem (Becker & Wright, 2011; Dardenne et al., 2007). Instead of giving excessive assistance to girls in their tasks, coaches, teachers, and parents can allow them to fail, persist, and accumulate mastery experiences that enhance self-efficacy (Bandura, 1997). When girls truly need help, adults can provide the same instructional detail that they would to boys. Adults can more carefully consider the toys they buy, chores they assign, clothes they provide, and activities they encourage for children. They can explain that boys and girls need to know how to cook, clean, and care for children and how to use tools, operate machines, and engage in a variety of physical activities. Instead of smothering girls with pink and boys with blue, they can provide all children with variety and grant them choice. These are relatively simple actions, but they may require mindful modification of existing habits. For every person who can more equitably promote physical activity among girls and boys, many more people will learn from them and contribute to widespread healthy change.

References

Albers, S. M. (1998). The effect of gender-typed clothing on children's social judgments. *Child Study Journal, 28*(2), 137–158.

Alexander, G. M. (2003). An evolutionary perspective of sex-typed toy preferences: Pink, blue, and the brain. *Archives of Sexual Behavior, 32*(1), 7–14.

Allen, J. B., & Howe, B. L. (1998). Player ability, coach feedback, and female adolescent athletes' perceived competence and satisfaction. *Journal of Sport & Exercise Psychology, 20*(3), 280–299.

Azzarito, L., & Solmon, M. (2009). An investigation of students' embodied discourses in physical education: A gender project. *Journal of Teaching in Physical Education, 28*, 173–191.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman.

Barreto, M., & Ellemers, N. (2005). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social Psychology, 35*(5), 633–642.

Barrett, C. (2010, March). Wie shall overcome. *Golf Magazine, 52*(3), 72–79.

Basow, S. A. (1992). *Gender stereotypes and roles* (3rd ed.). Pacific Grove, CA: Brooks/Cole.

Becker, J. C., & Wright, S. C. (2011). Yet another dark side of chivalry: Benevolent sexism undermines and hostile sexism motivates collective action for social change. *Journal of Personality and Social Psychology, 101*(1), 62–77.

Beighle, A., Morgan, C. F., Le Masurier, G., & Pangrazi, R. P. (2006). Children's physical activity during recess and outside of school. *Journal of School Health, 76*(10), 516–520.

Blakemore, J. E. O., & Centers, R. E. (2005). Characteristics of boys' and girls' toys. *Sex Roles, 53*(9–10), 619–633.

Braddock, J. H., II, Sokol-Katz, J., Greene, A., & Basinger-Fleischman, L. (2005). Uneven playing fields: State variations in boys' and girls' access to and participation in high school interscholastic sports. *Sociological Spectrum, 25*(2), 231–250.

Bridges, J. S. (1993). Pink or blue: Gender-stereotypic perceptions of infants as conveyed by birth congratulations cards. *Psychology of Women Quarterly, 17*(2), 193–205.

Buysse, J. A. M., & Embser-Herbert, M. S. (2004). Constructions of gender in sport: An analysis of intercollegiate media guide cover photographs. *Gender and Society, 18*(1), 66–81.

Carty, V. (2005). Textual portrayals of female athletes. *Frontiers, 26*(2), 132–155.

Cohen, P. N. (2013). Children's gender and parents' color preferences. *Archives of Sexual Behavior, 42*(3), 393–397.

Cooper, C. G., & Cooper, B. D. (2009). NCAA website coverage: Do athletic departments provide equitable gender coverage on their athletic home Web pages? *Sport Journal, 12*(2). Retrieved from http://www.thesportjournal.org/article/ncaa-website-coverage-do-athletic-departments-provide-equitable-gender-coverage-their-athlet

Copeland, K. A., Sherman, S. N., Kendeigh, C. A., Saelens, B. E., & Kalkwarf, H. J. (2009). Flip flops, dress clothes, and no coat: Clothing barriers to children's physical activity in child-care centers identified from a qualitative study. *The International Journal of Behavioral Nutrition and Physical Activity, 6*, 1–15. doi:10.1186/1479-5868-6-74

Crowley, K., Callanan, M. A., Tenenbaum, H. R., & Allen, E. (2001). Parents explain more often to boys than to girls during shared scientific thinking. *Psychological Science, 12*(3), 258–261.

Cunningham, S. J., & Macrae, C. N. (2011). The colour of gender stereotyping. *British Journal of Psychology, 102*(3), 598–614.

Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. *Journal of Personality and Social Psychology, 93*(5), 764–779.

DeHass, D. (2008). *2005–06 Gender equity report*. Indianapolis, IN: National Collegiate Athletic Association.

Dumont, M., Sarlet, M., & Dardenne, B. (2010). Be too kind to a woman, she'll feel incompetent: Benevolent sexism shifts self-construal and autobiographical memories toward incompetence. *Sex Roles, 62*(7–8), 545–553.

Dunbar, R. R., & O'Sullivan, M. M. (1986). Effects of intervention on differential treatment of boys and girls in elementary physical education lessons. *Journal of Teaching in Physical Education, 5*(3), 166–175.

Duncan, M. C., & Messner, M. A. (1998). The media image of sport and gender. In L. A. Wenner (Ed.), *MediaSport* (pp. 170–185). Oxfordshire, United Kingdom: Taylor & Francis.

Eastman, S. T., & Billings, A. C. (2000). Sportscasting and sports reporting: The power of gender bias. *Journal of Sport and Social Issues, 24*(2), 192–213.

Eaton, D. K., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Harris, W. A., . . . Wechsler, H. (2006). Youth risk behavior surveillance – United States, 2005. *Morbidity and Mortality Weekly Report, 55*(SS-5), 1–107.

Eaton, D. K., Kann, L., Kinchen, S., Shanklin, S., Ross, J., Hawkins, J., …Wechsler, H. (2010). Youth risk behavior surveillance – United States, 2009. *Morbidity and Mortality Weekly Report, 59*(SS-5), 1–142.

Eccles, J. S., Jacobs, J. E., & Harold, R. D. (1990). Gender role stereotypes, expectancy effects, and parents' socialization of gender differences. *Journal of Social Issues, 46*(2), 183–201.

Faucette, N. (1995). Comparison of fourth grade students' out-of-school physical activity levels and choices by gender: Project SPARK. *Journal of Health Education, 26*(2), S82–S90.

Ferree, M. M., & Hall, E. J. (1996). Rethinking stratification from a feminist perspective: Gender, race, and class in mainstream textbooks. *American Sociological Review, 61*(6), 929–950.

Fink, J. S., & Kensicki, L. J. (2002). An imperceptible difference: Visual and textual constructions of femininity in Sports Illustrated and Sports Illustrated for Women. *Mass Communication and Society, 5*(3), 317–339.

Fisher-Thompson, D. (1990). Adult sex typing of children's toys. *Sex Roles, 23*(5–6), 291–303.

Freedom. (n.d.). In *Dictionary.com Unabridged*. Retrieved from http://dictionary.reference.com/browse/freedom

Freeman, N. (2007). Preschoolers' perceptions of gender appropriate toys and their parents' beliefs about genderized behaviors: Miscommunication, mixed messages, or hidden truths? *Early Childhood Education Journal, 34*(5), 357–366.

Frome, P. M., & Eccles, J. S. (1998). Parents' influence on children's achievement-related perceptions. *Journal of Personality and Social Psychology, 74*(2), 435–452.

Giddings, M., & Halverson, C. F. (1981). Young children's use of toys in home environments. *Family Relations, 30*(1), 69–74.

Griffin, P. S. (1981). One small step for personkind: Observations and suggestions for sex equity in coeducational physical education classes. *Journal of Teaching in Physical Education, 1*(1), 12–17.

Halbert, C., & Latimer, M. (1994). "Battling" gendered language: An analysis of the language used by sports commentators in a televised coed tennis competition. *Sociology of Sport Journal, 11*, 298–308.

Hardin, M., Lynn, S., Walsdorf, K., & Hardin, B. (2002). The framing of sexual difference in SI for Kids editorial photos. *Mass Communication and Society, 5*(3), 341–359.

Higgs, C. T., & Weiller, K. H. (1994). Gender bias and the 1992 Summer Olympic Games: An analysis of television coverage. *Journal of Sport and Social Issues, 18*(3), 234–246.

Higgs, C. T., Weiller, K. H., & Martin, S. B. (2003). Gender bias in the 1996 Olympic Games: A comparative analysis. *Journal of Sport and Social Issues, 27*(1), 52–64.

Huffman, S. S., Tuggle, C. A., & Rosengard, D. S. (2004). How campus media cover sports: The gender-equity issue, one generation later. *Mass Communication and Society, 7*(4), 475–489.

Hulbert, A. C., & Ling, Y. (2007). Biological components of sex differences in colour preference. *Current Biology, 17*, R623–R625.

Hung, L., Kempen, G. I. J. M., & De Vries, N. K. (2010). Cross-cultural comparison between academic and lay views of healthy ageing: A literature review. *Ageing & Society, 30*(8), 1373–1391.

Jacobs, J. E. (1991). Influence of gender stereotypes on parent and child mathematics attitudes. *Journal of Educational Psychology, 83*(4), 518–527.

Jago, R., Anderson, C. B., Baranowski, T., & Watson, K. (2005). Adolescent patterns of physical activity: Differences by gender, day, and time of day. *American Journal of Preventive Medicine 28*(5), 447–452.

Jonas, S., & Phillips, E. M. (2009). *ACSM's exercise is medicine: A clinician's guide to exercise prescription*. Philadelphia, PA: Lippincott, Williams & Wilkins.

Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology, 25*(6), 881–919.

Kane, M. J., & Buysse, J. A. (2005). Intercollegiate media guides as contested terrain: A longitudinal analysis. *Sociology of Sport Journal, 22*, 214–238.

Kanning, M., & Schlicht, W. (2008). A bio-psycho-social model of successful aging as shown through the variable "physical activity." *European Reviews of Aging & Physical Activity, 5*(2), 79–87.

Karniol, R. (2011). The color of children's gender stereotypes. *Sex Roles, 65*(1–2), 119–132.

Kay, A. C., Gaucher, D., Peach, J. M., Laurin, K., Friesen, J., Zanna, M. P., & Spencer, S. J. (2009). Inequality, discrimination, and the power of the status quo: Direct evidence for a motivation to see the way things are as the way they should be. *Journal of Personality and Social Psychology, 97*(3), 421–434.

Koller, K. (2008). 'Not just a colour': Pink as a gender and sexuality marker in visual communication. *Visual Communication, 7*(4), 395–423.

Lenkiewicz, T. M. (2011). Green jackets in men's sizes only: Gender discrimination at private country clubs. *Vanderbilt Journal of Transnational Law, 44*(3), 777–818.

Lindsey, L. L. (2011). *Gender roles: A sociological perspective* (5th ed.). Boston, MA: Pearson Education.

LoBue, V., & DeLoache, J. S. (2011). Pretty in pink: The early development of gender-stereotyped colour preferences. *British Journal of Developmental Psychology, 29*(3), 656–667.

MacDonald, D. (1990). The relationship between the sex composition of physical education classes and teacher/pupil verbal interaction. *Journal of Teaching in Physical Education, 9*(2), 152–163.

Magill, R. A. (1994). The influence of augmented feedback on skill learning depends on characteristics of the skill and the learner. *Quest, 46*(3), 314–327.

McGinnis, L., McQuillan, J., & Chapple, C. L. (2005). I just want to play: Women, sexism, and persistence in golf. *Journal of Sport and Social Issues, 29*(3), 313–337.

McKenzie, T. L., Marshall, S. J., Sallis, J. F., & Conway, T. L. (2000). Student activity levels, lesson context, and teacher behavior during middle school physical education. *Research Quarterly for Exercise and Sport, 71*(3), 249–259.

Mullins, N. M. (2010, November 10). HPES 4880: Exercise science internship evaluations. Unpublished data.

National Collegiate Athletic Association. (2008). G*ender equity in intercollegiate athletics: A practical guide for colleges and universities*. Indianapolis, IN: Author.

Nelson, A. (2000). The pink dragon is female: Halloween costumes and gender markers. *Psychology of Women Quarterly, 24*(2), 137–144.

Nicaise, V., Cogérino, G., Bois, J., & Amorose, A. J. (2006). Students' perceptions of teacher feedback and physical competence in physical education classes: Gender effects. *Journal of Teaching in Physical Education, 25*(1), 36–57.

Nicaise, V., Cogérino, G., Fairclough, S., Bois, J., & Davis, K. (2007). Teacher feedback and interactions in physical education: Effects of student gender and physical activities. *European Physical Education Review, 13*(3), 319–337.

Norrish, H., Farringdon, F., Bulsara, M., & Hands, B. (2012). The effect of school uniform on incidental physical activity among 10-year-old children. *Asia-Pacific Journal of Health, Sport, & Physical Education, 3*(1), 51–63.

O'Brien, M., & Huston, A. C. (1985). Development of sex-typed play behavior in toddlers. *Developmental Psychology, 21*(5), 866–871.

Oliver, K. L., Hamzeh, M., & McCaughtry, N. (2009). Girly girls "can" play games/"Las Ninas Pueden Jugar Tambien": Co-creating a curriculum of possibilities with fifth-grade girls. *Journal of Teaching in Physical Education, 28*(1), 90–110.

Pate, R. R., Freedson, P. S., Sallis, J. F., Taylor, W. C., Sirard, J., Trost, S. G., & Dowda, M. (2002). Compliance with physical activity guidelines: Prevalence in a population of children and youth. *Annals of Epidemiology, 12*(5), 303–308.

Pedersen, P. M. (2002). Investigating interscholastic equity on the sports page: A content analysis of high school athletics newspaper articles. *Sociology of Sport Journal, 19*(4), 419–432.

Pomerleau, A., Bolduc, D., Malcuit, G., & Cosette, L. (1990). Pink or blue: Environmental gender stereotypes in the first two years of life. *Sex Roles, 22*(5/6), 359–367.

Pratt, M., Macera, C. A., & Blanton, C. (1999). Levels of physical activity and inactivity in children and adults in the United States: Current evidence and research issues. *Medicine and Science in Sports and Exercise, 31*(11 Suppl.), S526–S533.

Rheingold, H. L., & Cook, K. V. (1975). The contents of boys' and girls' rooms as an index of parents' behavior. *Child Development, 46*(2), 459–463.

Ridgers, N. D., Stratton, G., Fairclough, S. J., & Twisk, J. W. R. (2007). Children's physical activity levels during school recess: A quasi-experimental intervention study. *International Journal of Behavioral Nutrition and Physical Activity, 4*, 19.

Rikli, R. E. (2005). Movement and mobility influence on successful aging: Addressing the issue of low physical activity. *Quest, 57*(1), 46–66.

Sadker, D., Sadker, M., & Zittleman, K. R. (2009). *Still failing at fairness: How gender bias cheats girls and boys and what we can do about it*. New York, NY: Scribner.

Sallis, J. F., Prochaska, J. J., & Taylor, W. C. (2000). A review of correlates of physical activity for children and adolescents. *Medicine and Science in Sports and Exercise, 32*(5), 963–975.

Sallis, J. F., Simons-Morton, B. G., Stone, E. J., Corbin, C. B., Epstein, L. H., Faucette, N., . . . Taylor, W. C. (1992). Determinants of physical activity and interventions in youth. *Medicine and Science in Sports and Exercise, 24*(6), S248–S257.

Sanders, M. E., & Nguyen, Q. (2011). Aging successfully: Doing the right thing at the right time—ages 26 to 65, part 2. *ACSM's Health & Fitness Journal, 15*(6), 37–40.

Schmalz, D., & Kerstetter, D. (2006). Girlie girls and manly men: Children's stigma consciousness of gender in sports and physical activities. *Journal of Leisure Research, 38*(4), 536–555.

Schmidt, R. A. (1991). Frequent augmented feedback can degrade learning: Evidence and interpretations. In J. Requin & G. E. Stelmach (Eds.), *Tutorials in motor neuroscience* (pp. 59–75). Dordrecht, Netherlands: Kluwer Academic Publishers.

Sherar, L. B., Esliger, D. W., Baxter-Jones, A. D. G., & Tremblay, M. S. (2007). Age and gender differences in youth physical activity: Does physical maturity matter? *Medicine and Science in Sports and Exercise, 39*(5), 830–835.

Simon, R. L. (1993). Gender equity and inequity in athletics. *Journal of the Philosophy of Sport, 20*(1), 6–22.

Solmon, M. A., & Lee, A. M. (2008). Research on social issues in elementary school physical education. *Elementary School Journal, 108*(3), 229–239.

Stafford, S. L. (2004). Progress toward Title IX compliance: The effect of formal and informal enforcement mechanisms. *Social Science Quarterly, 85*(5), 1469–1486.

Stromquist, N. P. (2007). *The gender socialization process in school: A cross-national comparison*. Paper commissioned by UNESCO for the *EFA Global Monitoring Report 2008, Education for All by 2015: Will we make it?* Retrieved from http://unesdoc.unesco.org/Ulis/cgi-bin/ulis.pl?catno=155587&ll=1

Tauber, M. A. (1979). Parental socialization techniques and sex differences in children's play. *Child Development, 50*(1), 225–234.

Telama, R., Yang, X., Viikari, J., Välimäki, I., Wanne, O., & Raitakari, O. (2005). Physical activity from childhood to adulthood: A 21-year tracking study. *American Journal of Preventive Medicine, 28*(3), 267–273.

Tiedemann, J. (2000). Parents' gender stereotypes and teachers' beliefs as predictors of children's concept of their mathematical ability in elementary school. *Journal of Educational Psychology, 92*(1), 144–151.

Trost, S. G., Pate, R. R., Sallis, J. F., Freedson, P. S., Taylor, W. C., Dowda, M., & Sirard, J. (2002). Age and gender differences in objectively measured physical activity in youth. *Medicine and Science in Sports and Exercise, 34*(2), 350–355.

Tucker, J. S., Tomlinson-Keasey, C., Friedman, H. S., Schwartz, J. E., Wingard, D. L., Criqui, M. H., & Martin, L. R. (1995). Childhood psychosocial predictors of adulthood smoking, alcohol consumption, and physical activity. *Journal of Applied Social Psychology, 25*(21), 1884–1899.

Tucker, P. (2008). The physical activity levels of preschool-aged children: A systematic review. *Early Childhood Research Quarterly, 23*(4), 547–558.

U.S. Golf Association. (2008). *Handicap manual*. Retrieved July 18, 2010, from http://www.usga.org/Rule-Books/Handicap-System-Manual/Handicap-Manual/

U.S. Department of Justice. (2001). *Title IX legal manual*. Retrieved July 20, 2010, from http://www.justice.gov/crt/cor/coord/ixlegal.php

Vekiri, I., & Chronaki, A. (2008). Gender issues in technology use: Perceived social support, computer self-efficacy and value beliefs, and computer use beyond school. *Computers, 51*(3), 1392–1404.

Wharton, A. S. (2005). *The sociology of gender*. Malden, MA: Wiley-Blackwell.

Wright, J. (2001). Gender reform in physical education: A poststructuralist perspective. *Journal of Physical Education New Zealand, 34*(1), 15–25.