

## Online Supplementary Table: Table 3

Table 3. Major and minor themes: personal factors related to health behavior change

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**Psychosocial Major<sup>i</sup> and minor<sup>ii</sup> themes**  
**construct**


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**Self-regulation**


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To manage their time, students make lists of their short-term responsibilities from a long-term planner.<sup>i</sup> Some keep mental lists and do not need to use written lists.<sup>i</sup> They use paper calendars or planners,<sup>i</sup> post-it notes,<sup>ii</sup> or electronic planners.<sup>i</sup> Students weigh themselves about 1-2 times per month or less.<sup>i</sup> Some only weigh themselves a few times per year.<sup>ii</sup> They use the on-campus gym scales<sup>i</sup> or the bathroom scales at home.<sup>ii</sup> Most students believe they know their weight within a few pounds.<sup>i</sup>

**I:**<sup>iii</sup> *What tools do you use to manage your time and responsibilities? P<sup>iv</sup><sub>1</sub>: I have a [computer] calendar that I keep everything written down on – all my tests, all my quizzes. I have a computer Post-it that I have all my stuff written down for each class. P<sub>2</sub>: My hand. Sometimes if I have to remember something I'll write it on my hand. –two Freshmen males*  
**I:** *How often do you weigh yourself? P: I weigh myself when I go home or if I get curious, but that's about it. I don't have a scale anymore. The last time I weighed myself at home I was 140 [lbs] and then you guys weighed me and I was 137 [lbs]. I had Thanksgiving so I don't know. –Freshman female*

*Diet* In high school, most students' mothers cooked healthy, balanced meals for them<sup>i</sup> and provided most available food.<sup>ii</sup> With autonomous dietary regulation in the college environment, students believe they eat less healthy<sup>i</sup> and eat more overall.<sup>i</sup> Some students feel no health-related effects due to dietary changes since college.<sup>ii</sup> However, some feel they have gained weight, have lower energy levels, and more psychological distress due to dietary changes.<sup>ii</sup> Most students want to eat more regular, balanced meals,<sup>i</sup> eat more fruits and vegetables,<sup>ii</sup> or reduce unhealthy foods and drinks.<sup>ii</sup> However, students do not plan any of their meals and snacks in advance.<sup>i</sup> Some use the University online nutrition information<sup>v</sup> to view % daily values of on campus foods.<sup>i</sup> Yet, many students do not know this resource exists or never use it.<sup>i</sup> College students do not track calorie or fat gram intakes.<sup>i</sup> On *Nutrition Facts* labels, students look for sugar or carbohydrate values,<sup>i</sup> calories,<sup>ii</sup> or fat.<sup>ii</sup> However, these facts generally did not influence students' decisions to consume foods; the most prevalent reason for reading labels was out of boredom or curiosity, without purpose.<sup>i</sup>

**I:** *How are your meals and snacks different from your routine at home? P: At home my mom always made me breakfast like orange juice and an egg. I had the same lunch in high school all four years – turkey sandwich on a bagel with cheese and mustard. For dinner it ... varied a lot. Sometimes it would be pasta, sometimes chicken. [This year] is definitely different. –Freshman male*

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**I:** Do you read the nutrition information on foods? **P:** Every once in awhile. If it's something really, really sweet. I will glance at the back and see how much sugar is in it. I don't normally do that because I don't know what to watch. – Freshman female

Physical activity

Most students participated in an organized sport in high school<sup>i</sup> but not in college.<sup>i</sup> They no longer have regular required practices as part of their schedule and must rely on their own regulatory skills to be physically active. College students found advantages to working out both alone<sup>i</sup> and with friends.<sup>i</sup> Students are concerned that their fitness levels are diminishing due to decreases in physical activity.<sup>i</sup> Of the few with concerns, most had not implemented changes to their physical activity habits.<sup>i</sup> Most students would like to exercise a specified number of times per week,<sup>i</sup> run a specified distance,<sup>ii</sup> or gain muscle overall.<sup>ii</sup> However, most students do not keep track of their exercise beyond a mental count.<sup>i</sup>

**I:** How have your physical activity habits changed between this year and high school? **P:** [I exercise] way less now. I miss having a coach yell at me and tell me to run and stuff. I mean, I still run but I don't run as hard as I could. I'll never workout to a point where I'm dying. So, that's really different. I miss that a lot.

Social support

Diet

Before college, students' parents provided them with regular, balanced meals.<sup>i</sup> In college, students do not feel that their families influence their food choices<sup>i</sup> but would occasionally try to eat healthier, like at home.<sup>ii</sup> Most felt that their friends influence food choices more in college than high school<sup>i</sup> because they were around their friends more so in college. Students generally eat every meal, with the exception of breakfast, with their friends.<sup>i</sup> Three minor themes emerged for the perceived influence of friends on eating habits: 1) friends have no influence their food choices,<sup>ii</sup> 2) friends influence the location but not the food choice itself,<sup>ii</sup> and 3) friends make available unhealthy foods that students generally do not consume.<sup>ii</sup> Some students believe their friends are healthy eaters<sup>ii</sup> while others believe their friends eat too much in general, too much fast food, or not enough fruits and vegetables.<sup>ii</sup>

**I:** How do your friends influence your food choices? **P:** I guess sometimes I eat their food. Actually, a lot of times if I'm going to make ramen noodles, and one of my friends recently had a birthday, so she had like two birthday cakes sitting in the room. So she was like, "eat some more cake!" So like, in that way they influence me. But when we're eating out, I'm not like, "oh my gosh, they're not going to like me 'cause I got this." So not in that way. –Freshman female

Physical activity

Having social support from friends encouraged students to be more physically active.<sup>i</sup> Almost all college students have friends that exercise or play a sport.<sup>i</sup> Males in particular are more likely to play pick-up sports if a friend invites them.<sup>i</sup> Some students feel that exercising with friends is socially rewarding.<sup>ii</sup>

**I:** Do [your friends' gym habits] affect your habits? **P:** Yes. Usually we work out together. It's like, we set a time to go. If one goes, the other has to. If not they'll make you feel bad and you end up going anyway. –Freshman male

Self-efficacy

Students view themselves as having effective time management skills,<sup>i</sup> although some acknowledge their skills could be improved.<sup>ii</sup> When busy, students eliminate activities such as television or internet surfing,<sup>i</sup> socializing,<sup>i</sup> sleeping and eating,<sup>i</sup> homework not due,<sup>ii</sup> and exercise.<sup>ii</sup> Regular class times are a main scheduling priority,<sup>i</sup> affecting wake and meal times,<sup>ii</sup> as are work and organized sports.<sup>ii</sup>

**I:** *What kind of things do you drop from your schedule when you have a lot to get done?* **P:** *Probably going to the gym because that takes time. Talking on the phone. [Talking with friends.] -Freshman male*

*Diet*

Compared to high school, students perceive that unhealthy foods are more available and healthy foods are less available.<sup>i</sup> Students believe there are healthy options on campus;<sup>i</sup> however, it would be easier to eat healthy foods with improved taste and availability<sup>i</sup> or making unhealthy choices less convenient.<sup>ii</sup> Most students would wait in a longer line<sup>i</sup> and pay more for healthy food.<sup>i</sup> However, if their friends were eating somewhere unhealthy, almost all students would choose to eat with their friends.<sup>i</sup> Students are interested in learning about eating healthy<sup>i</sup> and believe they are capable of improving their diets, if needed.<sup>i</sup> Their average confidence level for improving dietary habits was 7.5 on a scale of 1-10. The major incentive for improving their diets would be the onset of a diet-related disease or illness.<sup>i</sup> Most students think they have the skills to improve their eating habits,<sup>i</sup> yet some would prefer assistance.<sup>i</sup> Few students have lost or gained weight.<sup>i</sup> Those who have successfully lost or gained weight did so for a sport like football or wrestling.<sup>ii</sup> They reported that an illness or disease related to diet would motivate them to change their eating habits.<sup>i</sup>

**I:** *What would you change to make it easier to eat healthy?* **P<sub>1</sub>:** *There's not really that large of a vegetable section here ... Like if I get a sandwich I can't say "oh I'll have vegetables too." You have to go somewhere else and get [them] at another station. I don't do that.* **P<sub>2</sub>:** *I feel like I always had a lot of fruit in our house and here it's either apples or bananas. We always had pears ... we had everything. So I definitely used to snack a whole lot on fruits and vegetables whereas here it's almost impossible. -two Freshmen females*

**I:** *What would you like to change about your eating habits?* **P:** *I would like to eat at least three fruits and vegetables a day. I know it's not going to happen but I try. I wish there was like an Easy-mac of healthy mix. There's no easy mix but it would be nice. -Freshman female*

*Physical activity*

Working out is not difficult when part of a routine,<sup>i</sup> but becomes a challenge with other responsibilities, lack of accountability, and feelings of laziness.<sup>i</sup> Students were fairly confident that they could work out more if they needed to. On average, the participants' confidence level was 7.3 on a scale of 1-10. As motivators to workout more, they reported body dissatisfaction (e.g., weight gain, clothes not fitting)<sup>ii</sup> and a competition or a friend working out more<sup>ii</sup> as motivators. Almost all students believe they know how to improve their fitness levels<sup>i</sup> and have enough time to do it.<sup>i</sup> Students believed the available facilities were acceptable,<sup>i</sup> but would like them to be more numerous or convenient.<sup>ii</sup>

**I:** *Is working out regularly difficult for you?* **P<sub>1</sub>:** *[It's difficult] to go to the gym by myself but I really enjoy going to volleyball practice regularly. -Sophomore female* **P<sub>2</sub>:** *If I have a lot of stuff to do, then yeah, it's difficult. You have to get*

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*dressed, you have to go, come back, shower. Yeah, so it's a lot to do. –Freshman male*

**Outcome expectations**

*Diet*

When they eat healthy, most students feel better in general, more energized, or better psychologically.<sup>i</sup> Eating unhealthy or fatty foods makes them feel tired, sluggish, or uncomfortable.<sup>i</sup> Most students believe healthy foods are worth the money,<sup>i</sup> whether or not they think healthy foods are more expensive. They believe improving their habits would make them feel better, function better,<sup>i</sup> or have more energy.<sup>i</sup> Others believed it would help them lose or manage weight.<sup>i</sup> Many students reported avoiding sugar or sweets.<sup>i</sup> Most students avoid these foods and others to avoid immediate physical discomforts, such as headaches, stomachaches, and intolerances.<sup>i</sup> Some avoided foods because of preference or taste aversion,<sup>ii</sup> yet few (<25%) avoided foods because of anticipated weight gain or disease development. The most common effect of alcohol consumption the following day is feeling overly tired.<sup>i</sup> Others feel no effects after drinking,<sup>ii</sup> feel less motivation,<sup>ii</sup> or eat less.<sup>ii</sup> Most feel that drinking does not affect their health,<sup>i</sup> although some feel their health has diminished as a result.<sup>ii</sup> Many feel that drinking contributes to weight gain in general;<sup>ii</sup> however, few believe that drinking has contributed to personal weight gain.

**I:** *How does what you eat affect your health or how you feel?* **P:** *I know if I eat bad, I feel sluggish ... If you eat really bad, it drains your energy and you feel bad about yourself ... So you generally don't feel energized. –Freshman male*

*Physical activity*

Being physically active is important to college students,<sup>i</sup> and many would like to work out more.<sup>i</sup> They believe that the positive outcomes of being physically active are improved health or normal function,<sup>i</sup> improved psychological health,<sup>i</sup> being in better shape or more competitive,<sup>ii</sup> and social benefits.<sup>ii</sup> Since coming to college and being less physically active, most students have concerns about their fitness level dropping.<sup>i</sup> Yet, many students have no concerns about their fitness level.<sup>i</sup>

**I:** *What are the benefits of being physically active?* **P:** *For me, a huge stress reliever. It's something I've always done with other people so I get to know [them] better and make friendships. And I just feel better. –Freshman female*

<sup>i</sup> Represents a “major theme,” defined as a response given by  $\geq 50\%$  of participants.

<sup>ii</sup> Represents a “minor theme,” defined as a response given by 25-49% of participants.

<sup>iii</sup> I=interviewer

<sup>iv</sup> P=participant

<sup>v</sup> Available: <http://foodpro.studentprograms.vt.edu/foodpro3/location.asp>