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Research Article

Self-Reported Long-Term Implications of a Marathon Training Program for Adolescents: A Qualitative Study

Elaine M Rutkowski[1*], Alexa Perez[2], Cynthia D Connelly[3]

[1]School of Nursing, California State University, Fullerton, USA

[2]University of San Diego, USA

[3]Hahn School of Nursing and Health Sciences, University of San Diego, USA

[*]**Corresponding author:** Elaine M Rutkowski, School of Nursing, California State University, Fullerton, CA EC-110, 800 N. State College Blvd., Fullerton, CA 92831, United States

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Abstract

This project helped to gain a deeper understanding of the long-term effects of a community-based marathon training on physical activity levels, psychological health status, character development, and positive health habit behaviors in young adults who completed the program during their adolescence. Participants completed open-ended questionnaires via a secure data collection system. Answers were transcribed and thematic content was described using rigorous analysis. The long-term goals of the marathon training program including improvement in physical health, improvement in psychological health, development of personal character, and promotion of healthy good habits into adulthood were present in the majority of the young adult participants. Participants specifically cited experiences from this training program as informing their current ability to engage and maintain healthy lifestyle choices. This marathon-training program potentially instilled long-term positive outcomes in these young adult respondents following their participation during adolescence, which enabled them to engage in and sustain healthy lifestyles in the years following completion of the program.

Keywords: Marathon training; Adolescents; Self-efficacy; Physical activity; Life skills

Introduction

Technological advancements and modern conveniences continue to contribute to the decrease in physical activity among youth globally [1-6]. Conscious efforts to balance sedentary activities with planned or scheduled effective levels of physical activity for youth are required [7,8]. Engaging in age compatible activities is particularly important for facilitating behaviors for long-term engagement in healthy lifestyles [7,9-11]. The American Academy of Pediatrics Council on Sports Medicine recommends enjoyable activities that involve family members and friends, to participate in skill development, tactic and strategy activities, and complex sports including track and field, football, basketball, ice hockey [7,12,13]. Despite this guideline, evidence continues to be lacking regarding the most effective means to achieve daily physical activity in adolescents [13,14]. As children spend most of their developing years in educational settings, the structure of school-based sports involvement is associated with numerous physical, social, and psychological benefits [2,15]. The school district in which the WeROCK© program takes place supports 12 Middle Schools, but there are no after-school activities involving sports supported by these schools (M. Beekman, personal communication, March 30, 2022). The WeROCK© program provides middle school students an opportunity to fill this void at their schools. The American Association of Pediatrics (AAP) recently acknowledged that physical activity improves cognitive performance in school and participation in organized sports outside of school is also associated with higher cognitive performance [7].

Over the last four decades, sport psychology researchers and practitioners have expanded their focus to encompass the psychological development of young athletes for success in both sport and non-sport settings [7,13,16]. Research has described sports as ideal contexts for youth to develop life skills including lessons on winning and losing, teamwork, conflict resolution as all are highly relevant off the "field" [17]. The notion of programs that increase self-efficacy is argued to be an important factor in adolescent physical activity [8,18] as it enables participants to envision they can do more than they have previously demonstrated [19]. Bandura's theory identifies self-efficacy as the mechanism that determines a person's level of motivation based on how long they will persevere in the face of obstacles [20]. The goals of WeROCK© are configured to support this mechanism (Figure 1). The focus is on the success of overcoming challenges not removing the challenges [21]. According to a recent clinical report from the American Academy of Pediatrics, "Children who feel competent in skills required for their specific organized sport have more fun and are more likely to stay in the sport than those who do not" [7].

Goal 1 To improve physical health

The goal aims to promote the physical health of its participants by providing a structured, conservatively progressive, physical training program designed to safely prepare its teenage participants for the completion of a 26.2 marathon, and in the process, enable them to become more physically and mentally fit.

Goal 2 To improve psychological health

The goal in providing a team atmosphere with the program helps to create a sense of "belonging" among the team members and enables them to encourage and motivate each other toward accomplishing a common and difficult outcome. Additionally, this program potentially helps to reduce our adolescent participants' stress and anxiety, and generally helps to improve their outlook on life.

Goal 3 To develop personal character

This goal for participants is to learn that in order to reach a lofty objective, one must have a sustained commitment, personal discipline, and the perseverance to follow through with their plans in order to reach the desired end.

Goal 4 To promote good habits into adulthood

This goal is to provide opportunities for students to set and achieve positive goals at a young age to potentially inform successes in their education and in the workplace by offering the marathon training as a metaphor for life. Hopefully the recognition that they have completed a marathon because they trained and persevered will support other challenges in life to be faced as a "marathon" task

Figure 1: WeROCK© Program Goals.

Extant research notes the effects of long distance running in this age group [22-24]. The American Academy of Pediatrics (AAP) has offered the position "if children enjoy the activity and are asymptomatic, there is no reason to preclude them from training for and participating in endurance running" [12]. If the idea of training for and participating in a marathon distance event appeals to a certain cohort of adolescents, the availability of this opportunity should be provided to them [23].

The WeROCK© program was developed by past coaches of the long-standing Students Run LA program (SRLA) which has 3,200 middle and high school students at 185 public schools and community programs training to run the Los Angeles marathon each year (www.srla.org) [25]. As the SRLA program grew in size, they made the decision in 2010 to eliminate schools from outside Los Angeles County. As a result, the WeROCK© program was organized to serve the students in Orange County. The foundation for participating in this program is based on the idea of self-efficacy. Students begin by setting the goal to finish a marathon without any focus on how long this may take; as stated earlier, there is no competitive focus. The incremental changes in the weekly milage, enable the runners to believe they have the capacity to progress (positive self-efficacy) as these changes in distances are viewed as manageable by the runners (https//www.werunockids.org). The marathon-training program in our study encourages youth to adjust their goals when their expectations are unmet. There is no negative feedback used by coaches to incentivize the adolescents to "improve" their pace or length of time to finish a race.

The authors' investigation of the effects of the WeROCK© program informs the literature "gap" identified by the AAP which states "Although there is little research on organized sports in schools, given this association [physical activity improving cognitive ability], it may be prudent for schools to explore organized sports for students, whether in school or in school-sport organization partnerships" [7]. The purpose of this study was to gain a deeper understanding of the potential benefits and long-term effects of a marathon training program's goals on physical activity, psychological health, character development, and positive health habit behaviors in young adults who completed the program during their adolescence.

Methods

Design

This was a qualitative study to understand the potential benefits of an after-school marathon-training program. Individual online questionnaires (Figures 2 and 3) were used to elicit the lived experience of young adults who participated in the WeROCK© program which met at 5 public middle schools in Orange County, California. Questionnaires were completed by the participants from January 2021 through March 2021. The primary investigator (E.R.) constructed the two online questionnaires and participants accessed them through a REDcap© data system [26]. The online survey consisted of demographics and two open-ended questionnaires, which included topics relating to the impact on life as a result of participating in the program; reasons for joining; injuries; positive memories, among other pertinent topics. All study procedures, including protocols for recruiting participants and obtaining informed consent, were reviewed and approved by the university institutional review board for the protection of human subjects before study initiation (HSR-20-21-97). Participants gave informed consent at the time data collection forms were accessed.

Q1. When did you participate in WeROCK©?
Q2. Why did you join the WeROCK© program?
Q3. Which distance did you finish on "Race Day"?
Q4. Did you suffer any injuries due to running while you participated in WeROCK©?
Q5. Type of injury
Q6. Result of injury

Figure 2: Questionnaire: "My Story".

Q1. How many running races have you done since you left WeROCK©?
Q2. Do you run recreationally or for exercise?
Q3. If, "no", what do you do for exercise in your current life?
Q4.What are the best memories you have of WeROCK©?
Q5. What are the worst memories you have of WeROCK©?
Q6.Have you ever thought about the WeROCK© experience and made any connections to something you have done that has nothing to do with running that may have been "informed" by your WeROCK© experience?
Q7. If yes, please describe

Q8. Did your participation in WeROCK© make a difference in your life?
Q9. If yes, please describe.

Figure 3: Questionnaire: "Post WeROCK©".

Population/Setting

Outreach for participation was to past participants of WeROCK©, an after-school marathon training program in Orange County, CA, and included all adolescent participants born between 1995 and December 2002. All recruited participants engaged in this program during middle school. There were no high school WeROCK© participants in this study.

Recruitment

The sampling was purposive; potential participants were identified using original WeROCK© participation registration documents between 2001 and 2020 (N=1,277); 283 met eligibility criteria: 18 years or older; participated in WeROCK© during middle or high school; and able to read and write in English. Email invitations were sent, and 83 were returned to the PI as "inactive email accounts." Of the 203 who had active emails, 112 eligible respondents responded "they had interest" in "learning more" about this study. The REDcap© data system automatically sent reminders to the interested respondents to encourage them to enroll. The data collection process was closed when two consecutive weeks yielded no additional participants. Fifty-four participants provided data for our study (Figure 4).

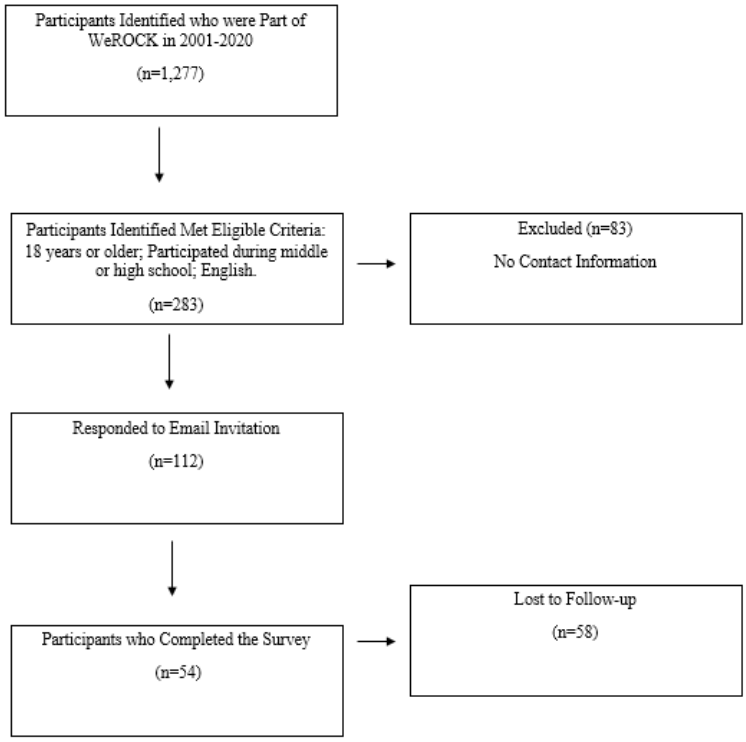

Figure 4: Diagram of Sample Selection.

Data Analysis

A content analysis was performed independently by two of the investigators (E.R. and A.P.) to identify emerging themes and begin the coding process. The responses to the online questionnaires were downloaded from REDcap© into Microsoft Excel (2010) for analysis. Sections of the participant's answers to the questionnaires were assigned codes based on questions from the interview or common themes. These included phrases from participants or particular words. After highlighting key concepts and words from each interview, they identified the primary themes, which showed congruence between the investigators. These themes were coded, and six main themes emerged from the responses: Family/Peer Support, Weight Control/Fitness, Positive Memories, Memories of Challenges/

Difficulties, Influence on Life Decisions, and Long-lasting Effects of the Program.

Results

Demographics

Respondents ranged in age from 18-26; 56% males, 46% females, and one identifying as nonbinary; 3 were married, none had children, 66% reside in California, and 1 reported living outside of the United States; 54% were part of the program for one year. The majority had pursued education beyond high school with 83% having reported health status as "excellent" or "very good,"16 % "good" or "fair," no one reported "poor." Approximately half of the participants reported that they continue to run "regularly" for "exercise" with the other half noting that they exercise regularly in non-running activities. The complete description demographics are listed in Table 1.

	Total	
Characteristic	**n**	**%**
Age		
≥ 21 years	39	72.2
< 21 years	15	27.8
Gender		
Male	29	53.7
Female	24	44.4
Nonbinary	1	1.9
BMI, kg/m^2		
Underweight	2	3.8
Normal weight	32	61.5
Overweight	18	34.6
Current Residence		
In-State: CA	36	66.7
Out-of-State: CO, DC, FL, HI, ID, MI, ND, PA, TX, UT	17	31.5
International: JAPAN	1	1.9
Education		
Less than High School	1	1.9
High School degree	18	33.3
Some college or trade ed	11	20.4
Associate degree	5	9.3
Bachelor's degree	16	29.6
Master's degree	3	5.6
Occupation		
Human services, medical	13	26.0
Non-medical, licensed professionals	9	18.0
Human communications	10	20.0
Student	18	36.0
Last Educational Institution		
High School	8	14.8
Community College	9	16.7
State University	22	40.7
Private University	15	27.8
Marital Status		
Married	3	5.8
Single	49	94.2
	Total	
Characteristic	**n**	**%**
No. of Children[b]		
None	53	100.0
Health Status		
Poor	10	35.8
Fair	25	47.2
Good	6	11.3
Excellent	3	5.7
Chronic Illnesses		
Yes	7	14.9
No	40	85.1
Reg Med		
Yes	16	28.1
No	41	71.9
As Needed Meds		
Yes	26	45.6
No	31	54.4
No. MD visits previous year		
0 visits	10	20.0

1 visit	23	46.0
2 visits	12	24.0
3 visits	3	6.0
4 or more visits	2	4.0
No. DMD visits previous year		
0 visits	9	18.0
1 visit	21	42.0
2 visits	17	34.0
3 visits	3	6.0
No. other practitioners visits previous year[c]		
0 visits	31	54.4
1 visit	24	42.1
2 visits	2	3.5
No. of social encounters, week		
0-4 encounters	29	55.8
5-10 encounters	17	32.7
10+ encounters	6	11.5
Characteristic	**n**	**%**
No. of religious activities		
Never	22	41.5
1-2 times per year	9	17.0
1-2 times per week	21	39.6
3-4 times per week	1	1.9
	M	**SD**
Age, years	21.67	2.06
Characteristic	**M**	**SD**
Height, m	1.73	0.10
Weight, kg	71.60	13.66
BMI, kg/m^2	23.79	4.10
No. jobs previous 5 years	2.96	1.60
No. MD visits previous year	1.40	1.54
No. DMD visits previous year	1.28	0.83
No. other practitioners visits previous year	0.49	0.57

Note: DMD: Dentist Medical Doctor; MD: Medical Doctor; MET: Metabolic Equivalents; NGSE-8: New General Self-Efficacy Scale (8-items); NP: Number of Participants; m NR: Number of Responses; POTS: Postural Tachycardia Syndrome; SWPS: Salutogenic Wellness Promotion Scale. [a]Fisher's Exact Test, unless otherwise specified. [b]None of the participants report having children. [c]Visits to other practitioners includes chiropractors, acupuncture, and mental health visits.

Table 1: Demographics.

Thematic Findings

Family/Peer Support

Participants described reasons why they chose to join a marathon-training program. The most common reasons were due to the influence of family members (31%) and the desire to find comradery with peers (26%). Some mentioned older siblings who participated in the program "My brother was in the Student's Run LA (SRLA) program when he was in 8th grade, and I wanted to try it." Another said, "My brother did it so my sister and I were signed up." Another reported, "I wanted to be with my friends who had joined the program; I loved the program and what I achieved."

Weight Control/Fitness

Reasons for joining this marathon-training program were to improve health and fitness (15%). One responded, "I was very out of shape physically and needed a sport to partake in. Another stated, "I was overweight; my sister did SRLA (Students Run Los Angeles) and lost weight; I thought I would try it."

Other questions related to participants' choice of running distance and injuries incurred. Many participants (98%) responded the longest race completed was the "Race Day" marathon. Twelve participants (22%) reported they experienced injuries while being part of the program such as knees, feet and ankle inflammation (50%); four participants reported sprains and fractures; two responded, "(I) stopped running and never resumed as I graduated".

Regarding post WeROCK© activities, 77% had completed a running event in the years after the program's completion. Thirty-four percent participated in "1 to 10" races, 19% had taken part in "many races." Approximately (58%) include running as a form of "regular exercise," while 40% stated they engage in "exercise such as cardio, weightlifting, outdoor activities, and gym memberships."

Positive Memories

When asked about their best memories of the program, 81% responded with the word "comradery." One participant offered "I had great teams each year; loved being able to bond with them all." Another added "Accomplishing something with a group and creating friendships. I learned a lot about myself and how I dealt with certain situations. WeROCK© provided me with social and

personal clarity." The feeling of "being able to cross the finish line with their friends," was a positive memory.

Participants vividly recalled completing their marathon. One stated "Crossing my very first marathon finish line is a memory that will stay with me forever." Many stated that completing a marathon at such a young age, was "a huge influence on their lives" particularly when they "faced hard times." One participant stated:

Since I was so young when I went through the program and it laid a good foundation for a lot of important life lessons…I can do anything that I set my mind to. I can push past my limits and set new ones.

Memories of Challenges/Difficulties

Questions about any negative memories or challenges were included. Participants (21%) stated they don't recall any bad memories during their participation in the program, while some (13%) recalled mental and physical struggles of completing long and tough practices.

Despite participants reporting these "difficulties" some qualified their responses: "When I first started, getting used to the workouts was very tough. I struggled during my first half-marathon and thought of dropping out." A second runner added:

WeROCK© enforced an incredible mentality that helped me make better decisions in other areas of my life. Taught me not to overthink my goals, pace myself, and focus on the individual steps towards the end.

Difficulties reported by participants included "pain" and injuries (42%). Primarily the "pain" was that felt after completing the culminating marathon. Some of the comments included "Probably just the temporary pain of actually going through some of the longer runs," and "Feeling sick when I was exhausted, but still pushing myself."

Some participants used the metaphor "hitting-the wall" (9%). This term is used to describe "the sudden onset of debilitating fatigue that can occur late in the race" [27]. Some comments were, "Hitting the wall during marathons at around mile 17-20 and everything just hurt, and I was alone. It was quite the mental challenge but I finished."

Influence on Life Decisions

Participants reflected the ways this marathon training program had influenced any decision in their lives not related to running. Two-thirds responded their experience in marathon training had a direct influence on their non-running activities. Primarily overcoming difficulties (36%), linked to their experience of completing a marathon, enabled them to feel capable of "conquering problems and succeeding during difficult times." Runners shared "remembering all the physical and mental strength needed during a race, gave them the self-confidence to face any obstacle in life."

One runner stated:

The program teaches students how to train for and complete a marathon and it instills valuable life-skills that participants use long after crossing the finish line. The dedication, commitment, perseverance, grit, and follow-through required to run a marathon cannot be taught in a classroom.

Accomplishing goals (18%) is another reflection. One participant stated, "In general, I feel I am able to accomplish anything, and although I wasn't able to complete the program given my last-minute injury, I did run up to 22 miles, which in comparison to schoolwork, applications, or other things that seem daunting, is much more challenging. I know that since I was able to run a great distance as an 8th grader, I can surely finish some busy work I've been procrastinating as an adult."

Additional comments included the memory that finishing the marathon has had major implications on their young adult lives. For example, faced with work or school issues, they have been able to apply their training "tools": taking time to prepare, focusing on one task at a time; working on a goal and not giving up when things become difficult. As one runner shared:

Thinking of big life goals such as going to college as a marathon and breaking it up to smaller goals to make it more achievable. Learning the importance of preparation." Another shared: "I decided to take on a PhD instead of a Master's because I thought of myself as one who would do well to take the "a marathon is not a sprint" approach to academia.

Additional influences in participants' lives were their improvement in their mental and physical strength (24%). This included being aware of what one's body is capable of doing, and knowing one's limitations. Comments related to this topic included, "I was able to complete my education at the United States Air Force Academy. WeROCK© gave me the mental toughness to successfully graduate from the Academy…I knew I could accomplish it because of the physical tasks learned in WeROCK©."

Effects of Program

Finally, a question focused on the positive or negative impact of the WeROCK© program on the participants' lives was included. The majority of participants (96%) stated being part of WeROCK© had a positive impact in different aspect of their lives. The most common response (59%) was "self-improvement." This area of response incorporated the mental and physical strength participants developed during their training and now apply to their day-to-day activities.

One participant stated:

Through my participation in WeROCK©, I believe I can do anything I can set my mind to, both physically and mentally. I currently participate in triathlons and have my experience from WeROCK© to thank for getting me into this sport. I am thankful to have a huge appreciation for movement, setting big goals, achieving goals alongside others, and having the confidence and mental ability to do so because of WeROCK©.

Another runner said:

WeROCK© has absolutely made a difference in my life by making me a stronger person, who is more conscious about my health. I believe WeROCK© has made me realize how far I can push myself beyond perceived barriers.

Other participants' comments included the importance of "self-confidence, setting goals, and accomplishing those goals." They included responses regarding, "being able to strive for something better and never let self-doubt stop them from achieving their goals and dreams." Physical health and fitness related comments were also predominant in this category. Participants commented they "learned the importance of being healthy" and "to incorporate exercise in their daily lives." They mentioned "other sports that require physical endurance," and credited this program with their success in these activities. Twenty percent of the participants also stated that learning about the positive effects of running was the most influential thing about being in the program. They continue to run and feel the positive impact this sport has on their body and mind. Running has also been "an outlet for their emotions" and "a way to manage and overcome stressful situations and feelings." Several stated "they have continued to run after completing the program" and "have developed a passion and love for the sport of running."

"Comradery," was (12%) a significant influence that marathon training has made in their lives. The support system of friends developed during the program has endured over time and made a difference in their personal development. One runner shared:

Before WeROCK©, I was very insecure and self-conscious. I was nervous that when I joined, that I wouldn't fit into the group… However, all those doubts went away immediately, because what I loved about the team is that everyone has each other's backs. I always felt supported and encouraged.

The importance of being part of a team, to learn social skills that are useful throughout the years following WeROCK©, being able to work as a team to achieve common goals, and support each other in difficult times, are important lesson participants said were learned while in the program. One participant commented, "100%, I would have a different support system if it wasn't for my friends I met in the program. I also think it made me realize my love for physical challenges and pushing myself to a limit."

An additional comment shared:

Long distance running completely changed who I am, and I can't imagine my life without it. Marathons are not just for Olympians or extreme athletes; they are for those with enough drive and passion to fuel them across the finish line; for those who want to see how far they can push themselves, and for those who need to know they can achieve the impossible.

Discussion

The methodology selected for this study was in response to a recent publication noting much of the evaluation of school-based running programs has been done utilizing quantitative methods, yet "qualitative research is recognized as an important tool for exploring the contextual, social, and cultural aspects believed to influence the long-term effectiveness of health-based interventions and are not as easily illuminated using a quantitative methodology" [28].

The responses presented from this study reflect the perceived beneficial outcomes from a marathon-training program on significant areas of the participants' lives. Improvement in physical activity was achieved by most participants as they reported they had learned and applied the knowledge gained during their experiences regarding the importance of exercise and healthy living in their daily lives. Targeting children's patterns of physical activity is especially important given the argument that physical activity in childhood serves as the foundation for a lifetime of regular physical activity [7,29]. Multiple comments reflected the adolescents experienced weight control challenges and the need to engage in exercise to mitigate this health obstacle.

According to Blankson and Brenner, training for distance running in prepubescent athletes is optimal when other friends of the same age are participating and who have parents offering support and not pushing their own agendas [22]. The reflections about the influence of family members, parents, and siblings in the decision to join the training program is consistent with other research that identified that sibling relationships may have an important influence on a child's participation and achievement in sport [30].

The American Academy of Pediatrics' reports "Sports have been inversely associated with depression in athletes, and fewer depressive symptoms and higher confidence and competence are some of the most commonly associated positive outcomes of participation" [7]. The data from our study reflects positive outcomes on participants' psychological health. According to the participants, the perceived mental strength developed while facing challenges during difficult race conditions, long runs, and regular training sessions informed their adult lives in a positive manner.

They are now able to face challenges in demanding situations at work or in their personal lives without being overwhelmed by stress. They can focus on their goals and overcome the barriers with more maturity and self-confidence. This aligns with the pediatric literature which notes, "the sporting environment is rich in feedback and instruction and is highly goal oriented, all of which may further the development of self-regulatory life skills" [7]. Completion of a full marathon, has provided a point of reference for life's decisions and influences these participant's capacity to accomplish difficult goals. They continue to reference their marathon training experiences with significant achievements (i.e. one finished a rigorous education at one of the military academies and another chose to pursue a doctoral degree rather than a Master's degree). These findings reflect the AAP's assertion that effective time management skills are essential to balance both sport and school commitments and athletes tend to be goal and problem focused which carries over into the educational realm and associates positively with plans to attend college [7].

The positive reflections by the respondents between the marathon training and their subsequent successes in other life activities has been recognized in other studies. The work of Goran, et al. found "physical activity patterns have been empirically linked to psychological-level characteristics such as attitudes or enjoyment of the physical activity, motivation to exercise, perceived barriers, perceived benefits of exercise, health beliefs, personal control, and particularly, self-efficacy, or the confidence to engage in a particular behavior" (p. S21) [29]. Our findings include descriptions of these psychological characteristics to be present in the study's participants who are currently young adults.

Another potential outcome is that participants noted they were able to build healthy life skills. Effective sport-based life skills programs use goals to develop life skills (i.e. goal setting and positive thinking) for enhancing the transfer of life skills to other life domains [31]. The friendships developed during this time, helped the participants learn about working together with others towards a goal, and being respectful and supportive of their friends and teammates. Participants acknowledged the importance of being able to offer support (emotional and physical) with one another while confronting difficulties, as well as the joy of celebrating their mutual achievements.

Finally, participants acknowledged that their marathon-training helped them to continue to follow healthy behavior habits into adulthood. Research supports findings that children who are active in sports are more likely to be physically active as adults when compared to children who do not participate in physical activities through sport [14]. Physical activity and the self-efficacy beliefs about the ability to perform physical activity among adults is directly correlated to the levels of physical activity and the self-efficacy developed during childhood [19]. Most of our participants have maintained regular running activities and continue to engage in activities focused on maintaining their physical health including going to the gym, walking, and practicing meditation. These young adults noted a gain in social skills for achieving personal and professional opportunities as adults described in the work of Hodge, et al. [30].

The findings of this study will allow nurses who practice in middle school settings to appreciate the value of organized, non-competitive, community-based sports for students. As children spend most of their developing years in educational settings, it follows that compatible activities are particularly important for facilitating behaviors for long-term engagement in healthy lifestyles [9]. As noted earlier, despite the benefit to students, many primary and middle schools, offer no sporting opportunities for physical activity outside of the structure of required Physical Education (PE) classes. Additionally, The AAP advocates for community-based sports programs as a means for "development of life skills, defined as skills that are required to deal with the demands and challenges of everyday life which is reflected by athletes from these programs relating learning experiences related to self-knowledge and emotional regulation, taking initiative, goal setting, applying effort, respect, teamwork, and leadership" [7]. Programs such as the non-competitive WeROCK© running program, can be a healthy alternative to the "sports burnout" often experienced by youngsters who are exposed to coaches and parents with expectations of "winning" results accompanied by stressful training for new skills acquisition [7].

Limitations

The findings of this study must be considered in the context of the study's limitations. The authors acknowledge that the sample may have bias as to those who responded. There may have been a response from those WeROCK© participants who found the program to be positive and a lack of respondents who did not have positive experiences. Also, as a result of the time lag between participants completion of the WeROCK© program and their responses to the questions presented, the authors acknowledged limitations that recollections of experiences may be affected. Another limitation is that the original plan for the study was to conduct focus groups or personal interviews, which were curtailed based upon COVID-19 protocols. The Post WeROCK questions were adapted from a focus group script. As such, written responses did not allow the researchers to follow conventional qualitative process consistent with qualitative interviews, which allows the researcher to control the script [32]. As investigators, we believe that such follow-up questioning often results in more depth of data and therefore a deeper level of inquiry to support the study's data collection. Although there was adequate sampling to reach saturation, lack of current contact information for eligible participants limited the opportunity to recruit and enroll

a larger sample. Despite these limitations, our findings provide participant perspectives on the long-term effects of this marathon training program and its perceived value on physical activity, psychological health, character development, and positive health habit behaviors in young adults who completed the program during their adolescence [33,34].

Recommendations for Future Research

There is very little information in the literature regarding the benefits of organized running programs for physical activity with children and adolescents. The duplication of longitudinal studies with larger samples is greatly needed. The current literature discussing physical activities for this age group is replete with research identifying the issues of screen time and other activities that inform the inactive lifestyles of today's children. The mitigation for the health-related illnesses due to the inactive status of children may be addressed by support from middle school administration for a non-competitive, structured after-school running program. There is no equipment or specific location needed for such a program. Further longitudinal research will be able to strengthen the association between long-term healthy lifestyles and middle school supported physical activities, including those that are focused on running.

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