

**Sleeping, eating, success, and time: Social norms and personal struggles of college undergraduates
as they manage fixed and flexible commitments**

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ABSTRACT

OBJECTIVE: To understand how undergraduates construct sleeping, eating, and time.

PARTICIPANTS: 20 interviews and a focus group with nine students were conducted between January and December 2007.

METHODS: Questions were asked about sleeping, eating, and time management. Audio-recordings were transcribed and analyzed using the constant comparative method.

RESULTS: Five themes emerged. 1) Students perceived time as filled with fixed and flexible commitments. 2) Strong social norms emphasized productivity but devalued sleeping. 3) Students recognized the importance of sleeping, but reported tension between time for sleeping and time for other commitments. 4) Students fit eating around other time commitments but believed that time pressure and sleep deprivation caused them to eat in unhealthy ways. 5) Students created structures and strategies for managing sleeping and eating

CONCLUSIONS: This study provides insights on sleeping, eating, and time use in a college population.

Keywords: *college undergraduates; eating; sleeping; time; qualitative methods; time management*
College undergraduates (ages 17 to 22) are a population that exhibits tendencies toward both inadequate sleep^{1,2} and poor diet.³⁻⁵ Insufficient or too much sleep can place adults at greater risk for undesirable physical health outcomes such as diabetes⁶, weight gain/increased body mass index^{7,8}, cardiovascular disease⁹, and increased mortality.¹⁰ Sleep deprivation can also lead to sub-optimal cognitive performance and changes in mood.^{1,11,12} How college students perceive and manage time may provide insight into their sleeping and eating behaviors.

Time – an intangible resource that is perceived as scarce by many people living in industrialized nations¹³ – has been studied a great deal in college students. Undergraduate students have more free time and autonomy over time use than many other population groups.¹⁴ Studies of students' time management generally show that their use of time management behaviors reduces stress and anxiety and improves

academic performance.^{15,16} Also, students' overall quality of life has been positively associated with engaging in leisure time activities.¹⁴

College undergraduates' perceptions of time for sleeping and eating have not been studied extensively from a conceptual perspective. Given that time is a multi-faceted concept, it is necessary to explore it from several different perspectives. Occupational therapists offer one point of view that describes time in three ways: tempo, temporality, and time use.¹⁷ *Tempo* is the internal and biological experience of time. This includes not only the cycles of the human body (e.g. circadian rhythms and the sleep-wake cycle) but also time pressure that relates from one's pace of life. *Temporality*, or the subjective perception of time, relates to one's experience with the past (memory), present (direct perception), and future (expectations). Both tempo and temporality relate to the concept of time scarcity, a feeling of not having enough time to do what one wants to do.¹³

Time use refers to how people spend their time. Time use surveys are commonly conducted in many developed countries to examine the ways in which people allocate their time to different activities of daily living such as paid labor, non-paid household labor (e.g. chores), and personal time (e.g. sleeping, eating). "Free time" and "discretionary time" are two terms used in time use surveys to refer to the time left over after completing obligatory activities or the time available to use as one pleases, respectively.¹⁸ Time use survey data might offer insight into the connection between time use and health. In their secondary analysis of American Time Use Survey data (<http://www.bls.gov/tus/>), Zick et al.¹⁹ found that the ways in which people allocate their time for eating, drinking, and physical activity are related to their body mass index (BMI).

Time management is another useful way of conceptualizing a person's relationship with time.^{15,16} This area of research focuses on behaviors that people use to organize and control their time (e.g. setting goals, anticipating time needed to accomplish tasks, and prioritizing activities). Considerable work has focused on how time management behaviors link to productivity, efficiency, perceived control, and stress.

^{15,16} Recent research has focused on time management practices related to personal values and perceived

quality of life.^{14,20}

Time and its relationship to health can also be viewed from various social science perspectives. In their review of time related to eating, Jabs and Devine²¹ highlighted the ways that different disciplines considered time for this daily activity. For example, an economic perspective emphasizes time as an intangible resource that people allocate in a rational way for activities as they strive to maximize their utility with the time they have.²² A sociological perspective focuses on the construction of time use with people's thoughts and behaviors determined by culture and social structures, such as the timing of meals.

²³ A psycho-social view of time addresses people's feelings about time (e.g. too much, enough, or not enough) and how these feelings influence their behaviors and performance in activities.²⁴ Time use frameworks in consumer research integrate some of these perspectives, with an emphasis on how use of discretionary time is influenced by social, cultural and individual factors.²⁵

The present study examined the ways that undergraduate students interpreted and experienced the relationships between sleep, eating, and time. With the goal of advancing conceptual understanding of these multi-faceted and interconnected aspects of life, the study took a social constructionist approach²⁶ and used qualitative methods.²⁷ It emphasized identifying and understanding students' own perspectives and meanings, an approach increasingly being used to understand people's food and health behaviors^{28,29} because it allows the complexity, diversity, and contexts of people's perspectives and practices to be revealed rather than summarizing them using concepts and categories pre-defined by researchers.

METHODS

The study gathered data about students' perspectives on sleeping, eating, and time management through a focus group and individual, in-depth interviews with undergraduate students in a non-urban university in the Northeast region of the United States. Academic programs at this university are rigorous and diverse in subject offerings, and the caliber of all students is very high. The campus spans a large geographic area with food items and meals available throughout the campus. Generally, returning home

for meals during the day is not a time-efficient option, so students bring food with them or plan to stop at local food outlets near their classes, meetings, and practice sites.

The participants for both the focus group and individual interviews were purposively recruited to vary in gender, age, program of study, student activities, living situation, and sleeping habits. All participants had completed at least one full academic year at this university. The University Institutional Review Board for Human Participants approved this study. All participants gave informed consent and received a small incentive for their participation. The focus group and individual interviews were audiorecorded, and verbatim transcripts were prepared and verified.

The 75-minute focus group was conducted first to explore students' perceptions about the factors that influenced their sleeping and eating behaviors. The five female and four male participants were recruited by the researcher (MRN) using personal contacts. The group leader (MRN) probed for more detail and input from all participants as new topics emerged. Another researcher (CAB) observed the session and took field notes.

Analysis of the focus group recording and field notes indicated that students often neglected sleeping and eating because of the culture and overall demands of student life from academics, extracurricular activities, socializing, and work. They spoke less about the connections between sleeping and eating, and more about managing their time for these activities in the context of their other commitments. As a result, the concept of time management was pursued in greater depth in the subsequent individual interviews.

Twenty additional students (10 male, 10 female) were purposively recruited through flyers distributed at different student gathering sites throughout campus. Convenience sampling through personal contacts was also used to achieve variation in student characteristics. The interviews, which ranged from 30 to 75 minutes in length, were scheduled at the convenience of the participants and held in places that were quiet, convenient, and comfortable. Author MRN conducted all of the interviews using a

guide of open-ended questions and follow-up probes to ask participants for more detail and explore ideas as they arose. He recorded field notes after each interview.

Analysis of the data used the constant comparative method²⁷, was ongoing throughout the project, and involved the three authors in iterative reviews of transcripts and field notes. Data were coded for emergent concepts and themes³⁰. As authors discussed their interpretations, they re-read transcripts and searched for negative cases as needed until they came to agreement about the meaning of the themes. Finally, authors re-examined the transcripts to confirm that the themes were supported by all data.

The quality of the data and analysis^{31,32} was enhanced because two authors (MRN and CAB) had prolonged engagement with undergraduate students in the setting and were familiar with the nuances of the data, while qualitative researcher MJ was less engaged with student life and could challenge insider assumptions. The audit trail consisted of extensive notes on project decisions, field notes from interviews, and analytical notes. The purposeful inclusion of participants with very different experiences in terms of time available for sleeping and eating required the researchers to reflect carefully upon initial interpretations of the data and account for all participants' views and experiences³³.

RESULTS

Although the participants had individualized ways for managing their time related to sleeping and eating, common concepts and processes emerged across participants. These are presented in the following five themes, which are illustrated with direct quotations from the focus group (FG) and individual interview participants.

(1) Students perceived their time as filled with fixed and flexible commitments.

Within participants' time use descriptions, two distinct categories emerged. *Fixed commitments* occurred at scheduled times and were the things that "[I] need to do," "I have set...that I have to do," or "come first." Students viewed these firm commitments as required by their academic program (e.g. classes, exams), their financial situation (e.g. paid work), or their chosen extracurricular activities (e.g. practice, rehearsal, meetings, volunteer work). Central to their expectations for success, these fixed

commitments occurred at specific times, for pre-arranged durations, and usually at specific places. Participants viewed them as the backbone for planning out their daily schedules. However, the schedules for fixed commitments changed daily and across the semester. A female athlete who described her fixed work schedule and sleeping habits as “irregular and not enough,” talked about her fixed commitments:

“I’m on the equestrian team. I practice Tuesday mornings...I have practice at 5:45am and I wake up at like 5:15am. And I wake at like 5:30am on Wednesday to do barn chores. And then Thursday I have 6:00am practice and then sometimes I practice on Friday. And sometimes I don’t. And sometimes I’ll have a competition and have to wake up early on Saturday morning, sometimes I don’t. But I never have to wake up early on Monday or Sunday and of course...I don’t voluntarily wake up at 5:15am.” (#4)

Flexible commitments were things students had to accomplish but over which they had more control in terms of time, place, and duration. Flexible commitments included studying and homework, sleeping, eating, socializing, personal care, and leisure activities. Students reported ongoing adjustment of their flexible commitments around their fixed commitments, often making daily decisions about when, where, and how to accomplish different flexible commitments. One female student described her flexible commitments:

“Things that are higher priority are definitely classes, um, getting things that I have set done that I have to do, um, any programs that I happen to be running. I teach dance and stuff so I have to do things for that, or plan for that, talking to my boyfriend uh every night most of the time, and probably eating sometimes, then sleep, and then probably being organized...” (#3)

(2) Social norms emphasized productivity and success but devalued sleeping.

Students revealed their goals and aspirations as they described their daily lives. In addition to carrying full course loads, these students described being members of athletic teams, performers in musical groups, leaders of student organizations, and student employees.

While “a good education” was a shared primary goal of their university experience, they also hoped “to learn a lot and be a well-rounded person.” They expected the college experience to lead them to successful professional lives. While academic success was clearly a priority, they also felt that other parts of the college experiences were important including social networking, extracurricular accomplishments, having some fun, feeling good about choices and accomplishments, and having a sense of well-being. As one participant stated:

“I guess, I’ve taken on a lot of responsibilities in doing a lot of different things, so because I’ve done that it’s important for me to have a busy schedule and go to meetings and go to... work a lot and do all that...I like everything I’m doing so it’s not like I’m doing a bunch of stuff that I don’t care about. They’re all things that I have a genuine interest in.” (#18)

Students reported strong social norms for academic achievement, social networking, presenting themselves as being as busy as possible, and not sleeping too much. They explained that having a difficult major and being busy with many other productive activities were highly respected on this campus and those who seemed to have a lot of free time were looked down upon as less ambitious. As one student stated, “I feel like I like having a busy schedule. I like feeling like I’m getting things accomplished and I would kind of feel like a lazy bum if I didn’t really do anything.” (#11)

Participants explained that students who slept more than average were noticed by others and were thought to be taking easy courses, in an easy major, or not as involved with extracurricular activities. Participants described that it was socially unacceptable to get a lot of sleep.

“I’ll also come across people who have the same major that I do or have another hard major and they’re doing really well, and they’re getting a lot of sleep. But then I’m like, ‘They don’t have any extra-curricular activities. They’re not doing community service. They’re not taking advantage of everything else that [the University] has to offer.

They're not doing research...' It's not just your major. It's also how involved you are and in just preparing for life after college and for enjoying [the University] and all this diversity." (FG)

Participants mentioned that fellow students felt proud when they were able to go without enough sleep and still successfully navigate their academic commitments.

"Lack of sleep is valued over sleep. And I mean if you listen to people, everyone's bragging about how little sleep they get. Like 'I got an A on 5 hours of sleep' and it's almost like...people who get 8 or 9 hours of sleep are seen as lazy in some respects. Like people who sleep a lot are not considered to be hard working, which are like values in like Western society that are most important: be hardworking, use your time well. And so sleep isn't really valued." (FG)

Students explained that getting enough or extra sleep required an acceptable reason. They often felt guilty when they slept too much and fought natural urges to sleep to keep up with others.

"I was really sick so I slept. I had like 20 hours of sleep, but it's 'cause I was really sick." (FG)

(3) Students recognized the importance of sleep but reported ongoing tension between time for sleeping and time for other commitments.

In the individual interviews, students seemed more willing to speak to the importance of sleeping for their academic performance, health, and appearance. All recognized sleeping as necessary for survival, feeling good, and performing well in academics and their other activities.

"I feel great when I get enough sleep and... I have people come up to me on days I'm really sleep deprived [and say] 'you look horrible'... but I definitely am like happier and more alert and I don't fall asleep in class when I get enough sleep." (#11)

“I think I need to average about 9 hours a night or there’s a very notable decline in my attitude, how I perform in school, how I perform [in athletics] especially, the amount of focus I have. So yeah. Sleep is very important to me.” (#19)

In spite of believing in the value of sleep, students noted that sleep usually fell lower in priority compared to other commitments because they sacrificed sleep for other goals. Most participants talked about the difficulty of accomplishing other commitments while balancing the benefits adequate sleep versus the consequences of inadequate sleep. All but one participant reported feeling sleep deprived at least some days of the week on a routine basis.

“I love it when I get a really good night of sleep. I’m like, ‘Oh, man! I feel so much better.’ But it’s still like is really hard for me to prioritize [sleeping] because there’s so many other things going on.” (#18)

“And time is like one of the crucial aspects to how much sleep you get because that’s kind of most people’s main problem is there isn’t enough time in the day to get enough sleep.” (#13)

“I think you’re pretty much in the minority if you’re getting 9 hours...[or] eight hours of sleep. And everyone’s probably [getting] around 6 or 7 [hours].” (FG)

Fixed commitments were sometimes numerous and inflexible, with sleep fitting in where possible. One student remarked, “...to me [sleep] is important but it’s not as important as other things are sometimes, like getting work done.” (#11)

One student found it difficult to say which was a higher priority, sleep or schoolwork. She had a more balanced view of sleep as “a big priority” and perceived that all the commitments must fit together to make things work.

“I don’t know if there’s like a strict [priority] list because I would say schoolwork and my responsibilities are above it but at the same time if I don’t get sleep, then all that [academic work] doesn’t get done in a quality way. So... it’s all kind of interrelated.”

(#13)

Finding this balance in time use was a goal. One student, comparing himself to others, said, “I see some people doing a better job [at managing time], they seem much happier and they are much healthier. I guess they keep it balanced...” (#6)

Students explained the transitions over time. One participant who reported getting sufficient sleep was a senior in his last term who was taking a light schedule and already had a job secured.

“I would have to say now that I’m done with my major and I’ve got a job for next year, school probably was above [sleep] before...but now I would say [sleep] is at the top of my list of priorities or near the top because it impacts so many other things that I do.”

(#19)

(4) Students fit time for eating around other time commitments but they believed that time pressure and sleep deprivation caused them to eat in unhealthy ways.

Students valued eating for the purpose of offsetting hunger, having energy for their activities, and for providing nourishment. As one participant explained, “I guess eating is fairly high [on my list of priorities] just because I hate that like hungry like nasty growling feeling.” (#18)

Many participants also commented on the value and importance of healthy eating (e.g. “If you don’t eat well, you’re probably not going to be very healthy”). In general, many seemed to value healthy eating, though their eating habits may not have reflected this value.

Students combined eating with other commitments as a way of multi-tasking. For example, connecting with friends over food was a purposeful way to maintain relationships and social support during stressful times.

“Usually eating is something that I do with people.” (#1)

One participant explained that she was stressed that her tight schedule did not allow for this social support and happiness. Based upon the stressed tone of her statement, “I use very little time during the week to relax and see my friends,” (FG) she felt pressure from other commitments, which took away from her social support network and overall, her happiness.

Time pressure often made convenience a priority in food selection and contributed to eating in ways that students saw as less healthful.

“...with eating, when I’m pressed on time I make more impulsive decisions and sometimes sacrifice health for convenience... I don’t have the time to sit down and get something healthier.” (#13)

Staying up late to study, work, recreate, or socialize was linked to poor quality eating by many students. They explained that when sleep-deprived they paid less attention to how they ate, preferred comfort foods to help deal with stress, and could not easily access healthy foods during late night studying.

“When I’m sleep deprived, my eating goes... downhill.” (#13)

“When I’m sleep deprived, I’m just like ‘Oh, I don’t really care. I’m just you know (chuckles) going to eat anything.’ ...if it’s past my bedtime, then I tend to crave those really high sugar foods that... keep me alert.” (#10)

(5) Students created structures and strategies for managing sleeping and eating in response to the changing demands of fixed and flexible time commitments.

While the fixed commitments of college life provided some structure for how students used time, flexible commitments needed to be managed and prioritized. Some students structured their lives by planning their overall schedule and commitments in advance in a way that would allow them time for sleeping. For example, a student with late night practices planned her class schedule so that she would not have any classes beginning before 11:15AM.

“I never realized how important like getting enough sleep in the morning is, but I’m really going to try like next semester to have 11:15 classes. It’s really nice.” (#11)

Students varied in how carefully they scheduled and monitored their time use. Some students described carefully thought-out and executed time use plans with routines that allowed them to achieve their sleeping and eating goals. Students described creating

unique time plans matched to each day's activities and frequently assessing and reordering their priorities, providing greater perceived control.

"I have things planned out to a 'T.' After I work, I know that I have fifteen minutes to get from one building to the next and during that time I can get oatmeal from [an eatery] and if I know I get there a couple of minutes early, the line won't be that long, so that I can get oatmeal and go to class. If I ... take a piece of fruit the night before from the dining hall, when I'm leaving, then I know that will be my piece of fruit for the afternoon, I won't have to worry about running to [an eatery] or somewhere in the midst of doing my research, and then I always have my set time between, for my one hour dinner. Everything is planned out." (#3)

Changing work schedules, practice times and varying academic work, meant that schedules regularly needed to be revised and/or created anew. Some students reported that they managed sleep more carefully during exam periods.

"I guess during exam time like I'm more focused on like how much sleep I'm getting. I have to try to get enough. It doesn't happen sometimes. Then I can't think straight... So before exams, like it doesn't always happen, but I try to get enough (sleep) like 2 nights before...I feel I need two days to get my sleeping habit, to get more rejuvenated." (#14) Other students described themselves as less scheduled and more flexible in responding to their many demands from classes, practice times, meetings, and work schedules changing each semester. They spoke of the need for flexibility and adaptation as the best way to cope. For example, one student explained he had "a day-to-day lifestyle" and "management of [life] tends to be more of kind of day-today basis." (#12) He described himself as "not the best at managing my time, but I'm also good at improvising" and said, "I'll eat when I eat." He talked about the danger of becoming too scheduled and said "I feel like it's...less important to be a strict time manager and more important to be good at adapting in your situation." (#12) Another student who shared the same daily adaptation approach said, "I guess whenever I get the chance, I take a nap."

COMMENT

The purpose of the study was to advance conceptual understanding of how college students interpret the relationships between sleeping, eating, and time. The focus group discussion helped in understanding the social norms related to students' goals and the role of sleep in their goal achievement, and it provided information about the importance of time management. The individual interviews provided students a private setting to share their views on the importance of sleep as well as their unique needs and personalized systems for managing sleeping, eating, and time.

Students in this study spoke more about subjective perception of time ("temporality") and time pressure ("tempo")¹⁷ than about the detailed accounts of how they specifically allocate their time for obligatory activities or free/discretionary time activities as measured in traditional time use studies.¹⁸ Students described their days as consisting of fixed commitments that required them to spend time at a given place for specific activity and flexible commitments that were activities that had to be accomplished but over which they had control in terms of time, duration, and place. The focus group and interview data revealed that although fixed commitments are obligatory in nature in terms of their time, place, and duration, they are not necessarily the most personally important, valued, or necessary activities from college students' perspectives. Overall, most of the students' fixed and flexible commitments had a purpose that contributed to their overall goals and feelings of personal achievement and success. This is consistent with Garhammer³⁴ and Anglès, Hernández-Encuentra, Fernández²⁰ who revealed that despite time pressures, people in modern societies equate satisfaction of life with taking advantage of every opportunity.

Fixed and flexible commitments are useful ways to categorize activities for persons who feel that their time is 100% committed and have considerable autonomy over their daily activities such as the college undergraduates.¹⁴ Rather than implying necessity of specific activities (such the obligatory activities of time use surveys), these two time categories imply that any activity can be perceived as

necessary or important but that some activities (fixed commitments) are more restrictive in terms of when and where they can occur.

Students expressed feelings of time scarcity ¹³, but rarely referred to time as a 24-hour per day phenomena. Instead, they constructed time in blocks (e.g. “next week”, “this semester”) according to their commitments. Students spoke of fixed commitments providing a general structure to their use of time, but these commitments were not permanent on the long term. As schedules changed from semester to semester, students had to adapt to new fixed commitments. There was also evidence of micro-adaptations occurring during semesters to cope with temporary events such as major exams. Although each student had personalized strategies and goals for fixed and flexible commitments, their general approaches to time management resembled the timestyles proposed by Jabs et al. ³⁵ On the whole, students described using the active timestyle, in which they negotiated expectations to meet their most important priorities. This timestyle allowed for the adaptive management of changes in schedules, commitments, priorities, and demands by the day, week, or semester.

Many, if not all of the students that participated in the study expressed an awareness of the need to manage time properly via goals, prioritization, and organization. These skills helped students cope with the various demands from their fixed and flexible commitments. Students reported their use (or lack) of the seven time management skills or behaviors that are linked to effective use of time compiled by Hellsten. ¹⁶ These include time analysis, awareness, and estimation; planning; goal setting; prioritizing; scheduling; organizing; and establishing new and improved time habits. Students who were adept at time management also felt a greater perceived control of time, a key feature for anyone living in an environment with conflicting and competing time demands. This relates to a study by Wang et al. ¹⁴ in which they found that college students who set goals for their free time and evaluated whether those goals were achievable or appropriate had improved quality of life.

The importance of perceived control of time in the overall management of time was described in

another qualitative study of medical interns and residents.³⁶ In this study, researchers found that externally imposed schedules were a source of frustration for medical interns and residents. Accepting time as a scarce resource, interns and residents were agreeable to work within the structural constraints of their program in order develop their own personal strategies to develop a sense of control over their time. This is similar to the undergraduate students in this study who develop strategies over time to balance flexible commitments within the demands of their fixed commitments and environmental contexts.

The systems students used for time management were similar to the concepts of scripts in personal food systems identified by Blake et al.³⁷ in the Food Choice Process Model. Descriptions of daily schedules and approaches to sleeping and eating involved many “if this, then that” statements that can also be found in eating scripts³⁷ and the routines identified by Jastran et al.³⁸ Daily changes in schedules or time needs for a fixed or flexible commitments meant using different or adaptive strategies on a consistent basis.

The students constructed the relationship between sleep, eating, and time in diverse ways that reflected the sociocultural norms that view time as scarce.^{21,23,24} Their competitive university environment valued activity and achievement in many domains but devalued sleep. As individuals, students in this study were highly motivated to perform well in their chosen academic and extracurricular activities. They built social networks to achieve these goals and also to develop meaningful relationships for social support. Students believed that their status among peers was related to achievement and displaying a strong work ethic. Too much time devoted to sleep was difficult to justify. Having insufficient time is a way of showing the high value of one’s time. This behavior was similar to that of senior executives in Britain who exhibited their status by claiming to have too little time and trying to do more than seemed possible.³⁹

Given the unavoidability of sleeping and eating for basic survival, students had to negotiate time for these flexible commitments. Even though most participants had personal evidence that eating well and getting enough sleep helped them to perform well across domains, students cited that the time

required for these health behaviors often conflicted with the tasks necessary to perform well in their academic, extracurricular, and social worlds. To the students in this study, eating was a polychronistic activity⁴⁰ that could often be accomplished along with other activities (i.e. visiting with friends or studying), but sleeping was a monochronistic activity⁴⁰ that usually conflicted with their desires to accomplish other fixed and flexible commitments.

As a result, many of the students spoke of the struggle to get enough sleep to feel well rested, a finding that is consistent with studies of sleep deprivation among college students.^{1,2} In fact, getting adequate sleep was described by students as something that could be put off until later. In a competitive environment like this university, there was a tendency for individuals to try to maximize goal achievement on the least amount of sleep possible. Participants viewed fatigue as a deterrent to healthy eating, and clear strategies for healthy eating were necessary to make healthy food choices while experiencing chronic sleep deprivation.

The conflict between spending time at sleep or at other important activities described by students is similar to the conflict in values people experience when choosing what to eat.^{41,42} Values often conflict and people prioritize and juggle their values so they can feel satisfied with getting as close as possible to meeting all of them. Expectations play a big part in satisfaction with value conflict outcomes. The use of qualitative interviews in this study shows how college students make sense of the conflicts in their time use priorities and how they find solutions for this conflict and adjust their expectations for sleep time. Students negotiated their time for sleeping in ways that they knew would only be acceptable during their college years.

Limitations

Limitations of this study include the small and non-representative sample which limits the generalizability of the findings to the wider population of college students at this university and elsewhere. The participants were people who had the time and interest to talk about this topic. Participants' views were also specific to the social, cultural, academic, and geographic settings of this

university. No systematic measures or detailed records of time use were collected, and participants' reports of time devoted to sleep, eating and other activities were general and qualitative. Although the lifestyles of college students can include alcohol and drug use, the study did not directly address these topics with students. Even though the researchers tried to stay open to participants' perspectives, subjectivity is an inherent feature of qualitative methods that must be acknowledged.

Conclusions

The findings from this study advance conceptual understanding of how college students conceptualize and manage their time by providing new insights and emphasizing the value of considering this topic from a social constructionist perspective. When studying or working with people who perceive that life is essentially full of obligations, the terms fixed and flexible commitments may be terms that better represent their perspectives compared to other terms used for categorizing time use. Students were learning to balance ambition and achievement with their well-being. The ideas from this study can be examined more broadly in the rest of the adult population who must also find this balance.

This study revealed the difficult task of unpacking how people construct and manage the links between sleeping and eating, relationships that warrant more attention because of the association of sleep deprivation with health risks. The data revealed how vital activities such as sleeping and eating are embedded amongst a whole range of flexible and fixed time commitments which vary in importance and priority from individual to individual. Students in this study described varying degrees of poor sleeping and eating habits, behaviors which have been linked to poor health outcomes. Although it is known that college students may not be meeting all of their dietary needs, more research is needed to directly examine the health risks associated with combining inadequate sleep and poor diet.

Future studies of time use in college students should acknowledge the particular ways that college students categorize and value their time for different activities. The findings of this study should be examined and elaborated upon with studies of larger and more diverse samples of college students.

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