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Get Serious

Gender and Constraints to Long-Distance Running

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Abstract

While there has been tremendous growth in participation rates of women in distance running, the percentage of women participating in full marathons has plateaued. This study investigated this phenomenon by exploring whether differences in constraints and constraint negotiation across gender within this serious leisure activity can explain this difference. Survey research was used to collect data from 3,453 marathon and half-marathon finishers. Comparisons found different barriers across both gender and distance. Additional findings suggest, however, that constraints associated with women in leisure in general do not adequately explain the participation differences, and that women may merely define the parameters of serious leisure within distance running differently than men.

Keywords: *constraints; negotiation-efficacy; gender; serious leisure; distance running*

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Distance running has experienced a significant increase in popularity in the past 25 years, reflected by a nearly 300% increase in the number of road race finishers since 1990 (Running USA, 2014). Running USA's (2014) annual survey shows that not only are more people finishing, but more people are participating in races more frequently, in greater distances, and with faster times. This growth is an example of an increase in recreation specialization, the exclusive participation in a single form of leisure (Bryan, 1977), which through increased involvement, can become a serious leisure pursuit (Stebbins, 1982; 2001). The challenge associated with these activities allows individuals to become highly and exclusively involved, both in attitudes and behavior (Scott & Shafer, 2001; Stebbins, 2001). As an activity that requires time commitments for training, is challenging in nature, and allows individuals to progress to greater levels of involvement, distance running now fits the definition for many as a specialized, serious form of leisure.

This change in popularity for the activity is driven, in part, by the percentage of female participants, which has gone from 25% in 1990 to 57% overall in 2013. This influx of women into the once predominantly male activity is most significantly felt in the half marathon distance (13.1 miles), where women make up 61% of all race finishers (Running USA, 2014). These numbers would suggest that women have carved out a space for themselves within distance running, and the activity has in some ways become gender neutral. However, while the percentage of female runners at every distance up to and including the half marathon has increased continually over the past 10 years, the percentage of women participating in full marathons has plateaued since 2006, with women still representing the minority in this distance at 43% (Running USA, 2014). Ultra running races, which are defined as distance running events longer than 26.2 miles, have an even greater gender disparity, comprised of only 27% female runners (Krouse, Ransdell, Lucas, & Pritchard, 2011). This participation difference in events at 26.2 miles and longer compared to all other distances suggests that something may still be fundamentally different in the serious leisure experience for men and women in distance running.

The serious leisure literature has suggested that gender itself can be a constraint to participation in serious leisure activities (Stebbins, 1992). According to Stebbins, gender "acts as a sort of sieve, filtering out males and females from activities culturally defined as appropriate for one sex only" (p. 73). This filtering effect, however, appears to no longer hold as a barrier in the context of distance running, at least in the initial stages of participation. The leisure constraint literature suggests that women may face constraints at every level of leisure participation, and therefore, the framework may be a way to understand the differences in participation that is unique to the full marathon distance. The environmental filter that once precluded women from distance running has appeared to shift, moving the exclusionary barriers, and now seems to apply only to the longest race distances of 26.2 miles and beyond.

Constraints to general leisure associated with gender have been well studied. These include a lowered sense of entitlement to leisure for women as they often are the traditional primary caregivers in the household (Maume, 2008), and lack of interpersonal support to pursue more time consuming levels of leisure (Henderson & Allen, 1991). Structural constraints, while often similar to those faced by men, can have antecedents related specifically to being female, including social norms that both prescribe particular forms of leisure for women and suggest a sacrificing leisure in favor of family commitments (Shaw, 1994). In terms of constraint negotiation, the literature has moved away from strict identification of constraints and strategies for overcoming them to an examination of the psychosocial attitudes that can facilitate constraint negotiation (Loucks-Atkinson & Mannell, 2007; Ridinger, Funk, Jordan, & Kaplanidou, 2012; White, 2008). Negotiation-efficacy, the belief in one's ability to overcome barriers to participation, has been

shown to both increase efforts to overcome barriers (Loucks-Atkinson & Mannell, 2007; White, 2008) and increase commitment to an activity (Ridinger et al., 2012). It has also been suggested that family and spousal support can act as an agent of constraint negotiation, facilitating greater levels of participation (Goodsell & Harris, 2011).

Participation numbers for long-distance running over the past 20 years provide support for the assertion that constraints to participation for women do not inevitably prevent them from engaging in this form of active leisure, and it is possible to "negotiate" through perceived barriers to participation (Jackson, Crawford & Godbey, 1993; Loucks-Atkinson & Mannell, 2007; White, 2008). Ridinger et al. (2012) found that female marathon runners had higher levels of negotiation-efficacy for running than their male counterparts, and suggested that this difference might originate in the necessity for women to overcome more constraints to participate in the same distance as their male counterparts. For example, the additional time needed to train for a full marathon might force more women to sacrifice this time in favor of family obligations. However, these authors were limited by not including specific questions about family structure and support on their survey and suggested that "further research is needed before meaningful conclusions can be made" (p. 172). The question remains whether constraints faced by women in some way become more salient for participation in a full marathon versus other distances.

The purpose of this study was to explore differences in constraints and constraint negotiation for women and men at two different forms of participation within the same serious leisure activity, distance running. Specifically, we used the constraint literature and constraint negotiation framework to explore why the rate of female participants in half marathon events has continued to increase over the years while the rate of women participating in full marathon events has remained stagnant. This could provide insight on factors that impact participation in different levels of the same form of serious leisure, and how this may be informed by gender.

Review of Literature

Serious Leisure

As individuals in modern times become able to complete tasks more efficiently in both their occupational and basic life sustaining roles, there is a shift from more passive, casual forms of activity during leisure time to options that offer challenges for individuals for whom other life domains have become less fulfilling. This quest for more challenging activities has been identified as serious leisure (Stebbins, 1992; 2001), defined as "the steady pursuit of an amateur, hobby, or career volunteer activity that captivates its participants with its complexity and many challenges" (Stebbins, 2001, p. 54). Individuals follow a path that leads them through a progression in which they learn the activity, establish themselves in the activity, and maintain a consistent level of engagement (Stebbins, 1992). The pursuit leads to greater skill and knowledge, but also requires greater amounts of engagement, and monetary as well as temporal investment. Therefore, many of the same barriers facing those participating in casual forms of leisure apply even more saliently to serious leisure, particularly as individuals progress into greater levels of engagement with a particular activity (Scott & Schafer, 2001). While barriers to initial participation have clearly been overcome, the increasing physical and psychological resources necessary to become "seriously" involved in an activity cause many of the same constraints to preclude greater levels of participation, including gender (Stebbins, 1992).

There has been some empirical work that explored the ways in which gender acts like a "sieve," and the ways in which women negotiate through constraints to form particular leisure

identities that are in some way considered gendered by social norms, either gender deviant (Dilley & Scraton, 2010) or gender congruent (Scraton, 2006). Similar to what Rainsborough (2006) found in the case of women in the Sea Cadet Corps, another form of serious leisure, distance running has become a space where women established identities that were initially resistant to normative gender relations, and over time, become the norm. They have, as Wheaton and Tomlinson (1998, p. 265) suggest, pushed gender into a "passive identity," which is reflected by the vast increase in women's participation over the past 20 years (Running USA, 2013).

As women gain greater access to serious leisure, recent work also highlights the ways in which serious leisure can become a source of resistance of gendered relations for women, a space where women can carve out their own unique identities outside of their gendered lives (Dilley & Scraton, 2010). For example, Stalp (2006) found that women engaged in quilting as a form of serious leisure negotiated their time and space, essentially transforming their serious leisure into a form of resistance from norms, despite engaging in a traditionally feminine activity. The increased participation of women in distance running over the past 20 years is possibly reflective of such a form of resistance, as women have claimed a space for themselves in it.

Yet, if the space were complete, one would expect to see similar numbers across all manifestations within the same form of serious leisure. However, the percentage of women participating in full marathons has remained the same while the percentage of female runners in half marathons continues to grow. Thus, gender may still act as a constraint in particular manifestations of serious leisure (Stebbins, 1992). The ways in which constraints affect men and women's involvement in serious leisure differently in various manifestations of the same activity have not been extensively explored. Mostly qualitative work highlights the female experience of negotiating through familial constraints, typically feminine commitments of family to engage in acts of resistance (Stalp, 2006). Dilley and Scraton (2010) found that family commitments of serious female climbers led to various negotiation strategies, including overlapping personal leisure with family leisure, or the abandonment of the leisure activity all together during the early years of child rearing. Outside of the negotiation of structural constraints, there has been little attempt to understand how external gender norms may inform behavior, as suggested by Rainsborough (2006), "…it is not clear how gendered relations, once conceptualized as effectively constraining women's leisure, still operate and whether they impact on women's use of leisure and the meanings they give to their participation." (p. 258)

In an exception, Goodsell and Harris (2011) interviewed both men and women long-distance runners in an attempt to understand differences in constraints and negotiation in the activity. They found that following childbirth, women long-distance runners sometimes viewed the worlds of running and family as irreconcilable with each other and were forced to make decisions that affected their leisure activities, while this was less true of men. Although both men and women marathoners found it difficult to balance family and their serious leisure, women's constraints came from an inherent gendered obligation, consistent with the general constraint literature. As a qualitative study, it highlighted that women must grapple with more constraints to participate in a particular activity. However, as the authors only interviewed individuals who participated at the marathon level, they were not able to suggest how these differences can actually inform participation at different race distances. Overall, the research does not answer questions about whether the way in which men and women experience constraints differently can result in different manifestations of behavior within the same kind of activity—whether we have seen social gender norms removed as a constraint, or whether the overall constraints that

once prevented initial levels of participation have simply shifted to change preferences within the activity.

Constraints and Gender

Research exploring constraints that inform participation has been founded largely upon a single theoretical framework. Crawford and Godbey (1987) outlined a model for understanding the three main areas of constraints to leisure: *structural constraints*, intervening barriers to participation, such as time and money, facilities; *interpersonal constraints*, which result from relationships between or among individuals; and *intrapersonal constraints*, which alter leisure preferences rather than interfering between preferences and actual participation. The intrapersonal constraints are akin to Henderson, Stalnaker, and Taylor's (1988) concept of *antecedent constraints*, those constraints that affect preferences before intervening constraints, and can include an array of psychosocial factors including anxiety, confidence level, and prior socialization, which can include gender roles.

The literature surrounding gender and constraints to leisure in general is founded upon the framework that acknowledges that while structural constraints, such as money, time, and access to facilities are universal, social norms facilitate different leisure experiences both behaviorally and psychologically for marginalized groups such as women (Henderson, 1991). Traditional notions of gender roles both prescribe forms of leisure that are specific to men and women, as well as prioritize leisure time in general differently for each gender. Henderson et al.'s (1988) study used gender-role theory to contend that barriers for women's participation in physically active leisure are informed by constraints inherent to gender roles and cultural expectations. The way in which society defines gender roles creates circumstances that may proscribe a particular set of leisure activities for both men and women (Shaw et al., 1991). For example, women are expected to participate in feminine leisure activities, such as dance or yoga, while ice hockey and football are considered masculine sports and thus, played primarily by men (Jackson & Henderson, 1995; Shaw, 1994).

Not only do social roles prescribe particular activities for men and women, they also prioritize those activities within other expected behaviors. The "ethic of care" compels women to provide for the needs of others first, often neglecting their own needs and wants, including leisure participation (Henderson & Allen, 1991). This barrier is particularly salient for women with partners and children, as women tend to place a lower priority on physical activity and leisure participation in comparison to men, placing their family's needs and wants ahead of their own. Men, meanwhile, feel more entitled to leisure and are more likely to give precedence to personal leisure over domestic responsibilities (Henderson & Bialeschki, 1991; Kay, 1998), and are less likely to adapt their leisure activities in response to intervening constraints such as demands from their family (Maume, 2008).

Shaw (1994) further argued that even structural constraints that may be common to men and women stem from different sources. For example, while both men and women report financial barriers, the lower earning power of women in the workplace is an antecedent to the intervening barriers to participation that can stem from economic constraints, including lack of facilities, transportation, and access. The financial strain associated with a single income creates an even greater barrier to leisure for single mothers (Kimmel & Connelly, 2007).

Constraint Negotiation

Crawford and Jackson (2005) criticized that much constraint work has focused on the measurement of structural constraints, and that the theoretical mechanisms through which con-

straints are negotiated are equally important to understanding participation in and experiences of leisure. The concept of negotiation-efficacy stemmed from efforts by several authors (Henderson, Bedini, Hecht, & Schuler, 1995; Hubbard & Mannell, 2001) to better understand the leisure constraint negotiation process through theoretical development. These authors discussed the potential utility of a social-cognitive approach to explain behavior, specifically Bandura's self-efficacy theory (1982, 1994). Self-efficacy is "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71). In applying this idea to constraint negotiation, people with higher levels of efficacy will persevere in their coping efforts despite constraints, whereas those who have doubts about their ability to overcome obstacles may reduce their efforts or cease involvement in the activity (Loucks-Atkinson & Mannell, 2007).

Loucks-Atkinson and Mannell (2007) were the first to coin the term negotiation-efficacy. In their study on constraint negotiation of individuals with fibromyalgia syndrome, they found a positive relationship between negotiation-efficacy and negotiation efforts. The more confident individuals were in their ability to cope with constraints, the greater their efforts were to negotiate and overcome those constraints. This work was extended by White (2008), who found that negotiation-efficacy would increase motivation, diminish the perception of constraints, and encourage negotiation efforts, thus having an indirect positive effect on participation in outdoor recreation. Similarly, Ridinger et al. (2012) provided further support for the incorporation of the construct into leisure behavior studies, as they found that marathon runners with higher negotiation-efficacy were more committed to running, and were more likely to credit their own negotiation efforts for their ability to participate.

As a measurement of perceived ability to overcome constraints, negotiation-efficacy can offer new insight into the established differences between the constraints of men and women. As a new construct, however, it has not been empirically tested extensively. Dixon's (2009) qualitative study on working mothers, revealed the connection among previously established constraints, negotiation through them, and the subsequent feeling of confidence. By viewing their own activity or participation as ultimately beneficial for their families, women effectively overcame the guilt and increased their sense of entitlement to be active. Those women who successfully negotiated through constraints felt more confident in their ability to find ways to be involved in leisure activities. In other words, they developed negotiation-efficacy, which led to a greater connection to their activity.

As mentioned previously, Ridinger et al. (2012) were the first to find significant differences in negotiation-efficacy scores between male and female marathon runners, suggesting that women's higher scores were a necessity for participation, due to the greater level of constraints they had to overcome as females. They did not measure specific constraints, and were therefore unable to assess the relationships amongst barriers, gender, and negotiation-efficacy. The question remained whether higher levels of negotiation-efficacy were an important driver in women's ability to participate in full marathon events due to the additional time commitment required to train for a full marathon.

Diminishing participation in physically active leisure for both genders after marriage and childbirth in particular (Nomoguchi & Bianchi, 2004) have led to interest in the way in which family support for active leisure may serve as a moderator in constraint negotiation and may actually enhance opportunities to participate in physical activity (Goodsell & Harris, 2011). Commitments to family, work, and leisure pull individuals in different directions, which result in demands in time that exceed available hours (Stebbins, 1992). However, when faced with

struggle or difficulty, individuals are most likely to turn to their spouses or partners for support (Burke & Weir, 1982). Such support, in turn, can encourage individuals to continue their pursuits. Therefore, in the same way that family commitments can serve as a constraint to participation, support may serve as a correlate to negotiation. In a study on long-distance runners, Barrell, Chamberlain, Evans, Holt, and MacKean (1989) found that the opportunity to run could be a function of spousal support. While some work has focused on family support's moderating role in the effect that leisure activity has on perceived leisure family conflict (Glover & Shudder, 1998; Goff, Fick, & Oppliger, 1997), there is less empirical work examining the role of spousal support in enhancing or limiting physically active leisure. In one exception, Goodsell and Harris (2011) performed in-depth interviews in order to uncover both the constraints to marathon running within family life and the strategies used within the family to negotiate through leisure-family conflict and allow opportunities for participation. These authors found that while both husbands and wives experienced conflicts that interfered with running, these barriers were not insurmountable, especially when supported by a spouse or partner.

Research Questions

The general leisure constraint literature suggests that there are barriers to participation that originate in gender norms and relations (Henderson, 1991; Henderson & Allen, 1991; Maume, 2008; Shaw, 1994). Similarly, there are attitudes and perceptions that may help individuals in general to negotiate through greater levels of constraint to facilitate participation (Goodsell & Harris, 2011), but some attitudes may be more salient for women in overcoming barriers inherent to their gender (Dixon, 2009; Ridinger et al., 2012). The question remains whether these same patterns can be seen within women who have already overcome initial barriers to participation in serious leisure, and who must now negotiate for greater amounts of involvement. In this case, running full marathons requires longer and more frequent training, and it may be that at this level, time commitment constraints that affect women more in general become particularly salient. Therefore, the aim of this research is to explore quantitatively the differences in constraints and constraint negotiation for women and men at two different stages of engagement in a serious leisure activity. As this research additionally seeks to understand differences across gender in relation to constraints, it also examines the difference between men and women in the correlates to participation in the same race, in an attempt to uncover differences in the demographic and attitudinal variables that inform participation in serious leisure for men and women. We therefore ask the following question:

> **RQ1:** What are the differences in constraint correlates and negotiation correlates between runners of different genders and different event distances?

Exploring the differences in participant profiles is useful for describing potential reasons that individuals may or may not be participating at different levels of this activity, but it does not examine the ability of these reasons for actually predicting participation. While general observation has shown that gender itself is a predictor of event type, we also aim to explore the relationship between the barriers and correlates to participation in relation to gender with the following question:

> **RQ2:** Do constraint correlates and negotiation correlates predict levels of participation differently for men and women?

Method

Sample and Survey Design

A survey research design was used to gather data from a sample of individuals who participated in a marathon and half marathon event that took place in the Southeastern United States in early 2012. An online survey was developed and distributed to participants via email using registration data provided by the race organizers. The survey was sent to 23,793 registered runners with valid e-mail addresses who completed the event. An initial invitation was sent 10 days after the event. A reminder message was sent seven days after the initial invitation, and the survey closed after 17 days. A total of 3,453 marathon and half marathon participants completed the 20-minute survey for a response rate of 14.6%. The population characteristics of this sample were compared with those of the overall race population using the internal registration database provided by race organizers. Overall, the sample was found to be representative of the race population in terms of race type, gender, ethnicity, and age. Further, as suggested by Jordan, Walker, Kent, and Inoue (2011), early respondents were compared to late respondents, who more closely mirror non-respondents, and no statistical differences were found across demographic information or key variables, including: gender (t = .375, p = .707), income (t = .153, p = .878), age (t = .366, p = .715), number of children (t = 1.42, p = .156), perceived family support (t = .368, p = .713), negotiation-efficacy (t = .038, p = .970), number of running events each year (t = 1.42, p = .157), and miles per week (t = .265, p = .791). These analyses allow the findings within this sample to be generalized to the entire race population.

Measures

Demographics and running profile. In addition to the variables of interest, gender and other demographic information, including income and family structure, was captured to represent the established structural constraint correlates of previous literature. Extensive information on family structure was collected measuring not only marital status (i.e., operationalized as single or married/living with a partner) and number of children in the household under the age of 16, but also determining number of children under the age of five. This measure was based on the findings of Nomaguchi and Bianchi (2004), who found that the presence of one or more children under the age of five was a significant determinant for both men and women in the amount of time they spent on physically active leisure. These two measurements were then split into scale variables representing "number of children between the ages of 5 and 15," and "number of children under 5."

The survey also collected behavioral information for the purpose of controlling for the level of behavioral involvement with long-distance running. This included race distance, number of races in the past 12 months, and average number of miles run per week, which was measured in 10-mile increments. Finally, separation of marathon runners and half marathon runners was determined by asking individuals who ran the half marathon if they had ever run a full marathon before. This was done to separate runners with marathon experience and those without.

Negotiation-efficacy. Three negotiation-efficacy statements were adapted for running by Ridinger et al. (2012), converting White's (2008) original wording for outdoor recreation: "I enjoy overcoming obstacles to participate in running," "In the past, I have been successful getting around the barriers to my running," and "People I admire find ways around challenges they face when trying to run." A seven-point Likert scale was used, ranging from *strongly disagree* to *strongly agree*. The three items from the scale were combined to form a single overall score in

negotiation-efficacy. Cronbach's α for these three items in this study was found to be .60. While this is lower than the .70 benchmark suggested by Nunnally (1978), Cortina (1993) suggests that a lower coefficient alpha is not necessarily associated with low reliability for scales that have a low number of items. In this case, it is appropriate to perform a principle component analysis to confirm single-item loading. The construct of negotiation-efficacy loaded on a single component with an Eigen value of 1.654.

Family support. A single item of global family support was adapted from Goff et al.'s (1997) scale of spousal support for distance runners: "My family supports my running." Similar to negotiation-efficacy, this item was measured on a 7-pt Likert scale ranging from (1) *strongly disagree* to (7) *strongly agree*. This single item was selected as a measure of global familial support, similar to other global evaluation items such as satisfaction (Nagy, 2002) and self-esteem (Robins, Hendin, & Trzesniewski, 2001), which have been found to be both valid and reliable.

Results

Descriptives

Within the overall sample of 3,453 respondents, 50.2% were female. The majority of respondents (63%) were ages 25–44, 61% were married or living with a partner, 82% had a degree from a four-year college or higher, and 69% had incomes over $75,000. In terms of race and ethnicity, 58% were Caucasian, 32% were Hispanic/Latino, 4% were African American, and 3% were Asian. Respondents were then separated into those who had participated in a full marathon (n = 1305) and those who had not (n = 1129).A complete demographic and behavioral table of participants is presented in Table 1.

Research Question 1

MANOVA results of RQ1 comparing the variables of interest between women with marathon experience to women with only half marathon experience showed that marathon experience was associated with a higher income (F(1, 1305) = 9.78, p < .01), being older (F(1, 1305) = 29.19, p < .001), participating in more running events per year (F(1, 1305) = 171.07, p < .001), higher negotiation-efficacy (F(1, 1305) = 18.14, p < .001), and higher levels of perceived family support (F(1, 1305) = 5.23 p < .05). There were no significant differences in number of children between 5 and 15 (F(1, 1305) = 3.00 p = .08) and number of children under the age of five (F(1, 1305) = 0.60, p = .44). Chi-square comparison between marathon experience and marital status, the single categorical dependent variable, also showed that women who ran the full marathon were significantly more likely to be married (X = 6.82, p < .05). A second MANOVA comparing men with marathon experience to men with only half marathon experience found marathon experience to be associated with higher levels of income (F(1, 1243) = 6.51, p < .05), fewer children under the age of five (F(1, 1243) = 4.37, p < .05), being older (F(1, 1243) = 31.93, p < .001), more running events each year (F(1, 1243) = 97.93, p < .001), and higher levels of negotiation-efficacy (F(1, 1243) = 30.05, p < .001). There were no significant differences found across number of children between the ages of five and 15 (F(1, 1243) = 2.07, p = .15), or perceived family support (F(1, 1243) = 0.49, p = .48). Chi-square test showed no significant relationship between marathon experience and marital status for men (χ = 0.47, p = .51).

Comparing men and women with only half marathon experience, MANOVA results found that being male was significantly associated with having higher incomes (F(1, 1177) = 17.28, p < .001), having more children between the ages of five and 15 (F(1, 1177) = 4.85, p < .05), having more children under the age of five (F(1, 1177) = 14.33, p < .001), being older (F(1, 1177) =

Table 1

Demographic and Behavioral Information

	Men	Women
Basic Family Structure		
Single without Children	26.4%	38.0%
Single with Children	6.0%	7.0%
Married/living with partner (w/out children)	19.2%	19.5%
Married/living with partner (w/children)	48.4%	35.5%
Children between ages 5 and 15		
None	58.3%	66.3%
One	27.9%	21.3%
Two	10.4%	9.0%
Three or more	3.3%	3.4%
Children under 5		
None	65.7%	72.6%
One	19.0%	17.1%
Two	11.8%	7.2%
Three or more	3.5%	3.0%
Income		
$75,000 and less	30.9%	41.5%
$75,001-$150,000	40.8%	38.1%
More than $150,000	28.3%	20.4%
Event Type		
Half Marathon	67.6%	79.1%
Full Marathon	32.4%	20.9%
Other Running Behaviors		
Miles Per Week (M)	28.0	24.8
# of Running Events per Year (M)	5.4	4.7
# of Running Events in the next 12 Months (M)	5.7	5.2

Note. All numbers rounded to the nearest tenth, and for this reason, percentages may not add to exactly 100% in some cases.

29.02, $p < .001$), and participating in more running events per year ($F(1, 1177) = 13.43$, $p < .001$). There were no significant differences in negotiation-efficacy ($F(1, 1177) = 1.53$, $p = .22$) or perceived family support ($F(1, 1177) = 1.58$, $p = .21$). A chi-square test of the relationship between gender and marital status showed that men were more likely to be married at this race distance ($\chi = 31.61$, $p < .001$).

Comparison between men and women with marathon experience found that being male was significantly associated with higher income ($F(1, 1371) = 16.03$, $p < .001$), having more children between the ages of five and 15 ($F(1, 1371) = 4.53$, $p < .05$), having more children under the

age of five ($F(1, 1371) = 7.81$, $p < .01$), and being older ($F(1, 1371) = 38.19$, $p < .001$). Conversely, being a female was significantly associated with having higher levels of negotiation-efficacy ($F(1, 1371) = 12.15$, $p < .01$) and higher levels of perceived family support ($F(1, 1371) = 10.94$, $p < .01$). There was no difference in terms of participation in running events every year ($F(1, 1371) = 1.45$, $p = 0.23$). Chi-square test showed that men were significantly more likely to be married ($\chi = 16.88$, $p < .001$).

Research Question 2

A binomial logistic regression was used to test RQ2, examining constraint and negotiation correlates' prediction ability on the level of participation in distance running, half marathon (0) or full marathon (1), as well as the differences in prediction for men and women. First, the overall model found that being male ($\beta = -.53$, $p < .001$), greater income ($\beta = 0.06$, $p < .01$), fewer children under 5 ($\beta = -0.18$, $p < .01$), more children between the ages of 5 and 15 ($\beta = 0.11$, $p < .05$), and higher negotiation-efficacy scores ($\beta = 0.26$, $p < .001$) predicted the decision to participate in a full marathon. In terms of a gender comparison, an independent samples comparison found that there were no significant differences in beta-weight for any of the significant predictors of participation level, including income ($t = 0.21$), children under 5 ($t = -.02$), and negotiation-efficacy ($t = -1.23$). A complete summary of the logistic regression can be found in Table 2.

Table 2

Logistic Regression Results

	Overall Model			Men			Women		
	(β)	*(p)*	*Exp (β)*	*(β)*	*(p)*	*Exp (β)*	*(β)*	*(p)*	*Exp (β)*
Income	0.067	0.001	1.069	0.069	0.011	1.072	0.062	0.026	1.064
Single_married	-0.038	0.705	0.962	0.089	0.551	1.093	-0.151	0.273	0.86
Kid_under_5	-0.183	0.001	0.833	-0.182	0.011	0.834	-0.18	0.028	0.835
Kids_5_to_15	0.109	0.048	1.116	0.114	0.145	1.12	0.1	0.206	1.105
Fam_Support	0.003	0.991	1.000	-0.014	0.808	0.986	0.011	0.836	1.011
Neg_Eff	0.258	<.001	1.294	0.203	0.005	1.225	0.306	<.001	1.358
Gender	-0.533	<.001	0.587	-	-	-	-	-	-

Note. Income measure used in this model is individual median income for ranged categories. Single_married is based on a dichotomous variable (single = 0, married/living with partner = 1); Fam_Support = mean score of global family support item; Neg_Eff = composite average of negotiation-efficacy.

Discussion

The purpose of this study was to explore the ability of constraints and constraint negotiation to explain the participation differences for female and male long-distance runners at two different types of engagement in a serious leisure activity. The first research question sought to understand potential differences in the constraint correlates and negotiation-efficacy levels that make up the profiles of runners of the same gender, but that participate in different race distanc-

es. Results showed that women who had marathon experience were older, more likely to be married, have a higher income, and have greater levels of both negotiation-efficacy and perceived family support in comparison to women with only half marathon experience. Similar to women, men with marathon experience were more likely to be older, have a higher income, participate in more running events each year, and have greater levels of negotiation-efficacy when compared to men with only half marathon experience. These mirrored findings suggest that income, behavioral involvement (i.e., greater amounts of time commitment), and a greater perception in one's ability to overcome barriers may be salient correlates for both men and women to move from the half marathon level to the full marathon level. The significance of behavior and income supports previous literature on serious leisure showing that greater amounts of resources are required as time commitments increase within the serious leisure activity (Stebbins, 1992). This movement also requires stronger attitudes that allow individuals to overcome the barriers of an increased time commitment, reflected in this study by the significant increase in negotiation-efficacy between the half and full marathon.

Perceived family support and marital status were significant factors for women but not for men, suggesting a support system might be more necessary for women at the full marathon level of engagement. While research has shown that family can act as a barrier for women perceived to be primary caregivers (Henderson & Allen, 1991), family support can actually act as a facilitator, allowing for increased involvement with an activity (Goodsell & Harris, 2011). This level of support, however, does not seem to be salient for men running a full marathon distance.

Non-significance in the number of children for women suggests that the barrier of having children may not be salient for women at this stage of involvement, particularly when viewed in conjunction with the high overall mean of perceived family support within this group. This further supports previous literature on spousal support, even though the presence of children, especially young children, can add a potential barrier (Nomaguchi & Bianchi, 2004). Meanwhile, the presence of young children did play a role for men, supporting Nomaguchi and Bianchi's contention that having children under the age of five significantly decreases an individual's ability to participate in physically active leisure. This overall finding seems to contradict the literature that states the presence of young children is more likely to be a barrier for women than men (e.g. Maume, 2008). However, this may be explained by the distinction between the constraints to physical activity in general, and the constraints associated in the pursuit of serious leisure. Nomaguchi and Bianchi's study looked at overall rates of physical activity, but the attitudes and motivations associated with the pursuit of serious leisure eliminate some barriers and create new ones (Stebbins, 2001). Therefore, the differences between the constraint correlates of men and women may be explained by the significant differences for men and women in perceived family support at the marathon level. As women's levels are significantly higher than men's, they may be more able to overcome the barrier of young children because they feel a greater amount of support as they make the decision to take the training time necessary to run full marathons.

In terms of men and women running the same distances, results found that for both half and full marathoners, men were more likely to be older, married, have greater income, and have more children. This suggests that men are more likely to be able to participate in these distances than women after marriage and childbirth, and that at this stage, the ethic of care as suggested by Henderson and Allen (1991) may still be stronger for women than men, as men feel more justified in taking leisure time after marriage and children (Maume, 2008).

Similar to Ridinger et al. (2012), those women who allow themselves the necessary time to train for the full marathon had significantly higher levels of perceived family support and negotiation-efficacy than their male counterparts. Complimenting this finding, non-significance

in negotiation-efficacy and perceived family support across those who ran the half marathon is reflective of the greater percentage of women who are able to participate at this level. A greater level of negotiation attitudes are no longer necessary to participate, as women have populated this distance.

Finally, at the half marathon level, men participated in significantly more running events than women, but this was not evident for those with marathon experience. Similar to the results found between individuals of the same gender running in different races, there is evidence of increased behavioral involvement that comes with higher levels of serious leisure. While certain constraints may preclude women from participating in as many events as men involved at the half marathon level, the commitment associated with running full marathons transcends those constraints for those who run 26.2 miles. Scott and Schafter (2001) contended that at a certain level of commitment and behavioral involvement, individuals have a personal investment that prioritizes the activity among other life facets. Although the percentage of women making the commitment to running full marathons is lower, those who do, prioritize it in their life equally as their male counterparts.

While these findings created a more complete profile of event participants across genders at both the half and full marathon distance, findings of research question two failed to find a link between these correlates and actual participation choice. Participation for both men and women was predicted positively by higher scores in negotiation-efficacy, and negatively predicted by the presence of children under the age of five. The presence of children between the ages of five and 15 also significantly predicted event level for men. There was, however, no significant difference in the strength of their prediction, suggesting that the decision that leads to a difference in participation rates between men and women is not informed merely by family structure or the perceived ability to overcome constraints. Therefore, while negotiation-efficacy appears to be a significant component necessary to move to levels of serious leisure requiring a greater temporal commitment, more research is needed to understand other predictors that are affected by gender.

Implications

This study has both theoretical and practical implications. Theoretically, this study contributes to the sparse conversation on the role of gender in serious leisure. While the topic of serious leisure has been well explored since Stebbins (1982) first coined the phrase, understanding how gender differences operate in this space has received less scholarly attention. Previous literature has shown that serious leisure can operate as a form of resistance and identity for women outside of their gender roles (Dilley & Scraton, 2010; Rainsborough, 2006). To an extent, distance running has become a source of identity, as the activity is no longer gendered in the same way. However, the remaining significant differences across participation levels are still under researched. While results of this study found that gender is associated with different levels of participation, it does not actually inform the choice of which distance to run. Therefore, constraints may not be the answer to understanding why women run the full marathon at significantly lower rates than other distances. Women may simply define their serious leisure with distance running differently, such that the greater time commitment associated with longer distances does not equate to a more serious form of the activity for them. Cohen-Gewerc and Stebbins (2013) have suggested that serious leisure may be a way to carve out a kind of individuality for those engaged in a particular activity, and it may be that women have simply created a different path of personal choice in event distance.

This study also adds to the growing shift from measuring actual structural constraints to a conversation of research that seeks to understand the ways in which participation in leisure, particularly serious leisure, is both created and maintained. While the dialogue surrounding constraints should continue, individual processing of constraints must be theoretically supported through examination of constructs such as negotiation-efficacy. Recent research has examined the relationship among constraints, constraint negotiation, and participation (e.g., Loucks-Atkinson & Mannell, 2007), but the relationship between this process and antecedent constraints such as race, gender, and socioeconomic status has yet to be explored. This study moves the conversation forward by revealing connections between gender and this process in the pursuit of a serious leisure activity.

Practically, the recent surge in recreational running spurred on greatly by the increase in female runners over the past 10 years allows for a unique examination of a single type of physically active leisure that has shifted from being male-dominated to an activity accepted for both sexes. While such gender divisions still exist within other forms of physical activity (e.g., various team sports, yoga, and dance), running has, in some ways, transcended gender expectations. Examining the changes in norms for a particular form of leisure can help illuminate the markers through which the factors that still affect individuals play a role in participation levels.

Limitations/Future Directions

While this study measured more objective constraint correlates along with negotiation-efficacy, it did not measure level of perceived constraint. This study chose to focus rather on the psychological markers exposing intrapersonal constraints that have been shown to be difficult to operationalize (Henderson et al., 1988; Crawford & Jackson, 2005). Therefore, while the differences in negotiation-efficacy suggests different paths through barriers to participation, this study cannot conclude that women's higher negotiation-efficacy scores are directly the result of perceived barriers that are inherent to their gender, only that they are related to the correlates that create actual constraints.

Furthermore, while this study measured the constraint correlates to several intrapersonal, interpersonal, and structural constraints, it did not measure the antecedents to these constraint correlates beyond gender categorically. Specifically, failure to find differences in the actual experiences of leisure between men and women suggests that other attitudes that are informed by social structure may actually be better predictors of differences in manifestations of participation. As Shaw (1994) suggests, the psychological and social gendered mechanisms that affect both preferences to leisure as well as participation often happen outside of the conscious awareness of the individual. Having established that gender plays a role in the attitudes of those engaged in serious leisure, additional work is needed to understand more how this manifests itself in behavior through the effects of social barriers.

As distance running is still a form of serious leisure occupied by predominantly white, affluent individuals (Running USA, 2013), it still filters out individuals based on other antecedent constraints, namely race and socioeconomic status. Therefore, future studies would help to better understand how this filter associated with race and class informs the constraint and negotiation process more acutely for this activity, at least in the United States. Similar to gender, race can serve as a barrier to serious leisure at all points along the continuum, and therefore examining the constraints of other racial groups at different stages of involvement within a given activity would complement understanding how antecedent constraints in general inform serious leisure. Additionally, the extent to which this filter is unique to the social norms of the United States

should be explored. Future research should include additional potential sociological measures to understand the weight of these norms, and compare them to the social barriers that affect individuals in other societies.

Finally, this study focused on one particular form of serious leisure, long-distance running, and the differences that occur across gender at two specific race distances within the overall activity, and therefore the generalizability of these findings are somewhat limited. Assessing differences across individuals in distances shorter than the half marathon and longer than the full marathon might illuminate the factors that inform participation across all levels of engagement. Similarly, comparing the experiences of those who participate in road races more or less frequently might uncover different serious leisure experiences across this continuum. Additionally, this phenomenon should be observed in other forms of serious leisure, and any parallels and differences in the influence of the type of leisure on these correlates should be explored.

Conclusion

Long-distance running has grown in recent years from a male dominated activity to a space of serious leisure occupied by both men and women. However, disparities still exist, as evidenced by the gap in participation at distances of 26.2 miles and longer. This study examined the constraint and negotiation correlates to participating in longer distances, and attempted to uncover any connection in these correlates to gender, itself an antecedent constraint. In exploring the characteristics both demographically and attitudinally across both genders and distances, it attempted to better understand those correlates to constraints that are most salient for a particular gender or a particular level of involvement with the activity, as well as those negotiation correlates that are important in facilitating the level of commitment it takes to participate in long-distance running.

Findings supported the general leisure constraint literature in suggesting that there may be different constraints at different levels of participation for men and women. Furthermore, women who are able to overcome barriers to participation have greater beliefs in their own ability to overcome constraints and also believe that their family supported them in their efforts to achieve this level. Since the seminal work on gender and constraints (e.g., Henderson et al., 1988; Henderson & Allen, 1991; Shaw, 1994), much progress has been made in terms of women's participation in sport and serious leisure activities and is reflected in the growing numbers of women participants in long-distance running. However, while this study's comparison of two levels of the same activity revealed that constraint variations between men and women may still exist, the gender differences did not predict the choice of distance. Therefore, the sole reliance on constraints as a conceptual framework may not be sufficient for understanding participation rates for the full marathon versus those of shorter race distances. The activity of distance running as a serious leisure pursuit may be perceived and defined differently for men versus women, and this requires the integration of broader sociological approaches that highlight potential fundamental differences in expectations between men and women in their leisure pursuits, and the sources of such differences. While the results of this study did not find gender to be significant in predicting event distance, they do suggest the existence of a more complex relationship between gender and serious leisure, and provide an initial conversation surrounding the facets affecting the serious leisure experience of distance running for women and men.

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