**Plagiarism Perceptions and Attitudes Among Medical Students in Saudi Arabia**

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**ABSTRACT: Objectives:** This study aimed to determine attitudes towards and perceptions of plagiarism among medical students in Saudi Arabia. **Methods:** This cross-sectional, multicentre study was conducted between April and May 2018 and involved medical students enrolled in three medical schools in Riyadh, Saudi Arabia. The previously validated Attitude Towards Plagiarism questionnaire was used to evaluate approval (i.e. a positive attitude) and disapproval of plagiarism (i.e. a negative attitude) among medical students. Furthermore, this study evaluated whether attending medical writing courses or courses in medical ethics influenced medical students’ attitudes towards plagiarism. **Results:** A total of 551 students participated in the study (response rate = 73.5%). A significant association was found between mean negative and positive attitude scores and grade point average (GPA; \( P = 0.004 \) and 0.007, respectively). Students attending medical ethics courses had higher mean negative attitude scores compared to students who did not attend such courses (odds ratio = 2.369, 95% confidence interval: 1.540–3.645, \( P < 0.001 \)). Attending medical ethics courses was associated with a significantly more negative attitude towards plagiarism (\( P < 0.001 \), each). **Conclusion:** The majority of medical students in Saudi Arabia included in this study indicated a highly negative attitude towards plagiarism. A higher GPA, the authoring of a published manuscript and attending courses in medical ethics were associated with negative attitudes towards plagiarism among medical students. **Keywords:** Plagiarism; Attitude; Cross-Sectional Study; Medicine; Medical Students; Saudi Arabia.

**Advances in Knowledge**
- This study suggested that the majority of medical students had a highly negative attitude towards plagiarism.
- A higher grade point average, the authoring of a published manuscript and attending courses in medical ethics were associated with negative attitudes towards plagiarism among medical students.

**Application to Patient Care**
- Addressing plagiarism and determining the factors that can decrease its occurrence among medical students can increase future physicians’ awareness of the undesirability of plagiarism.

**Plagiarism and Cheating Are Two Concepts with Overlapping Characteristics.** Plagiarism can be defined as the unauthorised “appropriation of another person’s ideas, processes, results, or words without giving appropriate credit and usually claiming it to be one’s own.”1 Others define plagiarism as “a continuum ranging from sloppy paraphrasing to verbatim transcription without crediting sources”2,3 While others have stated that plagiarism “involves stealing someone else’s work and lying about it afterward”4

The difference between plagiarism and cheating is based on the intent of the author; an author could either be negligent, resulting in accidental plagiarism

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(As seen with in-text citation problems) or acting intentionally, with actions stemming from dishonesty.1,5 Nevertheless, students can engage in unintentional cheating and not acknowledge it as academic dishonesty.

Rennie and Crosby reported that 56% of US medical students have plagiarised at least once in their academic careers.6 A Croatian cross-sectional study evaluated the attitudes of pharmacy and medical biochemistry students on the subject of plagiarism and concluded that there was an insufficient level of seriousness and awareness in perceptions of plagiarism, as well as a lack of knowledge about scientific methodology and academic and scientific misconduct.7 Similarly, a Croatian study on the prevalence of plagiarism in writing essays among 198 second-year medical students found that only 9% of the students did not plagiarise.1 Plagiarism is considered dishonest because the plagiariser uses someone else’s ideas and takes credit for them; the plagiariser can advance in their career or be promoted on that basis. Such promotions can be a risk to others, especially in the medical field, as someone may be promoted to a position for which they would otherwise not have been qualified.

If undetected, plagiarism has a serious negative influence on educational feedback, defeating the purpose of instructional strategies.2,4 In the Saudi Arabian context, a recent study by Kattan et al. concluded that, even though the studied group of postgraduate medical trainees had attended courses in medical writing, were aware of research ethics and/or had published a scientific manuscript before, they were still susceptible to plagiarism. The study recommended increasing awareness among trainees to avoid this issue.9

Saudi Arabia’s cultural backgrounds, religious beliefs and ethical values may be different from those in Western countries. Prior to entering medical school in Saudi Arabia, high school students generally attend Islamic-related courses that include topics that condemn and reject cheating while encouraging sincere and honest behaviour. Furthermore, most medical colleges in Saudi Arabia have a core ethics course in their curriculum in addition to clear and strict regulations that prohibit cheating and plagiarism.

This study aimed to evaluate the perceptions of and attitude towards plagiarism among undergraduate medical students in Saudi Arabia by using a validated questionnaire.

Methods

This cross-sectional, online, questionnaire-based study was conducted between April and May 2018 at medical schools in Riyadh, Saudi Arabia. All medical colleges in Riyadh (three public and two private schools) were contacted for permission to send the survey to their students through their email lists. Of the five colleges that were contacted, three provided consent. The survey was distributed among the three colleges by student volunteers, most of whom were leaders of their batches, who then distributed the survey through the students’ email lists. The estimated student population of the three medical schools at the time of the study was 1,250 and the required sample size, in order to achieve a 95% confidence interval (CI) with a 5% margin of error, was 295. In total, 750 undergraduate medical students were randomly chosen from first to fifth year from the three selected medical schools; 250 students from each university were approached. This sample size was chosen as it was within the researchers’ financial budget. SurveyMonkey (SVMK Inc., San Mateo, California, USA) was used to gather responses.10

Attitudes towards plagiarism were assessed using the previously validated Attitude Towards Plagiarism (ATP) questionnaire.11,12 The ATP questionnaire is a standard method used to evaluate the attitudes towards plagiarism and has been validated using principal component analysis with a reliability score of >0.70.11 The questionnaire consists of 29 questions divided into three main sections: approval of plagiarism (i.e. positive attitude), disapproval of plagiarism (i.e. negative attitude) and social and normative components that could change a person’s thinking on the issue (i.e. subjective norms). All questions were self-reported and scored on a 1–5 Likert scale, with one indicating ‘strongly disagree’ and five indicating ‘strongly agree’. Twelve statements self-measured positive attitude, with a score range of 12–60. The scoring system is summarised in Table 1. Demographic variables and characteristics (i.e. age, academic year, gender and grade point average [GPA]) were assessed. Participants were also asked if they had attended any medical writing and/or medical ethics courses or authored a published manuscript.

Statistical analysis was performed using Statistical Product and Service Solutions (SPSS), Version 24 (IBM, Corp., Armonk, NY, USA). Student’s t-test was used to assess associations between the participants’ ATP scores and the variables set in the questionnaire. A one-way analysis of variance (ANOVA) was performed using two different approaches: a sum of squares contrast was used to compare the mean scores across ATP sections to demographic characteristics with more than two categories (i.e. age, academic year and GPA) and results for various ATP sections were summarised using means and standard deviation. In addition, a binary logistic regression test was performed to identify the independent predictors of low positive attitude, high negative attitude and low subjective norm attitudes towards plagiarism. Counts and percentages were used to summarise categorical variables as well as
Ethical approval was obtained from the Institutional Review Board (IRB) of the Medical Research Unit, College of Medicine, Imam Mohammad ibn Saud Islamic University, Riyadh, Saudi Arabia (IRB code: 0037/04/2018-55). Informed consent was obtained from the participants through the online questionnaire. Participants’ anonymity was maintained by not asking for their names or university identification numbers; participation was entirely voluntary.

Results

A total of 551 students participated in this study (response rate = 73.5%) of which the majority were male (57%). Almost half of the participants had a GPA of 4.25–5.0 (47.5%). Most respondents (58.8%) had received courses in medical ethics and some (20.7%) had previously authored a published manuscript [Table 2].

Very few respondents had a high positive attitude towards plagiarism or low negative attitude towards plagiarism (2% each). Moreover, few participants (3.4%) had high subjective norms towards plagiarism. However, most students had a moderate score on all three scales (65%, 58.4% and 56.6%, respectively) [Table 3].

The mean positive attitude score was 31.34 ± 7.26, the mean negative attitude score was 25.26 ± 4.61 and the mean subjective norm score was 25.16 ± 6.12. All these scores indicate a moderate attitude towards plagiarism. The difference in positive attitude scores was statistically significant between females and males (32.05 ± 7.24 versus 30.8 ± 7.24, respectively; \( P = 0.046 \)). There was no significant difference in the mean negative attitude or subjective norm scores between males and females. Statistical analysis indicated no significant difference between age groups in mean attitude scores for all three scales (\( P > 0.05 \)).

One-way ANOVA results indicated a statistically significant difference in the mean negative and positive attitude scores across various GPA groups (\( P = 0.004 \) and 0.007, respectively). There was no significant difference in the mean subjective norm scores across GPAs [Table 4]. In addition, statistical analysis using one-way ANOVA showed no significant difference for any of the three scales between any of the academic years in mean attitude scores (\( P > 0.05 \)).

The mean attitude score across students who had attended medical writing courses compared to students who had not attended medical writing courses was statistically different; a higher mean positive attitude score was found among students who had not attended medical writing courses compared to students who had attended medical writing courses (32.50 ± 6.84 versus 30.33 ± 7.47; \( P < 0.001 \)). The mean negative attitude

| Characteristic | n (%) |
|----------------|-------|
| Gender | |
| Female | 237 (43) |
| Male | 314 (57) |
| Academic year | |
| First | 84 (15.2) |
| Second | 163 (29.6) |
| Third | 114 (20.7) |
| Fourth | 90 (16.3) |
| Fifth | 100 (18.1) |
| Age in years | |
| 18–19 | 43 (7.8) |
| 20–21 | 192 (34.8) |
| 22–23 | 191 (34.7) |
| 24–25 | 92 (16.7) |
| >25 | 33 (6) |
| GPA | |
| <2.75 | 14 (2.5) |
| 2.75–3.5 | 80 (14.5) |
| 3.5–4.25 | 195 (35.4) |
| 4.25–5.0 | 262 (47.5) |
| Have you attended any writing courses? | |
| No | 256 (46.5) |
| Yes | 295 (53.5) |
| Have you previously attended any courses on ethics? | |
| No | 227 (41.2) |
| Yes | 324 (58.8) |
| Have you ever authored a published manuscript? | |
| No | 437 (79.3) |
| Yes | 114 (20.7) |

GPA = grade point average.
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Table 4: Attitude scores towards plagiarism across grade point average groups among medical students in Saudi Arabia

| Attitude       | Mean ± SD | P value |
|----------------|-----------|---------|
|                | ≤2.75     | 2.75–3.5| 3.51–4.25| 4.26–5.0|
| Negative attitude | 22.14     | 24.94   | 24.87   | 25.82   | 0.004 |
|                | ±4.72     | ±4.55   | ±4.72   | ±4.46   |       |
| Positive attitude | 34.64     | 33.63   | 31.01   | 30.71   | 0.007 |
|                | ±8.76     | ±7.20   | ±7.15   | ±7.13   |       |
| Subjective norm | 27.14     | 26.38   | 25.14   | 24.70   | 0.107 |
|                | ±8.55     | ±6.57   | ±6.03   | ±5.87   |       |

SD = standard deviation.

score was higher in students who had attended medical writing courses compared to those who had not (25.66 ± 4.63 versus 24.81 ± 4.65; P = 0.03). The mean subjective norms score was significantly higher in students who had not attended medical writing courses compared to those who had (26.03 ± 5.87 versus 24.41 ± 6.25; P = 0.002). Attending medical ethics courses was significantly associated with more negative attitudes towards plagiarism (P < 0.001 for all scales). Mean positive attitudes and subjective norm scores were higher in individuals who had not attended medical ethics courses compared to those that had (33.37 ± 6.54 versus 29.92 ± 7.41 and 26.86 ± 5.70 versus 23.98 ± 6.14, respectively). Mean negative attitude scores were higher in individuals who had attended medical ethics courses compared to those that had not (25.93 ± 4.70 versus 24.32 ± 4.32). Respondents who had authored a published manuscript were significantly associated with negative attitudes only (P = 0.02) and the mean negative attitude score was lower in individuals who had previously authored a published manuscript compared to those who had not (24.37 ± 4.37 versus 25.50 ± 4.56) [Table 5].

Attending courses in medical ethics was associated with a low positive attitude (odds ratio [OR] = 2.469, 95% CI: 1.570–3.883; P <0.001), high negative attitude (OR = 2.369, 95% CI: 1.540–3.645; P <0.001) and low subjective norms towards plagiarism (OR = 2.181, 95% CI: 1.426–3.337; P <0.001). Having authored a published manuscript was associated with high negative attitudes towards plagiarism (OR = 0.577, 95% CI: 0.366–0.911; P = 0.018). Gender, age, GPA, academic year and having taken medical writing courses were not significantly associated with high negative attitudes, low positive attitudes or low subjective norms towards plagiarism [Table 6].

Table 5: Attitude scores towards plagiarism based on having attended medical writing courses, medical ethics courses or having authored a published manuscript among medical students in Saudi Arabia

| Attitude                      | Attended a medical writing course | Attended a medical ethics course | Authored a published manuscript |
|-------------------------------|----------------------------------|---------------------------------|---------------------------------|
|                               | No      | Yes    | P value* | Effect size | No      | Yes    | P value* | Effect size | No      | Yes    | P value* | Effect size |
| Positive attitude             | 32.50   | 30.33  | <0.001   | 0.3        | 33.37   | 29.92  | <0.001   | 0.49       | 31.64   | 30.20  | >0.05    | 0.198      |
|                               | ±6.84   | ±7.47  | ±        | ±          | ±6.54   | ±7.41  | ±        | ±          | ±7.23   | ±7.28  | ±        | ±          |
| Negative attitude             | 24.81   | 25.66  | 0.03     | 0.029     | 24.32   | 25.93  | <0.001   | 0.357      | 25.50   | 24.37  | 0.02     | 0.24       |
|                               | ±4.56   | ±4.63  | ±        | ±          | ±4.32   | ±4.70  | ±        | ±          | ±4.56   | ±4.73  | ±        | ±          |
| Subjective norm               | 26.03   | 24.41  | 0.002    | 0.268     | 26.86   | 23.98  | <0.001   | 0.486      | 25.32   | 24.56  | >0.05    | 0.12       |
|                               | ±5.87   | ±6.25  | ±        | ±          | ±5.70   | ±6.14  | ±        | ±          | ±6.10   | ±6.20  | ±        | ±          |

SD = standard deviation. *Using Student’s t-test.

Discussion

Continuous assessment and education in the medical field represents the essence of learning. Medical students in their early years are less familiar with the concept of plagiarism as has been indicated by past studies, and therefore tend to have a more permissive attitude towards plagiarism. Educating and training students on how to appropriately cite academic literature and research may change the attitude towards plagiarism of students who are starting their medical careers. In a Middle Eastern study, which aimed to explore academic integrity among medical students, researchers found that plagiarism was considered a minor offense and
many medical students believed that it was not their responsibility to report it.\textsuperscript{14}

In the present study, the ATP questionnaire was used to evaluate the attitudes of medical students towards plagiarism.\textsuperscript{11} In addition, this study analysed whether GPA influences attitudes of medical students towards plagiarism; results from a one-way ANOVA showed a statistically significant difference in the mean positive and negative attitude scores across GPA groups (\(P = 0.007\) and 0.004, respectively). The impact of GPA on cheating has been previously investigated, although with mixed results.\textsuperscript{15–17} A study involving Saudi Arabian medical students showed that students with higher GPAs are less likely to be involved in cheating and a study on pharmacy students showed a similar association.\textsuperscript{15,16} However, Hrabak \textit{et al.} did not find significant differences between GPA scores and academic misconduct.\textsuperscript{17}

Interestingly, in the present study, 58.8% of the respondents had attended medical ethics courses and 20.7% had authored a paper prior to the survey. Most students had a moderate score for the scales of positive attitude, negative attitude and subjective norms (65%, 58.4% and 56.6%, respectively); this suggests that Saudi medical students in this study were aware of plagiarism. However, only 39.6% of the respondents had a high negative attitude towards plagiarism. Attending medical ethics courses had a positive impact on students’ attitudes towards plagiarism; those who had not attended medical ethics courses had a significantly higher positive attitude towards plagiarism. This finding is in agreement with the results of Brkic \textit{et al.}, who reported that a short lecture focusing on the negative impact of plagiarism contributed to creating awareness among students on types of plagiarism and that plagiarism is a violation of scientific ethics.\textsuperscript{14} In addition, few participants in the current study had high subjective norms towards plagiarism (3.4%) indicating a low inclination towards plagiarism. Attending medical ethics courses was found to be an independent predictor associated with low positive attitudes and high negative attitudes towards plagiarism as well as low subjective norms. These results are in agreement with Abdulghani \textit{et al.}'s study which also found that students with high GPAs were less likely to cheat.\textsuperscript{15} However, the current results were not in line with Kattan \textit{et al.}'s findings, who found no significant correlation between attitudes and attendance in ethics courses but did find that medical trainees who had previously authored scientific publications and attended writing courses tended to lean positively towards plagiarism.\textsuperscript{9}

Educating students and faculty can help change their attitudes toward and perceptions of plagiarism, but it is also important to have a standard institutional policy against plagiarised content, mandating punishment for repeat offenders.\textsuperscript{19,20}

The strengths of the present study include its multicentre approach and detailed correlations related to different student characteristics. Some of the limitations of the present study include the cross-sectional nature of assessments. The interplay between students’ knowledge, attitudes and behaviours with regards to a complex subject such as plagiarism is a complicated evaluation to engage with via a survey, which can only be treated as a proxy measure. In addition, there is a possibility of

\begin{table}
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\caption{Logistic regression analysis of independent predictors of low positive attitude, high negative attitude and low subjective norms towards plagiarism among medical students in Saudi Arabia}
\begin{tabular}{|l|c|c|c|c|c|}
\hline
\textbf{Independent predictor} & \textbf{Low positive attitude} & & \textbf{High negative attitude} & & \textbf{Low subjective norm} \\
 & \textbf{(R\textsuperscript{2} = 0.289)} & \textbf{OR (95\% CI)} & \textbf{P value} & \textbf{(R\textsuperscript{2} = 0.255)} & \textbf{OR (95\% CI)} & \textbf{P value} & \textbf{(R\textsuperscript{2} = 0.256)} & \textbf{OR (95\% CI)} & \textbf{P value} \\
\hline
Gender & & 0.952 & (0.639–1.419) & 0.810 & & 1.242 & (0.847–1.822) & 0.267 & & 1.005 & (0.687–1.427) & 0.978 \\
Age & & 0.919 & (0.726–1.164) & 0.485 & & 0.860 & (0.684–1.083) & 0.201 & & 0.866 & (0.689–1.089) & 0.218 \\
GPA & & 1.240 & (0.978–1.572) & 0.076 & & 1.253 & (0.999–1.572) & 0.05 & & 1.171 & (0.936–1.464) & 0.168 \\
Academic year & & 1.052 & (0.883–1.252) & 0.570 & & 1.078 & (0.909–1.278) & 0.389 & & 1.029 & (0.870–1.218) & 0.735 \\
Attended a medical writing course & & 1.126 & (0.739–1.715) & 0.581 & & 1.003 & (0.668–1.508) & 0.988 & & 1.287 & (0.861–1.922) & 0.219 \\
Attended a medical ethics course & & 2.469 & (1.570–3.883) & <0.001 & & 2.369 & (1.540–3.645) & <0.001 & & 2.181 & (1.426–3.337) & <0.001 \\
Authored a published manuscript & & 1.514 & (0.973–2.354) & 0.066 & & 0.577 & (0.366–0.911) & 0.018 & & 1.132 & (0.732–1.750) & 0.576 \\
\hline
\end{tabular}
\end{table}
response bias which is a known limitation in survey-based studies.

Conclusion
Most medical students in Saudi Arabia were found to have a negative attitude towards plagiarism. Higher GPAs, the authoring of a publication and attending courses in medical ethics were associated with negative attitudes towards plagiarism among medical students. To increase the students’ awareness of plagiarism, structured courses related to the practice of plagiarism should be implemented. Medical students should be familiar with issues and consequences related to plagiarism. Future studies should investigate the content of ethics courses in medical schools and whether different medical schools give equal attention to plagiarism and academic dishonesty in their curricula.

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CONFLICT OF INTEREST
The authors declare no conflicts of interest.

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References
1. Bilić-Zulle L, Frković V, Turk T, Azman J, Petrovecki M. Prevalence of plagiarism among medical students. Croat Med J 2005; 46:126–31. https://doi.org/10.3325/cmj.2005.46.126-131.
2. Guraya SY, Guraya SS. The confounding factors leading to plagiarism in academic writing and some suggested remedies: A systematic review. J Pak Med Assoc 2017; 67:767–72.
3. Yeo S. First-year university science and engineering students’ understanding of plagiarism. High Educ Res Dev 2007; 26:199–216. https://doi.org/10.1080/07294360701310813.
4. Ballor JJ. Plagiarism in a digital age. J Mark Moral 2014; 17:349–52.
5. James R, McInnis C, Devlin M. Assessing learning in Australian universities: Ideas, strategies and resources for quality in student assessment. Melbourne, Australia: Centre for the Study of Higher Education, 2002.
6. Rennie SC, Crosby JR. Are ‘tomorrow’s doctors’ honest? Questionnaire study exploring medical students’ attitudes and reported behaviour on academic misconduct. BMJ 2001; 322:274–5. https://doi.org/10.1136/bmj.322.7281.274.
7. Pupovac V, Bilić-Zulle L, Mavrinac M, Petrovecki M. Attitudes toward plagiarism among pharmacy and medical biochemistry students – Cross-sectional survey study. Biochemia Medica 2010; 20:307–13. https://doi.org/10.11613/BM.2010.039.
8. Austin Z, Collins D, Remillard A, Kelcher S, Chui S. Influence of attitudes toward curriculum on dishonest academic behavior. Am J Pharm Educ 2006; 70:50. https://doi.org/10.5688/ajp00350.
9. Kattan AE, Alshomer F, Aljuayyi AK, Alfageeh F, Alaka Y, Alshakrah K. The practice and attitude towards plagiarism among postgraduate trainees in Saudi Arabia. J Health Spec 2017; 5:181–4. https://doi.org/10.4103/jhs.JHS_64_17.
10. SVMK Inc. Survey Monkey. From: www.surveymonkey.com Accessed: Jul 2019.
11. Mavrinac M, Brumini G, Bilić-Zulle L, Petrovecki M. Construction and validation of attitudes toward plagiarism questionnaire. Croat Med J 2010; 51:195–201. https://doi.org/10.3325/cmj.2010.51.195.
12. Bazdaric K. Plagiarism detection--Quality management tool for all scientific journals. Croat Med J 2012; 53:1–3. https://doi.org/10.3325/cmj.2012.53.1.
13. Shirazi B, Jaferey AM, Moazam F. Plagiarism and the medical fraternity: A study of knowledge and attitudes. J Pak Med Assoc 2010; 60:269–73.
14. Elzubeir MA, Rizk DE. Exploring perceptions and attitudes of senior medical students and interns to academic integrity. Med Educ 2003; 37:589–96. https://doi.org/10.1046/j.1365-293.2003.01552.x.
15. Abdulghani HM, Haque S, Almusalam YA, Alanezi SL, Alsaifman YA, Irsad M, et al. Self-reported cheating among medical students: An alarming finding in a cross-sectional study from Saudi Arabia. PLoS One 2018; 13:e0194963. https://doi.org/10.1371/journal.pone.0194963.
16. Hazfi ĆPC. First-and third-year pharmacy students’ attitudes toward cheating behaviors. Am J Pharm Educ 2004; 68:1–5. https://doi.org/10.5688/ajp0110.
17. Hrabak M, Vujaklja A, Vodopivec I, Hren D, Marusić M, Marusić A. Academic misconduct among medical students in a post-communist country. Med Educ 2004; 38:276–85. https://doi.org/10.1111/j.1365-293.2004.01766.x.
18. Bićić S, Bogdanovic G, Vuckovic-Dekić L, Gavrilovic D, Kezic I. Science ethics education: Effects of a short lecture on plagiarism on the knowledge of young medical researchers. J BUON 2012; 17:570–4.
19. Viale PH. Avoiding plagiarism in professional writing. J Adv Pract Oncol 2012; 3:114–5. https://doi.org/10.6004/jadpro.2012.33.1.
20. Sovacool BK. Using criminalization and due process to reduce scientific misconduct. Am J Bioeth 2005; 5:W1–7. https://doi.org/10.1080/15265160500313242.