



Pathways from youth to masters swimming: Exploring long-term influences of youth swimming experiences

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ABSTRACT

Objectives: Some swimmers, “continuers,” transition directly from youth swimming into masters swimming. Others, “rekindlers,” take time off before returning to swimming as masters athletes. The purpose of this study was to explore how youth swimming experiences shape subsequent participation in masters swimming.

Design: This research was guided by a qualitative description method, as described by Sandelowski (2000).

Method: Twenty masters swimmers (10 men and 10 women, *M* age = 40.5 years) were purposefully selected for semi-structured retrospective interviews regarding their youth swimming experiences and transitions into masters swimming. Eight were continuers, and 12 were rekindlers. Data were submitted to qualitative content analysis.

Results: Analyses revealed disruptive, attractive, and enabling forces stemming from youth swimming. For rekindlers, high training volume in youth swimming led to negative physical and emotional consequences and scheduling conflicts between swimming and other activities. When they felt their performance was no longer improving, these costs led them to drop out of youth swimming. In contrast, the continuers’ focus on enjoyment, social aspects, and other non-performance-related reasons for swimming led to a smooth transition from youth swimming into masters swimming. As adults, rekindlers had confidence in their swimming abilities because of their youth training, but they required a shift away from performance-related motives in order to return to swimming.

Conclusions: These findings demonstrate the varied and long-lasting influences of youth sport experiences on adult sport participation. They also point to some specific theoretical and practical implications for researchers, coaches, parents, and club administrators.

1. Introduction

One of the most popular masters sports is swimming, which is well-suited for lifelong participation (Cooper, Powell, & Rasch, 2007). Masters swimmers are adults who typically train together under the guidance of a coach two or more times per week; they may swim recreationally, for fitness, or competitively (Stevenson, 2002) and all acknowledge at least a fairly regular pattern of participation in a formal program (Young, 2011). While the minimum age requirement for international competition is 25, in many countries, swimmers can register as masters athletes beginning at age 18. This means it is possible to transition directly from age group or varsity swimming programmes (hereafter referred to as “youth swimming”) into masters swimming. Dionigi (2015) classified athletes who transition directly from youth to masters sport as “continuers.” In her qualitative study examining

pathways to involvement in masters sport, she also identified “rekindlers” (those who took a break after youth sport and returned to masters sport later in life) and “late bloomers” (those who did not begin participating in sport until they were adults). Reports suggest that the majority of masters swimmers swam competitively as youths, but few could be classified as “continuers” (Cooper et al., 2007). A large survey of masters swimmers with previous competitive youth swimming experience found that only 30% of them joined masters swimming within 10 years of ending their youth swimming participation (Daughtrey, Vowles, & Black, 2011). This puts the majority of those surveyed in the “rekindler” category.

It is unclear whether this gap in participation reflects time away from swimming only or withdrawal from sport and physical activity in general. Almost nothing is known about the factors influencing this long lapse in participation, involvement in other activities during this

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time away from swimming, or what leads to an eventual return to the sport. Exceptions include [Stevenson \(2002\)](#) and [Rathwell, Callary, and Young \(2015\)](#) who described socialization processes during middle-age involving sponsors already in masters swimming, as particularly important in inviting adults to re-engage in adult sport after time away. A delayed return to adult sport could be due to external factors like finances, career, and/or family obligations ([Dionigi, 2015](#)). However, another possibility is that the increasingly specialized nature of youth swimming has deleterious and latent effects on later adult motivation for participation in masters swimming. Youth swimming is known for high levels of burnout and attrition, often attributed to intense training that takes place almost year-round (e.g., [Raedeke & Smith, 2004](#)). Yet, to our knowledge, no research has considered the quality and context of masters swimmers' previous competitive youth swimming experience and its impact on their patterns of swimming participation as adults. Although there is literature that has compared masters athletes with younger cohorts on motives and embodiment (e.g., [Howells & Grogan, 2012](#)) and associated masters' motives with short-term correlates of adherence ([Young, Callary, & Rathwell, 2018](#)) and psycho-social outcomes of sport participation ([Gayman, Fraser-Thomas, Dionigi, Horton, & Baker, 2017](#)), no studies have framed early to later life sport participation transitions through a motivational lens. Additionally, although a limited number of studies (e.g., [Dionigi, 2015](#); [Harada, 1994](#)) have addressed developmental pathways in sport across the lifespan, none has framed their inquiry in psychological models of motivated behaviour.

There are a number of theoretical propositions that are relevant to the current study, including aspects of self-determination theory ([Deci & Ryan, 2000](#)) and sport commitment ([Scanlan, Chow, Sousa, Scanlan, & Knifsend, 2016](#)), which have been the focus of much research on motivation in masters athletes (see [Young, 2011](#); [Young et al., 2018](#)). Additionally, the proposition that earlier life experiences could be tied to later transitional experiences has been noted in studies of specialization and burnout within youth sport ([Côté, Baker, & Abernethy, 2007](#)), but similar experiences have not been explored with respect to links between adolescent and later participation as adult athletes.

Foundational youth sport experiences are assumed to be important because they can have a (latent) association with people's decision to continue or perhaps return to sport later on (e.g., [Côté et al., 2007](#)). According to Côté and colleagues, volitional, self-led play in childhood, (which is viewed as the antithesis to specialized training), can lead to autonomous motivation for sport participation in adulthood. [Horn \(2015\)](#) theorized that early specialization has a detrimental effect on intrinsic motivation. Framed within self-determination theory ([Deci & Ryan, 2000](#)), [Hendry, Crocker, and Hodges \(2014\)](#) posited that when young children are asked to engage in high levels of effortful, intensive, "deliberate practice" ([Ericsson, Krampe, & Tesch-Römer, 1993](#)) rather than building a base of enjoyment and intrinsic motivation, their training is more likely to be regulated by external influences. We suggest it may then be difficult to shift from this controlled motivation to a more self-determined and sustainable motivation. This hypothesis was partially supported by [Russell \(2014\)](#), who found that young adults who had specialized in one sport as youth reported higher controlled motivation than non-specializers, though they also reported higher levels of one type of intrinsic motivation.¹ Specializers in his study were also less likely to participate in sports as young adults compared to non-specializers. However, he did not examine their motivation for participating in sport as adults.

The sport commitment model (SCM; [Scanlan et al., 2016](#)) provides

¹ Russell used the sport motivation scale (SMS; [Pelletier et al., 1995](#)), which measures three different types of intrinsic motivation: 1) to know, 2) to accomplish things, and 3) to experience stimulation. Specializers in Russell's study reported higher levels of intrinsic motivation to know than non-specializers.

another lens through which to examine sustained sport participation. The SCM differentiates between an attraction-based "want to" commitment and an obligated "have to" commitment, and specifies antecedents of both forms ([Schmidt & Stein, 1991](#)). The antecedents of both types of commitment have been examined in youth sport populations ([Scanlan et al., 2016](#)) and in masters athletes (e.g., [Young & Medic, 2011](#)), but the potential for latent effects to carry over from youth sport into adulthood has not yet been explored. It is possible that "continuers" maintain their participation over time due to certain attracting or restraining forces present in youth swimming, while other forces disrupt the "rekindlers" participation. These forces may relate to motivation, commitment, and physical aspects of training. Therefore, the purpose of this study was to explore how participants' youth swimming experiences shaped subsequent participation in masters swimming. This research is important because youth sport participation is often promoted as a way to encourage lifelong physical activity ([Gard, Dionigi, and Dionigi \(2018\)](#)), but very little is actually known about how early sport experiences influence sport participation later on.

2. Method

Qualitative description, as described by [Sandelowski \(2000\)](#), was the method used to guide this research. Qualitative description involves summarizing people's perceived experiences in plain, everyday language ([Sandelowski, 2000](#)). Our selection of this method was informed by the first author's ontological and epistemological assumptions, which include ontological relativism (accepting multiple, mind-dependent realities) and epistemological constructivism (believing one's knowledge of reality is constructed through subjective personal experiences). [Sandelowski's \(2000\)](#) commentary on qualitative description is consistent with this paradigm, noting that "Researchers seeking to describe an experience or event select what they will describe and, in the process of featuring certain aspects of it, begin to transform that experience or event" (p. 335). However, there is a tendency to stay near to the data—findings are not transformed to the extent one might see in other qualitative approaches. [Sandelowski \(2000, p. 337\)](#) notes that viewing language as a form of communication, rather than a structure to be analysed, allows for "largely unadorned" answers to questions of interest to practitioners and policy makers—for example, "How can we better promote lifelong participation in swimming?" With little research done in this area, we sought a straight-forward description around a relatively complex phenomenon. Qualitative description has been used elsewhere in sport and exercise to better understand complex phenomena (e.g., [Larson, McFadden, McHugh, Berry, & Rodgers, 2017](#)); in fact, [Sandelowski](#) cites qualitative description as the method of choice for such investigations. As such, we deemed it appropriate for exploring the complexities of long-term motivational consequences of youth swimming experiences.

2.1. Participants

Twenty participants were purposefully selected using maximum variation sampling to capture varied patterns of swimming participation and to elicit a wide range of retrospective perspectives on youth swimming experiences. Maximum variation sampling is an especially useful method for exploring the unique and common manifestations of a phenomenon across a range of varied cases ([Sandelowski, 2000](#)).

Participants were recruited for interviews after completing an online survey regarding patterns of sport participation, especially swimming, from childhood to adulthood. They were asked to indicate the age at which they began participating in swimming, began competing in swimming, and reduced their sport involvement to only swimming (if ever). Involvement in focused, high-intensity training was assessed based on previously identified markers of specialization in swimming, including participation in training camps and dryland training ([Fraser-Thomas, Côté, & Deakin, 2008](#)). Survey participation was limited to

Table 1
Participant characteristics.

Pseudonym	Years off after youth swimming	Gender	Current age	Age at peak	Peak swim training hours per week	Total years of youth swimming
Isabel	< 1	Woman	21	15	11	4
Elizabeth	< 1	Woman	25	14	14	10
Jennifer	< 1	Woman	30	21	16	15
Amy	< 1	Woman	56	24	23	26 ^a
Andrew	< 1	Man	19	13	28	11
Logan	< 1	Man	30	13	12	14
Tomas	< 1	Man	40	–	–	10
Brian	< 1	Man	43	18	19	13
Carter	< 1	Man	33	15	25	15
Ashley	1	Woman	31	14	24	9
Carol	1	Woman	55	14	40	13
Lauren	12	Woman	28	13	15	10
Lisa	14	Woman	54	12	17	9
Nancy	18	Woman	54	12	22	14
Julie	25	Woman	43	15	12	5
Ian	14	Man	33	16	19	11
Paul	18	Man	54	20	23	9
Phil	23	Man	46	17	14	16
Henry	23	Man	52	16	17	16
Niall	41	Man	62	13	13	10

^a In this paper, we use the term “youth swimming” to describe competitive swimming in any context other than masters swimming. Amy had an unusually long youth swimming career due to training and competing on a university team in Europe during her graduate studies and also training with youth clubs (as an adult) for some time.

masters swimmers over the age of 18 who were currently registered with a Canadian swim club, training with teammates and a coach, and who had participated in at least one season of competitive swimming prior to age 18. A total of 205 eligible swimmers completed the survey, 115 of whom indicated their interest in participating in an interview. Twenty survey participants (10 women and 10 men) were purposefully selected for interviews based on their responses to survey questions regarding their sport backgrounds (i.e. total years of youth swimming participation, degree of involvement in early specialized training) and their transition time between youth swimming and masters swimming. These participants are described further in Table 1. Those who took a full year or more off between their youth and masters swimming participation were classified as “rekindlers” ($n = 12$). The others were classified as “continuers” ($n = 8$), as they continued swimming without any breaks between their youth and masters participation. All procedures were approved by the first author’s university research ethics board.

2.2. Data generation

All participants took part in one-on-one interviews with the first author, who is a masters swimmer and youth swim coach. Interviews provide a means of capturing the nature and shape of personal experiences, and as such, were useful in generating data for qualitative description (Sandelowski, 2000). Interviews were completed either face-to-face or over the phone. They ranged from 24 to 65 minutes in duration ($M = 46$, $SD = 11$), and were recorded and transcribed verbatim. Providing potential participants with a choice between telephone and face-to-face interviews allowed for the inclusion of a wider range of participants with differing needs and preferences, as well as geographical locations. Previous research has shown that face-to-face and telephone interviews yielded similar qualitative findings, with no reduction in data quality due to phone use (Sturges & Hanrahan, 2004).

The interviewer’s involvement in swimming meant she already knew five of the participants and could easily build rapport with the

others, even over the phone, based on shared experiences and knowledge of swimming terminology. Dwyer and Buckle (2009) noted that this insider status often leads to greater acceptance by participants, resulting in increased openness and greater depth to the data. Another advantage identified in the present study was the ability to focus on participants’ feelings and stories, rather than getting bogged down in explanations of what a “dual meet” or “200 IM” entails. When interviewing participants who were already known to her, the interviewer encouraged them to share information as if she had not heard it before, so as not to lose out on rich descriptions due to assumptions of prior knowledge.

The interviews began by using selected sections of the retrospective interview procedure developed and validated by Côté, Ericsson, and Law (2005). This procedure was adapted for collecting data about youth swimming by Fraser-Thomas et al. (2008), using primarily closed-ended questions to collect quantitative data on athletes’ general patterns of activity involvement and psychosocial influences throughout development. Three pilot interviews were used to refine the interview guide used in the present study. Some of the more specific questions were removed to leave more time for eliciting rich descriptions of swimming experiences during the interviews. Participants were asked about their overall sport involvement (e.g., type of sport, duration of season, weekly hours of practice, level of competition) from childhood through adolescence, with special attention given to swimming. During this phase of each interview, the interviewer recorded the participant’s responses in a chart, creating a visual frame of reference for her own personal use during the remainder of the interview. Changes in sport participation over time were noted, as well as changes in swimming context (e.g. switching clubs, or going from club swimming to varsity) and training (e.g. increases or decreases in training volume, beginning dryland training, attending a training camp for the first time, etc.).

Next, the interviewer shifted to a semi-structured interview format and explored the transition periods noted on the chart with open-ended questions like, “How did you feel about your swimming abilities at that time?” and “What were your relationships like with your coaches and teammates?” Participants were asked about their main reason for leaving youth swimming, what they did after leaving, and how they decided to join masters swimming. Interviews culminated with the question, “Thinking back on your youth swimming experiences, how would you say they’ve impacted your motivation for swimming as an adult?”

2.3. Analysis

Sandelowski (2000) describes content analysis as an optimal choice for qualitative description. Qualitative content analysis distils words into categories of information that summarize events or phenomena (Elo & Kyngäs, 2008). Our analysis followed the three-step process described by Elo and Kyngäs (2008). The first step, preparation, involved immersion in the data by reading through all of the transcripts several times. In keeping with a qualitative descriptive approach, we decided to analyze the manifest content (using the words themselves), rather than extending the analysis to latent content (i.e., interpreting meaning based on sighs, pauses, laughter, etc.). During the second step, organization, the first author engaged in open coding, which is the process of writing notes and headings in the transcript margins in an attempt to describe all aspects of the content. These headings were used to create categories, which were then collapsed into higher-order themes upon discussion and arrival at consensus with the second author. For example, the headings “training volume as deterrent to coming back to swimming sooner” and “viewed swimming as work” generated the category, “negative aspects of training volume,” which was then included in the theme, “Physical and emotional consequences of high training volume.” The third step, reporting, involved presenting the themes accompanied by direct quotes from participants.

2.4. Rigour

A relativist approach to rigour means that relevant criteria for evaluation should be selected while engaging with a piece of inquiry, rather than beforehand, as the standards used to evaluate qualitative research are dependent on the study's context and purpose (Smith & McGannon, 2017). For example, while an auto-ethnography might be judged on aesthetic merit and evocation, these criteria are not relevant to the present study. Instead, we invite readers to reflect on the following considerations as discussed by Smith and McGannon. *Coherence* was achieved by allowing the qualitative descriptive approach to guide the participant sampling, data generation, and analysis. We selected a *worthy topic*, as lifespan patterns of sport participation are understudied, yet may have significant impacts on physical and mental wellbeing. The purposeful selection of interviewees from a large pool of potential participants in order to obtain abundant data regarding the topic of interest demonstrates *utility*. Finally, the credibility of our work is enhanced through the use of conversations with *critical friends*—co-authors and researchers outside the study who encouraged reflexivity (attention to one's own role in constructing knowledge) and a fuller, more complex understanding of the phenomenon by suggesting alternative explanations and interpretations.

3. Results

The purpose of this study was to explore how participants' youth swimming experiences shaped subsequent participation in masters swimming. Of the 20 participants, eight were "continuers," with smooth transitions from youth swimming into masters swimming, and the remaining 12 were "rekindlers," with a full year or more passing between their youth and masters swimming participation. The themes derived from the experiences described by continuers and rekindlers are presented in three sections: 1) Disrupting Influences, 2) Experiences of Change, and 3) Attracting and Enabling Influences. The rekindlers' voices are more dominant in the first two sections, and the continuers' experiences are more central to the final section.

3.1. Disrupting Influences

Four rekindlers cited burnout from youth swimming as a primary factor in their delayed return to swimming as adults. Indeed, aspects of exhaustion, a reduced sense of accomplishment, and sport devaluation appear in some of the quotes in this section. The other rekindlers were drawn away from youth swimming by various attractive alternatives, especially when their enjoyment of swimming started waning due to excessive training, negative experiences with coaches or teammates, and perceptions that they were reaching the limits of their performance abilities.

3.1.1. Physical and emotional consequences of high training volume

Rekindlers descriptively recalled how the high training volume that is so common in swimming often led to fatigue and decreased enjoyment of the sport. When asked about the feelings she tended to experience before practice during her last year of age group swimming, Nancy (R) replied, "Um just being tired, I think, was the main one." She added, "I guess towards the end I was getting bored of it and the mileage we were putting in and also being a distance swimmer always having to do the long distance ... that was just like ok, I've had enough." Phil (R) recalled, "In Grade 12, I would fall asleep in class right in front of the teacher. I was so tired, you know? And he would make comments and I wouldn't clue in; I was out."

Even though Paul (R) described very positive experiences in youth swimming, particularly at the end of his career in varsity swimming, he took many years off before returning to the sport. When asked what contributed to this long break, he said:

You know, it was just the endless, I wouldn't say endless, but you know what I mean, it was up at 5 every morning or whatever for years on end, and then just the volume of training and when you're done, you just go, I'm done, I'm done ... Some of the best swimmers in the world or Canada never come back as masters swimmers, because they probably had to do even more volume and more than I went through ... It was just enough pounding of your body and early mornings and so on.

In contrast, Brian (C) recounted a training volume that was lower than many of his friends and suggested that this difference played a role in their pattern of participation (he continued swimming, while his friends did not):

I think there is something to be said about the intensity of my experiences ... I have best friends that swam age group and stopped and we talk about what it was like when we were swimming when we were young and their experiences are a lot different 'cause there's an intensity that they had, thank God I didn't have. I swam five times a week. That was the most I ever swam. I never did doubles [two practices in the same day] all the way up until I was in varsity. Like there was no chance for me ever—I never ever felt like I didn't wanna come to practice. I always wanted to go. I always wanted to do that stuff and I think in some ways, that's something that made a difference for me.

The negative consequences of training volume seemed to be moderated to some extent by the characteristics of coaches, the quality of relationships with teammates, and swimmers' perceived competence. Carter (C) experienced very high training volume, but explained that his positive relationships with his coaches and teammates made it bearable. He said, "it would help when you're doing all the heavy training loads, having friends to joke about things." Ashley (R) talked about a shift where swimming "seemed more like work than enjoyment" and noted that, at the time, she wasn't getting along with her coach. Finally, Lisa (R) described less personal tolerance for the training volume as she saw diminishing returns on her investment. She said,

Well, as you get older ... you know the margins of improvement get smaller and smaller, right, like it gets down to the tenth of a second improvement. You are putting in a hell of a lot of effort for to see marginal improvements, so that plays on your psyche, right?

3.1.2. Sacrificing other activities for swimming

High training volume also created time constraints and conflict between swimming and other necessary or desirable activities. Nancy (R) said, "Swimming was it. When I was much younger, I did take some piano lessons and Brownies but even those really fell by the wayside 'cause I was just too busy." At age 12, Ian chose swimming over national level judo participation because he could no longer do two sports at once. Lauren (R) loved music and wanted to sign up for marching band, but it would have meant giving up swimming. She stuck with swimming, but said, "Both my sisters ended up in marching band and I was like, man that's the thing I would have been real good at; I would have liked that a lot." Later on, she described an incident in Grade 10 where she angered her coaches by choosing to skip a swim practice to attend jazz band instead: "It was a huge fight if I remember correctly ... I mean, I was never their star swimmer so I think they cared a little less, but yeah, it was a fight for sure."

Many rekindlers expressed interest in school sports, but were thwarted by their involvement in club swimming. Phil (R) said,

It got to the point where I wasn't allowed to do anything else but swim. Like in high school, I wanted to try out for the volleyball team and I had tried out for the football team and actually made it and then the coach basically gave me an ultimatum, you swim or you play football or you play these other sports, but you can't do both.

So I stuck with swimming. At that point, we were swimming 11 times a week.

For his last year of high school, he switched to a different swim club and drastically decreased his training volume. With this new freedom, he again tried out for school sports, but this time didn't make any of the teams: "I kinda tried to embrace everything that I missed. But, of course, it was too late 'cause these guys had come up through the junior ranks and everything else, right? So there was no hope."

3.1.3. Realizing the limits of their abilities

While many young athletes in sports such as hockey, basketball, soccer, and tennis dream of playing at a professional, or even semi-professional level, there are no equivalent opportunities for swimmers. For swimmers, the Olympics tend to represent the pinnacle of achievement in their sport, and as a result, just about every participant in this study referenced them in explaining their aspirations and competency levels in youth swimming. At a certain point, every participant came to the realization that they were not going to make the Olympics. For some, this realization had little impact because elite performance had never been a goal. Elizabeth (C) said, "I was just getting sick of swimming six to eight times a week ... I wasn't improving and I certainly wasn't fast enough to swim at a varsity level and I wanted to go to university and focus on school." When asked if there was anything hard about leaving youth swimming, she replied,

No, I felt like I had the tools to, you know, move forward and like I'd gotten what I needed to get out of it ... I think that's one thing that my mom did a really good job of. It wasn't like she put us in swimming when we were little to be Olympic champions.

She went on to explain that there had always been more of a fitness focus than a performance focus in her family.

In contrast, Nancy (R) said, "What I wanted to do was go to nationals and make the Olympic team ... and I fell short of that." She talked about what led her to quit swimming before the end of high school:

I guess just the amount of time I was putting in and then the pressures of school and not having any social life whatsoever ... like I really had no friends in high school. All my friends were swimmers 'cause I would go in the morning; I would go right after school. Also, I think because I set records when I was 12 and then 13, 14, going into sort of senior swimming, I wasn't going any faster and I was working all that time that it just felt like, oh my God, this is a waste of time now. So I think that's what got me to quit; I felt like I peaked when I was 12 and I was now a 'has-been.'

Ian (R) also discussed how the realization of his limitations in swimming combined with other interests outside of swimming led to a withdrawal from the sport:

I was really startin' to feel like swimming was never gonna be like a profession for me as an athlete. Like you kinda get to a certain age and you just kinda know, like your placing, your times, your development ... and that's just the way it is. And so yeah, it's probably fair to say that that realization definitely would've influenced my desire to carry on pushing myself and training hard, especially with a new girlfriend and disagreements with the coach and all that.

3.2. Experiences of Change

3.2.1. Tasting freedom

Ending youth swimming participation provided opportunities to try activities that were previously precluded by swim training, even if that was just having unscheduled time. This was true for both rekindlers and also continuers. Masters swimming programmes rarely offer the opportunity to train at the same volume as youth swim clubs, and even if

they do, practice attendance is generally up to the volition of the masters swimmer. For example, if a masters swimmer wants to skip a Tuesday night swim practice to attend a concert, they are not subject to the same negative consequences that a youth swimmer might experience.

When asked to describe the best thing about leaving youth swimming, Andrew (C) said,

You just have a lot more freedom. Like, you can enjoy other things in life rather than just being at the pool 24/7 'cause ... especially in the winter is the worst, you get there at like 5 in the morning, it's dark. You leave at 8, it's still dark. You go to school. Come out of school, it's like a little bit of sunshine, right back into the pool and then you come out and it's dark again ... But once I left that, I found you can just see a lot more sunrises and sunsets on your own terms.

Ian (R) responded similarly, saying the best thing about not swimming was "not being on a schedule. Like just being flexible and able to do whatever I wanted, whenever I wanted."

Many rekindlers jumped at the chance to start part-time jobs for the first time, often still at the pool, as lifeguards. Lisa (R) said, "I would say I got a job immediately after I quit swimming or pretty soon after quitting swimming. I didn't have a job while I was swimming; it was almost impossible to have a job." Sports and social activities were other popular ways to spend time previously taken up by swimming. Phil (R) said, "One of the things I did do when I stopped swimming was I embraced other sports." He picked up running and volleyball, and did not mind being less competent in these activities than at swimming, saying: "I didn't really care to be honest. I just wanted to do something different, whether I was good or not, right? It was more of just getting out and having fun."

3.2.2. Shifting motives

For the rekindlers, taking time off from swimming and trying other activities allowed for negative memories of youth swimming to fade. Lauren (R) said, "I needed those years [off] to remember how much I enjoyed swimming and forget all the nonsense around it." This break from swimming also allowed for a shift in motives. When asked what happened during her time off that allowed her to come back to swimming and enjoy it again, Lisa (R) said, "Well, 'cause I'm just doing it for fitness. For health reasons, I'm just doing it for health reasons." Ashley (R) also explained how she negotiated new motives when she returned to swimming:

Yeah. I definitely think I just switched mentality on how I swim and now it's mostly just to get a good workout in for the fitness aspect and for like meeting new people, being part of a team. I don't focus so much on speed as I used to, so I think that's the big difference.

Many continuers experienced this same shift in motives, but earlier on. Carter (C) was very serious about swimming and had hopes of going to the Olympics until he was plagued by illness in high school that interfered with his training. He was unsure he would continue swimming at all, but when he started university, he was welcomed onto their team. He continued to enjoy swimming, but his education took over as top priority. Following graduation, he followed a former swim coach to Australia for a couple more years of less intensive youth swimming before returning to Canada and joining a masters team. He said about his time there,

I was pretty much like, ok, I'm retired now ... I'm not going to be swimming 12 times a week anymore or whatever it was. But I just wanted to keep doing it, and be consistent with it. And so yeah for me, it was making the transition from being a high performance, competitive athlete to just being able to do something that I really enjoy for the physical health and the mental wellness side to it, and the social aspects.

Elizabeth (C), who had always had more of a focus on fitness than performance, contrasted her motivation for swimming with a former youth teammate who had failed to make that switch:

I notice that kind of different mentality at the pool when I'd see people that were competitive swimmers at the same time I was. This one guy, he's like, "Can I join you to do your set?" and I'm like, "Sure." But then he quit halfway through the 400 [metres] 'cause he's like, "Oh, I just can't do this anymore." Whereas I'm like, ok, I'm not as fast as I used to be when I was a competitive [youth] swimmer, but I know the fitness benefits that I get from this.

3.3. Attracting and Enabling Influences

3.3.1. Creating expectations of continued benefits from swimming

For the continuers, positive experiences in youth swimming led to expectations of similar experiences in masters swimming. Carter (C) said,

If [youth swimming] hadn't been the way it had been, like so positive for me as an individual, like socially, and relationships with mentors ... I probably wouldn't be doing it anymore. But because it has been so positive and especially when other challenges come up in life then you always have that "Ok, I can go to the pool," right? So yeah, for me to summarize it, it's my positive experience that has led me to then continue it on.

Many of those positive earlier experiences were related to strong relationships with teammates. Logan (C) said, "Swimming, at an early age, taught me that it could create a pool of friends and social aspects come along with it." Brian (C) discovered this during his varsity swimming experience: "Well, that's the social aspect. Like, the fun you could have at swim meets and the lifelong friends." These continuers sought out masters swimming programmes to connect with like-minded people and make new friends.

Other continuers focused on perpetuating the physical and mental health benefits. Jennifer (C) said,

You learn the benefits of it for your own body, right? I think that's my main thing now is just, learning how swimming helped me to stay as healthy as I was, I don't wanna stop doing that now just because I'm not competing.

Elizabeth (C) stopped competing in youth swimming when she finished high school, but because she was conscious of how swimming benefitted her, she didn't stop swimming. She said, "Honestly, my first day of university classes, it was a bit traumatizing, but the first thing I did was look up the pool schedule, picked out a workout, headed to the pool and had a great swim."

In contrast, the rekindlers were more likely to leave youth swimming at a time when the costs of participation seemed to outweigh the benefits. When they considered returning to swimming as adults, the benefits drawing them to the sport (e.g., cardiovascular health) were not necessarily ones they would have thought about as youth.

3.3.2. Providing skills required for future swimming participation

The continuers emphasized skills related to discipline and routine derived from their early swimming participation that also facilitated their regular participation as masters swimmers. Tomas (C) said,

There's a sense of developing a routine, like all my friends are like, "I can't believe when it's minus 30° out, you have to get up at 4 o'clock to go swimming." You know, the discipline that swimming gave me, it's priceless. Like I don't care if it's snowing, if it's raining, if it's sunny, I'm going to the practice, I don't care. So that angle is thanks to swimming.

Similarly, Elizabeth (C) said,

I feel so fortunate that I was able to participate in youth sport as much as I was able to, just because it gives you skills like time management, stress management, like how to set a goal and work towards it ... Also just getting into that routine and having base fitness—it's much easier to stay fit than to get fit.

Several participants cited enjoying their college/university swimming experiences more than their age group swimming participation as adolescents.

However, these swimming experiences hinged on competence developed as age group swimmers. Amy (C) said,

Well, I think if I hadn't done the age group swimming, I wouldn't have got involved in [university] swimming and then I wouldn't have got involved in masters swimming. So as much as the age group experience was not 100% enjoyable, you know, developing the ability to swim for fun and fitness did start then.

After using up her university eligibility in Canada, Amy pursued graduate studies in Europe and was able to train and compete with age group, university, and masters teams at various times there. Immediately upon her return to Canada, she looked up a masters swim team.

The rekindlers also highlighted how their youth swimming experiences gave them confidence in their swimming abilities as adults, which facilitated their entry into masters swimming. For example, Julie (R) said,

I love it that I used to swim so I can swim now. Like, I'm pretty fast in general as the population goes ... I mean the fact that if you don't go 14 hours a week, you're not gonna be as good as I am now.

Niall (R) explained that he got into masters swimming through triathlon, and credited his willingness to try the triathlon to his youth swimming background: "If I didn't have the swimming background, I probably wouldn't have done it."

3.3.3. Planting the seeds of enjoyment

The continuers explained that youth swimming was when they got hooked on the sport. Carol (C) said,

It's something that I've always done and I can't see myself stopping ... I've heard of other swimmers and talked to other swimmers that could hardly wait to be done when they were finished and some people quit. I mean, I had a brother that quit, a sister that quit, but I just never did. I just have always liked being in the water.

Similarly, Brian (C) said, "It was foundational for the love of the sport. I got a chance to swim competitively and I loved every minute of it ... because I liked it so much, I kept on swimming right through my life."

Some rekindlers described early experiences of enjoyment as an important latent factor in their return to the sport, even if they had left swimming on a low note. Phil (R) described some very negative experiences as an adolescent, but credited his earlier, more positive experiences with his return to swimming after a long break. He said,

The early years instilled a love of swimming for me and I think that is the foundation. Had I not had that, I don't think I would've gone through my adolescent years in swimming and not into university and I most definitely wouldn't have started into masters swimming. I think it's that grassroots beginning of swimming foundation that I had fun that kinda just set the tone.

Lauren (R) specifically spoke to the role of youth coaches, saying, "My earlier coaches helped me build my love of swimming for sure." She explained that, as a current youth swim coach, she remained very conscious of her role in generating this enjoyment.

Other rekindlers were convinced to try swimming again by external influences, either for health reasons or due to some friendly peer pressure. Once they got going in masters swimming, the enjoyment that

they had experienced early on was reawakened, and this strengthened their attraction to masters swimming, despite some negative experiences in between. Ian (R) said, “I did really enjoy swimming and now that I’m back at it, I do currently very much enjoy it. But, yeah, there was definitely that burnout and you know nearly 10 years off for me from competing.” Similarly, Ashley (R) said,

I think [my youth experiences] maybe um, dimmed [my motivation for swimming] for a little bit afterwards, like just left me with a bit of a bad taste in my mouth from the experience, but I’m really glad that I joined the masters team ‘cause it renewed my passion and my love of swimming and made it a positive experience again. So now I associate it again with positive feelings and memories.

4. Discussion

Our findings support Côté and colleagues’ (2007) fundamental assumption that foundational youth sport experiences are important because, among other reasons, they can have a latent association with people’s decision to continue or perhaps return to sport later on. While continuers and rekindlers shared many of the same experiences in youth swimming, there were some important differences in the contexts and timing of those experiences that seemed to influence subsequent patterns of swimming participation as adults. These experiences and contexts are discussed in terms of two overarching themes, one exploring the consequences of training volume, and the other exploring the realization of performance limits in youth.

4.1. Short-term and long-term effects of training volume: negatives and positives

Many participants, rekindlers and continuers alike, reported high training volume and intensity in age-group swimming almost year-round. High levels of deliberate practice at a young age, particularly in a single sport, have been linked to increased rates of injury, burnout, and dropout from sport (Baker, Cobley, & Fraser-Thomas, 2009). However, for the continuers who reported very high training volumes, positive relationships with coaches and teammates seemed to lessen some of the potentially negative impacts of their training. This is in line with Horn’s (2015) suggestion that young athletes’ social environment may moderate the negative effects of early specialization on various psychological and behavioural outcomes. These findings also parallel results from Light, Harvey, and Memmert’s (2013) examination of children’s reasons for joining and staying in swim clubs. Questionnaires and interviews with 9–12-year-old swimmers revealed two main reasons for continuing to swim: 1) the social dimensions of being in the club, and 2) a sense of learning and achievement associated with an enjoyment of competition. Light and colleagues noted that the positive social aspects associated with club membership made up for an early emphasis on deliberate practice versus deliberate play, and a year-round focus on swimming. These findings support the possibility of psychological need satisfaction (Deci & Ryan, 2000), especially relatedness, moderating the relationship of early specialization with decreased enjoyment and increased likelihood of burnout and/or dropout. Similarly, it seems that some of the continuers in our study continued swimming despite high levels of intensive practice, because their needs for relatedness were being met. In contrast, rekindlers noted that their training became intolerable when accompanied by diminishing returns in performance (reduced competence satisfaction) and poor relationships with coaches (relatedness thwarting).

High training volume also produced conflicts between swimming and alternative activities (other sports, music, socializing, academics, and paid work) that were more pronounced for the rekindlers than the continuers. Early attempts at quantitatively measuring the effects of attractive alternatives on commitment in youth sport proved difficult and led researchers to conclude that, for typical non-elite youth sport

athletes, conflicts between leisure time activities are not problematic (Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993). However, for participants with mandatory swim practices six days a week, these time conflicts were much more prevalent and seemed to become an increasingly disruptive influence to rekindlers. More recent research within the sport commitment model differentiated between functional (enthusiastic) commitment and obligatory (constrained) commitment, and identified attractive alternatives/other priorities as being associated with higher levels of obligatory commitment (Scanlan et al., 2016; Young, Piamonte, Grove, & Medic, 2011). Obligatory commitment without sufficient levels of functional commitment is not sustainable, and has been linked to burnout (Raedeke, 1997). The continuers in this study either described less attraction to alternative activities, or they reported lessening their swim training volume (by switching youth programmes or transitioning into masters swimming) to accommodate these other activities. The rekindlers, on the other hand, felt they had no choice but to stop swimming altogether. They may have been unable to find alternative swimming programmes with lower levels of training volume, or they may have been unable to negotiate the investment required to stay involved in swimming.

One positive side effect of high training volume was the development of physical fitness and skill in the water, as well as time management and discipline. Participants described how their youth swimming experiences gave them a foundation for future adult participation in swimming. The personal assets framework (Côté, Turnnidge, & Evans, 2014) posits that youth sport provides opportunities for the development of the 4 C’s—confidence, competence, connection, and character. The development of these assets then influences long-term outcomes, including participation. This was evident in the present study, where rekindlers described their return to swimming as being dependent on their confidence in their swimming abilities. Continuers emphasized the competence they had developed in swimming—not only in terms of physical skills, but also in terms of mental skills and time management—as a key factor in their continued participation. Baker, Fraser-Thomas, Dionigi, and Horton (2010) noted the importance of interrogating whether sport participation provides benefits throughout the lifespan, above and beyond those provided by physical activity. For our participants, it seems that positive development through youth sport had long-lasting effects, which transitioned to later life involvement, even through long periods of reduced sport involvement. Future research might identify specific assets, competencies, qualities, and motivational attributes inculcated during youth sport that contribute to continuance, or re-engagement in sport as masters athletes. Dionigi, Fraser-Thomas, Stone, and Gayman (2018) noted that psychosocial development does not end in adulthood, and may be enhanced by masters sport participation. Their investigation resulted in a “6Cs” model, identifying three new Cs (commitment, cognition, and challenge) that seemed especially relevant to mid-life athletes. Future studies could also examine how the change from youth/adolescent, early adulthood (often in a performance sport context) translates into the masters sport context and interacts with maturation and aging.

4.2. Realizing limits and shifting motives

One of the more unique aspects of swimming is the fact that yearly participation is largely dictated by the swimmer. Unlike sports with limited spots on the team (e.g., basketball, soccer), the size of a swim club is only limited by pool space and coaching staff. As a result, swimmers don’t get “cut” from age group swimming. In addition, swimmers don’t “age out.” While university/college swim teams offer limited years of eligibility, it is entirely possible for 27-year-olds to continue training alongside high schoolers in a club swimming context. This means it is up to the individual swimmer to decide on how and when to make a “graceful exit.” A primary consideration is expectations of future success in competition. Both continuers and rekindlers came to a realization of their limits—the fact that they were not going to be

Olympic swimmers. Participants' response to this realization depended heavily on their motives for participation in swimming. Those whose sole or primary focus was elite performance no longer saw a reason to continue. This was true regardless of whether swimmers held task or ego goal orientations. While a task goal orientation is generally thought to be positive and adaptive in sport (e.g., Duda, Chi, Newton, Walling, & Catley, 1995), it may nonetheless become problematic upon reaching a point where a person is unlikely to continue improving relative to their past performances, especially in swimming, which revolves around "best times." Dionigi, Horton, and Baker (2013) noted that negotiation of the aging process within masters sport differed depending on athletes' status as late bloomers, rekindlers, or continuers. For late bloomers, participation in masters sport gave them the opportunity to become champions and set personal bests. However, continuers and rekindlers who had previously performed at a high level in sport spoke of the need to accept that they would no longer be able to reach their past levels of performance. Some participants resorted to changing sports or events in order to accommodate aging and potentially injured bodies and to still experience success in a different context. Others embraced the "fun and friendship" aspects of master sport (Dionigi et al., 2013).

In the present study, the decision to participate in masters swimming seemed reliant on the recognition of and motivational shift toward valuable involvement opportunities unrelated to self- or other-referenced performance. Valuable opportunities are defined as "highly valued aspects of the sport experience that are only present through continued sport involvement" (Scanlan et al., 2016, p. 236). Valuable opportunities previously identified by high school swimmers included the chance to meet make new friends and maintain a healthy lifestyle (Larson, Young, & Reade, 2018). Similarly, in the present study, even if the continuers did not expect much in terms of their performance, they had experienced enjoyment, positive social aspects, and physical and emotional wellbeing through swimming, and they expected these benefits to continue through participation in masters swimming. While the continuers recognized and shifted their focus toward the positive social aspects and benefits to their wellbeing during or towards the end of their youth swimming careers, for the rekindlers, this shift took place during their time off, and they approached masters swimming with a mindset that was different from their youth. This new mindset was typically consistent with research describing health benefits as a common motive for involvement in masters swimming (Ferrari, Bloom, Gilbert, & Caron, 2017).

Finally, continuers identified enjoyment as a primary factor in their long-term swimming participation and for some rekindlers, their memories of early enjoyment of swimming were described as a factor in their return later on. Enjoyment has been consistently identified as the strongest determinant of sport commitment (Scanlan et al., 2016), including among masters athletes (Young & Weir, 2015). Some of the sources of enjoyment cited by high school swimmers included the physical sensations associated with moving through the water, as well as valued opportunities for social interactions, new friendships, and being part of a team (Larson et al., 2018). Similarly, participants in the present study described taking pleasure in just being in the water, and the sense of fun and playfulness injected into practices by certain coaches. Social aspects were also highlighted as a major contribution to enjoyment. Many participants described their university/college swimming experiences as being more enjoyable than their age group swimming experiences because of the opportunities to compete and gain points for the team at dual meets, rather than focusing on individual performances and rankings. This is quite similar to the enjoyable team experience described by high school swimmers (Larson et al., 2018).

5. Conclusion

The present study expands our understanding of lifespan sport

participation. Rather than replicating research looking at common external barriers to adult sport participation (e.g., Lim et al., 2011), we examined the physical and motivational conditions originating in youth swimming experiences and whether these foundational experiences were latently associated with adult involvement. Dionigi (2015) highlighted three categories of masters athletes, each representing a different pathway to masters sport: late bloomers, continuers, and rekindlers. Our examination of continuers and rekindlers in swimming revealed further nuances in their journeys to masters sport participation that have both theoretical and practical implications for youth swimming, and potentially other sports as well. First, while heavy training volume has been labeled as a precursor of burnout, we identified both positive and negative outcomes arising from training volume, as well as support for the importance of psychological need satisfaction as a buffer against negative consequences. If youth swimming programs endorse high volumes of training, it is critical that positive relationships are maintained between athletes and coaches. Second, our findings suggest that task goal orientations can be problematic when looking to encourage life-long participation in an individual sport like swimming. Coaches and parents should encourage diverse motives for swimming, including enjoyment, friendship, health benefits, and personal development, rather than focusing solely on performance outcomes. This will give swimmers reasons to continue on in the sport even when they have reached their limits in terms of performance. Third, our study suggested that, when forced to choose between swimming and other attractive alternatives, youth swimmers will either quit swimming, or they might continue swimming, but with a more constrained, obligatory commitment that puts them at a higher risk for burnout and disruption of participation. Gard et al. (2018) have critiqued the promotion of sport as an avenue for improving public health, preferring to position sport as "a leisure option for people to experience, just like French cooking and crossword puzzles" (p. 81). However, many clubs treat swimming more like a job than a leisure option, forcing swimmers to commit at a high level or leave. It is important that youth swimmers experience some degree of autonomy in their activity schedule. To reduce burnout and encourage positive development for life, youth swimming contexts should allow for participation in other sports and activities outside of swimming.

Finally, although we focused on two pathways to masters sport and commonalities that could be ascribed to their journeys, the current study also showed that the process was highly individualized. The balance of rewards and costs surrounding participants' investment in swimming and their profile of motivation regulations as youth varied. Our findings speak to the complexity of promoting sport for life, given the diverse and long-lasting influences of numerous unique youth sport experiences. Thus, in keeping with literature on masters sport that views sport as a highly personal lived experience with individualized meanings (e.g., Gard et al., 2018), one of the practical implications for those interested in encouraging participants to continue, or to re-engage in adult sport, is to foremost understand their personal reasons and orientations in choosing the sport activity and how such choices are dependent on broader social contexts.

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None.

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