Making Exercise Part of the Daily Routine

A survey conducted to examine the influence of technology and sedentary activities, time management, and motivation to become more physically active.

Tag Words: Motivation, Exercise, Physical Activity, Sedentary lifestyle, Routine, Time Management, Health Issues, Diabetes, Obesity, Hypertension, Depression, Cancer, Cognitive Decline, Emotional Disorders, Immune System, Technology, Internet, Television

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Summary

People need to be made more aware that they have the time to exercise if they are willing to moderate their television and internet time. It is important to be informed of the consequences of living a sedentary lifestyle which includes health problems such as obesity, diabetes, and osteoporosis. Our solution allows people to reflect on their schedule in order to prove to themselves that they have the time to exercise and in addition allows them to reflect on the positive consequences of adding physical activity. By motivating participants to exercise we hope to give them the support to eventually make physical exercise a part of their daily routine that they enjoy. We found that self motivation was the key factor to each participants participation in physical activity. Motivation by others did not prove to have an impact as was expected. (JM)

Video Link

http://www.youtube.com/watch?v=AEwBG5-67Fo

Sedentary Lifestyle Consequences and the Overarching Issues Leading to Them

(JM) Fitness correlates to health and being healthy is extremely important throughout life. However, the problem with a lot of society today is that most people do not find it a priority in life to exercise and remain physically active. This downfall in society has led to an obesity epidemic. The average individual feels that they do not have the time to exercise and once they begin a diet and exercise plan most will not sustain to it. Technology such as
Facebook and television is trumping the priority of physical activity. Regarding the obesity issues which is due to time spent using technology rather than exercising, it should be common knowledge that technology is a convenience which gets abused by most people today. There is a huge lack of motivation in the lives of people who live sedentary lives. This lack of motivation has also contributed to the discontinuation of exercise. When exercise is omitted out of the lives of people and a sedentary lifestyle is taken up health issues often result. Obesity, diabetes, high blood pressure are all influenced by living a life without activity. It is important to educate people on the risks of living lives filled without exercise.

History of Physical Activity in Prehistoric Times

(JM) Throughout prehistoric time, the man had to hunt for his own food and was driven by his desire of survival through hunting and gathering. However, today man is no longer driven by requirements of daily living, and therefore the fitness level of people has decreased. Primitive nomadic lifestyles require the task of continually hunting and gathering in order just to survive. The tribes would take one to two day excursions for food and water. This meant that they had to be active because regular physical activity was apart of that principal component of life. (Lance C. Dalleck, M.S. and Len Kravitz, Ph.D.) Also after successful hunting outings, celebration included trips of five to twenty miles to neighboring tribes to visit friends and family. At these celebrations dancing and cultural games existed. The Neolithic Agricultural Revolution was the conclusion of primitive lifestyle. This type of civilization revolved around agriculture and farming for survival. This era in history symbolizes the beginning of when a more sedentary lifestyle was to take place. However, man still had to work outside to farm his own food and travel to town to trade his goods. (Lance C. Dalleck, M.S. and Len Kravitz, Ph.D.)

Background of Sedentary Lifestyles

(AS) Sedentary lifestyle is a term that is used for the lifestyle that people live which include a minimum of or, even worse, no physical activity. This is a frequently found inclination that is occurring in many people’s lives nowadays. Sedentary lifestyle activities include things such as watching television, sitting, and using the computer. Many individuals work in offices, firms, or are students where they are sitting down for a majority of the day and usually only get up when it is time for a break or time to leave. Technological advances are one of the main reasons why people are not physically active. Electronic devices and progression of these devices have made life simpler for people, but have also made things a bit too convenient for them. Tons of people now resort to shopping online instead of going and walking around the mall to browse. Media devices such as Facebook and Twitter have made catching up with friends a pretty effortless task. Instead of meeting up with a friend and getting out of the house to catch up all one needs to do is send a quick message over an internet device by just sitting at their computer or sitting with their phone. Being sedentary lowers the body’s ability to handle physical activity. At times people are only aware and merely just look at the physical changes that occur on the
body when one is not physically active. People are usually not attentive to the mechanical changes that occur within the body. The changes that occur in the interior of the body are typically the explanation for the physical external transformation of the body shape and type. Changes within the body are also some of the influencing factors for the development of a number of serious health conditions. It is not to say that the lack of physical activity is the prime cause of developing some health conditions. At times the deficit of physical activity is not even an influence at all, it could just be genetics. Although this is true, it is not a reason to be sedentary since sometimes it does contribute to the development of health conditions. Some serious health conditions that may occur due to not being physically active are obesity, diabetes, high blood pressure, and a number of others (Health Risk of Living a Sedentary Lifestyle). People should take control of their lives and become physically active. There is no need for people to take the risk of possibly having the lack of physically active cause a serious health problem.

**Consequences of Living a Sedentary Life and Benefits of Physical Activity**

(JM) A lack of daily exercise can lead to obesity which is a major factor for developing type 2 diabetes. People that have type 2 diabetes are at a great risk for kidney failure, heart disease, stroke, eye complications, skin issues, among many others. The World Health Organization says that living a sedentary lifestyle is one of the ten leading causes for disabilities and even death. (Manson, JoAnn, Patrick Skerrett, Philip Greenland, and Theodore VanItallie) A lack of exercise accounts for 300,000 premature deaths each year just in the United States. These deaths are mostly the result of cardiovascular disease caused by sedentary lifestyles. It is recommended by the American College of Sports medicine that people engage in moderate to intense physical activity for at least thirty minutes a day for at least five days a week. However, half of all Americans get this recommended amount of exercise according to a CDC survey. What is even more interesting is that 25% of all Americans get no physical activity at all. (Manson, JoAnn, Patrick Skerrett, Philip Greenland, and Theodore VanItallie)

**Diabetes**

(AS) Diabetes is one of the major chronic diseases that are influenced by a sedentary life. It is classified as a metabolism disorder. Glucose is a form of sugar in the blood and when food is digested the glucose makes its way into the bloodstream. The body’s cells use glucose for energy, but glucose cannot reach the cells without the presence of insulin. The pancreas produces insulin, which is a hormone. After eating, the pancreas automatically releases a large amount of insulin in order to move the glucose that is present in the blood into the cells, which ultimately lowers the blood sugar level (What is Diabetes? What Causes Diabetes?). Diabetics experience an issue in which the quantity of glucose in the blood is to prominent, also known as hyperglycemia. This is due to the fact that the body does not generate enough insulin, produces no insulin, or has cells that do not have a proper response to the insulin the pancreas produces.
This causes for two different types of diabetes, type one diabetes is when one produces no insulin at all, and type two diabetes is when there is not enough insulin produced, or the insulin is not working accurately. A lack of physical activity can lead to obesity, which is a key factor in developing type two diabetes (What is Diabetes? What Causes Diabetes?). Treatment for this is weight decline through exercise to reduce the body's excess fat reserves. These fat reserves hinder the body's ability to appropriately absorb and use insulin. Physical activity helps manage weight, uses glucose, makes cells more responsive to insulin, increases blood flow and improves circulation in blood vessels. Exercise helps lower blood sugar. Insulin is more effective during physical activity. Regular exercise increases the quantity of insulin receptors on the cells. Having more receptors makes the body more sensitive to insulin. Essentially, being physically active can help prevent diabetes and also diminish the effects of the disease if someone already has it.

Obesity

(AS) Obesity is an on-going health problem in America today. In 2004, obesity was ranked the number one health risk that Americans face by The U.S. Centers for Disease Control and Prevention. This disease costs the national economy almost $122.9 billion annually, and is currently the cause of 400,000 deaths per year (Understanding Obesity). In the United States, obesity among children is a growing epidemic. It is the most common chronic disease of childhood, affecting over thirty percent of children. Obesity is defined as an excessive quantity of body fat compared to ones lean body mass. Any individual who has a body mass that is at least thirty percent over the ideal weight for a specific height is considered obese. Also any person who has a body mass index of over 30 is placed into the category of being obese. A child is defined as obese if their body mass index-for-age percentile is greater than ninety-five percent (Childhood Obesity). Being obese is said to lead to a number of other health problems including type two diabetes, heart disease, stroke, and others. To help administer body weight and avoid gradual, unhealthy weight increase, people should get about sixty minutes of moderate to vigorous intensity activity roughly three to five days a week (Understanding Obesity). Being physically active can help minimize the probability of becoming obese. Exercise helps to reduce body fat by building or preserving muscle mass. The body’s ability to use calories also improves when a person is physically active. An individual’s metabolic rate, which is the amount of calories the body burns throughout a twenty-four hour period, also increases with exercise. Being physically active to lessen the risk of becoming obese has multiple benefits since obesity is also a contributing factor to developing some other serious health conditions.

Hypertension

(AS) High blood pressure, also known as hypertension, is a health condition that affects as many as twenty-five percent of American adults. Blood pressure is the force of blood against the walls of arteries. It is measured as systolic and diastolic pressures. Systolic refers to blood pressure when the heart is contracting. Diastolic refers to blood pressure when the heart is at a
period of rest and dilation. Normal systolic pressure is 120mmHg, while the normal diastolic pressure is 80mmHg. This then makes the normal blood pressure 120/80mmHg (Causes and Effects of High Blood pressure). There are two stages of hypertension, stage one known as primary or essential hypertension, and stage two known as secondary hypertension. Primary hypertension is when the systolic pressure is between 140 and 159 or the diastolic pressure is between 90 and 99. Secondary hypertension is when the systolic pressure is 160 or higher, or the diastolic pressure is 100 or higher. Only five percent of people with high blood pressure have secondary hypertension (Causes and Effects of High Blood Pressure). There is no identifiable cause for the rise in blood pressure, but environment and lifestyle are thought to be major contributors to the development of this health problem. A sedentary lifestyle contributes to both high blood pressure and obesity. Obesity is also another factor that contributes to high blood pressure. Engaging in physical activity makes the heart stronger. With a strong heart less effort is needed to pump a large amount of blood. If less work is needed to pump blood, the force on the arteries decreases, which leads to a lower blood pressure. Systolic blood pressure can drop by 5 to 10mmHg when physical activity is involved. This is a similar affect that some blood pressure medications have. If someone already has high blood pressure exercising can help control it. Also, if blood pressure is not a current issue physical active can help prevent the rise of blood pressure as an individual ages (Causes and Effects of High Blood Pressure). Aerobic activity is needed to control high blood pressure. Any physical activity that increases heart rate and breathing rate is considered aerobic exercise. To keep blood pressure low exercise needs to be continuous. It takes about one to three months of regular physical activity to have an impact on blood pressure.

**Other Health Conditions**

(AS) Living a sedentary lifestyle also leads to a number of other health conditions. The conditions can be caused first-handed by a lack of physical activity or can develop due to the presence of one of the other health issues that rise because of inactivity. Some of these other health conditions are heart disease, cancer, and stroke. In the United States, heart disease is the leading cause of death. Two of the major risk factors for contracting heart disease are high cholesterol and high blood pressure. Overweight people are twice as likely to develop these two major risk factors. Exercise can lower the risk of developing heart disease by lowering blood pressure, which reduces strain on the heart, increasing HDL cholesterol, which transports fat away from the arteries, reducing levels of LDL cholesterol, which can form fat deposits in the arteries, and prevent blood cots by improving circulation (Exercise, heart disease, and high blood pressure). Cancer is abnormal cell growth within a part of the body, which can spread to adjacent tissues. The presence of excessive fat tissue on the body increases the risk of getting several types of cancer including colon, esophagus, and kidney. Obesity has also been associated with uterine and postmenopausal breast cancer in women. Participating in physical activity can help speed recovery and decrease the risk of dying from cancer. Side effects caused by cancer or cancer treatments can be reduced by exercising. Regular physical activity can also help reduce the reoccurrence of cancer for those in remission (Can Exercise Help Cure Cancer?). Stroke is the third leading causes of death in the United States. Major risk factors that contribute to having
a stroke are high blood pressure, high cholesterol, and diabetes. Regular exercise can help to lower blood pressure, generate a healthy balance of blood fats and improve the body's ability to handle insulin (How can exercise help if you have had a stroke?). It is clear to see that most of these health conditions are linked together in some way. Having a sedentary lifestyle is either a primary or secondary cause for all of the listed health issues. Physical activity will reduce the risk of developing any of the health conditions that have been mentioned.

**Emotional Health**

(JM) Being physically active has benefits on a person's emotional health as well as physical appearance. Statistics show that people which are physically inactive have an increased risk of colon and breast cancer. A study was done and concluded that there was a 40% decrease in cancer in people who were physically active compared to inactive people. There was another study done to show that for every two hours of television watched the risk of type 2 diabetes increased 14% in patients who already had type 1 diabetes. (Yang) Those that are emotionally healthy are in control of their emotions and behavior and with exercise this becomes easier. Many people take emotional health for granted and think that it does not require effort when this is not necessarily the case. By maintaining an active life emotional and mental health also become more stable. The mind and body are linked because the use of physical exercise not only strengthens the body, but it also releases endorphins which are chemicals that give people energy and enhance peoples mood states. Exercise and activity is an antidote to anxiety, stress, depression and many other related problems. These all decrease when exercise and activity is improved. (Yang)

**Depression**

(JM) Depression is also more prominent in people without daily exercise. Physical exercise is a good way to reduce mood swings and helps depressed people maintain a sense of emotional wellbeing. It is important to be aware that exercise helps the body to release endorphins (chemicals) which interact with the receptors in the brain and help to reduce the perception of pain. These same endorphins also trigger a happy and positive feeling in the body. Regular exercise reduces depression, stress, anxiety, and helps to boost a person self esteem and sleep. The more exercise that occurs the more endorphins are released which ultimately makes people feel good and decreases depression.

**Cognitive Decline**

(JM) Another important aspect of physical activity is that it helps to reduce the risk of cognitive decline. The brain is a thinking organ and it grows through learning and by interacting with the world through perception and action. The brain is continually adapting
and rewiring itself so even with old age it can grow new neurons. Dementia and mental decline are usually caused by disease, whereas most of the age related losses in motor ability and memory result from inactivity and a lack of mental exercise an stimulation. Therefore, there would be less mental decline if there were more exercise and activities done to counteract this. (Sedentary Lifestyle: A Global Public Health Problem)

**Bone and Muscle**

(JM) Lack of physical activity increases the loss of lean muscle tissue which ultimately makes daily living activities much more difficult to perform. Bones and muscle require exercise to maintain their mineral content and strength. Bone loss will progress at a much faster rate in inactive people. Therefore, it is very important to exercise so that loss of normal function will not be compromised. As people age it is natural for osteoporosis to start to occur. This often leads to frailty and fractures. If you do not want to spend life in a nursing home as you age then it is very important not to live a sedentary lifestyle. Losing your independence is one of the most depressing things for a person to have to live through so it remains important to exercise.

**Immune System**

(JM) People who live a life filled with activity have a more efficient immune system, this helps to ward off various disease and illnesses such as the flu and the common cold. Physical activity promotes longevity in life. It was recently found and published in the British Medical Journal that people who have reached middle age in their lives and did not exercise that if they begin to exercise they will raise their level of longevity to those who have been regularly exercising all along. Aging is an unavoidable process to some extent; however, with the help of exercise peoples bodies with withstand the aging process much easier and live much longer. It is unfortunate how readily and willing the aging except and embrace age related health decline. If they realized there was a lot they could to do live longer than a lot more people would be living a lot longer. It is possible t reverse the damage done early on in life and it is possible to raise a person's level of health to already fit.

**Technological Impacts on Sedentary Life**

(JM) With the rising use of television, computers, video games, cell phones and technology a like means that children move around less as opposed to forty years ago when many of these devices did not exist. Children forty years ago had to play outside and be active because they did not have any other choice. Since 1976, the number of overweight children in the United States has tripled, according to the National Center for Health Statistics. Following a sedentary lifestyle is actually more dangerous than smoking is. 20 percent of people deaths 35 and older were attributed to a lack of physical activity. Cancer
increased 45% for men and 28% for women due to a lack of exercise. (Sedentary Lifestyle: A Global Public Health Problem) Technology has made many of our daily tasks more efficient and less time and energy consuming. Telephones and internet have made communication instantaneous. Cars, trains, and planes have made transportation effortless. The one thing technology has not been able to make instantaneous or effortless is the need for exercise. Physical activity requires our effort and time and technology cannot replace that. If anything, technology, for most people, has not supported an increase in physical activity.

Television

(JS) Television seems to be one of the largest barriers to physical activity during allotted leisure time in the daily schedule of an average American. An average person spends nine times more of his or her leisure time minutes watching a television show or movie than on any sort of physical activity. On average people spend only five percent of their energy on physical activity during their free time. (Yang) For Americans fifteen years of age and older on an average day, people spend five hours a day on leisure time activities. Of those five hours they spend 2.7 hours a day watching television. Only nineteen minutes of those five hours are allocated to sports, exercise, and recreation. In addition twenty five minutes of the five leisure hours are spent using the computer for leisure. This data, although slightly skewed because it does not take into account age, sex, employment status, and if the individual has children and if so the children’s’ ages, shows the ratio of minutes that an average person allots to television and computers to physical activity on an average day. (Brustein) It can justly be concluded that an average individual allocates more free time to television, movies, and leisure activities on the computer than for any time of physical activity.

Time Constraints

(JS) Exercise takes time and thus people must allocate time in their day to do it. There are many impediments and perceived obstacles to the addition of physical activity into the average person’s daily routine. Many people have the desire for the addition but become discouraged and eventually stop due to obstacles in their daily lives. Research and large-scale surveys find that most obstacles people feel they need to tackle are lack of time, motivation, and energy. Shortage of time is the standard perceived obstacle in our society to physical activity. (Toscos, Consolvo, and McDonald) The typical example in most people’s minds of an individual who has time constraints and does not have time to exercise is the working parent, most commonly the working mother. On an average work day of an employed person between the ages of twenty five and fifty four who has children under the age of eighteen, 2.6 hours of the day are spent on leisure and sports. This time does not include eating and drinking time. Therefore 2.6 hours of the day, of which on average 7.6 hours of the day are spent sleeping, is free time. (Toscos, Consolvo, and McDonald) Workings parents perceivably and presumably justly so, have the most time constraints and
obstacles. However, on average there are at least two hours a day where free time can be found for a working parent. If these numbers are compared to the numbers mentioned previously when discussing leisure time of an average American fifteen years of age and up, where 54% of the five hours of free time is spent on television and movies, it can be speculated that 28% or forty five minutes of the average day in the life of a working parent is spent watching television or movies. Those forty five minutes does not include any computer leisure time which would likely be a part of those 2.7 hours of free time. Thus it could safely be said that a working parent can find time to add physical activity to their schedule more than once a week if television and leisure computer activities were reduced or eliminated. “According to William H. Deitz, pediatrician and prominent obesity expert at Tufts University School of Medicine, ‘The easiest way to reduce inactivity is to turn off the TV set. Almost anything else uses more energy than watching TV’.” (Herr) It is proven that as an adult if you watch three hours of television a day you are much more likely to have weight problems than those adults who watch less than an hour a day. (Herr)

Internet

(JS) The internet is an upcoming competitor for television in causing perceived time constraints to the addition of physical activity during. The amount of internet use has skyrocketed in recent years, social media being a large component of the increased use. Social media consumes 22.5% of the time Americans spend on the internet and only 7.6% is spent on email. (Waugh) According to Forrester Research Americans spend an equal amount of time on the internet as they do watching television. Over the past five years internet use has increase one hundred and twenty one percent. Forrester Research has also discovered that people less than thirty spend more time on the internet than watching television. And more surprisingly people in the preceding generations are also beginning to spend more time on the internet than watching television. (Brustein) There is an incredibly large increase across all generations insinuates that this trend in internet use will continue to increase in the upcoming years. People under thirty spend twelve hours a week on the internet for leisure activities and people above sixty six spend eight hours on the internet for leisure a week. (Brustein) Although internet use does decrease with age it is still a significant amount time considering that an average American on an average day has only five hours of leisure time a day. Thus between internet and television use the amount of leisure time allotted to physical activity can be predicted to decrease even more in the years to come.

Barriers to Physical Activity

(JS) BeFit is an American magazine that focuses on women, including their health and fitness. The majority of its readers are middle class woman in their late thirties. A study was run using an online message board through this magazine to determine the most common perceived barriers to physical activity. The desire to run this study came from the increasing amount of sedation in people’s lives and how important it is to health to reduce a sedentary lifestyle. “Several investigations have reported that helping people overcome their perceived
barriers has more influence on encouraging people to be physically active than does enhancing perceived benefits of exercise. In fact, knowledge of health benefits is not correlated with activity levels.” (Toscos, Consolvo, and McDonald) An average American has five hours of leisure time a day, but for the people with the most difficult time constraints, working parents, only have 2.7. Thus it is easy to see why most people feel there is not any time in their schedule to squeeze in physical activity. However it is proven that just ten minutes of activity can provide benefits to a person’s health. (Toscos, Consolvo, and McDonald) In this study they “have found that helping people reflect on their recent physical activity can often help them reprioritize what is going on in their lives so that they find time to be active when they otherwise would not have” (Toscos, Consolvo, and McDonald). Due to the time tables discussed before it seems that if people did take a moment to examine their daily routine they would certainly be able to find time to exercise for minimally ten minutes a day if they decreased television and internet use during their free time.

(JS) This study is focused on middle class women however the findings are different than what other studies in the past have found on this topic. Time, lack of motivation and lack of energy seem to be the overarching barriers that are normally found; lack of motivation and energy could be related to lack of time. However time was not the top barrier to physical activity. This suggests that for everyone, men and woman alike in all socioeconomic classes, time constraints are not the only or most difficult obstacle that people feel they must overcome in order to add physical activity to their daily routines. The problem of overcoming a sedentary lifestyle is more than the common notion of time constraints for the general public. Time constraints are certainly still an obstacle but overcoming a sedentary lifestyle requires more than just time.

(JS) The GetFit study determined that lack of time was not the number one reason people do not have physical activity in their daily schedules. They found that the most common barrier was illness and injury. They received complaints on muscle pain, knee pain, general illness etc. (Toscos, Consolvo, and McDonald) This shows that pain due to physical activity is a major deterrent from exercise. Pain is not an incentive and will restrict motivation for physical activity; sedentary alternatives are more appealing when the physical activity causes discomfort. Also after an illness, getting into a schedule with physical activity is unappealing and hard to begin. Time constraints still were a top restriction to physical activity but not the only major one. “Care giving responsibility—including caring for children, elderly parents, or other family members—was also a prevalent barrier in studies that focused on women. Lack of motivation and lack of energy were also frequently ranked as principle barriers” (Toscos, Consolvo, and McDonald).

(JS) Due to this new top barrier to the addition of physical activity, illness and injury, it is important to focus on the proper way to add physical activity to a sedentary life. It is a hurdle to exercise when pain and time constraints are seductive reasons to stop physical activity or to not even begin. “Among adults in the U.S. who begin an exercise program, approximately 50% dropout during the first three to six months” (Toscos, Consolvo, and McDonald). It can be suggested that due to these top barriers, time constraints and illness and injury, most people succumb to the temptation and ease of sedation. To prevent this from happening physical activity must be started and continued properly. It can be considered an additional top barrier to the two previously mentioned from the Befit study to
not exercise properly and not begin exercise with the proper mindset and with realistic expectations. It is important to “set realistic expectations, not just goals”, “encourage a little now, for a lot later”, and “accommodate lapses in routine” (Toscos, Consolvo , and McDonald ). If these rules are not adhered to it is highly plausible that the individual will yield to the barrier of not exercising properly and with the right mind set. It is a constraint to push too hard during physical activity when you first begin. It can lead to injury and soreness and these are discouraging effects for the following days of physical activity. In addition it is extremely important to understand when time constraints affect scheduled physical activity, without this understanding motivation to continue physical activity is lost. “It will not always be possible or even appropriate to encourage people to do at least some form of activity during lapses.. Providing feedback that is not guilt-producing but rather an encouraging reminder of past accomplishments or how minor lapses can have minor impact in the big picture may help people overcome setbacks resulting from illness, injury, stressful life events or periods of low motivation” (Toscos, Consolvo , and McDonald ).

(JM)Constraints to physical activity are numerous and generally more powerful than the knowledge of the importance of physical activity. On average time can be found to exercise for minimally ten minutes a day in most people’s schedules during their leisure time. Illness and injury can be overcome by reasonable exercise plans for the individual. A sedentary life can be overcome if the individual recognizes that television and internet create time constraints and that it is important to work out properly to avoid injury.

Motivation

(JM)Motivation plays a big part in the activity level of people. If you are not motivated to be active and live a healthy life then it is simple: you won't. Therefore one of the biggest challenges is getting people to start and maintain their interest in physical activity. Research shows that exercise can have positive benefits and simply making people aware of the positive benefits will not make them want to exercise more. So in order to motivate people to be active considering the type of exercise that might compete with their interests and responsibilities of their day. Establishing realistic goals for each individual will help them stay focused on accomplishing each task.

The Influence of Motivation, Technology, and Time Management on Amount of Physical Activity

(JS)Motivation is a key component when it comes to exercise and finding a way to live anything but a sedentary lifestyle. Motivation and time management are two of the most important factors in adding physical activity to one’s life. Without the proper motivation and the feeling that you do have time, it seems nearly impossible to stick to a schedule that incorporates physical activity. On average, this study has shown that personal motivation from oneself is the key factor in beginning, maintaining, and increasing the amount of physical activity in one’s life. Reducing the amount of sedation comes from personal desire and a true feeling of having the minutes to dedicate to it.
Self Motivation

(JS) The participants were arbitrarily broken up into two groups. The two groups were not divulged to the participants. One group, the dependent group, was contacted every day and given a reminder to try to incorporate physical activity into their routines. The second group, the independent group, was not. The independent group was only contacted to fill out the pre and post surveys which were done to allow the research group to analyze the results of the experiment.

(JS) It was hypothesized that the more external motivation a person received, in this study the motivation was a daily reminder, the chances of an increase in physical activity would be greater. However, while looking through the results of the pre and post surveys to the question that asked the amount of time per day that the participant partook in physical activity, it was concluded that there was no identifiable pattern in an increase in physical activity between the groups. Some participants increased their amount of physical activity in both the independent and dependant groups throughout the study. The amount of participants in each group that did increase physical activity varied and did not provide any concrete evidence that external motivation from the research group greatly impacted the number of participants in the dependent group that increased the amount of physical activity in their daily lives. For example, some of the many participants that increased their amount of physical activity throughout the study were participants one, two, four, and six. Examples of participants that did not were participants three and five. Of these six participants three were part of the dependent group and three were part of the independent group. Participants one and six were in the dependent group and participants two and four were in independent group. Therefore of those six participants two thirds of the independent group and dependent group increased their amount of physical activity per day. Thus after analyzing the results of all participants there was not any conclusive evidence that motivation from the research team was a prominent factor in increasing physical activity.

(JS) The perceived reasons behind sedation from the participants generally encompassed lack of time, motivation, and energy, and not making physical activity a priority. As examples, participant one blamed sedation on laziness and lethargy, participant two on lack of a priority, participant three on lack of time and energy, and participant six on laziness and a demanding husband. As was predicted by the research group an increase in sedation began around age thirty for most participants. Due to the perceived reasons behind a lack of physical activity in the participants’ lives this age range appears plausible. Around thirty most people have established jobs and have or are starting families.

(JS) For most participants that do or began to incorporate physical activity into their lives, the most popular form of physical activity from the choices given was working out in the gym or other. The options given were work out in a gym, organized sport, group class, and other. The most popular activity specified under other that was given by the initiative of the participant was walking. As a whole this was predicted by the research group because they are the most flexible activities. Organized sports and group classes require a more strictly organized and rigid schedule. Time constraints are a top reason why participants perceived they could not incorporate physical activity into their daily lives. Thus following the schedule of a sports team or class would be not be attractive to a person who feels they do not have time to do physical activities in the first place.
Technology Constraints

(JS)Our research group has postulated that time constraints leading to sedation are largely due to time allotted to television and internet time. It was suggested that for people who feel that they do not have time to exercise could easily create time in the day if they reduced their television and internet use. Based on our conclusions, regardless of group, for those participants that were incorporating physical activity into their daily lives, either internet use or amount of time watching television declined per day throughout the course of the study. For example participant one increased physical activity per day from none to one to two hours in correspondence with a decrease in television time from thirty minutes per day to zero. Participant two increased physical activity per day from none to thirty minutes and decreased television time from thirty minutes to zero per day. Participant four increased physical activity per day from one to two hours to two or more hours throughout the study while decreasing internet use from one to two hours to thirty minutes per day. The majority of participants decreased television time over internet time with a correspondence in increased physical activity. We believe that decreasing the amount of television watched per day is more common than decreasing internet use because the majority of participants use the internet for a combination of work related activities and social networking. Both of these aspects are essential for most people. It can be concluded from this that physical activity will not be prioritized over work and social activities and thus internet use will not be reduced over television when incorporating physical activity into a daily routine.

(JS)Leisure time could be found at least once a week in all participants. Most participants stated a range between thirty minutes to four hours per day and there was a range of about six to forty hours per week. We felt that this did not lead to any specific conclusions on the amount of free time most participants had. We believe the idea of free time should have been more clearly defined in order to ensure that the same activities were considered leisure by all participants. However the data clearly concludes that most people do have time to fit in physical activity if they can find motivation to do it. Thus this proves that most individuals have at least thirty minutes a day to be active and improve their health.

(JS)The majority of participants were active in high school for at least one hour a day. It was thought that people who were more active in high school would be more likely to increase their amount of physical activity throughout the study. However we believe that there was a discrepancy in the way the question was written and how it was perceived by the participant. Our question should have specified to exclude gym class because the one to two hour option may have been chosen by some participants in reference to the mandatory block of time they had to be physical in high school. Thus this question did not lead us to any conclusive evidence that being more active in high school would lead to an increase in physical activity among participants.

(JS) The idea that physical activity makes you feel better and be healthier is a common notion. All participants answered yes when asked if they perceived physical activity as being a positive part of their daily routine. Thus motivation is more crucial in getting an individual to be physically active than knowledge of its importance. The participants that increased the time per day they were physically active throughout the study felt that they would continue to be active on a regular basis after the study. As expected, those who found motivation to be physically active
during the study felt the motivation to continue to be active in the future after the study had finished regardless of whether they were in the dependent or independent group.

**Reasons for not Being Physically Active**

(AS) Many people seem to be more active in their younger years due to less responsibility and more free time. A lot of time, the amount of time spent partaking in physical activity remains the same throughout high school up until the individual is in their late twenties. In other cases, the amount of time has declined due to varying issues in a person’s life. Most peoples’ reasoning for not exercise at all or only participating in a small amount of physical activity is work. A majority of people work at least five days a week for an estimated eight hours a day. This does not include time to get up and get ready or travel time. These factors alone can add about two or more hours to an individual’s daily schedule. Many people also have families to attend to before and after work. This is especially true for those people that have young children. These may have to go through the trouble of trying to find a babysitter just to be able to go and do a fitness classes if they wanted too. Also, those who work all day may be exhausted by the time they arrive at home and just might not have the energy to partake in physical activity. Although it should not be assumed that those who do not participate in physical activity do not want to be participating in physical activity. Sometimes people have the thought of wanting to be physical active but either feel as though they don’t have the time or just don’t have the proper amount of motivation to go out and be active. Some people feel as though if they had an external person to remind them to be active they would be more inclined to do so. A persons’ gender can also influence the amount of physical activity they take part in. For example, women usually like to participate in fitness classes and if there is not a class available at a convenient time for the individual they will probably not attend the class, and may not choose an alternate activity to make up for it.

(AS) Instead of participating in physical activity many people spend their free time on the computer, or internet. There are a few different reasons for people to be on the internet or a computer. People are usually surfing the web, using social networking sites, playing video games, or even for work purposes. There are a number of people who are on the computer for hours a day just because of work. Watching television is also something a high percentage of people do to pass the time. This is not always done for entertainment purposes, although that is the majority of it, but people also watch the news on the television. Making people aware of the amount of hours that they spend on doing things such as watching television and being on the computer may help to show them that they could possibly reduce these hours and be able to actually fit physical activity into their daily routine. Some people think they do not have the time to exercise but when they actually break down the hours of their day they can rearrange their schedule a bit to add in physical activity. This is extremely important for those who already have preexisting health conditions. Lack of exercise can contribute to worsening preexisting health conditions although some people do not believe that is true. The length of the study was too short for people to conclude whether they felt healthier after partaking in the study. The length of time was not longer enough for actual changes in someone’s health to occur.
Technological Decline, Exercise Incline

(AS) Once physical activity is added into a person’s life the amount of hours used for technology use for leisure declines. Within the few weeks of our study technology use slightly declined or stayed about the same. If the study was longer there would probably be a bigger change in the reduction of hours spent with technology. It could not be concluded which type of technological use had declined over the study period. A number of people chose to participate in walking as an exercise. Others went to the gym, attended fitness classes, or just did a routine at home. Before the study people felt as though they wanted to participate in physical activity but either they did not have the time, the motivation, or the proper resources. Those that just needed motivation were placed into a particular group and called to remind them to exercise. After the study these same people in the particular motivation group seemed to increase in their number of hours that they were being physically active. Both the motivated group and the non-motivated increased in physical activity. If the study was longer our hypothesis of the motivated group having more of an increase in physical activity may have been proven.

Immune System Improvement

(JM) This study was conducted with the intentions of finding results similar to the idea that motivation would increase activity in people who live sedentary lives. What was found was that in both the independent and dependent groups, subjects 13 through 26 both increased their activity levels in similar ways regardless of if they were reminded everyday to exercise or participate in physical activity. Out of all of these subject only subject 13 and subject 16 had pre-existing health conditions and both of these health conditions were not able to be treated or cured with the use of exercise. However, it was found that the subjects who did exercise deemed to become sick less often then prior to exercising. It is proven that the immune system becomes stronger when the body exercises, however the results we found did not support or hinder this fact. The subjects that participated in the study did not become sick more or less often than they did prior to participating in this study. Motivation for someone who gets sick often should come from within themselves if they want to boost their immune system. Outside motivation could help a little but overall it mainly has to be self motivation that will encourage a person to exercise and boost their own immune system. It was also difficult for participants with pre-existing health conditions to maintain their physical exercise, whether it be because of lack of will power, because of exhaustion, or do to other issues related to the different health conditions is unknown. If these participants did remain physically active they had the potential to reduce the effects of their health conditions.

Physical Appearance
Most of the subjects in each group were displeased with their physical appearance however from the beginning of the study to the end there was no increase in physical activity regardless of having motivated the participants or not, therefore what we can conclude from this data is that if people have self motivation to exercise and promote a healthy lifestyle they will do it because of their internal wants. No amount of motivation can cause any lengthy period or continuous amount of exercise according to our results from this study. The subjects that exercised daily regardless of what group they were in were happy with their physical appearance so we can conclude this is because of their self motivation to exercise. This may be caused by the fact that the study was not conducted for a lengthy enough time period. The subjects that were happy with their appearance in both the independent and dependent groups were not motivated more or less by receiving exterior motivational input. We expected to see results such that subjects that were not pleased with their physical appearance in the independent (call group) would increase their activity level; however, this is not what the study showed. There was no significant amount of change between either group. This leads us to make the conclusion that external motivation had no effect on either group and internal motivation leads each participant to make their own choices on changing their appearance by increasing their activity levels.

Cognitive Decline

Cognitive decline increases with age and it is deterred by exercise; however, our study was not conducted long enough for any exaggerated results to be proven. It was found that the subjects in both groups that did continue to exercise felt better about themselves and were more awake. Cognitive ability is connected to being able to learn easier, quicker, and retain more information than without physical activity. Therefore the more someone exercises the more they will retain and the easier it will be for them to retain and remember later on. It is a proven fact that exercise increases metabolism as well as energy. That is what these participants were most likely experiencing. This alone should be enough for participants to want to continue however, it did not make participants want to continue to exercise. The only participants that continued to exercise regardless of if they were in the independent or dependent group were the participants that had a desire and self motivation to continue to exercise.

Mood State

All of the participants that did increase their exercise noticed that they had an increased happy (good) mood state and decrease in mood state with a lack of exercise. This study was not conducted long enough for there to be a change in physical appearance. However, if our study was conducted longer we could hypothesize and find that the participants that were self motivated would have changed their physical appearance by a decrease in body fat. That amount of change is affected by many more variables other than solely an increase in exercise and decrease in sedentary lifestyle. Eating habits, amount of exercise, duration of exercise, and personal health issues all play a role in physical appearance. Many of the participants wanted to
solely decrease their sedentary lifestyle by adding walking and gardening to their routines and this is beneficial to them; however, these are not strenuous activities and a lot of time must be spent doing them in order to change physical appearance.

**Conclusion**

JM The overall results of the entire study were that no matter which group the participants got put in, independent or dependent, each participant must be self motivated in order to actually stick to and maintain a life filled with exercise and physical activity. No matter if the subjects are happy or unhappy with their appearance, whether they have time or not, or any of the other factors previously discussed it solely comes down to self motivation and the desire to live a life that is not sedentary for people to change the way they live. As we expected the use of technology declines in order to increase physical activity.
References


   <http://www.netdoctor.co.uk/heartdisease/exercise.htm>.


   <http://www.obesityinamerica.org/understandingObesity/index.cfm.com/info/diabetes/>


Appendix I:

Pre-Survey

Pre-activity Survey
1. On average, how much time per day do you participate in physical activity?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None
2. If you chose D:
   a) why do you not exercise? __________________________________________
   b) at what age did you stop exercising? ____________________________

3. What kind of activities do you participate in?
   A. Work out in a Gym
   B. Organized sport (e.g. soccer)
   C. Group Class (e.g. Zumba)
   D. Other. (gardening, walking etc.)
4. How much time do you spend on the internet per day?
   A. 0 hours
   B. 30 min
   C. 1-2 hours
   D. 2-4 hours
   E. 4 or more hours
5. How much time do you spend watching TV per day?
   A. 0 hours
   B. 30 min
   C. 1-2 hours
   D. 2-4 hours
   E. 4 or more hours
6. How many hours per day were you active in High School?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None
7. How many hours per day were you active in College or in your late teens/early twenty’s?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None
8. What do you think changed in your life that made you less active than you were in previous years?

9. Do you want to add physical activity to your life? If not why? If so what, what type of activity do you plan on adding to your life?
10. Do you think if you had someone to remind you to exercise daily you would be more apt to participate in physical activity?
   A. Yes
   B. No, Why?

11. What is your gender?
   A. Male
   B. Female

12. What type of activities are you looking to participate in?

13. Are you happy with your physical appearance?
   A. Yes
   B. No

14. Do you feel like you learn things more or less quickly as you did when you were younger?
   A. More
   B. Less
   C. Same

15. On average, what state of mind or mood are you normally in and do you feel as though it fluctuates often?

16. How often do you get sick (ranging from the common cold or anything greater)?
   A. Weekly
   B. Monthly
   C. Yearly?
   Other:

17. How much time do you spend doing leisure activities per day? Per week?
   Per day:
   Per week:
Appendix II:

Post Survey

1. How many days in the last week did you participate in physical activity?

2. In the week, how many hours per day, on average, did you participate in physical activity?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None

3. Do you perceive physical activity as being a positive part of your daily routine?
   A. Yes
   B. No

4. Do you think you need external motivation in order to continue to exercise weekly??
   A. Yes
   B. No

5. In the last week, how much time did you spend on the internet per day since you acted on your desire to become physically active?
   A. 0 hours
   B. 30 min
   C. 1-2 hours
   D. 2-4 hours
   E. 4 or more hours

6. Are your computer/internet activities related to work, social networking, video gaming, surfing?

7. In the last week, how much time did you spend watching TV per day?

8. Do you feel better about yourself / healthier since you participated in this study??
   A. Yes
   B. No

9. If you have a preexisting health issue, do you think that you acting upon your desire to be more physically active has lessened the effects of your condition?
   A. Yes
   B. No
   Comments:

10. Do you believe that your lack of exercise has influenced preexisting health issues, such as diabetes, obesity, heart disease, osteoporosis, etc.
    A. No, I do not have any preexisting health issues.
    B. Yes I do believe that my lack of exercise has caused preexisting health issues.
    C. Yes, I have a preexisting health issue but do not believe it is caused by lack of exercise.
11. Now that you are more cognoscente of the time you spend doing other activities such as watching TV/internet surfing etc. do you feel that having that awareness had motivated you to limit those activities and increase physical fitness?
   A. Yes
   B. No
12. What types of activities participate in?
13. Are you happy with you physical appearance?
   A. Yes
   B. No
14. Do you feel like you learn things more or less quickly as you did when you were younger?
   A. More
   B. Less
   C. Same
15. On average, what state of mind or mood are you normally in and do you feel as though it fluctuates often?
16. How often do you get sick(ranging from the common cold or anything greater)?
   A. weekly
   B. monthly
   C. yearly?
   Other:
17. How much time do you spend doing leisure activities per day? Per week?
   Per day:
   Per week:
Appendix III:

Submitted to the Rutgers University Human Subjects Institutional Review Board

I. Title: Getting Motivated To Exercise (group 5 Sp12am)

Student Principle Investigators: Jackie Mason, Justine Schepis, Andrea Simone

II. Objectives: (stated as hypothesis)

If participants that have expressed the desire to increase physical activity in their daily lives are reminded (phone call) to exercise each day (independent variable), then they will exercise more than people that were not reminded (by a daily phone call) (dependant variable).

III. Background and Rationale:

Although most individuals are aware of the benefits of exercise, many chose to maintain their sedentary lifestyle. Our study will examine the motivational factors on the individual’s choice of exercise regime. We will not ask participants to do any specific exercise; that will be their choice; likely to be an activity that they are already doing on a limited basis or have done in the past. We are concentrating solely on the motivation to exercise compared to individuals not provided with certain motivational factors. We expect that those that receive reminders to exercise (motivational factor) will exercise more than individuals not reminded to exercise. The following two sites are studies done on what motivates people to exercise (http://www.unm.edu/~lkravitz/Article%20folder/ExerciseMot.pdf, http://her.oxfordjournals.org/content/15/6/695.full).

IV. Procedures:

A. Research Design

The research to be done is experimental. We are placing the subjects into two different groups without their knowledge. There will be a control group that is chosen randomly. The members of this group will work independently and will not be reminded or motivated to be physically active (independent variable), they will be responsible for that on their own. All participants will be asked to complete a pre-test and a post-test survey. We will then determine whether the level of motivation (phone call reminders) affects their time spent exercising during the last week of the study. This will be the group we call daily as the source of motivation (dependent group).

B. Sample

We expect to enroll approximately 10-20 people within each group. Each of the 3 members of our research group will recruit family members, friends, and/or acquaintances. Subjects will be placed into the two different groups randomly depending on when they submit their pre test survey. The first subject to return the survey will be placed intro group one, the second subject into group two, the third subject intro group one, then starting again with group two and continuing until everyone is placed into a group. Subjects will range in age of over 18-75. No subjects will be under 18 years of age. This broad range will enable us to get a sense of around what age physical activity seems to decline.
C. Measurement/Instrumentation
Data that will be collected and measured are the before and after surveys that the subjects will submit. We will compare the before and after surveys to see if a subject’s outlook and participation in physical activity has changed, and if so, how they feel about the change. We will also examine the surveys to determine if the subjects tried to semi-rearrange their lives to incorporate physical activity and lessen the amount of time using technological devices.

The subjects will not receive any direct benefit for participating in this research. However, it is expected that the research will provide scientists with a better understanding on the motivational factors of getting people to be more active. This study consists of only a survey—there are no risks involved. This research is completely anonymous. No information will be recorded that could identify the subject. The subjects will receive no monetary compensation for participating in this study.

D. Study site /Location of Procedures:
The surveys will be submitted by the participants online through e-mails. Everything will be kept confidential. Prior to the study, each participant will have to agree and sign a consent form that they will volunteer to participate in the study. The actual exercise places that each participant will exercise at will be wherever they are used to/comfortable exercising. ex. taking a walk around house, local gym etc.

E. Detailed study procedures:
The entire study will last 3 weeks total. In the first week, subjects will be asked to complete the pre-test survey. This data will be submitted online and following their initial submission, they will each be assigned a number and placed in a group. The first person to submit will be in the independent group and assigned as subject #1, the second in the dependent group and assigned as subject #2, third the in independent group and so on. After the first week, the second week of the study will be when we either call subjects to motivate them to exercise or when we don’t. We will then have them all fill out the end survey. After all the data is collected and analyzed, we will submit the surveys to Professor Fagan who will have the surveys destroyed.

Any form of physical activity that the participant partakes in must be of his or her own free will. There are no rules on the type of physical activity; the participant decides on the duration and type of activity. Lastly the participant must have access to a computer and an email account, as well as a telephone. The surveys will be distributed via email. The participant will only put his or her first name and last initial on the documents.

F. Consent Procedures
Participants will be read/asked to read this consent form, provided answers to any questions they may have about the study and offered the informational sheet below. The student researcher will say:

“This research study is being conducted as part of a class project at Rutgers University which has been approved by the Human Subjects Institutional Review Board under protocol # E12-342. The study involves only a survey to be filled out that is both anonymous and confidential. Your participation in this study is strictly voluntary. The student researcher has been approved by the Rutgers Institutional Review Board to conduct the research. The consent will be read, and your questions answered. By giving verbal consent, you will be agreeing to participate in the study and that you are over the age of 18.
Many adults wish to be more physically active but typically end up maintaining their sedentary lifestyle. We hope to examine this disconnect between wanting to exercise and not actually making the changes to do so.

If you are an individual that would like to incorporate physical activity into your daily life, have been hoping to do so, and know of a physical activity that you would like to add to your routine, we hope that you will join this study. Over a period of 3 weeks, we will request that you take four surveys and that you remain cognizant throughout the study of how much time you spend using technology such as television and the internet and how much time on your desired physical activity. There will be a pre-survey before you begin the study and a post-survey after each week of the study. There are no rules as to the type or duration of the physical activity that you chose to do. The investigation team will not play a role in your choice of physical activity. Each participant will be asked to fill out a brief survey before and 3 post surveys.

Each participant must have access to a computer and an email account and must feel comfortable communicating in English. Please only include your first name and first initial of your last name on the surveys which will be emailed to you. After you have finished the survey we ask that you e-mail it back as soon as possible. At the end of each week we will be sending out a post study. Periodically, we may remind you by phone or email about the study.

All surveys will be given to Dr. Fagan and destroyed after the data has been collected and analyzed. Within the duration of the study all documents will be kept confidential and only viewed by our research team.

We hope that you will participate in this study.”

G. Internal Validity
To avoid threats to internal validity, participants have signed a form of consent acknowledging that the objective of this study is to obtain facts and that they will be truthful when filling out all documents.
To avoid threats to external validity, we have prevented the investigation team from forming any feelings of bias. The two groups of participants will be formed based on the order in which they consent to participate. The groups will be formed randomly and not in the control of any of the members of this team. In addition, all forms will only have the first name and last initial of the participant and then will be given numbers once the forms are being analyzed. This will prevent any biasness that could arise in the members of this team during the analysis of the study once it is complete. For external validity we are only incorporating participants that have exhibited the desire to incorporate physical activity to their lives prior to exposure to the study.

H. Data Analysis
Our aim is to obtain quantitative and qualitative data by analyzing and comparing the before and after surveys to determine the causes of a sedentary life and if and how it can be overcome. The documents will be numbered and used as the source of all our conclusions.

Quantitative data we hope to obtain are answers to the following questions:
1. How much time a day and per week are spent on leisure?
2. How many hours a day and per week are spent using technology during leisure time?
3. What types of technologies are used during leisure time?
4. How many hours of physical activity are performed after the first week of the study? The second?
5. Which groups had the most numerous hours of physical activities after the first week?
6. How many minutes or hours did technology use for leisure decline after physical activity was added to the participant’s schedule?
7. Which technology had the least decline in use once physical activity was added to the participant’s schedule?

Qualitative data we hope to obtain are answers to the following questions:

1. What physical activities did participants choose to take part in?
2. What physical activities did participants do if they maintained the activity throughout the course of the study?
3. How did the participants feel before and after the study?
4. Did group 1 or group 2 exercise more at the end of the study? Why??
5. Did participants with pre-existing health conditions maintain physical activity?
6. Did participants with pre-existing health conditions that maintained physical activity throughout the course of the study feel that it helped the effects of their condition?
7. Was there a positive change in physical appearance? Mood state?
8. Was there a noticeable difference in their ability to learn information?
9. Was there a change in the frequency of illness?

V. Bibliography:


"Health Risks of a Sedentary Lifestyle (Official City of Las Vegas Web Site)." (Official City of
"How can exercise help if you have had a stroke? | EIDOactive." Make a difference to your  
Manson, JoAnn, Patrick Skerrett, Philip Greenland, and Theodore VanItallie. "The  
Escalating Pandemics of Obesity and Sedentary Lifestyle." Archives of Internal  
Health Organization. 2 Sep. 2007.  
"The History of Fitness" Lance C. Dalleck, M.S. and Len Kravitz, Ph.D. Exercise Science at  
UMN  
Toscos, Tammy, Sunny Consolvo , and David W. McDonald. "Barriers to Physical  
page. Print.  
Waugh, Rob. "My favourite waste of time: Americans now spend 53million minutes month  
<http://www.dailymail.co.uk/sciencetech/article-2036996/My-favourite- 
waste-time-Americans-spend-53million-minutes-month-Facebook--equivalent-100-000-years.html>.  
Yang, Sarah. "Americans spend more energy and time watching TV than on exercise,  
Informational Sheet

Title: Getting Motivated To Exercise

Julie Fagan, Ph.D with students Justine Schepis, Jackie Mason, and Andrea Simone

INTRODUCTION

You are invited to voluntarily participate in a research study that will examine why individuals that are aware of the benefits of exercise, chose to maintain their sedentary lifestyle.

INFORMATION: You must be an adult, over the age of 18 to participate in this study. Your participation in this study will involve the following:

You will be asked to complete several brief surveys (4) that should take approximately 5-15 minutes each to complete. The survey may consist of both multiple-choice, fill in the blank and open-ended questions. If at any point while filling out the survey, you are uncomfortable answering any of the questions, you are free to withdraw from the study.

BENEFITS: You will not receive any direct benefit for participating in this research. However, it is expected that the research will provide individuals with a better understanding on the motivational factors of getting people to be more active.

RISKS: This study consists of only a survey to be filled out—there are no risks involved.

CONFIDENTIALITY: This research is completely anonymous. No information will be recorded that could identify you.

COMPENSATION: You will receive no monetary compensation for participating in this study.

RESEARCH QUESTIONS: If you have any questions regarding the study, you may contact Dr. Julie Fagan at 848-932-8354 or email her at Fagan@rci.rutgers.edu

SUBJECT RIGHTS: If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at: Rutgers University Institutional Review Board for the Protection of Human Subjects Office of Research and Sponsored Programs 3 Rutgers Plaza New Brunswick, NJ 08901-8559 Tel: 848 932 4058 Email: humansubjects@orsp.rutgers.edu
Surveys:

Pre-activity Survey

1. On average, how much time per day do you participate in physical activity?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None

2. If you chose D:
   a) why do you not exercise? _______________________________________
   b) at what age did you stop exercising? ____________________________

3. What kind of activities do you participate in?
   A. Work out in a Gym
   B. Organized sport (e.g. soccer)
   C. Group Class (e.g. Zumba)
   D. Other. (gardening, walking etc.)

4. How much time do you spend on the internet per day?
   A. 0 hours
   B. 30 min
   C. 1-2 hours
   D. 2-4 hours
   E. 4 or more hours

5. How much time do you spend watching TV per day?
   A. 0 hours
   B. 30 min
   C. 1-2 hours
   D. 2-4 hours
   E. 4 or more hours

6. How many hours per day were you active in High School?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None

7. How many hours per day were you active in College or in your late teens/early twenty’s?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None

8. What do you think changed in your life that made you less active than you were in previous years?
9. Do you want to add physical activity to your life? If not why? If so what, what type of activity do you plan on adding to your life?

10. Do you think if you had someone to remind you to exercise daily you would be more apt to participate in physical activity?
   A. Yes
   B. No, Why?

11. What is your gender?
   A. Male
   B. Female

12. What type of activities are you looking to participate in?

13. Are you happy with your physical appearance?
   A. Yes
   B. No

14. Do you feel like you learn things more or less quickly as you did when you were younger?
   A. More
   B. Less
   C. Same

15. On average, what state of mind or mood are you normally in and do you feel as though it fluctuates often?

16. How often do you get sick (ranging from the common cold or anything greater)?
   A. weekly
   B. monthly
   C. yearly?
   Other:

17. How much time do you spend doing leisure activities per day? Per week?
   Per day:
   Per week:

Post study Survey

1. How many days in the last week did you participate in physical activity?

2. In the week, how many hours per day, on average, did you participate in physical activity?
   A. 2 hours or more
   B. 1 - 2 hours
   C. 30 min
   D. None

3. Do you perceive physical activity as being a positive part of your daily routine?
4. Do you think you need external motivation in order to continue to exercise weekly?
   A. Yes
   B. No

5. In the last week, how much time did you spend on the internet per day since you acted on your desire to become physically active?
   A. 0 hours
   B. 30 min
   C. 1-2 hours
   D. 2-4 hours
   E. 4 or more hours

6. Are your computer/internet activities related to work, social networking, video gaming, surfing?

7. In the last week, how much time did you spend watching TV per day?

8. Do you feel better about yourself / healthier since you participated in this study?
   A. Yes
   B. No

9. If you have a preexisting health issue, do you think that you acting upon your desire to be more physically active has lessened the effects of your condition?
   A. Yes
   B. No
   Comments:

10. Do you believe that your lack of exercise has influenced preexisting health issues, such as diabetes, obesity, heart disease, osteoporosis, etc.
    A. No, I do not have any preexisting health issues.
    B. Yes I do believe that my lack of exercise has caused preexisting health issues.
    C. Yes, I have a preexisting health issue but do not believe it is caused by lack of exercise.

11. Now that you are more cognoscente of the time you spend doing other activities such as watching TV/internet surfing etc. do you feel that having that awareness had motivated you to limit those activities and increase physical fitness?
    C. Yes
    D. No

12. What types of activities participate in?

13. Are you happy with your physical appearance?
    A. Yes
    B. No

14. Do you feel like you learn things more or less quickly as you did when you were younger?
    A. More
    B. Less
15. On average, what state of mind or mood are you normally in and do you feel as though it fluctuates often?

16. How often do you get sick (ranging from the common cold or anything greater)?
   A. weekly
   B. monthly
   C. yearly?
   Other:

17. How much time do you spend doing leisure activities per day? Per week?
   Per day: 
   Per week:
Letters to the Editors

Jackie Mason  Submitted to New Jersey Herald Published 13 March 2012

Sedentary Lifestyle has become Epidemic

The way people have become sedentary in living their lives has me concerned. Sedentary lives inhibit people from exercising, which overall causes health problems such as obesity, diabetes, and the like. There have been many studies done to show that exercise is a very important aspect of daily life; however, most do not make it a routine or daily occurrence. The obesity epidemic is on a rise yet people are not taking it seriously.

The biggest health problem of the 21st century is the inactivity of people. Motivation to exercise needs to occur in many forms so that this trend will be put to a halt. I want to praise the people who do exercise and encourage them to motivate their peers and mentors to begin a physically active lifestyle for their own well-being.

We cannot afford to wait for this sedentary lifestyle to increase. Action needs to be taken now before it is too late.

Jackie Mason
Newton

Andrea Simone Submitted to The Daily Journal

People need to become more aware of the risks that are involved with living a sedentary life. Mostly everyone is conscious of the fact that exercise is good for the body, but a majority of these people still choose to not be physically active. People usually only associate not being physically active with obesity, but do they know the other types of health conditions that can result from living a sedentary life? Some other health conditions include diabetes, high blood pressure which can cause heart disease, stroke, and cancer.

Also, those that already have these conditions at times believe that they cannot exercise due to the condition, and that exercise would only worsen the condition. In fact, this is not true. Exercise can only help lower the severity of the condition. In this case, there should be a consult with a physician so they can give the proper guidelines for an exercise program for each individual health condition. In general, everyone should participate in both cardiovascular (aerobic), and strength training exercises

Andrea Simone

Justine Schepis. Submitted to Suburban Trends. Received confirmation that letter will be published in the near future.

The increasing up rise in sedentary life styles is alarming and I believe it is imperative that our area continually be reminded how important it is to try and change sedentary habits into more
active ones. Television seems to be one of the largest barriers to physical activity during allotted leisure time in the daily schedule of an average American. An average person spends nine times more of his or her leisure time minutes watching a television show or movie than on any sort of physical activity.\textsuperscript{2} This statistic is distressing.

For Americans fifteen years of age and older on an average day, five hours a day are spent on leisure time activities. Of those five hours 2.7 hours a day are spent watching television. This data, although slightly skewed because it does not take into account age, sex, employment status, or if the individual has children, shows that television dominates our leisure time and physical activity does not.\textsuperscript{1}

My biggest concern is for the working parent, who in most people’s minds has the most difficult time constraints and does not have time to exercise. On an average work day of an employed person between the ages of twenty five and fifty four who has children under the age of eighteen, 2.6 hours of the day are spent on leisure and sports. This time does not include eating and drinking, it is simply “down time”. Therefore 2.6 hours of the day, of which on average 7.6 hours of the day are spent sleeping, is free time.\textsuperscript{1} If these numbers are compared to the numbers mentioned previously when discussing leisure time of an average American fifteen years of age and up, where 54\% of the five hours of free time is spent on television and movies, it can be speculated that 28\% or forty five minutes of the average day in the life of a working parent is spent watching television or movies. Those forty five minutes does not include any computer leisure time which would likely be a part of those 2.7 hours of free time. Working parents perceiveably and presumably justly have the most time constraints and obstacles. However, on average there is minimally at least half hour each day where free time can be found for a working parent to use for physical activity.

I do not think educating people on the benefits of exercise is the push we need to encourage people to dedicate themselves to adding physical activity to their daily lives. It has been done. People are aware of how important it is and what the benefits are. The approach that needs to be taken is to prove to people that they do have time. I have taken the approach that the best encouragement is to allow people to discover for themselves that they do have time.

I would like to see the newspaper challenge its readers to keep an hourly log of their activities for one week. Then analyze how many of those hours are spent on leisure activities. And lastly see how many of those leisure hours are spent watching television, movies, or on the internet just for fun and not for work. I am confident that people will be surprised to see how much time they could have to exercise if they chose to cut out some television and internet use. I believe that even a working parent can find time more than once a week to do a physical activity; even if it simply means walking on the treadmill for a half hour in front of the television or cutting half hour of television to take a walk around the track. It would be a service to all to encourage our community to analyze how we allot our time and see how we individually can improve our time management to incorporate physical activity and help us to lead a less sedentary life.

Justine Schepis
Kinnelon