Cultivating, Developing, and Promoting Lifestyle Physical Activity in College, for Life

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Abstract The positive benefits of physical activity (PA) have long been substantiated and widely accepted by the public but unfortunately, most American, and Canadian adults still do not meet the US and Canada PA guidelines. With only 27% of high school students adhering to these guidelines, PA levels tend to decline during the late adolescent years into college. What intervention strategies can be incorporated into the campus culture that will not only increase PA levels in school, but increase the likelihood of adhering to higher levels of PA long after graduation into adulthood? A two-phase, mixed methodology focus group study was recently completed to explore preferences, associations, perceptions, and top motivators to PA. In phase one, facilitated group discussions were conducted with 234 participants from 13 diverse groups in Southern Ontario and 175 participants from 13 groups in South Carolina. Questions were asked regarding the participants’ preferences to meet PA guidelines, views on lifestyle PA versus traditional PA, and top motivators to PA. Based on the feedback from phase one, a survey (phase two) was designed and administrated to participants from the same community groups in Guelph and South Carolina. Among the 18-34-year-old participants, the overwhelming majority of both male and female respondents from both Southern Ontario and South Carolina indicated a preference for lifestyle PA, agree that exercise is a stress reliever, feel “happy and feel like I’ve accomplished something afterwards” but see exercise as planned, structured, regimented, routine, repetitive. “Feeling good and happier afterwards, better health, losing and maintaining my weight, appearance, and seeing the rewards physically were the top PA motivators. Specific intervention strategies are provided to improve PA levels in college emphasizing the need to focus on lifestyle PA opportunities for college students to embrace and experience both in college, and for the rest of their lives.

Keywords: lifestyle physical activity, college students, preferences, associations and motivators to physical activity

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1. Introduction

The positive benefits of physical activity (PA) have long been substantiated and widely accepted by the public but unfortunately, most American and Canadian [1,2] adults still do not meet the PA guidelines of 150 minutes of moderate to vigorous physical activity (MVPA) plus 2 or more strengthening activities per week [3,4]. With only 27% of high school students adhering to these guidelines [5,6], PA levels tend to decline during the late adolescent years into college [7,8,9]. Given student obligations and accountabilities while in school, there is a greater likelihood that the already established PA patterns from college will continue well into adulthood, especially with the seniors [10,11]. Approximately 85% of seniors carried over the same active PA patterns into their adult lives while 81% of the seniors who were still physically inactive as seniors continued a sedentary lifestyle after graduation [11].

Studies point to an increase in PA patterns among males over time while there is a decrease in PA among the female population [12,13]. But both low income, minority males and females are also less physically active [12], although collectively speaking and over time, the PA patterns tend to even out similarly as there are less differences as both genders age [11]. During college, males tend to lean more towards traditional weightlifting and team sports whereas females generally are more drawn to yoga, group fitness classes and dance [14,15,16].

Although many college and university environments can be vibrant and full of energy, as would be expected, use of computer time among students can be very high [17] as well as time spent television viewing [18,19]. This can clearly bring about a sedentary lifestyle among many college students which can lead to increased obesity rates, and higher levels of stress, LDL cholesterol, blood pressure and other negative health indicators [20,21]. The combination of a student and residential setting can force individuals to choose to not participate in PA to the detriment of their well-being with the understanding that
the vast majority of college students undertake a variety of responsibilities during their college career [11,22].

2. Study as the Background

Receiving Research Ethics Board (University of Guelph) and Institutional Review Board (Limestone College clearance respectively, a recently completed two-phase, mixed methodology, focus group study in Southern Ontario and South Carolina to explore the attitudes, preferences, and barriers towards lifestyle PA versus more traditional, structured exercise. In phase one, facilitated group discussions were conducted with 234 participants from 13 diverse groups in Southern Ontario and 175 participants from 13 groups in South Carolina. Questions were asked regarding the participants’ preferences to meet PA guidelines, views on PA vs. traditional exercise and barriers to PA. Based on the feedback from phase one, a survey (phase two) was designed and administered to participants from the same community groups in Guelph (311 valid surveys) and South Carolina (229 valid surveys).

Among the 18-34-year-old participants, the overwhelming majority of both male and female respondents from both Southern Ontario and South Carolina believe there is a difference between PA and exercise (males 89%, females 83% from Guelph; males 83%, females 71% from South Carolina), think the US and Canada PA guidelines can be achieved through lifestyle PA alone (males 80%, females 61% from Guelph; males 67%, females 71% from South Carolina), think PA is easier to do when it’s goal-oriented (males 67%, females 80% in Southern Ontario; males 88%, females 97% in South Carolina), taking the stairs (males 67%, females 80% in Southern Ontario; males 80%, females 86% in South Carolina), walking the dog (males 52%, females 82% in Southern Ontario; males 78%, females 88% in South Carolina), cleaning the house or carrying groceries (males 57%, females 70% in Southern Ontario; males 88%, females 97% in South Carolina), and other activities such as gardening, raking leaves, shoveling snow and other yardwork (males 52%, females 87% in Southern Ontario; males 86%, females 98% in South Carolina).

Lastly, in terms of motivators to be physically active, the results revealed that both Southern Ontarian males (71%) and females (69%) ranked “feeling good and happier afterwards” as their top motivator to PA followed by “better health” males (71%), females (59%) and rounding out the third spot for the males (57%) is “seeing the rewards physically” and females (53%) “losing or maintaining weight”. South Carolinian males (52%) ranked “better health” as their number one motivator to PA followed by “feeling good and happier afterwards” (49%) and “losing and maintaining weight” (43%). The females (65%) from South Carolina chose “feeling good and happier afterwards” as their top motivator with “appearance” (57%) and “better health” (54%) representing two and three, respectively.

3. Discussion

When considering the PA guidelines backed by the American College of Sports Medicine, about half of our student population fail to meet these recommendations [23]. Part of this problem could be attributable to what students learned in their physical education programs versus their actual PA preference [24]. So many adolescents are not going to be drawn towards athletics and sports as they mature into adulthood because that is not their true preference in engaging in PA. Therefore, it is vitally important that physical education (PE) teachers prepare their PE curriculums to be more diverse in content so that all students can have more opportunity and a higher probability of finding a more meaningful way to move for them in order to help establish transfer of knowledge and habits well into adult life including the college years. Furthermore, PE classes and intramural programs in college should continue to keep in mind adult preferences for PA, including college aged students for whom many prefer lifestyle PA [25]. More activities geared around walking, co-ed recreational, and social PA activities such as inner tube water polo, frisbee golf, scavenger hunts that take you through the campus and all around, walking/hiking on nearby trails, and non-competitive group bike rides should all be considered when attracting more PA participation in young adults.

There is no need to overthink being physically active on campus since there are numerous ways to realistically implement PA during the day. Vigorous PA can easily be obtained through simply moving faster or increasing the incline of the slope (intensity), moving longer (duration) and taking part in PA more often (frequently). Resistance training can also be accomplished with just using body weight. There is no need to worry about not being able to work out in the weight room at the gym if your days are busy and long. Climbing the stairs, engaging in short stride lunges, walking up an incline, doing ground
push-ups on your knees or full body while picking yourself off the floor, holding the plank or hover for a study break, pulling your abdominals in while stepping up and down the stairs doing laundry or carrying your bike back to your dorm room, whole body dynamically moving in groups, and meaningful stretching are all but a few valid ways to count minutes towards the Canadian and US national PA guidelines accomplished through lifestyle PA.

4. 7 S’s to Live by in Residence Hall and Around Campus

The following “7 S’s” provide everyday strategies to engage in PA whenever the opportunities are available, doable, and natural in and around the residence hall and school campus to insure at least a moderate level of PA.
**SELF-DISCIPLINE:** You more productive while your body and mind is more start of your day. Active transportation also helps to make adding substantial health benefits and more energy to the events in and around campus! Backed by research, active class, practice, rehearsal, meetings, and all kinds of walking, bicycling, skateboarding or kick scootering to Spin and stride your way to improved overall health focus in a more productive manner. Improves memory, circulation, and clears your mind to prepare for a party to dance the night away! Stretching mail. Stretch as you hang decorations from the ceiling to between your many long hours in front of the computer. Strengthening activities contribute to muscular endurance, dynamic balance, agility, flexibility, and lean body mass.

**SHIFT AND SHAKE:** Shift, shake and rotate left to right, forwards and backwards, up and down as you clean your computer workspace and lounging areas on campus, run to practice, participate in lifestyle physical activity and recreational games in Physical Education classes, pick up stacks of paper, reach for packages, or learning and teaching materials. Shift and shake as you throw around the frisbee with a group of friends. Shift and rotate as you clean and organize your room. Shake your body vigorously stepping up or down the stairs, dancing, or running off to class! Shifting and shaking your body in every direction allows your body to reap the benefits of moderate to vigorous physical activity.

**STRETCH:** Stretch while sitting in the classroom, library, or computer desk, stretch out your arms and legs. Or, from a sitting position, stand and stretch out your whole body. Reach high and low to hang paintings for an art exhibit, reaching for books off the top of the shelf, and extending down for your sweater which just fell to the ground. Stretch in between your many long hours in front of the computer. Get up and stretch your legs to retrieve your laundry or for books off the top of the shelf, and extending down for your sweater which just fell to the ground. Stretch in between your many long hours in front of the computer. Get up and stretch your legs to retrieve your laundry or mail. Stretch as you hang decorations from the ceiling to prepare for a party to dance the night away! Stretching improves memory, circulation, and clears your mind to focus in a more productive manner.

**SPIN & STRIDE:** Spin and stride your way to improved overall health walking, bicycling, skateboarding or kick scootering to class, practice, rehearsal, meetings, and all kinds of events in and around campus! Backed by research, active transportation reaches the moderate intensity threshold adding substantial health benefits and more energy to the start of your day. Active transportation also helps to make you more productive while your body and mind is more relaxed, content, and you are more able to concentrate.

**SELF-DISCIPLINE:** Self-discipline while engaging in classes, homework, extra-curricular activities, and meetings on campus. Self-discipline while enjoying your meals, think about possibly reducing portion size and high calorie foods with little nutritional value. Consider wisely your snacks and meals for the better part of the day. Try not to rely on the typical vending machine food choices for breakfast, lunch or dinner. Designate the healthier food machines and select an item from the options available. If possible, use the cafeteria even if it’s just for one of your meals during the day. The cafeteria is convenient, serves good food, and the cost is reasonable. Even making one or two simple adjustments can make a big difference in your overall nutritional and caloric intake for a better, healthier you! Combined with being physically active, your nutritional habits will pay big health dividends for you.

### 5. Physically Active on the Weekends

Understanding that college students tend to be more active during the week, rather than the weekend, dictates the need for intervention strategies to be incorporated while in school to help off-set a sedentary lifestyle [24,26] during the weekend. As similar for most working adults, the weekends tend to be personal time for students regardless if they’re planning to attend the home football game, enjoy fun activities in town or in their geographical area, visit with family or friends, grocery shop for the week, study, sleep or attend a fraternity or sorority party. That said, the weekend can be just as physically vibrant as the week by simply incorporating an energetic physical presence in activities more naturally suitable and enjoyable in one’s personal schedule such as hiking or walking on nearby trails, enjoying walking and talking with friends, carrying heavy grocery bags back to the dorm, dancing at the party, standing up every so often to stretch out the legs and twisting and turning while at the football game and chasing children in the family when visiting at home.

Of course, built environments both on and off campus can play a major role in determining PA levels among adults. Active transportation features such as bike lanes, sidewalks, trails, in addition to nearby parks, street lighting, and leisure and recreational facilities on campus have helped people be more physically active [27,28,29,30,31]. Even access to public transportation improves PA levels through active transportation [32,33,34] and decreases obesity levels [35]. Studies have shown accessibility or even perceived accessibility to parks and recreation facilities have led to a greater probability of increased PA among adults [36,37,38,39]. Discussing, designing, planning with the whole community a PA way of life and environment that includes scenic trails, safe walking neighborhoods, active transportation routes, and inviting parks for all to enjoy is where the focus needs to be in order to instill a PA day to day mentality.

One of the more refreshing results of the study is that both Southern Ontarians (males 62%, females 75%) and South Carolinians (males 52%, females 54%) from the 18-34 group are interested in learning how to be more vigorously active in their everyday activities such as when walking the dog, playing with kids, or learning how to
salsa dance. One might think that only traditional exercises is the way to truly gain a considerable health benefit but that is not true. Lifestyle PA is extremely beneficial [40,41,42,43,44,45,46,47,48] health wise but can also be undervalued due to lack of education. Understanding and embracing the physical, psychological, and emotional advantages of walking for psychological, and emotional advantages of walking for active transportation, recreation or to accomplish daily tasks and responsibilities at home or work can help young adults establish PA patterns for life for long term health gains.

Researchers and health professionals should consider motivating, educating, and connecting affective motivators to PA. “Better health” in the Southern Ontario and South Carolina studies was not a surprise to be a top motivator choice among both males and females to PA. But what was a surprise to these results were the affective motivators of “feeling good and happier afterwards,” “appearance,” and “losing or maintaining my weight,” listed as top choices to PA. This points to the need to encourage college students to enjoy the process of PA and to sincerely engage for personal reasons of feeling good, happy, content, and joyful rather than just for the cognitive purposes of knowing PA is good for you. This approach could be very critical to assisting and promoting exercise adherence for college students at a time where their PA habits are life forming and enduring. The past 70-80 years has emphasized more of an exercise image, visual, and feel to staying healthy rather than promoting the more natural lifestyle PA reflections, illustrations, and representations. Pushing a “one size fits all” approach for so many years has unfortunately and unrealistically compelled adults to think that only a planned, routine, structured, repetitive way of moving was the way to become and stay physically healthy. The college years are a prime opportunity to support and embolden all students to discover their PA preferences and uniqueness and furthermore, to pursue with a guilt free conscience and self-determination for the future beyond the college years. More recreational, intramural, and everyday activities should focus on lifestyle PA opportunities for college students to embrace and experience both in college, and for the rest of their lives.

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Statement of Competing Interests

The authors have no competing interests.

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