

Designing Theory-based Curriculum to Positively Affect Psychosocial Variables for Weight

Loss in College Students

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Author Note

Thanks to Lindsey Alyea, Reyhan Hoq, Kaitlyn Kemmner, Cherie Renaud and Ashley Wright for assistance with literature search and review and project administration. Correspondence concerning this paper should be addressed to Janet Buckworth, Health & Exercise Science, The Ohio State University, A44 PAES Building, 305 West 17th Avenue, Columbus, OH 43210-1224. Email: jbuckworth@ehe.osu.edu, Phone: (614) 292-0757, FAX: (614) 688-3432.

Abstract

The percent of overweight/obese college students increased from 20.5% to 33.5% between 1995 and 2010. This growing segment of our college population is both understudied and underserved. The purpose of this multi-phase study was to investigate the feasibility of an academic class to promote exercise and weight loss by targeting theory-based psychosocial variables. One section of a Conditioning Principles academic class was re-designed to positively change psychosocial variables related to exercise, while maintaining required class content. The teaching strategies were based on assumptions from Self-Determination Theory (SDT) and focused on increasing intrinsic motivation and improving self-efficacy for exercise. Students self-selected into the intervention section or one of two standard sections. Comparison classes were used to evaluate the effects of the intervention on proposed mediators of exercise behavior beyond changes achieved through the existing curriculum. Students completed questionnaires to assess motivational regulations, self-efficacies, eating behaviors, social support for exercise, body image, and physical activity during the first and last weeks of a 10-week academic term. Height and weight were also used to examine possible moderating effects of BMI. This paper presents the study design, procedures, and a detailed intervention plan, including teaching strategies and associated target variables. If results indicate the revised class positively influenced exercise mediators, supplementing standard curriculum with SDT strategies could improve college student health and fitness. Further, insight into the moderating effect of BMI status on the mediating variables would enable tailoring of academic classes to the needs of overweight/obese students.

Keywords: Exercise, SDT, Physical Activity

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Obesity is associated with development of diabetes and other chronic diseases, and exercise has been shown to support healthy weight management. In 1995, data from the National College Health Risk Behavior Survey indicated that 20.5% of college students in America were overweight/obese (O/Ob) ($\text{BMI} > 25 \text{ kg/m}^2$) (CDC, 1997). By 2010, this proportion had increased to 33.5% with 11.6% considered obese ($\text{BMI} > 30 \text{ kg/m}^2$) (ACHA, 2010). This growing segment of our college population is both understudied and underserved (CDC, 2005, & Ferrara, 2009).

An initial review of the literature was performed to determine the breadth of research conducted on exercise within the overweight/obese (O/Ob) college student population; two key reviews were identified. In 2005, the CDC published a review of primary diet or physical activity interventions conducted between 1966 and 2001 in school or work settings. Based upon inclusion criteria and methodological requirements, no qualified studies were conducted in the college setting. A similar review was conducted by Kahn, et al. (2002) in conjunction with the CDC to evaluate the effectiveness of approaches to increasing physical activity. They found only two studies conducted between 1980 and 2000 in the college setting (Kahn, et al., 2002).

Data for The Ohio State University (ACHA OSU, 2009) indicate that 33% of students are O/Ob and 1 in 10 is obese. The prevalence of O/Ob at OSU mirrors national statistics, and there is no indication that this trend is reversing. Therefore, it is important to provide this population with weight management services given the evidence for long-term health problems associated with obesity (NIH, NHLBI & NAASO, 2000). We conducted a review of current resources

available to the OSU O/Ob student population. We found inadequate options to meet the needs of students who want to manage their weight. One weight management group offered through the Student Health Services in conjunction with Counseling and Consultation Services began in Autumn 2010, although it is not designed to serve more than 10-12 students per quarter. The only comprehensive weight management program is offered through the OSU Center for Wellness and Prevention and its \$500-600 fee is cost prohibitive to most students.

Further review of the literature focused on interventions, surveys, or prospective studies conducted since 2002 with O/Ob college or university students that reported physical activity or exercise behavior as outcomes. Only six studies met the criteria; two were surveys. The remaining four had limitations, such as few participants, (e.g., the average was 36 subjects) short durations, and methodological weaknesses. While the college population is inherently difficult to study because students have transient schedules, conflicting priorities, and inconsistent availability, renewed efforts should be made to design research suited to this population. Lasting health behavior patterns established during college and young adulthood create future habits that are difficult to amend (Nelson, Story, Larson, Neumark-Sztainer & Lytle, 2008). While increasing exercise among O/Ob college students may not result in weight loss, compelling evidence suggests that those students engaging in greater levels of exercise are more fit and healthier, according to their blood profiles (Sacheck, Kuder & Economos, 2010).

The purpose of this multi-phase study was to investigate the feasibility of an academic class to promote exercise and weight loss in college students and to examine possible moderating effects of BMI. This paper presents the study design, procedures, and a detailed intervention plan, including a description of theory-based teaching strategies and associated target variables. We hypothesized that supplementing standard curriculum with SDT strategies could improve

college students' health related attitudes, beliefs, and behaviors, especially for those students who are overweight or obese.

Theoretical Rationale

Recent exercise and obesity research has focused on the impact of psychosocial variables that may mediate behavior related to physical activity, eating habits, and weight loss (Silva, et al., 2010). These psychosocial variables include motivation, self-efficacy, social support, body image, and eating control (Teixiera, et al., 2006). Positive changes in these mediators may result in increased exercise, weight loss, and self-confidence.

Self-Determination Theory (SDT) is a metatheory comprised of four mini-theories that share a common thread. It posits that the degree to which three basic human needs (competence, autonomy and relatedness) are met determines an individual's intrinsic motivation to not only participate in activities or life events, but contributes to an individual's overall sense of well-being (Deci & Ryan, 1985 & 2002). SDT's mini-theories address different factors key to an individual's ability to meet basic needs:

- Cognitive evaluation theory discusses the impact of the social environment on an individual's motivation to engage in activities on an intrinsic level.
- Organismic integration theory focuses on the effect of extrinsic motivation and how it is internalized by an individual.
- Causality orientations theory addresses the nature of variation in individuals' dispositions toward autonomous behavior and how they adapt in differing environments.

- Basic needs theory is common to the other three mini-theories and elaborates on how psychological need for autonomy, competence and relatedness drives individual behavior and affects motivation to engage in activities of daily living.

Basic needs theory is helpful in identifying attributes of situations and environments that enhance people's ability to meet their psychological needs and hence increase their motivation, improve performance and better their sense of well-being (Deci & Ryan, 2002). According to Deci & Ryan, motivation exists on a continuum from a complete lack of motivation to engage in a particular behavior, termed amotivation, to an innate desire to engage in the behavior, termed intrinsic motivation. Different types of motivational regulation are between these two ends of the spectrum: external regulation (avoid punishment, or gain rewards), introjected regulation (avoid guilt or disapproval), identified regulation (behavior has value), and integrated regulation (meets personal needs) (Silva, et al., 2008).

SDT also maintains that in the context of a particular behavior, an individual's position on the motivation continuum is key to predicting continuing engagement in the behavior. Integrated regulation and intrinsic motivation are associated with high levels of engagement and repeated behavior, whereas extrinsic motivation is not (Deci & Ryan, 2002). A great deal of research has been conducted over the past 10 years exploring the application of SDT to exercise promotion, as well as weight loss (Wilson, Mack & Grattan, 2008). While there is no empirical evidence supporting intrinsic motivation for exercise as a panacea for increasing exercise adherence, Wilson, Mack and Grattan (2008) concluded that the motivational constructs put forth in SDT appear to be largely supported by a variety of studies. In a recent one-year intervention study with two-year follow-up, autonomous motivation for exercise predicted three-year weight loss in adult women (Silva, et al., 2011).

While exercise has risen to the forefront of behavioral choices supporting a healthy lifestyle and disease risk reduction (CDC, 2009), there is no consensus on how to increase exercise adherence over the long-term. Most individuals who begin an exercise program quit within six months (Buckworth & Dishman, 2002). SDT provides a promising framework for addressing the key psychosocial variable that may influence consistent exercise behavior: motivation. The theory holds that if an individual can meet psychological needs for autonomy, competence and relatedness within the context of exercise they will move along the motivation continuum toward intrinsic motivation for the behavior. This means that instead of relying upon external regulation to engage in exercise, the individual will be self-motivated to engage in the behavior because exercise is integrated within self-concept or for the simple pleasure of the act itself.

Another critical reason supporting the need for better understanding and prediction of exercise adherence is the strong correlation between exercise and weight loss, as well as weight maintenance. Exercise is considered a key element of any weight loss program and research indicates it may be the best predictor of sustained weight loss (Donnelly, et al., 2004). Interventions with obese adults based on SDT have been effective in fostering weight loss (e.g., Silva et al., 2010). In one study, 239 women ($31.5 \pm 4.1 \text{ kg/m}^2$) in their mid-thirties completed 30, 120-minute SDT-based sessions that focused on diet, physical activity, body image and weight loss. After one year, there was significantly greater weight loss and physical activity in the intervention group when compared to controls, who received only a general health education program.

While SDT has been applied in a variety of exercise and weight loss interventions, it has not as yet been utilized as the theoretical basis for research within the collegiate population. The

lack of studies within this setting and the increasing rates of obesity among college students support the need for studies exploring strategies to increase exercise and physical activity, especially as they relate to weight loss and weight maintenance.

Using an academic class to conduct an intervention is an ideal way to eliminate much of the difficulty noted in designing studies with college populations, and could provide a key resource for the O/Ob student population. Learning about how to affect positive change in motivation for exercise could lead to improvements in curriculum and increase the likelihood that students will engage in more exercise, both short-term and long-term. Moreover, understanding differences in mediators between healthy-weight populations and O/Ob populations could provide the basis to develop more tailored interventions and curriculums, potentially increasing the overall efficacy of exercise programs and health-related classes on university campuses nation-wide.

Methods

Study Design

A multi-phase research project was designed to determine if participating in an academic conditioning principles class results in positive change in psychosocial variables supported in the literature as mediating exercise for weight loss. In Phase I, pre-experimental, one-group, pre-test/post-test design was used to determine if participation in the standard Conditioning Principles class results in significant improvements in psychosocial variables related to exercise behavior. Students enrolled in four Conditioning Principles classes during autumn 2010, and completed questionnaires to assess these psychosocial variables during weeks 1 and 10 of the academic quarter. The only significant changes in purported psychosocial mediators were an

increase in extrinsic motivation, $p = .047$, and a decrease in relative autonomy index, $p = .022$, which supported the need for testing curriculum revisions.

In Phase II, quasi-experimental, two-group, pre-test/post-test design was used. One section of the Conditioning Principles class was selected as the intervention, and was specifically re-designed to positively affect psychosocial variables related to exercise and weight loss, while still maintaining class academic content. Comparison sections of the class were taught using standard academic content, consistent with the classes conducted in Phase I. In spring quarter 2011, students enrolled in Conditioning Principles classes completed questionnaires to assess the same variables used in Phase I, during the first and last weeks of the 10-week academic quarter.

Phase I and Phase II were approved by the university's Institutional Review Board, Office of Responsible Research Practices and the directors of the Sport, Fitness, and Health Program, which offered these academic classes.

Recruitment

The Conditioning Principles class used as the population from which the student sample was recruited is a requirement for students who enroll in one of four elective physical activity classes (swimming, weight training, cardio equipment training or rhythmic aerobics).

Participants for Phase I were recruited from all students enrolled in the four sections of Conditioning Principles offered in Autumn 2010. Participants for Phase II were recruited from all students enrolled in the three sections of Conditioning Principles offered in Spring 2011. For both Phases, a standard script was used to recruit students to participate in completing an informed consent and a brief questionnaire. Students under the age of 18 were not eligible to participate in the study. For Phase II, students self-selected into either the revised class, or one

of two standard classes, and completed the same questionnaires used in Phase 1 during weeks 1 and 10 of the academic quarter. The revised class was developed and taught based upon Self-Determination Theory (SDT).

Intervention

The academic class used as the intervention for this study was taught weekly, and met for 48 minutes every Wednesday afternoon for 10 weeks between March and May of 2011. The class instructor delivered both standard academic conditioning principles content and intervention strategies to positively affect motivation (See Table 1). During each class meeting, lesson plans included academic concepts and an activity or discussion designed to address one of the psychological needs underlying intrinsic motivation: autonomy, competence or relatedness. Out of class assignments also had a dual nature; weekly on-line quizzes were used to foster learning of academic concepts, while on-line discussion forums were chosen to encourage students to explore personally gratifying methods of engaging in daily physical activity. Students were asked to consider human movement as a joyous occasion rather than a chore. Further, through a series of weekly activities they were challenged to understand barriers to and benefits of exercise, and to create novel methods of incorporating exercise and physical activity into their lives.

Creating an Autonomy-Supportive Classroom.

Per extensive research conducted by Teixeira et al., creation of an autonomy-supportive environment is key to facilitating development of intrinsic motivation because it addresses the individual's psychological need for autonomy in directing their life choices (Silva et al., 2008

and Teixeira, et al., 2006). “By offering choice, promoting genuine interest and involvement, explicitly focusing on experiential dimensions of exercising, creating enjoyment and challenge, and actively seeking sources of personal meaning beyond immediate behavior change, [autonomy-supportive] interventions increase intrinsic motivation...” (Teixiera, June 21, 2011).

The following strategies were used to create an autonomy-supportive environment:

- Re-framed exercise as “moving your body”
- Solicited student opinions regarding class content
- Acknowledged student animosity toward required lecture class
- Provided options for exercise, including lifestyle physical activity
- Encouraged students to choose their own movement goals

It is equally important to consider the “don’ts” when attempting to create an autonomy-supportive environment. External pressure is detrimental to fostering self-direction, and standard classroom schema is oriented to exert such pressure. In order to reduce hierarchical stress typically present in such a setting, the class grading structure was adjusted to focus upon student learning and mastery of concepts, as opposed to quantitative evaluation. Weekly on-line quizzes were open-book, open-note and set with unlimited attempts, no tests were given during the quarter, assignments and activities were awarded credit based upon completion, and deadlines were adjusted where necessary if students indicated difficulty meeting them. Student feedback was encouraged and welcomed, and based upon initial suggestions of the students during the first discussion forum, weighting of subjects was observed as much as possible toward the topics of student interest.

Student learning of the standard course material was assessed based upon completion of quizzes designed to cover each topic’s basic elements as they related to fitness conditioning. The

learning process was facilitated by the students' receipt of real-time feedback on their quizzes and the ability to correct wrong answers, which necessitated determining the correct answer. Further, the students' understanding of fitness concepts was applied within the context of the discussion forums they completed throughout the quarter.

Increasing Competence.

Building individual competence for exercise was initially addressed by noting that exercise is actually a more regimented form of physical activity, and physical activity is just another way of saying movement. A main message conveyed throughout the course was that all movement can benefit the body, if done regularly, and with vigor. By broadening the spectrum of options available for acquiring physical activity, there is an increased likelihood that competence can be attained.

For example, alternative forms of movement were suggested to students who did not feel particularly athletic, or noted discomfort exercising at a fitness facility. Ideas included nature walks, energetic house-cleaning, participating in community gardening projects and recreation with animals or children. In addition, students were encouraged to recollect and consider forms of movement they enjoyed at earlier times in their lives and to reconnect with the joy of movement experienced as children (Kimiecik, 2002). Additional strategies used to build confidence included:

- Considering barriers to exercise and brainstorming resolutions
- Building a focus on mastery instead of competition
- Using a 6-step approach of goal-setting for behavior change

Building Relatedness.

The instructor began building relatedness with the intervention class on day one by encouraging discussion about why students were taking the class, what they expected to get out of it, and how they could help each other include more exercise in their lives. Students participated in weekly on-line discussion forums and were encouraged to review each other's postings and respond with thoughts, comments and ideas. In addition, classroom discussion addressed commonalities among students with regard to having enough time to include exercise in a daily schedule and maintaining the motivation to meet daily exercise goals. The classroom environment was relaxed, inviting, casual and non-hierarchical, encouraging students to interact with the instructor as a peer, and building relatedness. Additional strategies used to foster relatedness included:

- Personal sharing of the instructor's struggle to include and maintain physical activity throughout her lifetime
- Brainstorming and problem-solving activities centered around individual student issues that arose during on-line discussion forums
- Group stretching during class

Measurements

Assessments were made during week 1 and 10 of the course, pre and post intervention. A recruitment script was read to subjects, after which they were asked to complete an informed consent and a questionnaire packet. Average completion time for the packet was approximately 12 minutes and included assessment of psychosocial variables, average days of exercise per week and demographic variables, as well as a cover sheet with a series of four questions

designed to yield a consistent, specific alpha-numeric code. The code was then used to match pre and post test results during data analysis.

Psychosocial Variables.

Behavioral Regulation in Exercise Questionnaire (BREQ). Motivational regulation was measured using the Behavioral Regulation In Exercise Questionnaire (BREQ) (Mullan, Markland, & Ingledew, 1997) and modified by Markland & Tobin (2004). The BREQ has 19 items that are scored on a Likert-type 5-point scale from “0” (*not true for me*) to “4” (*very true for me*). There are four subscales that assess intrinsic motivation, identified regulation, introjected regulation, and external regulation.

Multidimensional Self-efficacy for Exercise (MSES). Three types of exercise self-efficacy (i.e., task, coping, and scheduling efficacy) were measured using Rodger et al.’s (2008) 9-item MSES. Participants rate their confidence on 10-point scales ranging from “0” (*not at all confident*) to “10” (*completely confident*) to perform behaviors described in nine statements consistently for at least six months. The ratings for each of the three items are summed and calculated to get a mean score for each self-efficacy.

Three-Factor Eating Questionnaire-Revised (TFEQ-R18V2). The TFEQ-R18V2 has three subscales that measure cognitive restraint (CR), uncontrolled eating (UE) and emotional eating (EE). Scores are derived from participants’ ratings of how true 18 statements are for them. The TFEQ-R18V2 is revised from the original 21-item instrument and has good internal consistency (Chronbach’s alpha .78-.94) (Cappelleri et al., 2009).

Social Support for Exercise (SSFE). The social support for exercise scale (Sallis, et al., 1987) measures the degree of support a participant perceives when trying to exercise regularly. The scale assess two sources of social support, that from friends and that from family, and

includes 13 items reflecting support or lack of support for exercise behavior. Participants rate each item on a Likert scale separately for family and friends in respect to frequency experienced over the past two months from “1” = *none* to “5” = *very often*.

Body Shape Questionnaire-8-item short form, scale 3 of 4 (BSQ). The BSQ measures participants’ attitudes towards the appearance of their body. The short form was developed and validated by Evans & Dolan (1993) from the original 34-item instrument (Cooper, Taylor, Cooper, & Fairburn, 1987). A total score is derived from answering eight questions regarding feelings on appearance on a 6-point, Likert-type scale ranging from “1” = *never*, to “6” = *always*.

Average Days of Exercise.

The National College Health Assessment (NCHA) – Item Numbers 29a, b & c was used to assess average days of exercise per week. The NCHA was developed, pilot-tested, and validated by the American College Health Association between 1998 and 2000. Item numbers 29a-c measure participants’ frequency of exercise over the preceding seven days in three categories: moderate aerobic exercise, vigorous aerobic exercise, and strength training.

Demographic Variables of Interest.

Key variables of interest for this intervention were gender, BMI pre and post intervention, and age.

Discussion

College represents a significant time of change in a young adult’s life and offers the opportunity to personally define oneself and establish new interests and habits. Unfortunately

statistics indicate that lifestyle choices being made by an alarming majority of college students lead to physical inactivity and weight gain during this formative time (Ferrara, 2009). The application of SDT constructs to increase motivation for exercise within this population seems appropriate. Many students begin college with the understanding that for the first time in their lives, they are about to begin an adventure that is largely self-determined. Exploring ways to increase exercise on college campuses should be addressed from this perspective. Meeting young adult needs for autonomy, competence and relatedness could provide the intrinsic motivation necessary to create and maintain lifelong fitness habits.

This intervention is innovative in that it was offered through an academic class, which provides easy access to students, an opportunity to improve standard curriculum and the potential for a cost-effective resource for O/Ob students. While use of SDT has been successful in increasing exercise adherence and weight loss in adults, it has not yet been tested within the college student population. Few quality interventions have been conducted in the college setting, despite consistently significant O/Ob rates.

Results from this study will add to the body of literature reviewing SDT and its application to exercise science and health promotion. Information gathered regarding psychosocial variables influencing exercise and physical activity could help to support future research exploring opportunities to provide students with more effective fitness resources. Further, analysis of differences between healthy-weight students and O/Ob students' responses to motivational strategies may shed light on how to tailor interventions to a BMI-diverse target population.

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Table 1

Week	Required Class Topic & Concepts	Additional Intervention Concepts	Constructs & Mediators
1	<p>Class Introduction (30 minutes)</p> <ol style="list-style-type: none"> 1. Syllabus Review 2. Methods of Evaluation 3. Schedule <p>Initial research questionnaires completed (20 minutes)</p>	<ol style="list-style-type: none"> 1. Discussion: Why are you taking this class? <i>Goal: Change initial resentment toward required class</i> 2. Introduce class goals: 1. FUN, 2. Learn about fitness, 3. Appreciate impact of PA on life, 4. Move our bodies 3. Mobilize: Get up, stretch, and change seats to fill the front rows of the classroom <p>Assignment: Disc #1- Review class topics for each week; most & least interesting (and why), anything missing?</p>	<ol style="list-style-type: none"> 1. Relatedness & Autonomy (Motivation) 2. Competence 3. Social Support & Relatedness
2	<p>Intro to Fitness & Wellness</p> <ol style="list-style-type: none"> 1. Multiple Dimensions 2. Wellness Continuum 3. Lifestyle Change 	<ol style="list-style-type: none"> 1. Discuss results of Disc #1: <ol style="list-style-type: none"> a. Most interested: "Creating a Fitness Program" b. Varied interests in CRE, Muscle conditioning & Flexibility c. Additional interest: Motivation & Follow-thru 2. "Try & Adapt" – 6 step goal-setting plan for behavior change 3. Doing what you love is easy; find your joy in moving <p>Assignment: Lab 2.2 – Overcoming Barrier to Being Active</p>	<ol style="list-style-type: none"> 1. Relatedness & Autonomy (Motivation) 2. Competence & SE for change 3. ↑ Internal regulation (intrinsic motivation)
3	<p>Components & Principles of Fitness</p> <ol style="list-style-type: none"> 1. 5 Components of Fitness 2. Principles supporting adaptations of training 3. How much PA is enough 4. Exercise for Health vs Fitness 	<ol style="list-style-type: none"> 1. Discuss results of Lab 2.2: <ol style="list-style-type: none"> a. Top barriers & how we resolve them b. Willpower & Motivation are NOT created equal 2. YouTube clip: Anime Dance video: "Move your body" <p>Assignment: Disc #2- Ancient Replay (remembering the joy of movement from childhood)</p>	<ol style="list-style-type: none"> 1. SE for planning exercise; internal vs external regulation, autonomy; social support 2. Autonomy; joy of movement

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Week	Required Class Topic & Concepts	Additional Intervention Concepts	Constructs & Mediators
4	<p>Cardiorespiratory Endurance (CRE)</p> <ol style="list-style-type: none"> 1. Energy Production & systems 2. Assessing CRE 3. Using FITT to design a CRE training program 4. Target Heart Rate 	<ol style="list-style-type: none"> 1. Discuss results of Disc #2 Ancient Replay: <ol style="list-style-type: none"> a. Movement for the sake of happiness during play b. Ways to re-create this feeling NOW 2. How do you want your movement to feel? 3. Challenging ourselves during activities of daily living <p>Assignment: Disc #3 – Movement Mission Statement (w/ examples provided)</p>	<ol style="list-style-type: none"> 1. Intrinsic motivation for exercise 2. Internal vs external regulation 3. Competence
5	<p>Muscle Strength & Endurance</p> <ol style="list-style-type: none"> 1. The muscle system 2. Strength vs endurance goals 3. Assessment 4. Static vs dynamic training 5. Methods of training 6. Using FITT to design a muscular training program 	<ol style="list-style-type: none"> 1. Discuss our Movement Mission Statements: <ol style="list-style-type: none"> a. Many of you said: “I love physical & psychological results of movement, but...” b. “Finding the motivation to start is a problem.” 2. Activity: Assessing our focus- Mastery or Ego? Follow-up discussion: Why is mastery more effective for motivation and adherence? 3. The L.I.F.E. Approach for setting mastery goals <p>Assignment: Disc #4 – Set a L.I.F.E. goal & discuss how you plan to achieve it</p>	<ol style="list-style-type: none"> 1. Autonomy, competence, social support 2. SE for exercise 3. SE, autonomy
6	<p>Flexibility</p> <ol style="list-style-type: none"> 1. Benefits of health flexibility 2. Factors affecting flexibility 3. Types of stretch techniques 4. Using FITT to design a stretching program 	<ol style="list-style-type: none"> 1. Discuss results of Disc #4. 2. Stretching activity: What do you know about stretching different muscles? Each student writes down 2 muscles & related stretches; put in grab bag; volunteer to demonstrate and assess efficacy. <p>Assignment: Disc #5 – Time or Motivation – which is your biggest barrier to exercise? Brainstorm 2 ideas to combat.</p>	<ol style="list-style-type: none"> 1. SE for planning exercise 2. SE for exercise, competence (motivation)

Table 1

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7	<p>Body Composition & Weight Management</p> <ol style="list-style-type: none"> 1. Define key terms 2. Benefits of maintaining healthy body composition & how to achieve it 3. Assessment 4. Body Image 	<ol style="list-style-type: none"> 1. Brief review Disc #5 <p>Assignment: Disc #6 – Follow-up to Disc #5 – Review other students posts and reflect: What ideas do you like, what has worked for you, which new ideas will you try?</p>	<ol style="list-style-type: none"> 1. Motivation; SE for scheduling exercise; social support
8	<p>Putting it all Together - A Fitness Program</p> <ol style="list-style-type: none"> 1. Creating a comprehensive fitness program 2. Including lifestyle PA in program 3. FITT summary 4. Monitoring progress 5. Progression over time 	<ol style="list-style-type: none"> 1. Review & discuss Disc 5 & 6: Powerpoint summary of all thoughts & ideas. 2. Activity: Let's brainstorm ideas to solve 1 student's barrier <p>Assignment: Disc #7 – Are you a FLOW-meister? Self-guided FLOW form provided</p>	<ol style="list-style-type: none"> 1. Competence, Autonomy & Relatedness (Motivation); SE 2. social support
9	<p>Nutrition</p> <ol style="list-style-type: none"> 1. Creating a healthful diet plan 2. The Food Pyramid 3. Whole grains 4. Good Fat/Bad Fat 5. Protein: The right amount? 6. Fiber 7. Resources 	<ol style="list-style-type: none"> 1. Results of Disc #7 & the impact and use of FLOW in PA, exercise and movement 2. Interactive Activity: Where does your loaf of bread come from? 3. Discuss: What do you want to do with our last class? 	<ol style="list-style-type: none"> 1. Intrinsic motivation, ↑ enjoyment of movement 2. Competence, relatedness 3. Autonomy & competence

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10	<p>Class Wrap-up (30 minutes)</p> <ol style="list-style-type: none"> 1. Nutrition wrap-up; Q&A 2. General Q & A <p>Final research questionnaires completed (20 minutes)</p>	<ol style="list-style-type: none"> 1. Finish stretching activity from week 6 2. Open discussion: What did we learn this quarter? 3. YouTube clip: Bruno Angelico: "Mutiny on the Rings" 	<ol style="list-style-type: none"> 1. SE for exercise, competence 2. Competence, relatedness 3. Autonomy, ↑ enjoyment of movement