

# Affective Benefits are as Important as the Awareness of Improved Health as Motivators to be Physically Active

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**Abstract** Most people are aware of the health benefits associated with physical activity (PA). Nonetheless, most Americans and Canadians do not meet the recommended PA guidelines of 150 minutes of moderate to vigorous PA plus 2 or more strengthening activities per week. The purpose of this study was to explore and compare the top motivators of PA for adults in Southern Ontario and South Carolina. In addition to better health, it was hypothesized that affective motivators such as “feeling good and happier afterwards” would be indicated as preferred motivator towards exercise. Focus group facilitated discussions were conducted with 234 people from Southwestern Ontario and 175 people from South Carolina representing various focus groups. Guiding questions included their beliefs, attitudes, opinions, and attitudes on motivators to PA and exercise including their main motivators to want to participate in physical activity. Surveys were distributed in Southern Ontario and South Carolina to individuals 18 years of age and older from the same community groups where the focus group data were initially collected. Both Canadian and American adults residing in Southern Ontario and South Carolina indicated the same top 3 barriers: i) better health, ii) feeling good and happier afterwards, and iii) losing or maintaining my weight. Interestingly, not even making the top five were exercising with a friend or group and personally impacted by negative consequences of health. The results indicate that while people realize better health is a positive outcome when engaged in day to day PA, it is the affective benefits of PA that are equally or even more important. The successful promotion of PA, in order to reach as many people as possible, should focus not only on the physical health benefits, but affective outcomes such as feeling good, enjoying the PA experience, developing confidence and a higher level of self-esteem.

**Keywords:** *affective motivators, physical activity, exercise adherence, Canadian, American*

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## 1. Introduction

There is no question that even a moderate amount of physical activity (PA) is psychologically, emotionally, and physically beneficial [1,2]. Yet, most Americans and Canadians do not engage in the recommended PA guidelines [3,4] of 150 minutes of moderate to vigorous PA plus two or more strengthening activities per week [5,6]. Despite the benefits of PA, physical inactivity or a sedentary lifestyle is prevalent and a major risk factor towards obesity [7,8,9] and heart disease which is the leading cause of deaths among Americans at approximately 378,000 per year [10,11]. Traditionally, PA has been promoted in a “one size fits all” approach, cognitively emphasizing the health benefits by underscoring the need to improve physiological functions e.g. increased HDL cholesterol level, the prevention of hypertension, heart disease and other physical illnesses. Clearly, there has been a disconnect to motivate people to want to be physically active in their daily lives. Why is

this and what are the major motivating factors to want to engage in PA? What can we do to combat this trend in a way that is more meaningful and impactful to all Americans and Canadians?

More recently, research studies have focused on the behavioral, motivational, and affective aspects of partaking in PA. Earlier studies [12,13,14] revealed that individuals involved in exercise did so more for physiological related motives rather than psychological motives such as enjoyment and the feeling of accomplishment. However, research has emphasized the influence between self-efficacy and a more positive affective response to exercise motivation and enjoyment [15]. In other words, self-efficacy can influence a more positive affective response to PA leading to a more enjoyable exercise experience [16,17,18]. A study by [19] indicated that a positive affective response to exercise influenced the extent to which an individual stayed positively motivated towards engaging in PA as well as participant adherence to exercise. Furthermore, an affective response can motivate the intention-behavior relationship which ultimately can lead to behavior change [19].

The significance of the Self Determination Theory (SDT) also influences a constructive affective motivation towards exercise. Relating to SDT, researchers have investigated the influences of “controlled” and “autonomous” decision-making which directly influences PA behavior and adherence [20]. A “controlled” motivation to exercise is characterized by the external need to exercise because one “should” exercise (i.e. healthy, prevents illness) as opposed to being motivated to exercise for “autonomous” reasons which include enjoying and taking pleasure in the PA while valuing and appreciating the experience. The more “autonomous” the decision-making is towards exercise, the greater the adherence and positive feeling there are to PA according to a systematic review [21]. It was also determined that although a “controlled” motivation to begin an exercise program may be beneficial at the beginning, in the long run it is less successful and can lead to a negative relationship with exercise. Furthermore, self-determined motivation nurtured in a supportive environment allows for more ownership in PA and thus, a happier experience [20,22,23,24,25,26].

### 1.1. Purpose of the Study

In light of the emerging connection between PA adherence and autonomous decision-making (enjoyment and feeling good), the purpose of this study was to i) examine adults’ motivators to PA and exercise, ii) determine if any affective motivators would be identified and iii) identify the top three most significant motivators to PA. It was hypothesized that along with “Better health,” an affective motivator such as “Feeling good and happier afterwards” would rank among the top three motivators. In addition, we hypothesized that losing and maintaining weight would be highly ranked not only as a health-based objective, but due to the association with “feeling good” and a positive self-image.

## 2. Methods

### 2.1. Participants

Both research studies in Guelph and Wellington and Dufferin counties in Ontario, Canada and Gaffney and Cherokee County in South Carolina received Research Ethics Board (University of Guelph) and Institutional Review Board (Limestone College) clearance respectively. Phase I of the research study concentrated on the phenomenological, qualitative approach to gathering data through facilitated focus group discussions and took place in Guelph from December of 2014 to May of 2015, and in Cherokee County from December of 2016 to May of 2018.

Adults ages 18 years and older representing 13 diverse groups from rural and urban communities in Guelph and Wellington County in Southwestern Ontario, Canada and 13 groups from Cherokee County, South Carolina were invited to participate in this study. Informed consent was obtained from all participants. Some examples from Guelph and Wellington County included members of the following groups: a rural Parks and Recreation Department, Lion’s Club from a rural community, a rural

Mennonite church, a women’s advocacy group called Zonta International of Guelph, the staff from the Guelph YMCA/YWCA, and the Italian Canadian Club of Guelph. Focus groups from Cherokee County in South Carolina included members from a United Methodist and Baptist church, the Board of Public Works, the City of Gaffney staff, Rotary Clubs, City of Gaffney firefighters and schoolteachers from a rural elementary school. A designated contact person from each of the focus groups in Southern Ontario and South Carolina received an e-mail with 3 sets of information attached to distribute to each of their members. The first was a letter of information explaining both the background and the purpose of the study prior to the focus group discussion, which included both the inclusion and exclusion criteria. Purposeful sampling was employed targeting specific, diverse focus groups that shared common interests and activities in which the members were then eligible to lend themselves to a facilitated group discussion. In addition, in order to participate in the study, the participant had to be: (1) 18 years of age or older, (2) a resident of either the City of Guelph or the Counties of Wellington and Dufferin, and in South Carolina, a resident of either the City of Gaffney or Cherokee County, and (3) a member of one of the community groups in the study. The exclusion criteria were any health conditions that precluded a participant from exercising or being physically active. The selection of participants was non-random. Each contact person per focus group asked for volunteers who would be willing to express their opinions, thoughts and attitude towards their motivators to engaging in physical activity and exercise in order to achieve depth of understanding. The second information document highlighted sample discussion questions, and the third document was the informed consent, which contained the purpose, procedures, and importance of the study, potential risks and discomforts, benefits to participation and assurance of confidentiality.

### 2.2. Procedures

#### 2.2.1. Phase I

Focus group facilitated discussions were conducted with 234 people from Southwestern Ontario and 175 people from South Carolina representing the various groups of participants previously identified. In general, each of the thirteen groups in Southern Ontario and South Carolina included 6-15 participants. Focus group interviews were held in the preferred meeting place for each group. Every effort was made to create a comfortable atmosphere in order to facilitate a relaxed discussion. Conversations were not recorded, and each participant was reassured that the discussions would be kept confidential. Participants were urged to share their experiences and articulate their feelings regarding physical activity or exercise in this environment of minimum structure other than gently probing questions to allow thoughts to flow freely and allow for in-depth conversation.

At the beginning of each session, participants were asked to complete a short demographic questionnaire regarding their gender, age group, and residence. The focus group discussions lasted approximately 30 to 60 minutes. Participants were free to leave at any time

without penalty. Guiding questions included: What do you think of when you hear the word exercise? What do you think of when you hear the word, physical activity? What are your main motivators to want to participate in physical activity? Health? Longevity of life? Appearance? Feeling good and happier afterwards? Losing and maintaining weight? Further probing questions followed and were dependent upon the participants' initial responses. Overall, the conversations were navigated to explore key motivators that contribute to partaking in physical activity or exercise found in the Canadian and American adult population.

Focus group discussions were facilitated by the same trained, content expert. In addition, in order to ensure consistency, the same trained, core group of students for each study were present at all the focus groups to make notes of the conversation as well as an interpretation of what they heard. Upon completion of each focus group discussion, the students sent their typed notes to the group facilitator for thorough review. In an effort to understand the perspectives and interpret the experiences of the participants, the data were analyzed through a phenomenological approach. In trying to understand and provide meaning to the explanations of the experiences relating to PA and exercise from the focus group participants, the notes were meticulously reviewed for each focus group by the same trained group facilitator multiple times in corroboration with the students to allow essential ideas to emerge and to ensure there was complete agreement with the interpretation. In addition, the group facilitator consulted with two outside content experts throughout the entirety of the process. This was an exhaustive process but necessary to ensure that the interpretation of the focus group feedback was never biased by one person's perception. It should be noted that the other content experts were not present at the focus groups. This was simply not feasible and might have been overwhelming for the participants. The aim was to identify recurring themes emphasized by the participants. These themes were then categorized under separate headings and color-coded to arrange the data. For example, a blue colored box had the title, "Motivators to PA". Underneath the title were listed the following comments that reflected this category: "Playing with my grandchildren," "Seeing the rewards physically," "Exercising with a friend of group," "Better health," "Losing of maintaining weight," "Personally impacted by negative consequences," "Feeling good and happier afterwards." From the feedback given in phase I of the study, it became clear that many of the participants reflected that "Losing and maintaining weight," "Better health," and "Feeling good and happier afterwards" as their top motivators to PA and exercise.

### 2.2.2. Phase II

Using the themes that emerged from the focus group interviews, a research-generated survey was created to validate the findings of the initial focus group interviews regarding motivators to PA. With this purpose in mind, common themes and trends that emerged on barriers to physical activity and exercise from the focus group interviews were identified and analyzed by three content experts with backgrounds in physical education and

exercise. These themes were then used to construct a series of descriptive statements related to motivators to PA to reflect the responses from the focus group interviews. The team of content specialists collaborated throughout the process.

Since phase I of the study was qualitative, it was imperative the research-generated survey accurately reflected the potential key motivators to PA identified in the focus groups. All survey items reflected what was heard in the focus group discussions from phase I. There was no addition or modification of questions in the construction of the survey that did not reflect the responses of the participants nor was there any adjustments of the wording and format made in the survey in between each survey administration. This helped ensure the reliability and validity of the survey in that only the remarks made regarding their barriers to PA were being measured and nothing else. The survey was designed to be completed in less than 10 minutes. The responses from the survey data were consistent with the information conveyed from the focus groups.

Phase II of this study was cleared by the University of Guelph Research Ethics Board and Limestone College Institutional Review Board prior to distribution of surveys. Surveys were distributed between July and September 2015 (Southern Ontario), and July 2018 to July 2019 (South Carolina) to individuals 18 years of age and older from the same community groups where the focus group data were initially collected. Informed consents from these participants were obtained and survey administration was scheduled at a convenient time and location suitable for each group. Participation in the focus group discussions was not required for completion of the survey. Basic demographic information (age, gender, place of residence) was collected again. Participants were asked to rank their top three motivators to PA with the number one placed next to the descriptor representing the greatest motivator towards PA and the number two placed next to the descriptor representing the second greatest motivator towards PA and so on.

What motivates YOU to be physically active or exercise? Choose ONLY 3 and rank them from 1 to 3, with 1 being the most motivational.

\_\_\_ Feeling good and happier afterwards

\_\_\_ Longevity

\_\_\_ Appearance

\_\_\_ Better health

\_\_\_ Losing or maintaining my weight

\_\_\_ Exercising with a friend or group

\_\_\_ Enjoying the feel of being physically active

\_\_\_ Seeing the rewards physically

\_\_\_ It is part of my job (i.e. if one physically active at work)

\_\_\_ Personally, impacted by negative consequences of health (i.e. you or someone you know experienced a heart attack, stroke, or suddenly died)

\_\_\_ Other, please specify \_\_\_\_\_

### 2.2.3. Data Analysis

Eighty-six percent (277/323) of all surveys distributed in Southern Ontario were completed providing valid survey data for further analyses. 305 out of 320 (95%)

surveys administered in South Carolina were completed. Data analysis for the motivators involved primarily descriptive statistics. Care was taken regarding the accuracy of the response recording, particularly if the participant did not identify with any of the listed motivators, although this was rare. Participants' responses to the survey were organized in a spreadsheet (Microsoft Excel) according to gender and in the following age groups: 18-34, 35-64, and older than 65 years. The data presented in this manuscript is from individuals aged 18 to 64 years. Data representing the oldest population will be published separately.

### 3. Results

Rankings of the motivators in the survey are presented in the following tables: top 5 ranked motivators based on all respondents from Southern Ontario and South Carolina (Table 1), top 5 ranked motivators by age group in both geographical locations (Table 2), percentage of male and female survey respondents in Southern Ontario that chose a particular motivator as their #1 choice (Table 3), and percentage of male and female survey respondents in South Carolina that chose a particular motivator as their #1 choice (Table 4).

**Table 1. The Top 5 Motivators Across All Respondents, 18 to 64 years, in Southern Ontario and South Carolina. Percentages refer to those respondents that indicated a motivator as one of their top 3 ranked motivators (1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup>)**

Ranking	All Male Respondents Southern Ontario	All Male Respondents South Carolina	All Female Respondents Southern Ontario	All Female Respondents South Carolina
#1(most frequent)	Better health 67%	Better health 65%	Better health 58%	Better health 82%
#2	Feeling good and happier afterwards 48%	Feeling good and happier afterwards 47%	Feeling good and happier afterwards 53%	Feeling good and happier afterwards 51%
#3	Losing or maintaining weight 27%	Losing or maintaining weight 40%	Losing or maintaining weight 41%	Losing or maintaining weight 48%
#4	Enjoy the feeling 16%	Appearance 28%	Enjoy the feeling 2%	Appearance 45%
#5 (5 <sup>th</sup> most frequent)	Appearance 13%	Longevity 22%	Appearance 1%	Seeing the rewards physically 24%

**Number of respondents:**

South Carolina males: 18-34 years, n=63; 35-64 years, n=78; total n=141

South Carolina females: 18-34 years, n=37; 35-64 years, n=47; total n=84

Southern Ontario males: 18-34 years, n=21; 35-64 years, n=46; total n=67

Southern Ontario females: 18-34 years, n=64; 35-64 years, n=39; total n=103

**Table 2. Top 5 motivators in males and females in Southern Ontario and South Carolina by age group (18-34, and 35-64 years). Percentages refer to those respondents that indicated a motivator as one of their top 3 ranked motivators (1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup>). The number in parentheses represents the motivator being ranked (indicated after the table)**

Ranking	Southern Ontario 18-34 years	Southern Ontario 35-64 years	South Carolina 18-34 years	South Carolina 35-64 years
#1.	Male (1) 71% Female (1) 69%	Male (4) 65% Female (4) 56%	Male (4) 52% Female (1) 65%	Male (4) 76% Female (4) 74%
#2.	Male (4) 71% Female (4) 59%	Male (1) 54% Female (1) 56%	Male (1) 49% Female (3) 57%	Male (1) 45% Female (5) 55%
#3.	Male (8) 57% Female (5) 53%	Male (5) 46% Female (5) 46%	Male (5) 43% Female (4) 54%	Male (5) 38% Female (3) 45%
#4.	Male (3) 52% Female (8) 38%	Male (7) 46% Female (7) 33%	Male (8) 30% Female (8) 38%	Male (2) 29% Female (1) 43%
#5.	Male (2) 48% Female (3) 50%	Male (2) 33% Female (2) 26%	Male (9) 24% Female (5) 35%	Male (9) 24% Female (7, 8) 21%

**Number of respondents:**

South Carolina males: 18-34 years, n=63; 35-64 years, n=78

South Carolina females: 18-34 years, n=37; 35-64 years, n=47

Southern Ontario males: 18-34 years, n=21; 35-64 years, n=46

Southern Ontario females: 18-34 years, n=64; 35-64 years, n=39

(1) Feeling good and happier afterwards

(2) Longevity

(3) Appearance

(4) Better health

(5) Losing or maintaining my weight

(6) Exercising with a friend or group

(7) Enjoying the feel of being physically active

(8) Seeing the rewards physically

(9) It is part of my job (i.e. if one is physically active at work)

(10) Negative consequences of health (i.e. you or someone you know experience a heart attack, stroke, or suddenly died).

**Table 3. Percentage of male and female survey respondents in Southern Ontario that chose a particular motivator as their #1 choice. Rankings are indicated in parentheses within each gender and age group (e.g. all respondents, male 18-34 years, etc.)**

Motivator	All respondents	18-34 years	35-64 years
(1) Feeling good and happier afterwards	Male 19% (tied #1 and 2) Female 17% (#2)	Male 23% (#1) Female 20% (#1)	Male 17% (#2) Female 10% (tied #3, 4)
(2) Longevity	Male 7% (tied #3 and 4) Female 2% (tied #8, 9)	Male 10% (tied #3, 4, 5) Female 3% (tied #8, 9)	Male 7% (tied #3, 4) Female 0% (tied #8, 9, 10, 11)
(3) Appearance	Male 3% (tied #7 to 9) Female 0% (tied #10, 11)	Male 10% (tied #3 to 5) Female 0% (tied #10, 11)	Male 0% (tied #10, 11) Female 0% (tied #8 to 11)
(4) Better health	Male 19% (tied #1 and 2) Female 20% (#1)	Male 14% (#2) Female 17% (#2)	Male 21% (#1) Female 26% (#1)
(5) Losing or maintaining my weight	Male 6% (#5) Female 5% (tied #5, 6)	Male 5% (tied #6, 7) Female 5% (tied #4 to 7)	Male 7% (tied #3, 4) Female 3% (tied #5 to 7)
(6) Exercising with a friend or group	Male 1% (tied #10, 11) Female 7% (#4)	Male 5% (tied #6, 7) Female 5% (tied #4 to 7)	Male 0% (tied #10, 11) Female 10% (tied #3, 4)
(7) Enjoying the feel of being physically active	Male 3% (tied #7 to 9) Female 15% (#3)	Male 0% (tied #8 to 11) Female 8% (#3)	Male 4% (tied #5 to 7) Female 23% (#2)
(8) Seeing the rewards physically	Male 4% (#6) Female 5% (tied #5, 6)	Male 10% (tied #3 to 5) Female 5% (tied #4 to 7)	Male 2% (tied #8, 9) Female 3% (tied #5 to 7)
(9) It is part of my job (i.e. If one is physically active at work)	Male 7% (tied #3 and 4) Female 0% (tied #10, 11)	Male 0% (tied #8 to 11) Female 0% (tied #10, 11)	Male 4% (tied #5 to 7) Female 0% (tied #8 to 11)
(10) Negative consequences of health (i.e. You or someone you know experience a heart attack, stroke, or suddenly died)	Male 3% (tied #7 to 9) Female 4% (#7)	Male 0% (tied #8 to 11) Female 5% (tied #4 to 7)	Male 4% (tied #5 to 7) Female 3% (tied #5 to 7)
(11) Other	Male 1% (tied #10, 11) Female 2% (tied #8, 9)	Male 0% (tied #8 to 11) Female 3% (tied #8, 9)	Male 2% (tied #8, 9) Female 0% (tied #8 to 11)

**Number of respondents:**

Southern Ontario males: 18-34 years, n=21; 35-64 years, n=46; total n=67

Southern Ontario females: 18-34 years, n=64; 35-64 years, n=39; total n=103.

**Table 4. Percentage of male and female survey respondents in South Carolina that chose a particular motivator as their first choice**

Motivator	All respondents (18-64 years)	18-34 years	35-64 years
(1) Feeling good and happier afterwards	Male 19% (#2) Female 18% (tied #2, 3)	Male 21% (#1) Female 22% (tied #2, 3)	Male 18% (#2) Female 15% (#3)
(2) Longevity	Male 5% (#7) Female 2% (tied #6 to 9)	Male 3% (tied #9, 10) Female 3% (tied #5 to 10)	Male 6% (tied #5 to 7) Female 2% (tied #6 to 9)
(3) Appearance	Male 8% (#5) Female 14% (#4)	Male 13% (#3) Female 22% (tied #2, 3)	Male 4% (tied #8, 9) Female 9% (#4)
(4) Better health	Male 28% (#1) Female 36% (#1)	Male 14% (#2) Female 24% (#1)	Male 38% (#1) Female 45% (#1)
(5) Losing or maintaining my weight	Male 10% (#3) Female 18% (tied #2, 3)	Male 11% (#4) Female 16% (#4)	Male 9% (tied #3, 4) Female 19% (#2)
(6) Exercising with a friend or group	Male 4% (tied #8 to 10) Female 2% (tied #6 to 9)	Male 10% (tied #5 to 7) Female 3% (tied #5 to 10)	Male 0% (#11) Female 2% (tied #6 to 9)
(7) Enjoying the feel of being physically active	Male 4% (tied #8 to 10) Female 4% (#5)	Male 5% (#8) Female 3% (tied #5 to 10)	Male 4% (tied #8, 9) Female 4% (#5)
(8) Seeing the rewards physically	Male 6% (#6) Female 1% (#10)	Male 10% (tied #5 to 7) Female 3% (tied #5 to 10)	Male 3% (#10) Female 0% (tied #10, 11)
(9) It is part of my job (i.e. If one is physically active at work)	Male 9% (#4) Female 0% (#11)	Male 10% (tied #5 to 7) Female 0% (#11)	Male 9% (tied #3, 4) Female 0% (tied #10, 11)
(10) Negative consequences of health (i.e. You or someone you know experience a heart attack, stroke, or suddenly died)	Male 4% (tied #8 to 10) Female 2% (tied #6 to 9)	Male 2% (#11) Female 3% (tied #5 to 10)	Male 6% (tied #5 to 7) Female 2% (tied #6 to 9)
(11) Other	Male 3% (#11) Female 2% (tied #6 to 9)	Male 3% (tied #9, 10) Female 3% (tied #5 to 10)	Male 6% (tied #5, 6, 7) Female 2% (tied #6 to 9)

Number of male respondents: overall, n= 141; 18-34 years, n=63; 35-64 years, n=78

Number of female respondents: overall, n= 84; 18-34 years, n=37; 35-64 years, n=47.

## 4. Discussion

Adults residing in Southern Ontario and South Carolina indicated the same top 3 motivators to be physically active: i) better health, ii) feeling good and happier afterwards, and iii) losing and maintaining weight. In particular, i) better health and ii) feeling good and happier afterwards were consistently ranked in the top 3 regardless of geographical location, gender, or age group. Overall (ages 18 to 64 years), Southern Ontarian adult males chose better health (67%), feeling good and happier afterwards (48%), and losing and maintaining weight (27%) as one of their top three choices. Correspondingly, South Carolina

male adults chose better health (65%), feeling good and happier afterwards (47%), and losing and maintaining weight (40%). The Southern Ontario adult females specified better health (58%) feeling good and happier afterwards (53%), and losing and maintaining weight (41%) as their top three motivators while the South Carolina females designated better health (82%), feeling good and happier afterwards (51%), and losing and maintaining weight (48%) as their main motivators to be active. Interestingly, being personally impacted by negative consequences of health, or living longer were not highly ranked as motivators. Exercising with a friend or group was ranked more highly by Southern Ontario

females, but overall, tended to be lower ranked. These results point to the fact that people realize better health is a positive outcome when engaged in day to day PA, but equally or more important is the affective benefit of PA. Feeling good about oneself and happier afterwards is a powerful sensation for many and more educational and motivational efforts need to be channeled in this direction to help people connect with why they will want to be more physically active. Losing and maintaining weight also makes a person feel good. Higher levels of self-esteem can ultimately lead to greater success professionally and personally.

It is probably not surprising that i) better health and ii) losing and maintaining weight were highly ranked among participants in both Southern Ontario and South Carolina. For decades, people have considered being physically active an obligation knowing the critical importance that PA plays in their overall health [27]. But perhaps the most significant outcome of these studies is the fact that many adults value the affective motivator, “Feeling good and happier afterwards.” This affective component for many is essential in order to successfully find purpose, enjoyment and meaning which contributes to increased PA adherence. It is also easy to see the affective connection of losing and maintaining weight to feeling good and happier afterwards since “feeling good” can be related to one’s body weight. Knowing most peoples’ preferences for lifestyle PA [28,29,30,31] and realizing the health benefits tied to lifestyle PA [32-38], it is imperative that the medical and public health community, kinesiologists, exercise scientists, physical educators and health professionals encourage people to

choose PA that is enjoyable and not necessarily in traditional forms such as weight lifting in the gym, running or using cardio machines. In addition to exercise, the addition of lifestyle PA is paramount to allow people to obtain their PA health benefits as well as meet PA guidelines while accomplishing daily tasks, responsibilities and routines at home, work, and in their communities. More advertising images should reflect lifestyle daily PA as enjoyable and practical activities such as walking (MyWalking Activity, Figure 1) and images and descriptions exemplifying the health benefits of what is accomplished on a daily basis depicted in MyResistance Activity (Figure 2). Connecting pleasant, fun and healthy PA images consistently educates and motivates the public to a more realistic, natural and enjoyable way of meeting our PA guidelines. Customized, motivationally tailored print-based materials representing lifestyle PA are more effective than traditional exercise literature at motivating people to change behavior [39,40,41,42,43].

Walking is healthy, convenient, inexpensive and can be done almost anywhere. Walking can allow for autonomy and independent decision-making which can improve PA adherence while also allowing the individual to control for intensity, duration, and frequency. To meet U.S. guidelines, walking is the preferred mode of PA [44,45,46]. Walking improves the body physiologically including aerobically, body composition, trunk endurance and improves HDL cholesterol levels [47]. Additionally, walking can improve flexibility, joint stability, and bone density, as well as lower the incidence of type II diabetes, obesity, mental illness, high blood pressure and heart disease [44,48,49,50,51,52].



Figure 1. MyWalking Activity, M. Felicia Cavallini All Rights Reserved. ©2018



Figure 2. MyResistance Activity, M. Felicia Cavallini All Rights Reserved. ©2018

Resistance training/activity is an important inclusion in the U.S. and Canadian PA guidelines i.e. 2 or more strengthening activities per week [4,53,54]. Resistance activities improve musculoskeletal strength [55] and bone density [56], while also lowering the risk of cardiovascular disease and blood glucose management glycemic control. Adherence to resistance training at home has likely proven a challenge as there may be the preconception of having to obtain specialized equipment or training in a more formalized setting [57]. However, physically strengthening the body can be accomplished with lifestyle PA. Examples of common daily activities include lifting and carrying heavy items (groceries, backpack, golf bag, tiles, lumber, etc.), walking or riding a bike uphill, taking the stairs, gardening, and shoveling snow (or dirt and mulch depending on the season). There are many opportunities to embrace strengthening activities.

“Feeling good and happier afterwards” is important because of the emotional and potential self-esteem tie. This can mean different things for different people. For some, “feeling good” can mean feeling a sense of accomplishment after having completed 30 minutes of walking, cleaning, or gardening. For others, “feeling good” translates into feeling calm, content and relieved after doing the laundry, or raking leaves around the house. The feelings of a positiveness towards oneself as an experience of a particular activity, can motivate the need to be physically active again. There can be increased affective motivation towards any activity that a person enjoys, whether it is hiking outdoors, walking the dog, working in the garden, or walking in the neighborhood with a friend. Feeling good and happier afterwards can motivate one to continue with the preferred PA, for long

lasting enjoyment. It is critical that each individual reflect on their personality, preferences for environment, and type of activity that they truly enjoyed, whether it is walking with their dog, gardening, landscaping, or taking a break and walking around the neighborhood on their own or with friends to meet the PA guidelines. Individuals need to be attentive to their own preferences and not anyone else’s, and then have the confidence to be themselves when physically active. The best PA is YOUR PA.

According to the Merriam-Webster dictionary [58], happy is defined as feeling “fortunate, glad, pleased, content, felicitous and a sense of well-being”. In the past, the marketing process to motivate individuals to become physically active centered around cognitively understanding the benefits of exercise such as better physical health, including the prevention of heart disease, and greater longevity. These physical benefits are paramount to understanding the importance of incorporating PA into one’s daily lifestyle. Ultimately, however, attempting to motivate because one “should” may not be as effective as motivating one to be physically active because it’s positive, enjoyable and feels good [59,60]. More marketing needs to focus on the positive feelings one obtains from PA rather than the physiological health benefits. As evidenced by the results of our study, adults do understand the importance of and prioritize better health. But just as important and possibly a greater solution to motivating more adults to move, is addressing the affective or “feeling” motivators associated with PA [27]. The commonly used phrase “exercise is medicine” is no doubt true, but it may not be the most powerful motivator for all people. There also seems to be a certain irony in that most people do not associate taking

medication with being pleasant, and find exercise to be structured, planned and routine.

## 5. Conclusion

According to the Center for Disease Control (Centers for Disease Control and Prevention), 42% of American adults are obese missing the Healthy People 2020 goal of 30.5% [61,62]. The percentage of obese males and females (body mass index  $\geq 30$ ) rose similarly but the percentage of severe obesity (body mass index  $>40$ ) was higher among the female population. The Black adult population reported the highest prevalence of severe obesity with the Asian adult population reporting the lowest [61]. These obesity numbers are disturbingly and directly affecting the health of Americans through such illnesses as heart disease, cancer, diabetes, and lung disease. Many of these underlying factors are related to a habit of sedentary living and unhealthy nutrition. How we view and relate to PA is critical for the future health of all Americans. We must listen to peoples' goals and then tailor PA to what makes them happy, satisfied, and whole in order to heighten a positive affective motivation for a long-lasting relationship with a physically active lifestyle. In conclusion, it is vital to people to connect with PA in a way that is uniquely meaningful realizing that one size does not fit all. To achieve this, it is crucial to educate the benefits of lifestyle PA to the public in order to give them the confidence to customize their own PA needs that are enjoyable, natural, doable and realistic in and around their home, community and work environment to effectively meet our PA guidelines every week.

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## Statement of Competing Interests

The authors have no competing interests.

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