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Carol C. Irwin  
*University of Memphis*

Richard L. Irwin  
*University of Memphis*

Timothy D. Ryan  
*University of Memphis*

Joris Drayer  
*University of Memphis*

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## RESEARCH

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# The Mythology of Swimming: Are Myths Impacting Minority Youth Participation?

**Carol C. Irwin, Richard L. Irwin, Timothy D. Ryan,  
and Joris Drayer**

The purpose for this research was to determine if reported swimming participation myths (barriers) for minority children were authentic. Previous research on minority children's swimming patterns has been limited, while drowning rates for these groups are high. Nation-wide survey research supported by USA Swimming was conducted using six cities across the U.S. Trained staff members from YMCA non-swimming programs were used to solicit participants and to supervise survey administration. A large, purposeful sample ( $n = 1,680$ ) was gathered that targeted poor, minority children. Parents of children aged 4-11 years and adolescents (12-17 years) completed surveys. Descriptive statistics were observed on selected myth statements by demographic variables. Several barriers were revealed to be myths and not real barriers. Potential barriers revealed, which include parental involvement factors, were noteworthy for marginalized children.

Myths are "fictitious stories or half-truths, especially ones that form part of the ideology of a society" (American Heritage Dictionary, 1991). Myths have distorted the truth since ancient times (e.g., Pandora's Box, the Minotaur, unicorns) and often are responsible for escalating epidemics. For instance, beliefs that only homosexuals acquired HIV/AIDS was a myth that hindered many heterosexual victims from getting medical assistance during the 1980s (Brennan & Durack, 1981), while the once common use of bloodletting and leeches as cures for any medical malady caused high levels of morbidity and mortality (UCLA Library, 2002).

Fortunately, we now understand that bloodletting and leeches are not responsible medical procedures, yet Vreeman and Carroll (2007) report that a significant number of doctors assume several traditional medical myths to be fact (i.e., people should drink at least 8 glasses of water a day; mobile phones create considerable electromagnetic interference in hospitals). This study is evidence that myths continue to shape the presumed knowledge base of highly trained professionals and, in this case, their medical advice to patients.

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The authors are with the Department of Health and Sport Sciences at the University of Memphis in Tennessee. E-mail: cirwin@memphis.edu.

Similarly, myths that prevail get in the way of proven medical science to intensify fatal conditions, especially concerning ethnic groups. Many believe that only people of color can get sickle cell disorder (SCD) or be healthy carriers of the SCD gene (Anionwu, 2006). In addition, there are certain cultural norms surrounding cancer that obstruct individuals, specifically African Americans, from scheduling early screenings (McGarvey & Brenin, 2005). Both of these health conditions are exceptionally acute and require immediate intervention, but these ethnically-situated mistruths preclude health assistance that could save lives.

Physical activity myths abound among types of activities and various minority groups. A popular and historical gender myth is that females are not naturally aggressive and do not want to play any type of collision sport. This myth has been debunked with women's ice hockey being instituted as an Olympic sport and the National Women's Football League, a 36-team professional tackle football association for women in the U.S. The combination of ethnicity and sporting activities also provides fodder for fictionalized tales that manipulate minority participation. The well-known expression, "White men can't jump" has produced smirks, snickers, and grins, but has continued to be a mainstream belief. The professional head coach/general manager position for many years was "White-only" because of the myth that African Americans or any other minority did not have the intellectual or the leadership capacity to be successful at that or any "skilled" position (Entine, 1999).

Swimming is a sport/recreational activity that has had limited minority participation for many reasons, but the illusion that "blacks don't swim" is pervasive. Over 20 years ago, former Los Angeles Dodger general manager, Al Campanis, became famous for amplifying a popular myth regarding African Americans and swimming with this quote, "Why are Black men or Black people not good swimmers? Because they don't have the buoyancy." This medically erroneous comment was recorded April 6th, 1987 on an ABC news show, commemorating Jackie Robinson's 40th anniversary integrating Major League Baseball. Campanis eventually resigned two days later over the uproar for this and other racially divisive comments made during this show, but his swimming observation remains surreptitiously accepted in society. As the years have gone by, African Americans have slowly integrated front offices and head coaching positions in professional sports organizations, yet swimming as a sport continues to be racially segregated.

Actual swimming participation numbers help to give credence to the myth. Gilchrist, Sacks, and Branche (2000) report that more than one-third (37%) of American adults have limited swimming ability. Their research also revealed that a majority (62%) of African American participants and almost half (44%) of the Hispanic participants reported limited swimming ability, whereas 32% White participants self-reported a limited ability to swim. Furthermore, according to the annual DDB Needham Lifestyles Survey, almost three-fourths of African Americans have never participated in swimming, while sixty percent (60%) of White respondents indicated participating in swimming at least once per year (Saluja, Brenner, Trumble, Smith, Schroeder, & Cox, 2006). These data verify racial inequalities involving swimming in the U.S. In fact, Hastings, Zahran, and Cable (2006) noted that being Black reduces the odds of participation in swimming by approximately 60%, even when adjusting for age, sex, and household income.

USA Swimming, the Olympic National Governing Body (NGB) for the sport of swimming, recently surveyed their competitive swim club members across the nation on their racial identity. They confirmed 92.5% indicated they were Caucasian, 1.1% were Asian/Pacific Islander, 4.2% reported being Hispanic, and 1.7% identified as African American and Native Americans rated the lowest participation numbers with 0.5% (J. Cruzat, personal communication, August 29, 2008). These numbers clearly show that competitive swimming is dominated by White participants, and these data mirror racial participation in recreational swimming as well.

Perhaps as a result, drowning rates among minority youth, particularly African Americans, have occurred at disproportionate rates. According to the Center for Disease Control and Prevention (CDC), fatal unintentional drowning rates for 5–14-year-old African Americans have been found to be more than three times higher than that for White children of similar age (CDC, 2007). This racial disparity regarding drowning events might be affected by the myths surrounding swimming and children of color.

## Contemporary Myths Concerning Swimming

In 2008, USA Swimming supported research that for the first time sought to measure minority children's swimming ability. The nationwide study revealed approximately 58% of African American children and 56% Hispanic/Latino children are "at risk" swimmers (i.e., were unable to swim or were comfortable in shallow end only) as compared with 31% of White children. During the early stages for this research, members of the research team encountered inadvertent qualitative responses from swimming experts of all races with their own *Al Campanis*-like opinions on why they thought minority children did not swim. The four most often cited qualitative responses, or myths, are listed:

Minority children do not swim because . . .

- They don't have enough money to swim (income/financial limitations);
- They live in neighborhoods that don't have pools or the pools aren't safe in those neighborhoods (swimming facility quality, access, and safety limitations);
- They just aren't interested in swimming (interest/motivational-cultural limitations);
- They don't want to get their hair wet and it will mess up their make-up (personal appearance limitations).

These anecdotal comments were considered, noted, and applied within the research survey to determine their significance. Therefore, the purpose for this segment of the larger research study was to examine respondents' responses to the myths (barriers) and evaluate if any or all are real, significant impediments to swimming for disenfranchised minority children. Understanding if these assertions are fact or just myth is crucial for planning swimming initiatives in marginalized communities.

## Method

Limited empirical data have been generated to identify predominant barriers inhibiting swimming participation among urban, minority youth in the United States (Wood, 2006). It is with this analytical void in mind that the current research was designed with the fundamental purpose to determine variables influencing swim participation among underrepresented youth within metropolitan settings in the United States. A research team was assembled from a large metropolitan university in the south central area of the U.S. We obtained institutional human subject approval for this study.

### Instrumentation

A survey instrument, drawn from physical activity constraint studies (Fahlman, Hall, & Lock, 2006; Johnson, 2000; Romero, 2005) was designed in collaboration with the study's sponsor, USA Swimming. An expert panel comprised of specialists in adolescent development, education, survey design, and aquatics reviewed the proposed survey instrument to assess its content and face validity. A pilot test involving 100 urban, minority youth determined study protocol and survey instrument validity.

### Procedures

A purposeful sample chosen by the research team and USA Swimming was drawn arbitrarily from six metropolitan areas including Chicago IL, Houston TX, Memphis TN, Miami FL, Oakland CA, and Philadelphia PA. Research staff worked with representatives from each city's YMCA of the USA to identify data collection sites. The YMCA of the USA was chosen as the primary data collection source due to their access to diverse youth populations (swimmers and nonswimmers) and keen interest in the study's objectives. Various nonswimming YMCA of the USA programs (i.e., after-school care, sport programs, etc.) were used to access subjects.

As intended, the sample primarily consisted of nonWhite children aged 4–17 years of varying swimming ability from low income households as determined from free/reduced lunch recipients with moderately educated parents/caregivers. The two age groups (4–11 years and 12–17 years) used to distinguish this study's age-based surveys, reflected age ranges used with CDC research surveys and the lowest age was chosen based upon the current AAP policy that designates initiating organized swim lessons at age four (AAP, 2000). Racial identity categories were selected to mirror those used in the Youth Risk Behavior Survey (YRBS), a CDC surveillance system for adolescents (CDC, 2008). The income variable was operationalized using the child's lunch program status as determined by the United States Department of Agriculture (USDA) during the 2007–08 school year (USDA, 2007).

The research team distributed approximately 2,000 surveys in English and Spanish with a total of 1,680 returned that were deemed usable for the study.

Parents and/or caregivers of the youngest children aged 4–11 were asked to complete the survey in the place of their child. Data were entered systematically into Statistical Package for Social Sciences (SPSS) version 15. We used the traditional alpha ( $p < .05$ ) as the criterion when determining statistical significance.

## Results

A respondent demographic profile is provided in Table 1. For general analytical purposes, respondents were asked to estimate their own swimming ability based on five descriptor items: (a) unable to swim; (b) can swim a little, but not comfortable in deep water; (c) comfortable in deep water, but cannot swim very long; (d) able to swim for an extended period of time; and (e) swim competitively (or could) and for an extended period of time. Using two other reliability-check questions within the survey and employing a more conservative definition, swimming ability was determined as “at risk” (unable to swim/not comfortable in deep water) and “not at risk” (comfortable in deep water, could swim for an extended period, or could swim competitively). Using these same descriptors, respondents were asked to estimate the parent/caregiver’s swimming ability. An alarming number of respondents (20% of the adolescents and 25% of the parent respondents) admitted to being unable to swim. These figures closely resemble data reported in the literature regarding adult swimming ability (Gilchrist, Sacks, & Branche, 2000), indicating that the current sample of adult respondents is quite similar to the U.S. adult population. More than two-thirds of the entire sample fit the “at-risk” swimmer description.

Survey statements were separated based on their relevance to each myth category and frequencies were analyzed (see Table 2). Most statements were answered by respondents using a 4-point Likert scale (1, *strongly disagree*; 2, *disagree*; 3, *agree*; and 4, *strongly agree*), which were collapsed into two values of *disagree* and *agree*. A few statements were answered by respondents using *yes*, *no*, or *I don’t know*. The *I don’t know* responses were not included in the analysis for this research.

### Myth #1: Income/Financial Limitations

Dukes and Coakley (2002) reported that competitive swimming participation is unsurprisingly more prevalent in financially affluent households. Likewise, educational attainment, a significant influence on household income, has been reported to have compelling links with physical activity participation (Shishehbor, Gordon-Larsen, Kiefe, & Litaker, 2008). The results of the current investigation do provide support to the relationships among income and education with swimming ability. As respondents’ household income and parental education increased, similar improvements in swimming ability and/or comfort in a pool were observed. In fact, with all other factors being equal, a low income child (i.e., on free and/or reduced lunch) was twice as likely to be an “at risk” swimmer as a higher income child.

A strong majority of the respondents (81%), however, disagreed with the statement “I do not have enough money to go swimming.” Furthermore, no statis-

**Table 1 Descriptive Results for Study Sample Using Selected Demographic Characteristics by Age Group**

	4–11 yrs	12–17 yrs	Total
Respondent sex			
Male	52.0%	49.7%	50.5%
Female	48.0%	50.3%	49.5%
Respondent race			
African American	39.7%	55.5%	50.4%
Hispanic/Latino	20.4%	22.2%	22.2%
White	27.8%	8.2%	14.3%
Multi-racial	6.5%	7.6%	7.0%
Asian	3.9%	2.9%	3.1%
American Indian			
Alaska Native	0.6%	1.0%	0.9%
Native Hawaiian			
Other Pacific Islander	0.4%	0.6%	0.5%
Other (write-in)	0.8%	2.0%	1.6%
Respondent Lunch Program Status			
Free lunch	46.4%	51.7%	49.0%
Reduced lunch	14.9%	15.2%	15.0%
No lunch program	38.7%	33.1%	36.0%
Respondent Parent Education			
Some high school	6.1%	35.4%	23.0%
High school diploma or GED	23.2%	22.1%	22.6%
College or technical school degree	49.8%	38.4%	34.1%
Advanced college degree (Masters/PhD, etc.)	20.9%	19.9%	20.3%

Note. Adopted from Irwin, Drayer, Irwin, Ryan, and Southall (2008).

tically significant differences were found between this constraint item and racial identity. Likewise, 85% of the respondents disagreed with the statement, “I do not swim because I do not have the right equipment/ swimwear,” a resource often associated with financial considerations.

**Table 2 Survey Statements Categorized by Myth—Percentages**

<b>Myth/Survey Statements</b>	<b>Agree</b>	<b>Disagree</b>
<b>Income/financial</b>		
I would swim if there were pools I could afford.	49%	51%
I do not swim because I don't have the right equipment/swimwear.	15%	85%
I do not have enough money to go swimming.	19%	81%
<b>Facility access/safety</b>		
I do not swim because there aren't any pools close to me.	26%	74%
The nearest pool is in good condition.	84%	16%
I feel safe in that pool.	79%	21%
It is easy for me to get to that pool.	76%	24%
I do not feel safe when certain people are around that pool.	37%	63%
I feel safe walking/riding a bike to this pool.	57%	43%
<b>Interest/motivation</b>		
I am not the swimming type.	29%	71%
I have no time for swimming because I participate in other sports/activities.	27%	73%
I do not swim because I do not enjoy it.	15%	85%
I would like to improve my swimming skills.	78%	22%
Swimming is an activity for someone like me.	67%	33%
Everyone should learn how to swim.	77%	23%
Swimmers are primarily White/Caucasian.	30%	70%
<b>Personal appearance</b>		
I do not swim because I do not like to get my hair wet.	15%	85%
I do not swim because it affects my personal appearance.	13%	87%
I do not like to swim because of how I look in a swimsuit.	17%	83%
I do not like to go to pools because I would be different from others.	13%	87%

On the other hand, only 51% of the sample disagreed with the statement “I would swim if there were pools I could afford to go to,” which indicates that there is some deviation or conflict with income and swimming, specifically since the sample significantly disagreed in other income-related statements. Importantly, African American and Hispanic recipients of free/reduced lunch, the lower income category, were significantly more inclined to express a fear of drowning and less



inclined to agree with “I have a parent/guardian that encourages me to swim.” Lastly, when the respondents’ household income increased so did their strength of agreement with the statements, “I have a parent/guardian that encourages me to swim” and “a majority of my family members can swim,” while the fear of drowning decreased.

## **Myth #2: Swimming Facility Quality, Access, and Safety Limitations**

Swimming facility quality, access, and safety are frequently cited as means of explaining disproportionate swimming participation rates among inner city youth. Historically, marginalized populations, primarily females, the poor, and people of color, have been banned from municipal pools. During the 20th century, many communities used public facilities such as swimming pools as overt and covert means to segregate facilities along racial lines and thus swimming facilities became stumbling blocks to diversity (Wiltse, 2007).

The current study, nevertheless, found that almost three-fourths of the respondents (74%) disagreed with the following statement, “I do not swim because there aren’t any pools close to me,” and 84% agreed that “the nearest pool is in good condition.” Moreover, approximately 76% indicated that it is easy for them to get to that pool.

While a strong majority (79%) indicated they felt safe when they were at their nearest pool, a much lower percentage (57%) cited feeling safe when walking or riding their bike to that pool. In addition, the different income levels (free lunch, reduced lunch, not on a lunch program) showed great variation with this statement. Approximately 55% of respondents in the free lunch category reported feeling safe going to these pools, while a 49% of the reduced lunch program group felt safe. These two rates compare with 62% of the no lunch program children, which demonstrates that this access variable is multifarious. In addition, subjects who responded that it was not easy to get to the nearest pool as well as those who testified to “not feeling safe when certain people are around that pool” reported significantly lower swimming ability, higher fear of drowning, and less agreement with the statement “swimming is an activity for someone like me.”

## **Myth #3: Interest/Motivational-Cultural Limitations**

Approximately seven out of 10 respondents (71%) disagreed with the statement, “I am not the swimming type,” while two-thirds (67%) agreed with “Swimming is an activity for someone like me.” Also, 77% agreed with the statement, “Everyone should learn to swim.” Perhaps most impressively, 70% of all respondents disagreed with the statement, “Swimmers are primarily White/Caucasian.” In fact, one group of very young adolescent respondents (ages 12–14) was very upset at this question while they were completing the survey and claimed the question was in fact racist.

Further analysis revealed no statistically significant differences between all race categories on the following statements: “Swimmers are primarily White/Caucasian,” “I would like to improve my swimming skills,” and “I am not the swimming type.” An overwhelming majority of the respondents (85%) expressed

disagreement with the statement, “I do not swim because I do not enjoy it.” In fact, more than three-fourths (78%) agreed with the statement, “I would like to improve my swimming skills.” And the time factor that was cited as a barrier for children and swimming was also dispelled when 73% of the sample indicated that they disagreed with “I have no time for swimming because I participate in other sports/activities.”

#### **Myth #4: Personal Appearance Limitations**

During the survey team’s preparation phase, this myth, by far, was the most often cited barrier by swimming experts of all races, thus its inclusion in the instrument. While there was plenty of speculation that the impact of swimming on personal appearance would emerge as a constraint to participation, an overwhelming majority (87%) of the respondents disagreed with the statement “I do not swim because it affects my personal appearance.” In fact, 85% disagreed with the specific statement, “I do not swim because I do not like to get my hair wet” while 83% disagreed with the statement, “I do not swim because of how I look in a swimsuit.”

Specifically, the “I don’t swim because it gets my hair wet” issue was primarily directed at lower income, African American children by experienced swimming advocates. Further analysis revealed that the “no lunch program” respondents, the economically more affluent group, agreed at only a slightly higher level with the “hair wet” statement (13.4%) as compared with the set of free lunch program respondents (12.6%), less than a 1% difference. The only difference worthy of discussion concerning the “hair wet” matter was found with African American females who agreed with this statement at a 10–12% higher rate (19.7%) as compared with their White peers (9.8%) and Hispanic/Latino females (7.3%). Despite this greater female difference, African American females still disagreed with this statement at a rate of 81.3%, which obviously dispels the “hair wet” myth among this group of respondents. Males had some variation with agreement on the “hair wet” item, but there was only a negligible difference between African American males (12.2%) and their White male peers (12.2%). Interestingly, Hispanic/Latino male peers reported a much lower 5.6% agreement with the “hair wet” barrier.

Agreement scores based on sex and ethnicity for the “personal appearance” item were all around the 10% range for both males and females of all races, which also rejects this fictitious barrier with this sample. And the “how I look in a swimsuit” statement scored just a small difference with 16.9% of the females in general agreeing as compared with males with 15.5% in agreement. Observing racial differences with the “swimsuit” issue shows that African American males agreed at a 15.0% rate, Hispanic/Latino male subjects scored a 14.8%, and White males with 11.8%. Hispanic/Latino females scored the highest on the “swimsuit” statement with a 23.1%, White females scored lower (14.7%) and African American females agreed at the lowest rate (13.8%). These are curious discrepancies, but are trivial except to say that this part of the “personal appearance” myth is not noteworthy.

The statement “I do not like to swim because I would be different from others” showed some differences with free/reduced lunch program respondents agreeing at a 13.4% rate as compared with the “no lunch program” group’s response (10.1%). Sex and racial differences were marginal at best with approxi-

mately 2–3% differences. Again, the sizeable disagreement overall with this statement (87%) speaks clearly that this item, as well as the myth in general, is not valid.

### Barriers Revealed

Although findings concerning the four myths have been discussed, there were other results that illustrated swimming participation obstacles for urban, inner-city children who are economically disadvantaged (see Table 3). Overall, 69% of the sample agreed with the statement, “Most people in my family swim or will learn how to swim.” However, when examining the different income/lunch program categories, “free and reduced lunch program” respondents agreed at a 64% rate as compared with the no lunch program group’s 79%. Clearly, the more affluent “no lunch program” category has an advantage with more family knowing (or willing to know) how to swim as compared with their marginalized peers.

Even more revealing was the survey item, “I have a parent/caregiver who encourages me to swim,” with which 62% of the overall sample agreed. The free and reduced lunch group indicated that 56% had a parent/caregiver who encouraged them to swim, while the no lunch program group reported that 73% have a parent/caregiver who encouraged them to swim. Parent encouragement has been found to be a significant motivational factor for children to participate in physical activity (Romero, 2005) and seems to be missing from many lower income households in this sample.

Finally, parent swim ability was found to serve as a barrier (see Table 4). Overall, parent swim ability was estimated at 50% “at-risk” and 50% “not at-risk.” However, the “at-risk” individuals (the “unable to swim” respondents) indicated that 65% of their parents were also “at-risk” swimmers. Even more revealing was that 76% of the free/reduced lunch “at-risk” swimmers (the low income/unable to swim group) reported their parent’s swimming ability as “at-

**Table 3 Potential Barriers Descriptive Results—Family Swim Participation and Encouragement**

Potential Barrier	Agree	Disagree
Most people in my family swim or will learn how to swim.	69%	31%
Free/reduced lunch program	64%	36%
No lunch program	79%	21%
I have a parent/caregiver who encourages me to swim.	62%	38%
Free/reduced lunch program	56%	44%
No lunch program	73%	27%

\* “At-risk” – parent/child is unable to swim or uncomfortable in deep end of pool.

\*\* “Not at-risk” – parent/child is comfortable in deep end, able to swim for an extended period of time, or swim competitively (or could) and for an extended period of time.

**Table 4 Potential Barriers Descriptive Results—Parent Swimming Ability**

Potential Barrier	At-Risk*	Not At-Risk**
Parent/caregiver swim ability (estimated parent swimming ability)		
Overall sample	50%	50%
“At-risk” swimmer responses	65%	35%
Free/reduced lunch program	76%	24%
No lunch program	48%	52%
“Not at-risk” swimmer response	20%	80%
Free/reduced lunch program	76%	24%
No lunch program	48%	52%

\* “At-risk”—parent/child is unable to swim or uncomfortable in deep end of pool.

\*\* “Not at-risk”—parent/child is comfortable in deep end, able to swim for an extended period of time, or swim competitively (or could) and for an extended period of time.

risk.” Therefore, the more “at-risk” the respondent was, whether it be swimming ability or income, the probability was greater that the parent was also an unskilled or “at risk” swimmer..

During data collection, the survey team experienced an interesting encounter that authenticated the results presented above and highlighted the parental encouragement barrier. While conducting staff training at an urban YMCA branch, which had an indoor pool, one research team member described the study’s objective to the facility’s receptionist, an African American mother of three. Her response summed it up, “My kids will never learn to swim because I’m afraid they will drown.”

## Discussion

Myths are traditional stories that suppress the truth. Research helps to expose inaccuracies or fallacies, such as bloodletting, and can disclose more beneficial approaches to assist individuals in need. Drowning rates clearly indicate that minority children need help. This research, which was grounded in the exploration of why these children drown at such high rates, has been able to uncover genuine barriers to swimming instruction and participation for the disenfranchised minority and low income child while exposing four commonly held myths. The results illustrated that each myth can be multifaceted and revealed that parts of each myth could actually hold elements of authenticity while still being inaccurate at their core.

Myth #1, the financial considerations, and Myth #2, facility access issues, combined to give a prime example of this complexity. The respondents noted that

money for the most part is not a problem with swimming nor are the actual pool costs or obtaining swimwear or equipment. In spite of these results on tangible swimming concerns, the undercurrents of income or lack thereof can have an effect with swimming and the marginalized child. Lower income subjects reported more often not feeling safe walking or riding their bikes to these safe and sound, affordable pools. This result mirrors national crime statistics, which reveal consistently that higher levels of crime occur in poorer neighborhoods. So, the pool facility might be in good condition, secure, and might be reasonably priced, but actually getting to that safe pool is an economic and security impediment. This revealing result may also be confounding answers to the statement, "I would swim if there were pools I could afford to go to," with which only 49% of the sample agreed.

Probably the most often mentioned reason that bystanders prognosticated as the base explanation for low minority swimming ability/participation was that these groups, especially African American children, did not want to get their hair wet, which was a statement associated with Myth #4. This reason was overwhelmingly the most often cited. A close second was that these groups were just not interested in swimming, which related to Myth #3. According to this sample, these two myths are just that, institutionalized cultural hearsay and not what minority children and parents of these children believe. Reviewing individuals' responses to Myth #3 and #4 survey statements noticeably illustrates that this sample of minority children is very interested in swimming, want to improve their swimming skills, and the "hair wet" issue actually is not an issue.

## Limitations

The major limitation with this study is that it used a convenience sample; however, the sample was large and drawn from six different areas in the U.S., and the sample matched the research objective, examining swimming participation barriers among poor, disenfranchised children, specifically populations that have high drowning rates. The different cities used for survey sites were geographically diverse but not randomly selected. In addition, this research protocol included self-report data, which can produce inaccurate results. On the other hand, studies have found that large population self-report studies can produce high levels of validity and reliability as long as there are large number of subjects (Brenner, Billy, & Grady, 2003; CDC, 2004). While time limitations associated with collecting data limited the number of completed surveys, the total volume of surveys collected ( $n = 1,680$ ) was well above that necessary for robust statistical analyses.

The survey used in this research was an original instrument implemented for the first time. In anticipation of this limitation, a pilot study was accomplished with a group of adolescents ( $n = 100$ ) who demographically matched the final sample. Statements within the survey were based on previous physical activity constraint questionnaires (Fahlman, Hall, & Lock, 2006; Johnson, 2000; Romero, 2005) and included particular swimming issues (i.e., hair wet, pool access) suggested by professionals in the swimming field. In addition, care was taken to ensure readability-levels for respondents and relevance to swimming concerns.

The question of swimming ability was open to individual interpretation. In anticipation of this possible misinterpretation, the instrument contained two

specific items for reliability purposes. A “yes-no” item simply asked if the respondent could swim, and a Likert-scaled statement, “I do not swim because I am not a very good swimmer” were used to enhance self-reporting validity and reliability (Brenner, Billy, & Grady, 2003). It is worthy of note to report that this study’s results, swimming ability for U.S. minority children, seem to correspond with earlier research findings based on swimming ability for adults in the U.S. (Gilchrist, Sacks, & Branche, 2000). This agreement of results helps to support the reliability for our results.

Overall, this research just scratches the surface of why minority children are not participating in swimming. These results emerged from a landmark study. This is the first data set exploring swimming ability for U.S. minority children, and they are truly preliminary. More research needs to follow to fully understand the dilemma. Additional investigations are called for to better assist us to understand how to improve involvement for these children in the sport of swimming. Hopefully, supplemental empirical explorations concerning this topic will help to decrease and optimistically eliminate drowning events for these populations as well as for all children.

## Conclusions

These findings provide evidence that preconceived notions, or myths, regarding minority youth swim participation are based upon weak rationale at best. According to this research minority children want to swim. What is inhibiting these children from swim participation? Findings from this analysis clearly indicate that a previously undetected category of barriers involves the family environment. Two such factors that fall into this category are parent/caregiver swimming ability as well as if the parent/caregiver encourages their child to swim. In addition, the whole family’s participation in swimming is a factor of importance. These findings match other physical activity research findings that place a great deal of variation within the family structure: how parents involve themselves with their children’s physical activity and how they positively encourage their children to actually participate in that activity.

More research needs to be accomplished regarding family involvement with swimming and education about disparities with drowning rates. Community organizations that plan and offer swimming initiatives to these disenfranchised populations need to include an educational component that communicates to minority parents/caregivers how water safety/swimming lessons may save their child’s life. It is the research team’s aspiration that having dispelled some of the long-standing myths associated with why minority children and adolescents have greater drowning rates and lower levels of swimming ability, more minority parents and children will “dive into the pool” with a greater appreciation for swimming and what it can provide for their future.

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