Research Article

Nursing students’ time management, reducing stress and gaining satisfaction: a grounded theory study

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Abstract
In the course of their studies, nursing students must learn many skills and acquire the knowledge required for their future profession. This study investigates how Iranian nursing students manage their time according to the circumstances and obstacles of their academic field. Research was conducted using the grounded theory method. Twenty-one nursing students were purposefully chosen as participants. Data was collected through semi-structured interviews and analyzed using the method suggested by Corbin and Strauss. One of the three processes that the nursing students used was “unidirectional time management.” This pattern consists of accepting the nursing field, overcoming uncertainty, assessing conditions, feeling stress, and trying to reduce stress and create satisfaction. It was found that students allotted most of their time to academic tasks in an attempt to overcome their stress. The findings of this study indicate the need for these students to have time for the extra-curricular activities and responsibilities that are appropriate to their age.

Key words grounded theory, Iran, nursing student, satisfaction, stress, time management.

INTRODUCTION

Time management, a major issue among university students, affects how they view and use the time available to them and how they adjust to their academic responsibilities (Bonhomme, 2007). Sansgiry et al. (2006) defined time management for students as “clusters of behavioral skills that are important in the organization of study and course load.” This is a process that is constantly changing and must be kept under control by each individual (Hackworth, 2007). Time management is often defined as a product of organizing skills, however the same processes may not be applicable to everyone in the same way (Macan et al., 2010). Therefore, what works for one particular person might not work for another (Sarp et al., 2005). Culture and personality may also influence the temporal perception of each individual (Nonis et al., 2005). In addition, the time available to each individual for attending to a range of requirements varies according to the abilities and capability limitations of each person (Nandakumar & Jones, 2001).

Using time more effectively should enable nursing students to achieve a better balance between work and personal life (Arnold & Pulich, 2004), be more successful in examinations (Prichard et al., 2006), and prepare themselves for clinical environments (Heslop et al., 2001).

There is currently no established standard regarding the exact number of hours needed to produce competent and capable nurses (Lipscomb & Snelling, 2010). This is because the healthcare sector is constantly searching for ways to reduce costs while simultaneously improving quality of service (Holmström & Larsson, 2005). Consequently, students believe that they do not have enough time to develop the extensive knowledge base required for nursing (Misra & McKean, 2000).

LITERATURE REVIEW

Despite widespread use of the term “time management,” not much scientific research has focused on how individuals manage time or examined the processes involved in time management (Claessens et al., 2007). In some studies, time management has been recognized as the basis of success (Jeffreys, 2007; George et al., 2008). There are some published reports on the fundamental variables in time management behavior of nursing students, although most experimental evidence is associated with Western cultures. Participants in a study of pre-registration mental health nursing students expressed concern about the effect of their supernumerary status; they were worried about study time whilst practicing and about the course expectations. They tackled this by using local trust and off-site university facilities (Wood, 2005). There are also some relevant studies that are not related to nursing. For example, a study of year nine high school students found that they respond to time gaps through strategies...
like assigning homework (in different patterns), holding extracurricular meetings, and changing some of their work habits (Eilam & Aharon, 2003).

Ali & Naylor (2010) proposed qualitative studies of successful and unsuccessful students to examine the significance of these phenomena. Because cultural and personal features relate to time management, there is a need for such studies in a country like Iran, which is located in southwestern Asia. In Iran, high school students are supported by their families and do not generally have non-academic responsibilities. Upon entering university, new non-academic responsibilities and tasks that affect their management of time confront them.

**Nursing education issues in Iran**

The Iranian undergraduate nursing education program is a national four-year program, which, on completion, confers a bachelor’s degree in nursing (Peyrovi et al., 2005). The curriculum of this program is aimed at training individuals to be members of a health team that can provide services in health, education, research, consultation, management, care, and rehabilitation in order to preserve and elevate the wellbeing of individuals and society (Iran High Council planning regulations of Medical Sciences, 2005). As a result, nursing students have an immense academic workload upon entering this field (Seyedfatemí et al., 2007).

Nursing education is not always the first choice of applicants to Iranian universities, who have to take the competitive National Higher Education Entrance Exam. Higher-ranking applicants are given seats in the more prestigious programs such as medicine, dentistry, and pharmacology. Lower ranking students must choose between the remaining, less desirable areas of study, such as nursing, usually without any particular inspiration or interest (Tabari Khomeiran & Deans, 2007). Thus, these students rarely have a good understanding of nursing as a profession (Nikbakht Nasrabadi et al., 2004).

**STUDY AIMS**

The initial motivation for the present study of Iranian nursing students was an interest in understanding their struggles and successes as they deal with academic and personal demands. This study investigated how nursing students manage their time according to the circumstances and obstacles in their academic field. Using the grounded theory approach, this study contributes to the growing body of literature on the time management process.

**METHODS**

Design

This study was part of a doctoral dissertation aimed at shedding light on the process of time management by nursing students. Using the grounded theory method, we studied Iranian undergraduate nursing students to determine their time management behavior. Grounded theory is a powerful qualitative research method that can improve educators' understanding of the complex range of student experiences (Brown et al., 2002). “Grounded theory focuses on the identification, description and explanation of interactional processes among individuals or groups within a given social context” (Corbin & Strauss, 2008).

Time management is a process phenomenon and many different factors can have either facilitating or preventive effects on it (Pellegrino, 2003). Grounded theory is an appropriate approach to studying this phenomenon because there is limited data in this field.

**Participants**

Although we initially selected participants in a purposeful manner, as the research continued we began to use theoretical sampling. We then chose participants according to concepts that emerged through the interview scripts (Corbin & Strauss, 2008) (p144). For instance, in defining the “accepting the field” concept (which is considered a basic factor in the students’ choice of time-expending patterns), we were faced with the following questions: Why should students accept their field? Which factors lead to their acceptance? How does accepting the field influence students’ time management? In subsequent interviews, we tried to identify the properties and dimensions of this concept and the ways in which they affect time management. We did this by collecting more data and occasionally retuning the collected data (Corbin & Strauss, 2008) (p151). Theoretical sampling continued until the properties and dimensions of the categories were complete.

Each interview was immediately transcribed and analyzed. Based on each analysis, we selected the next participant and modified the questions. The participants comprised 21 nursing students: 2 freshmen, 8 sophomores, 7 juniors, and 4 seniors. There were 14 women and 7 men, with ages ranging from 19–23 years.

**Ethical considerations**

The Committee for Ethics in Medical Research at the Faculty of Nursing and Midwifery of Tehran University of Medical Sciences approved this research (Record Number 1255515, May 2009). All participants provided informed consent. We assured participants of their anonymity and informed them that could stop the interview at any time they wished; furthermore, they could refuse to answer any unwanted questions.

**Data collection**

We collected the data through semi-structured interviews in an environment of the participant’s choice. The mean duration of the interviews was 58 min. The interviews started with broad questions in order to encourage the participants to speak freely and recount their personal experiences regarding time management. As the interview progressed, questions became more specific, allowing deeper investigation of issues raised by participants in earlier interviews. We conducted additional interviews to obtain further explanations or
clarifications of certain statements. We stopped conducting interviews when category saturation occurred. We carried out data gathering and analysis processing between April 2009 and April 2010.

**Initial interview questions**

At the beginning of the interview, we asked broad questions in order to encourage the participants to speak freely about time management and to recount their personal experiences. Examples of questions asked are as follows:

1. How do you spend the 24 hours of a typical day?
2. How do you make time for your work?
3. What do you do to fit certain activities into particular time periods?

**Focus interview questions**

More specific questions followed the initial questions, allowing the researcher to explore the issues that had been raised by the participants in earlier interviews. For example, when participants said that their workload had increased, we asked them what they had done to fit their new tasks into their schedules.

**Data analysis**

The first author recorded, transcribed, and analyzed the audio responses verbatim, rereading the transcripts repeatedly and allocating codes to recurrent themes. We used MAXQDA 2007 software (VERBI GmbH, Berlin, Germany) to manage and sort the coding.

We developed an empirically grounded set of insights by using the constant comparative techniques and guidelines of Corbin and Strauss (2008) to code the data and examine the behavior of nursing students in managing their time. We performed data analysis in four phases. In the first phase, we examined the data for concepts, derived codes from the interview data and identified theory categories and their properties. Then, we conducted an elaborate analysis by relating the concepts to each other, crosscutting, comparing incidents for similarities and differences, and theoretical sampling. In the next phase, we analyzed the data for context, and identified sets of conditions that give rise to time management problems. In the third phase, we identified strategies used by nursing students to handle the difficulties they face in educational settings. The fourth and final phase focused on detecting core categories.

We enhanced credibility via validation of the codes and categories that emerged in subsequent interviews and debriefings with supervisors. Faculty members in turn checked the codes and emergent categories. Supervisors, who studied the transcripts, verified the core categories. We used prolonged engagement, member checking, peer checking, and maximum variation of sampling to maximize confirmability of the findings (Strauss & Corbin, 1998).

For the member-checking process, we allocated initial codes to the participants and transcripts to ensure that there were no mistakes during the data gathering process; we also did this to boost the clarity and validity of the research. The majority of participants agreed with the initial codes; however, we modified a few codes.

In addition, several nursing students who had not participated in the interviews reviewed the results and confirmed their suitability.

**Findings**

The participants of this study used the following three processes for time management: unidirectional time management, balancing time management, and time management with margined academics. The main objective of using these processes was to reduce stresses and gain satisfaction, which was the core category of this research. In this paper, we discuss unidirectional time management process. This part of our research revealed that acceptance of the major was the start point of time management processes for the students. Accepting their field helped students overcome uncertainty. The students’ first priority was continuing their nursing education, their second priority being either to become competent nurses or to make their parents proud. Due to the large volume of academic duties in addition to other extracurricular chores and responsibilities, the participants felt that they did not have enough time to attend to their studies, which resulted in feelings of stress. In order to reduce stress and make better use of their time, nursing students tried to spend more time on their academic tasks, spend less time on other chores, and integrate other vital responsibilities into their academic work.

**Accepting the nursing field**

Since resigning from studies is not an easy choice, and since the chance of being accepted into a desired area of study after retaking the national university entrance exam is not high, some students decided that their best choice was to accept nursing as their field of study. They felt they had no choice but to come to terms with this field of study and attempted to lay the groundwork for accepting it by applying certain strategies. For instance, they trivialized and ignored negative comments about the nursing profession. Another factor that helped nursing students accept nursing as their field of study was the hope for a brighter future.

**Overcoming uncertainty**

The first priority of the students was to continue their nursing education, and their second priority was either to become competent nurses or to make their parents proud.

**Continuing education in nursing** The pursuit of nursing studies was the main objective of these students. Most of them felt that Master of Science students have more prestige in society. Some of them tended to pursue their studies with the goal of finding jobs in special wards. In this regard, the first participant (a sixth-term student) stated, “This year I have decided to enroll in the master’s entrance exam and have bought the references I need to study.”

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Becoming a competent nurse. Because becoming a competent nurse was the objective of some students, these students wanted to achieve the necessary skills for offering the best health care to their patients. This was due to the commitment they felt toward their patients. In this regard, religious belief, individual morality, and a sense of altruism were among the important factors.

Gratifying family. Another goal of the students was gratification of their families. Because the participants felt that their chosen major did not meet their families’ and, in particular, their parents’ expectations, and that their parents could not be proud of their children’s success, they felt a responsibility toward their families and sought another way to compensate for their perceived failure. The second participant (an eighth-term student) remarked, “Since my father really wants me to excel, I have studied to make him happy.”

Assessing conditions

Upon resolving their ambiguity and orientating themselves, the students assessed their circumstances. On the one hand, they were faced with the great academic workload associated with their field of study. On the other hand, because of the change in their lifestyles after entering university, they had to take on additional non-academic responsibilities.

Academic workload. As an educational discipline, nursing requires a heavy curriculum to develop the necessary competencies in its students. Furthermore, the clinical field is inflexible and full of recurrent physical and mental pressures. All participants complained about the high academic workload. Some students compared themselves with students of other disciplines. The twenty-first participant (a sixth-term student) said, “Now we have exams, homework, classes, and are doing our internships all at the same time.”

Non-academic responsibilities. When an individual enters a university, he or she is expected to become a more active member of society, prepare for marriage, and so on. In most cases, entering a university is accompanied by leaving one’s family, living in a dormitory, release from familial supervision, and increased responsibilities. In dormitories, students have to do many things that they did not need to do in their homes. However, students who lived at home had to deal with their family’s expectations: parents asked their children to take on more responsibilities and to be more active in household activities. The sixth participant (a second-term student) stated, “I plan out my weekends in such a way as to spend them studying.”

Feelings of stress

With the high goals that the participants had set, the stress of their academic responsibilities increased and they felt that they did not have enough time for these responsibilities. They believed that they were falling behind their peers, and this fear intensified their stress.

The feeling of not having enough time for academic duties. Because these students tried to stick to the curriculum defined by the educational system, they faced many problems. They felt that the time they had was insufficient to tackle their academic workload. The sense of not having sufficient time caused them to feel uneasy about expending time on even the most important aspects of their lives. The second participant (an eighth-term student) commented, “Every human being needs entertainment alongside academic work. Right now, I don’t even have half an hour for that.”

The feeling of falling behind others. Because of their ideals, the students felt as though their efforts were insufficient and because of their educational homework, they faced constant challenges. The competition that the students felt among themselves induced constant feelings of stress related to the fear of falling behind their peers. In this respect, the sixth participant (a second-term student) stated, “I have to sacrifice my afternoon siesta in particular because I’m worried I’ll fall behind other students.”

Trying to reduce stress and create satisfaction

Participants attempted to overcome these issues by spending time unidirectionally in order to overcome stress and create satisfaction, which is the core aspect of this study. The participating students all attempted to reduce the volume of other tasks and focus primarily on their academic duties. Making time for academic work, spending less time on other duties, and integrating other tasks into academic duties were the strategies that these students used.

Making time for academic duties. Because the packed schedule of courses and internships occupied most of their workdays, the participants looked for other times when they could study. They reduced the time that they spent onsleep, relaxation, and holidays in order to make time for their studies. For them, there was no big difference between workdays and holidays. Concerning this issue, the twenty-first participant (a sixth-term student) said, “I plan out my weekends in such away as to spend them studying.”

Minimizing non-academic duties. Avoiding entertainment was one of the most popular methods that the participants used to make time for their studies. They tried to reduce extra-curricular duties in numerous ways to create more time for their academic responsibilities. The first participant (a sixth-term student) stated, “I tried to plan my meals so as to not coincide with the other students, in order not to spend too much time.”

Integrating duties. Under all circumstances, these students wanted to complete their educational duties. Some participants tried to tackle other tasks alongside their academic duties. The twenty-first participant (a sixth-term student) said, “In the previous five terms, I tried to attend English classes alongside my studies. I’d go to university from early in the morning until five in the afternoon. After five, I’d head
Nursing students’ time management

out to English classes until eight in the evening. At the end of the day, I’d feel like my brain was boiling!”

Despite the heavy burden of educational duties, these students performed their jobs because they felt that it was their responsibility to do so. They expressed satisfaction with expending their time on their nursing duties.

DISCUSSION

The definitive finding of this study is that accepting their field is the most decisive variable that shapes how nursing students spend their time. Based on our study, nursing students felt dissatisfied upon entering university because they had spent a lot of time on the university entrance exam and, since nursing was not their first choice, they were dissatisfied with their entrance exam results. Consequently, many sought to compensate for their dissatisfaction by becoming successful in their major. They reached the conclusion that they might as well accept their field and do well in it. The burden of the students’ educational homework and other duties, coupled with their planned goals, caused them a great deal of stress.

Other studies have also indicated that nursing students strongly feel the burden and strain of their field of study, their private lives, and, ultimately, their time (Magnussen & Amundson, 2003; Robshaw & Smith, 2004; Norman et al., 2005). Jordanian nursing students indicated that finding time to study is their primary concern (Abu-Moghli et al., 2005). However, there is little information on how they manage their time.

In order to reduce stress, our participants had all attempted to reduce the volume of other tasks and focus primarily on their academic duties. Unlike in our study, in a study of a group of at-risk African American college students, the group typically prioritized other activities (e.g. socialization, work, family, and extracurricular organizations) over academic work; therefore, they had disproportionately more time for leisure than for academic activities (Bonhomme, 2007). In regard to making choices between these two options, researchers suggest that people consider what they will gain when choosing to work either on Task A or Task B, and whichever task has higher utility will be chosen (KÖnig & Kleinmann, 2007). Grades were very important to our participants. Therefore, they spent more time on their academic duties than on personal and non-academic activities.

However, some researchers have indicated that there is a meaningful relationship between time management, behavior, and stress (Macan et al., 1990; Pulford & Sohal, 2006; Kearns & Gardiner, 2007). They indicate that, instead of actually using time management behaviors, perceptions about the structure and purposes of time use might be useful in reducing worry (Kelly, 2003).

In our study, students’ understanding of what caused them stress determined their time management behavior. The more stress that participants felt towards their academic tasks, the more time they spent on establishing a balance. Because of their goals and values, participants in our study perceived the stress of academic duties to be greater than other stresses, and therefore concluded that they must spend more time on academic tasks. Accordingly, although they had established a balance between the amount of stress and the efforts to reduce that stress, the time spent on academic duties was disproportionate to that spent on other activities. This imbalance affected the personal lives of the participating students.

Limitations of the study

Despite the mechanisms we applied to enhance the rigor of this study, some limitations may be inherent. The sample size was small and the context confined to a particular geographic location. However, the study offers some valuable insights into the way that nursing students manage their time. The findings of this study are transferable to other nursing students.

CONCLUSION

This study, which comprises part of more extensive research (a PhD dissertation identifying the methods used by nursing students in Iran for planning and prioritizing their academic and non-academic activities), describes how the experience of nursing students contextualizes and varies their time management practices. Nursing students attempt to understand, reconcile to, and live within, the possibly conflicting contexts of academics and non-academics.

Based on the findings of this study, the time management of students is concentrated on personal motivations. Those students whose goals lead them to accept the nursing field place great importance on their academic duties. In the context of the circumstances that they had created or that had been thrust upon them, these students were forced to relinquish many of their desires in order to reach their goals. In other words, they faced an internal struggle to choose between academic duties and other tasks. In the end, because of their perceived goals, the participants preferred to spend the majority of their time on their academic duties. Since, in an attempt to overcome the stress of academic responsibilities, they spent far less time on other needs and duties than is normally required for the healthy growth and development of individuals in this age range, they were constantly faced with a sense of internal struggle and feeling of loss.

The findings of this study indicate the necessity of investigating the time needed for reaching the goals of a nursing education program as well as the need to ensure that the goals of such a program are commensurate with its length. The curriculum of the bachelor’s degree in nursing should be modified so that it is appropriate to the age, social, and spiritual needs of its students, including the particular conditions of their culture and environment. Future studies should investigate time management behavior among other students and in other contexts.

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