Aim: The aim of this study is to assess students’ views on student-teacher relationship and its effect on academic grades.

Methods: The present cross-sectional study was conducted in the College of Medicine, King Saud University, Riyadh, in 2005. The questionnaires were distributed to 420 students during the examination period in order to obtain a full response. It consisted of items on different aspects of student-teacher relationship for which the responses were measured on a 4-point scale. The response rate was about 83%.

Results: The current relationship between the student and the teacher was evaluated as very good and good by 61% of the study sample. The responses were associated with their grades as ($X^2=6.25, p=0.012$). Eighty-four percent of students with higher and above average grades felt that expulsion from class was an appropriate means of controlling the class. Also (78.2%) students felt that the teachers treated them with respect, and their responses were significantly associated with their grades ($X^2=11.8, p=0.003$). Eighty-four percent of the students with higher and above average grades strongly agreed that teacher’s performance was affected by students’ attendance or absence and the responses were significantly associated with their grades ($X^2=4.35, p=0.037$). The responses to most of the items by the students were independent of their grades.

Conclusion: This study concludes that student-teacher relationship was good in a medical school and the views of students on this relationship were independent with their academic grades. Further study which includes from 1st year to 5th year undergraduate students is required to give a broader view of student-teacher relationship in a medical school.

Key Words: Student-teacher relationship, Undergraduate medical education, Saudi Arabia.
INTRODUCTION
An ever-changing world seeks advancement in every aspect of life including education. Since it is recognized that the level of education in the developed world is far higher than in the developing countries, it stands to reason that education has an important role to play in the evolution of developing countries. Our present education system indicates that knowledge should be disseminated by the teacher to students. This means that teachers select subject materials, textbooks and references, design the framework of the subject, conceptualize, analyze and synthesize the subject matter and present it face-to-face to students. To assess the effectiveness of this transfer of knowledge, assessment methods devised ranging from tests, quizzes, assignments, and examinations to project work, are all generally based on a teacher-centered learning. The student's function is thus reduced to one of passive reception. He listens, remembers, and repeats what has been presented to produce the desired outcome. This is by far the most common approach used by most education establishments. Whatever the teaching method is in any setup, there are two important components in the process of education and learning. The teacher and learner. It does seem that the best teachers will promote the greatest amount of learning in students. Yet, the process of learning is so complex that teachers, even the best teachers, may play only a minor part in students' learning (Jonhendro et al, 2002; Nageswari et al., 2004).

In any interactive process, the use of a human approach plays a major role in success. Education is one such process, the success of which is influenced by student–teacher relationship. In other words, this relationship is an essential component of the teaching and learning process. The teacher’s success in facilitating learning is directly related to the quality of that relationship (Postman and Weingarten 1969; Tiberius, 1986; Tiberius and Billson, 1991).

The more teachers know about their students, the better the rapport the teacher has with them and the more likely they are to benefit from the teachers’ experience of the world. This teaching is inherently interactive because it depends on interacting with active, growing minds (Tiberius, 1986; Tiberius and Billson, 1991). Medical students demonstrate a profound capacity and motivation for learning, regardless of the quality of the teaching they receive. There is no guarantee that the teaching styles of teacher with excellent academic skills will harmonize with the preferred learning styles of their students (Peleg et al, 2005). Surveys of medical students are widely used to evaluate course contents and faculty teaching in the medical schools. Information provided by students in a survey is valuable since they are uniquely able to evaluate many important aspects of learning experience. This study was carried out to assess student-teacher relationship, by examining students’ views on their teachers, their attendance in class, the class environment, and various aspects of the relationship. The present study was also designed to assess the association between students’ grades and their views on teacher-student relationship.

SUBJECTS AND METHODS
This study was conducted at the College of Medicine, King Saud University, Riyadh, Saudi Arabia in 2005.

Study Subjects
The College of Medicine, King Saud University enrols an average of 350 students annually and graduates an average of 200 students every year. The study subjects were the second and third year students in the preclinical years, during which they study the basic medical sciences including Anatomy, Physiology, Biochemistry etc.

Methods
The study design was a cross-sectional survey, using systematic sampling procedure to obtain a representative sample of the basic sciences students. The pre-tested questionnaires were distributed during the examination period to obtain a full attendance of the students and to increase the chances of getting reliable responses. The 22 questions in the questionnaire exploring student-teacher relationships elicited information on the academic year and grade of the student, his views on teachers and their teaching, class control, current relationship, their perception of what constitutes the best relationship, and its current influence on academic attainment. All the questions were close-ended except for the two final open-ended questions. The cumulative grades of the students (Maximum of 5 and minimum of 2) were considered and classified in two groups as “higher and above average grades “(5.0 to 3.75) and as “average and lower grades” (3.74 to 2.0).
Data management and statistical analysis
The data was entered using EPI INFO version 6.04 package and analyzed using SPSS, version 10.0 packages. Descriptive statistics and Chi-square test were used to determine the association between two qualitative variables.

RESULTS
Four hundred and twenty (420) students were enrolled in this study. Two hundred and seventeen (217) students in the study sample were from second-year and their response rate was 85.3%. The remaining 203 were third-year students and their response rate was 91.6%. The total response rate was 88.3%.

The students’ perception and ideas on their teachers in the Basic Sciences years in relation to their grades were assessed and observed by only one question “treat students respectfully” was significantly associated with their grades. The higher proportion of students (78.2%) with higher and above average grades felt that the teachers treated them with respect compared with students (70.5%) with average and low grades ($X^2=11.8$, $p=0.003$). The responses to other questions were not associated with their grades (Table 1).

The students' opinion about the student-teacher relationship, their attendance and the effect of this on the teacher’s performance and their relationship to their grades were also assessed. It was observed that the effect of the relationship on their attendance was not significantly associated with their grades. However, there was a statistically significant association between students' views on teacher performance and their effect on student attendance or absence and their grades ($X^2=4.35$, $p=0.037$). Eighty-four percent of students with higher and above average grades compared with 73.6% with average and low grades felt that the teacher's performance was affected by their attendance or absence from class. Students (84.1%) with high and above average grades ($X^2=6.25$, $p=0.012$) felt that the best way to deal with disruptive behaviour was to send this student out of the class compared with 72% of students with average and low grades who felt the same. Students views on the teacher's ability to control the class with a reprimand or by ignoring the description were not associated with their grades. The views on the effect of student-teacher relationship on students' academic attainment were assessed and almost all the students agreed that this relationship affected their academic attainment and the responses of students were uniformly distributed across grades (Table2).

It was found that almost all students described the teacher who used references, such as books, handouts etc, for the lecture as a good teacher irrespective of their academic grades. Their attitude towards the teacher was affected by the opinions of the previous students. These views were ascertained in relation to their academic grades. There was no significant association between their grades and their views. There was also significant statistical association between students’ grades and their confidence in the teacher’s advice. Students preferred interactive teaching, but their academic grades did not have any significant association with the teacher's method. The distribution of views on method of teaching was uniform across grades. The preference of interactive teaching by students was independent of their academic grades. Students' evaluation of the current relationship between student and teacher had no significant association with their grades. There was no significant relationship between the views of the students on the current student-teacher relationship and the negative or positive effect on their academic performance and their grades ie, there were no variations in students' views according to their academic grades (Table 3).

The students were asked two open-ended questions. The first was on their perception of what constituted a good teacher. The second one was to find out what they disliked in a teacher. The two questions were grouped. Those characteristics which expressed the same idea were grouped into one. The main characteristics of a good teacher were put into six categories and were depicted in a bar chart (Figure 1) and another six categories covered the main characteristics of a bad teacher and were shown in a bar chart (Figure 2).

DISCUSSION
Student-teacher relationship is an important dimension of the educational process at all levels of education. This relationship emerged as a strongly positive influence on clinical learning experiences in medical education. The inherent qualities of the relationship (caring, knowing, trust, and mutual respect) and the teacher’s rapport with the students resulted in a classroom environment where students were affirmed and supported to achieve their full potential as learners and clinicians (Gillespie, 2002). Student-teacher
**Table 1**: Students' views toward their teachers in basic sciences years in association with their academic grades

| Question                                                                 | High and above average grades | Average and low grades | X²-value | p-value |
|--------------------------------------------------------------------------|-------------------------------|------------------------|----------|---------|
| Their decisions are obligatory and cannot be discussed (e.g. forcing the students to stay for extra time after lecture): |                               |                        |          |         |
| All of them                                                             | 26 (13.5)                    | 14 (10.1)              | 1.52     | 0.68    |
| Most of them                                                            | 90 (46.8)                    | 62 (44.9)              |          |         |
| Some of them                                                            | 70 (36.4)                    | 56 (40.6)              |          |         |
| None of them                                                            | 6 (3.1)                      | 6 (4.3)                |          |         |
| Treats students respectfully:                                          |                               |                        |          |         |
| All of them                                                             | 7 (3.5)                      | 15 (10.8)              | 11.8     | 0.003   |
| Most of them                                                            | 15 (74.7)                    | 83 (59.7)              |          |         |
| Some of them                                                            | 43 (21.3)                    | 41 (29.5)              |          |         |
| None of them                                                            | 1 (0.5)                      | 0                      |          |         |
| Answers the students' questions during the lecture kindly:             |                               |                        |          |         |
| All of them                                                             | 17 (8.8)                     | 14 (10.1)              | 1.1      | 0.57    |
| Most of them                                                            | 120 (62.2)                   | 91 (65.9)              |          |         |
| Some of them                                                            | 56 (28.6)                    | 33 (23.9)              |          |         |
| None of them                                                            | 0                            | 0                      |          |         |
| Helps students outside the class (including office hours):             |                               |                        |          |         |
| All of them                                                             | 23 (12.3)                    | 16 (12.1)              | 5.8      | 0.12    |
| Most of them                                                            | 106 (56.7)                   | 60 (45.4)              |          |         |
| Some of them                                                            | 57 (30.5)                    | 53 (40.1)              |          |         |
| None of them                                                            | 1 (0.5)                      | 3 (2.3)                |          |         |
| Accepts criticism from students (their suggestions and opinions):      |                               |                        |          |         |
| All of them                                                             | 2 (1.1)                      | 2 (1.5)                | 5.5      | 0.14    |
| Most of them                                                            | 33 (17.6)                    | 13 (10.1)              |          |         |
| Some of them                                                            | 108 (57.7)                   | 90 (69.2)              |          |         |
| None of them                                                            | 44 (23.5)                    | 25 (19.2)              |          |         |

**Table 2**: Students' views on attendance, control of disruptive behaviour in the class and the effect of relationship in association with their academic grades

| Question                                                                 | High and above average grades | Average and low grades | X²-value | p-value |
|--------------------------------------------------------------------------|-------------------------------|------------------------|----------|---------|
| In your opinion, your attendance is affected by student-teacher relationship: |                               |                        |          |         |
| Strongly agree + agree                                                   | 157 (84.8)                   | 105 (80.1)             | 0.89     | 0.34    |
| Strongly disagree + disagree                                            | 28 (15.2)                    | 26 (19.9)              |          |         |
| Teacher's performance is affected by students' attendance or absence:   |                               |                        |          |         |
| Strongly agree + agree                                                   | 152 (84.0)                   | 95 (73.6)              | 4.35     | 0.037   |
| Strongly disagree + disagree                                            | 29 (16.0)                    | 34 (26.4)              |          |         |
| In your opinion, if there is a disruption in the class, the most proper action by the teacher is: |                               |                        |          |         |
| Expulsion:                                                              |                               |                        |          |         |
| Strongly agree + agree                                                   | 159 (84.1)                   | 98 (72.0)              | 6.25     | 0.012   |
| Strongly disagree + disagree                                            | 30 (15.9)                    | 38 (28.0)              |          |         |
| Reprimand:                                                              |                               |                        |          |         |
| Strongly agree + agree                                                   | 137 (74.9)                   | 109 (79.0)             | 0.53     | 0.46    |
| Strongly disagree + disagree                                            | 46 (25.1)                    | 29 (21.0)              |          |         |
| Ignore:                                                                 |                               |                        |          |         |
| Strongly agree + agree                                                   | 14 (7.2)                     | 17 (12.2)              | 1.89     | 0.17    |
| Strongly disagree + disagree                                            | 181 (92.8)                   | 122 (87.8)             |          |         |
| Do you think that the student-teacher relationship can affect the academic attainment either positively or negatively: |                               |                        |          |         |
| Strongly agree + agree                                                   | 178 (93.7)                   | 128 (96.9)             | 1.15     | 0.28    |
| Strongly disagree + disagree                                            | 12 (6.3)                     | 4 (3.1)                |          |         |
### Table 3: Students' views on different aspects of student-teacher relationship in association with their academic grades

| Question                                                                 | High and above average grades | Average and low grades | X²-value | p-value |
|--------------------------------------------------------------------------|-------------------------------|------------------------|----------|---------|
| In your opinion the teacher who uses references for the lecture (book, handout etc) is: |                               |                        |          |         |
| Good teacher                                                             | 184 (98.4)                    | 130 (97.0)             | 0.20     | 0.65    |
| Bad teacher                                                              | 3 (1.6)                       | 4 (3.0)                |          |         |
| Did the opinions of the previous students affect your view of teacher?   |                               |                        |          |         |
| Yes                                                                      | 140 (76.5)                    | 102 (76.7)             | 0.009    | 0.924   |
| No                                                                       | 43 (23.5)                     | 31 (23.3)              |          |         |
| In general, do you trust the teacher's advice:                           |                               |                        |          |         |
| Yes                                                                      | 136 (78.6)                    | 108 (85.7)             | 0.99     | 0.16    |
| No                                                                       | 37 (21.4)                     | 18 (14.3)              |          |         |
| I am interested in attending lectures of the teacher who uses the method of: |                               |                        |          |         |
| Spoon-feeding                                                            | 47 (24.1)                     | 31 (22.3)              | 0.06     | 0.8     |
| Interactive teaching                                                    | 148 (75.9)                    | 108 (77.7)             |          |         |
| What is your evaluation of the current relationship between the student and teacher? |                               |                        |          |         |
| Very good + good                                                         | 129 (65.1)                    | 77 (55.4)              | 2.87     | 0.09    |
| Very bad + bad                                                           | 69 (34.9)                     | 62 (44.6)              |          |         |

A = Good Morals; B = Determination of references; C = Mastering the teaching skills; D = Sticking to time; E = Modesty; F = Others

**Figure 1:** The characteristics of the good teacher from the students' point of view (n=301)

A = Good Morals; B = Determination of references; C = Mastering the teaching skills; D = Sticking to time; E = Modesty; F = Others

**Figure 2:** The characteristics of the good teacher from the students' point of view (n=301)
relationship influenced the focus and scope of the student's learning and consequently, the development of his/her professional identity as a clinician. The task of gathering students' views on student-teacher relationship in a medical college, was important as incorrect or poor responses were likely to affect the validity of the information. This study had a high response rate. The third and second-year students had gone through at least one basic sciences year, and so were able to express their views on the relationship with their teachers in those years. In this study, a precise questionnaire was used inducing the students to respond positively. It was necessary to find out whether students' views on their relationship with their teachers were dependent on their academic grades. The findings of this study indicated that student’s perceptions were independent of their grades. This validates the mode of evaluation of students and examinations at KSU. Examinations are conducted by the department as a whole, not by individual teachers, which reduced any bias and lack of objectivity. Some studies have suggested that faculty are paid to lower their grading standards and give higher evaluations (Krautmann and Sender, 1999).

Students with higher and above average grades indicated that their teachers treated them with respect. This showed that these students interacted with teachers better than students with average and low grades. Almost all students thought that student-teacher relationship could affect their academic attainment. This was not supported by the finding which showed no association between the student-teacher relationship and the students' grades. This implies that their grades were not dependent on their views towards student-teacher relationship. This could be explained by the influence of the student-teacher relationship on the psychosocial condition of the student, rather than their academic achievement. In addition, a majority of students irrespective of their grades observed that attendance of the students at lectures could have a bearing on student-teacher relationship. Students with higher and above average grades felt that the teacher’s performance could also be affected by the students' attendance. This implies that students had a part to play in the forging of the student-teacher relationship.

An assessment of the current relationship indicated that about two thirds of the students evaluated the relationship as good. A high proportion of the students stated that they trusted their teacher's advice. This could be a measure of the relationship. Almost all the students felt that the teacher who gave the references for his lecture was a good teacher because they enabled the students to find out all they are supposed to know at their level. In response to the question on what the teacher should do if there was a disturbance in the class, students with higher and above average grades strongly recommended that exclusion or expulsion from class was the best way to control the class; the lecturer should not ignore disruptive behaviour since students needed a quiet atmosphere to concentrate on lectures being delivered.

Most students independent of their academic grades thought that interactive teaching was the best method of teaching on the grounds that it kept them alert, interested, active and facilitated and enhanced their understanding. Students could do without a teacher who merely gave information and left students to work it out by themselves (Hutchison, 1984). The relationship between the teacher and students was influenced significantly by the help teachers gave students outside lectures. It was assumed that previous or senior students' opinions had an effect on the junior students' views towards their teachers. Surprisingly, our study showed that all students were influenced by the opinions of the students ahead of them of their teachers, but found no significant association with their grades. This can be explained by the fact that the experience of the senior students was more trustworthy than their own experiences, which is more common in medical colleges.

At the top of the list of the characteristics of a good teacher were good teaching skills followed by high morals, for the improvement of teaching skills led to better academic attainment (Stern et al., 2000). The students' views in this study suggest that teachers could improve their teaching skills with good preparation and presentation of materials, the use of modern teaching modalities and proper control and maintenance of quiet in the lecture room. In addition, communication skills including clarity of speech and language are no less important than teaching skills. The key to all these characteristics, however, is the recognition of reciprocity in the teaching-learning process. Both the teacher and the learner have a part to play; they must learn to trust each other. However, it is incumbent on the teacher to create this atmosphere of mutual trust and understanding to instill the confidence in the students to become
full partners in the teaching-learning process (Tiberius, 1986; Tiberius and Billson, 1991; Spouse, 2001). University lecturers are advised to learn from the rich experience of general education teachers (primary and secondary schools) with regard to their teaching skills and in their dealings with students (Tanker, et al., 2003; Devore et al., 2004). The literature indicates that teachers should be aware that students differ substantially in their views. Therefore, clinical faculty should be ready to adapt their teaching to different levels of medical education (Paukert and Richard, 2004). There are not many studies in the literature dealing in detail with student-teacher relationship in a medical school. A more comprehensive understanding of student-teacher relationship is necessary.

CONCLUSION

In the present study, students in the College of Medicine of KSU clearly expressed their views on student-teacher relationship. It showed that student academic grades and their views on student-teacher relationship were independent and that to improve this relationship in a medical college, views of all students should be sought and considered.

REFERENCES

1. A word processing database and statistics program for public health (2001). EPIINFO version 6.04d.
2. DeVore E, Oliver C, Wilmot K, Vozzo L (2004). Science education in partnership: The 2002 Australian-American Fulbright Symposium. Advances in Space Research, 34: 2116-2120.
3. Gillespie N (2002). Student-teacher connection in clinical nursing education. Journal of Advanced Nursing; 37 (6): 566-576.
4. Hutchison R. Can you come with me? The student in the student-teacher relationship (1984). Med. J. Aust. 8-22; 141 (12-13): 870-871.
5. Jonhendro, Ching GB, Wahab R, Leng WM, Aun JTL, Yeoh E, Hock O, Koo WK, KDU (2002) community network. Internet and Higher Education; 4: 317-28.
6. Krautmann AC, Sender W (1999). Grades and students evaluations of teachers. Economics of Education Review, 18: 59-63.
7. Nageswari K, Malhotra A, Kapoor N, Kaur G (2004). Pedagogical effectiveness of innovative teaching methods initiated at the Department of Physiology, Government Medical College, Chandigarh. Adv. Physiol. Educ. 28: 51-58.
8. Paukert JL, Richards BF (2000). How medical students and residents describe the roles and characteristics of their influential clinical teachers. Acad Med. 75(8): 843-5.
9. Peleg R, Biderman A, Polaceck Y, Tandeter H, Sewartzman P (2005). The family medicine clerkship over the past 10 years at Ben Gurion University of the Negev. Teach Learn Med. 17(3):258-61.
10. Postman N, Weingartner C. (1969) Teaching as a subversive activity. New York: Delacorte Press.
11. Spouse J (2001). Bridging theory and practice in the supervisory relationship: a sociocultural perspective. Journal of Advanced Nursing. 33 (4): 512-22.
12. Stern DT, Williams BC, Gill A, Gruppen LD, Wooliscroft JO, Grun CM (2000). Is there a relationship between attending physicians and residents teaching skills and students examination scores. Acad. Med. 75: 1144-1146.
13. Tanner KD, Chatman L, Allen D (2003). Approaches to biology teaching and learning: science and learning across the school-university divide-cultivating conversations through scientist-teacher partnership. University of California at San Francisco (UCSF), Science and Health Education Partnership (SEP), San Francisco, CA 94143-0905.
14. Tiberius RG, Billson J (1991). The social context of teaching and learning. In: RJ Menges & MD Svinicki (Eds). College Teaching: From Theory to Practice, new direction for teaching and learning, Jossey-Bass Publishers Inc, San Francisco; pp 67-86.
15. Tiberius RG (1986). Metaphors underlying the improvement of teaching and learning. British Journal of Educational Technology 17 (2): 144-156.