Study habits and skills, and academic achievement of students in Kerman University of medical sciences

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Abstract

Background and purpose: *Study skills is one important factor influencing academic achievement of students . We must replace ineffective models and habits of study with more fruitful skills in order to gain better learning. This study investigates the study skills and habits of medical students and their educational achievement.*

Methods: *Based on a pilot study the sample size was estimates as 400. Systematic cluster sampling based on medical school registry of students was used. The subjects were medical sciences students of different program. Data gathered with a researcher – made questioner of study skills containing five part including demographic question ; 14 items on planning and time management; 20 on active reading , 8 on concentration and 18 on note taking; and 20 on study habits.*

Results: *The mean score was 163/1±28/2 (range 50-250) for study skill and 25/6±6/86 (range 20-60) for study habits. The mean scores of students for different components of study skills were 16.89±1.7 for planning and time management (Possible of 14-70), 59.1±14.1 for reading comprehension and speed (20-100), 19.8±6.6 for concentration (8-40), and 46.43±13.8 for note taking (18-90).The major defects in students' study skills were planning and time management followed by concentration and note taking skills. Study skills had a significant correlation with educational achievement ($r = 0.101$, $P < 0.05$) while study habits correlation with educational achievement was not significant ($r = 0.085$, $P > 0.05$). Although males scored slightly better in study habits and all components of study skills but this superiority was only significant for reading comprehension and speed.*

Conclusion: *Students need to learn study skills early in their university life. results showed weakness in study habits and study skill and deficit in planning and time management ,concentration and note taking skill. We suggest educational course or workshop about university skills for students.*

Key words: *Study skill , Academic Achievement, Students Learning*

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Introduction

The medical science is growing so rapidly that a doctor should continue his/ her education. This requires more effective and more focused study strategies (2). Bloom believes that study skills are pre-requisite for educational success (3). Many universities offered study skills courses to new comers as an essential course including York Uni-

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versity, California; Berkeley University, Ferrum College in Virginia, Darmoth University and Cook University (4, 5, 6, 7). In Iran Shahid Beheshti Medical faculty has recently introduced study skill course for medical students (4).

One important component of learning activities is study skills. Various students have various study practices based on their study habits and their interest in subject (11). Three distinct factors have identified which contribute to better educational achievements: 1- Competence also referred to as intelligence and aptitude; 2- Interest which usually results from a good understanding of future goals and purposes; 3- Study skills (1). Effective study usually comes down to two factors: motivation and style.

A good, effective study required flexibility in study speed, clear perception and memory retention, concentration, planning and evaluation (8, 9, 10). Students use three approaches to learning surface deep, strategic. In the surface approach to learning the students try to memorize all the content to get good grades (4). Study is a complex activity and students have to use a combination of study skills; Based on the nature of subjects and difficulty of the content students have to adapt difficult skills (2). To learn each skill one should stop previous habits and try to substitute them with new useful habits (1): To have a fruitful time studying, one should be interested in subjects and be competent in using study skills. The interest on the part of students makes him/her to study for longer hours which lead to more opportunity to use study skills (11).

Mastering study skills makes study more enjoyable and effective which in turn strengthen the students' interest so he/she spends more time studying (2, 3). The psychologist working specifically on learning has found effective learning methods which make learning easy (2, 10). Reading comprehension skills are invaluable tools that contribute to better learning. They include skimming, scanning, critical reading, inquiry reading (2, 13). A study of 4000 medical students from 21 universities in Iran should that 32% of students had poor study skills (4). Psychologic studies show that general study skills such as reading comprehension and recall are important particularly in the early stages of students' academic life (14). Students with effective study skills have been shown to overcome educational failure and improve they physical and mental health (14). This study is an attempt to find out how study skills and study habits are related to students educational achievement.

Methods

In this study cross-sectional study the sample size was determined based on a pilot study on 30 medical students. The correction coefficient for various study skills with GPA as the indicator of educational achievement ranged from 0.15 to 0.53. The required sample size based on this pilot study result was 400. Systematic cluster sampling based on medical school registry of students was used. A self administered questionnaire was used to collect data including demographic data and items evaluating study skills (planning concentration, note taking, reading comprehension) based on a Likert's type scale of 5 choice (from "always" to "never"). The validity of the questionnaire was examined by an expert panel. The reliability of the questionnaire based on the pilot study result was calculated as a chronback's of 0.85. To assess the study habits of students to rest the significance of finding Pearson's correlation coefficient, Spearman test, ANOVA, and non-parametric Mann-Whitney, Kruskal-Wallis were used. The data were analysed with SPSS ver. 12.

Ethical Consideration

The students' data were treated as confidential and all students gave consent in advance of participating in the study.

Results

In this study 400 medical sciences students participated including 67 (16.75%) medical, 57 (14.25%) dentistry 49 (12.25%) pharmacy, 65 (16.25%) health sciences, 43 (10.75%) management, 76 (19%) nursing, 33 (8.25%) other health related disciplines. The mean student age was 21.57 ± 3.8 and 186 (46.5%) were male and 214 (53.5) were female. Of all participants, 41 (10.25%) were married, 359 (89.75%) were single; 155 (38.75%) from other parts of the country.

Of all participants 18 (4.5) studied for associate degree 185 (43.3%) studied for bachelors degree, 18 (4.5%) studied for master's degree and 183 (45.8) studied for a doctoral degree. Eighty seven students (21.75%) worked beside their study. The Mean GPA was 16.9±1.7 and the mean study habit score was 25.6±6.86. Regarding the main sources for study, 75 (18.75) used textbooks, 175 (43.75%) used their hand written notes, 148 (37%) used written transcript of instructors lectures, and 2 (0.5 %) used other sources.

The mean scores of students for different components of study skills were 16.89±1.7 for planning and time management (Possible of 14-70), 59.1±14.1 for reading comprehension and speed (20-100), 19.8±6.6 for concentration (8-40), and 46.43±13.8 for note taking (18-90).

The major defects in students' study skills were planning and time management followed by concentration and note taking skills.

The mean score for study skills as a whole was 163.1±28.2 (60-300).

Study skills had a significant correlation with educational achievement ($r = 0.101$, $P < 0.05$) while study habits correlation with educational achievement was not significant ($r = 0.085$, $P > 0.05$).

Although males scored slightly better in study habits and all components of study skills but this superiority was only significant for reading comprehension and speed(60.5±14.3 vs 57.5± 13.7, $p<0.05$).

Discussion

Applying study skills leads to better students' learning. Stark should that participation in college seminars on study skills improved students learning of materials with scientific nature (15). Our students' main problems in study were planning, concentration, note taking, reading comprehension and speed. A study by Mardani et al indicated that disturbed concentration (42.5%), lack of interest (17.3%) and slow reading speed (8.4%) were the main problems (16). The students with educational success pointed out the study skills as a contributing factor while the students with educational failure expressed lack of good study skills a major factor of their failure.

Our students were more likely to use their notes (43.75%) or transcripts of instructors' lectures while the study by Mardanian showed that of 260 medical students interns, and Gynecology residents of Isfahan University of Medical sciences, 45% of students, 63% of interns and 83% of residents used textbook as their main source (16). The difference may be explained by the fact that in our study students other than medical students were included. A study by Shariati revealed that medical students were more likely to use textbooks during the semester while for the example preparation they were more likely to use transcripts of instructors' lectures (17).

Another problem that our students faced was lack of time management and planning skills. Seif believes that lack of effective study models is associated with educational failure (18). In a survey in York University students expressed that a systematic approach, deep learning and maintenance of concentration would led to more effective learning (5).

Given the fact that study skills contributes to a

more effective and enjoyable study experience (19,20) and the fact that our students are poor in certain skills, it seems reasonable to include training for these skills in an early stage of medical and other relevant programs.

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