Research Article

Perceptions of Academic Dishonesty: Insights from the University of Tehran

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In recent times, Iran has seen an increase in various forms of academic dishonesty. The frequency of academic fraud, plagiarism, and cheating has led to efforts to rebuild the global reputation of Iranian academic institutions. We argue that academic dishonesty adversely affects not only the academic sphere but society as a whole, and addressing it requires an understanding of its various contributing factors. To this end, we undertook a study involving students from three different faculties at the University of Tehran. The study included 300 undergraduate students (182 females and 118 males), aged between 17 and 34 years (average age 20.55, standard deviation 2.04), from the Faculty of Psychology and Educational Sciences, Faculty of Management, and Faculty of Social Sciences. While only minor differences were observed among students from these three faculties, significant variations were noted in the perceptions of academic dishonesty among students from different academic years, including their views on professors' and peers' dishonest behaviors, and the justifiability of academic dishonesty.

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Introduction

Academic dishonesty and misconduct have been some of the main issues in academia. Being too tough on it will disperse students (clients?), and overlooking it will likely culminate in debacle. This is why the majority of universities take a middle stance, which is more likely inclined towards loosening monitoring and measures. Therefore, whether it is in the form of plagiarism, ghost authorship, cheating, or fabricating data, etc., academic dishonesty or misconduct is prevalent all over the world. The advent of the Internet has been a double-edged sword (see, for example, [1][2][3]). On one hand, we can now track

and find instances of academic dishonesty across languages and cultures, and on the other hand, the very nature of the Internet has made it much easier to become a successful but unethical academician. This is not simply about the "copy-paste" capability of electronic resources or even "automatic paraphrasing," which make it almost impossible to track down and hunt instances of plagiarism, but about a complex set of social, economic, political, and maybe racial factors that now govern the industry of academic writing and publishing. For example, as the prosperous world is now connected to the third world in a "high speed" manner, intellectual works are now easily and openly outsourced to third-world researchers (see, for example, [4][5]), and therefore tracking them down has become complicated. The introduction of AI-assisted article writing has only made this problem more complicated[6].

One major concern in academia has always been student academic dishonesty. Students are the future of science, and educating and correctly evaluating them is vital for the continuity of scientific flourishing. This is why universities continuously update their terms of academic conduct, particularly in regard to utilizing new communication technologies, though this does not stop here. Now, rules are increasingly extended to other related fields like professors' relationships with students, receiving money in return for educational-research work, or self-plagiarism (see, for example, [7][8][9][10][11]).

Iran is known as a culture in which "knowledge" has a special place. For centuries, Iranian and Persian literature have been full of poems, admonitions, and advice that human life is worth nothing without knowledge, and in our time, Iranians are eager to show off by acquiring academic degrees. Today, about 4.5 million Iranians are studying in Iranian universities, while another 100 hundred thousand are studying abroad. It's a big figure for a country of 80 million population with economic difficulties and limited international relations. Anyway, this bubble growth has entailed negative consequences, including the replacement of quality with quantity (see, for example, [12] for details). As a result, this seemingly bright profile has been racked in the last decade by several international debacles. First, [13] from the famous journal Nature accused several Iranian officials of plagiarism and academic misconduct, and after that, Iranians were frequently cited by bodies like Plagiarism Watch and others as more instances of plagiarism were identified. It was a great defamation for Iranian academia, and many professors and students have been expelled by authorities and university deans in reaction; moreover, some Iranian scholars initiated a website named Professors against Plagiarism to monitor academic publishing work by Iranian scholars and whistleblow plagiarized papers when they are published in international journals.

Academic dishonesty and misconduct remain significant challenges in the academic world. Adopting an overly strict approach can alienate students (or clients), while neglecting the issue may lead to serious consequences. Consequently, most universities adopt a moderate approach, often erring on the side of relaxed monitoring and enforcement. Academic dishonesty, manifesting as plagiarism, ghost authorship, cheating, or data fabrication, is a global issue. The internet, while useful in detecting academic dishonesty across various languages and cultures, has also simplified the process of engaging in unethical academic practices. The challenges are not just due to the ease of copying and pasting or automatic paraphrasing that makes detecting plagiarism difficult, but also due to a complex mix of social, economic, political, and perhaps racial factors influencing academic writing and publishing. For instance, the easy accessibility of outsourcing intellectual work to researchers in developing countries complicates the tracking of original sources (refer to [4][5]).

Student academic dishonesty is a particular concern, as students represent the future of science. Ensuring their proper education and evaluation is crucial for the continued advancement of knowledge. Universities are constantly updating their academic conduct policies, especially in light of new communication technologies. These updates extend beyond mere student conduct, encompassing aspects such as faculty-student relationships, financial exchanges in educational research, and self-plagiarism (refer to [9][10][11][7][8]).

In Iran, where knowledge holds a special cultural significance, the quest for academic degrees is prominent. With around 4.5 million students in Iranian universities and another 100,000 studying abroad, the country's emphasis on education is notable, especially given its economic challenges and limited international relations. However, this rapid expansion has led to a shift from quality to quantity in education (see [12]). Recent years have seen the Iranian academic community suffer from international incidents of plagiarism and misconduct. Notable instances include accusations by [13] in Nature, and subsequent heightened scrutiny by organizations like *Plagiarism Watch*. These incidents have tarnished the reputation of Iranian academia, leading to the expulsion of students and professors and prompting initiatives like Professors against Plagiarism to monitor and report academic misconduct in international journals.

We believe that the issue of academic dishonesty should be tackled, but we don't think expelling cheaters or whistleblowing is enough. We rather think providing an education that is rigorous and helps students become aware of what ethical writing and publication are and how to do it is a vital and practical step in removing two main causes of academic misconduct in Iran – namely, lack of education about academic

misconduct and lack of fear of punishment. Certainly, when students are aware of what academic dishonesty is, professors will become more cautious not to cross red lines of ethical writing. Conducting research on this subject will help us bring more light to this problem, and authorities will probably be forced to "do something" about it.

Review of Literature

Several Iranian researchers have recently focused on academic misconduct and dishonesty, publishing their findings in international journals. These works, written in English, are accessible to the readers of this journal. However, in this section, we will only discuss studies published in Persian journals. We identified at least 24 such studies, but for brevity, we will only highlight five that are representative of the broader findings.

[14] conducted a study to evaluate the prevalence of research cheating among medical students using a comprehensive sampling approach. All 104 final-year medical students at their institution participated, completing a questionnaire that explored seven main types of academic misconduct. This questionnaire was developed based on methodology literature and focus group discussions with researchers. The students were asked to rate the frequency of each misconduct type and their personal views on a Likert scale. The analysis revealed that 37% of students reportedly fabricated data, while 40% manipulated data to yield desired results. Additionally, it was estimated that 25 to 50 percent of theses contained plagiarized material. Nakhaei and Nikpour warned that if these findings were indicative of a national trend, it would represent a significant issue in the educational system.

[15] investigated factors influencing student plagiarism at Espahan University. They conducted a descriptive-survey study with a sample of 300 university students. Their research tool was a self-developed questionnaire, which showed that credentialism and the desire for better grades were the primary predictors of student plagiarism. Other factors included lack of self-efficacy, inadequate detection and punishment mechanisms for plagiarism, sociocultural influences, insufficient academic writing and ethics education, professors' indifference towards plagiarism, and a lack of fear of punishment.

Jamshidi Boroujeni, Saeidi, & Heydari[16] examined graduate students' awareness of plagiarism and its influencing factors at Shahid Chamran University of Ahvaz. They surveyed 354 students selected through random sampling, using a custom questionnaire. The study found a moderate level of plagiarism

awareness among students. The primary causes of plagiarism and academic dishonesty were identified as research incompetence, economic means to hire ghostwriters, credentialism, failure to complete academic assignments, procrastination, and a lack of proper education in academic writing. Abedini, Khezrzadeh, & Zamani[17] investigated the relationship between students' religious orientation, awareness of the consequences of academic dishonesty, and their attitudes toward plagiarism and academic achievement. Their statistical population included students of the Espahan University and Espahan Medical Science University. They used a Categorical Randomized sampling method to select 263 students. Their results showed that there was a significant difference between female and male attitudes towards plagiarism. Based on students' majors, there were also differences between the consequences of plagiarism and students' attitudes towards plagiarism. In this study, there was a strong relationship between religious orientation and students' attitudes towards plagiarism, and this is why Abedini and her colleagues recommend that empowering the religiosity of the students would play an important role in reducing academic dishonesty.

Hemati Alamdarloo, Shojaee, Salimi, & Arjmandi[18] compared plagiarism and its risk factors among talented and ordinary students at Shiraz University. Their statistical population included all students at Shiraz University, and their sample size consisted of 156 students (78 talented students and 78 ordinary students). The Behavior of Plagiarism Questionnaire and Effective Factors on Plagiarism Questionnaire were used to measure plagiarism and its effective factors. Using multivariable analysis of variance, they revealed that talented students were far less likely to commit different kinds of plagiarism and academic dishonesty. They also found that attitude towards plagiarism, self-efficacy, credentialism, lack of education on academic dishonesty, and lack of fear of punishment were among the most effective factors that contribute to the prevalence of plagiarism among students.

Method

Participants

The study involved 300 undergraduate students (182 females and 118 males) from the University of Tehran, aged between 17 and 34 years (mean age 20.55, standard deviation 2.04). These participants came from three different faculties: the Faculty of Psychology and Educational Sciences, the Faculty of Management, and the Faculty of Social Sciences. The criteria for inclusion in the study were: (a) current enrollment as an undergraduate student; (b) absence of any history of psychological disorders; and (c) not

being classified as a super senior or a student who has been expelled. Demographic details of the participants are provided in Table 1.

Variable		Gender		Total
		Male	Female	
Year				
	First	38	84	122
	Second	27	49	76
	Third	25	24	49
	Fourth	28	25	53
Faculty				
	Psychology	34	56	90
	Management	51	69	120
	Social Sciences	33	57	90
Age category				
	< 20	30	81	111
	20 to 30	88	100	188
	> 30	0	1	1

Table 1. Demographic characteristics of the sample

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To ensure precision and representativeness, we employed proportionate stratified sampling, as described by Levy & Lemeshow[19]. This approach not only prevented biases in our sample but also allowed for detailed analysis of different subgroups. Approximately 85% of the approached sample agreed to participate in our study. The remaining either did not meet our inclusion criteria, declined participation, or submitted incomplete questionnaires.

Data collection took place in various campus locations such as classrooms, lobbies, and food courts. Here, students were informed about the study, and those who consented were given the questionnaire. We emphasized that participation was voluntary and that their responses would have no impact on their grades or any other aspect of their academic life. Considering the sensitive nature of our research topic, we assured the students of complete anonymity, enabling them to respond to our questions candidly and without reservation.

It is a standard requirement for human-centric research to obtain an Institutional Review Board (IRB) certificate, demonstrating adherence to academic ethical standards. However, such a system is not established in Iran. Despite this, we made every effort to maintain the highest ethical standards in our research, as outlined above.

Measure

The research instrument was a self-report 22-item questionnaire, which included five demographic questions and 17 items directly asking how much the respondents had experienced or witnessed academic dishonesty (hereafter AD) in their immediate academic environment; the respondents were also asked to what extent they themselves participated in AD of any kind. Respondents scored each item either on a 5-point Likert scale, ranging from 1 = *completely disagree* to 5 = *completely agree*, or on a 4-point scale ranging from 1 = *never* to 4 = *always*. The initial pool of items was gathered by scanning the literature and reported instruments in similar studies. We refined the order, content, and response range of items through an interaction with masters and professors in the field to reach the final version. Some items were meaningful and could reflect an important aspect of our interest (such as: *I know social problems that are related to my major*), while some others were computed to represent a wider significant concept (such as: *self-reported AD* or *exam cheating*).

Results

Our study focused on examining students′ and professors′ perceptions of academic dishonesty (AD). We sought to gauge students′ concern about societal issues and understand how they view their specific academic disciplines as tools for addressing these problems. Additionally, demographic data were utilized to explain variations in perceived AD.

Before conducting our primary analyses, we performed an exploratory analysis to identify outliers and assess the normality of our data distributions. We looked for both univariate and multivariate outliers, using criteria such as leverage, Cook's D, and Mahalanobis distance. These outliers were confined to the limits of what is considered the normal range, as outlined by Meyers, Gamst, and Guarino[20].

Prevalence of AD

A set of frequency distributions is presented in Table 2. Rows represent the answer range for each component of AD. Chi-square tests were used to diagnose any nonrandom difference between expected and observed frequencies.

item	answers				
knowing current problems in major	*com agree*	*agree*	*no idea*	*disagree*	*com disagree*
Observed N	72	191	27	7	2
χ^2	410.816	df: 4			
sig	.000				
witnessing_classmate_exam_cheating	*never*	*once*	*sometimes*	*always*	
Observed N	7	10	121	162	
χ^2	247.120	df: 3			
sig	.000				
Prevalence_of_professors' AD	*com agree*	*agree*	*no idea*	*disagree*	*com disagree*
Observed N	70	53	148	28	0
χ^2	229.478	df: 4			
sig	.000				
classmate_AD	*never*	*once*	*sometimes*	*always*	
Observed N	150	32	98	16	
χ^2	155.135	df: 3			
sig	.000				
self_AD	*never*	*once*	*sometimes*	*always*	
Observed N	245	26	22	6	
χ^2	520.010	df: 3			
sig	.000				
classmate_Plagiarism	*never*	*once*	*sometimes*	*always*	
Observed N	142	30	97	25	

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item	answers				
χ^2	129.102	df: 3			
sig	.000				
self_Plagiarism	***never***	***once***	***sometimes***	***always***	
Observed N	214	36	45	4	
χ^2	358.298	df: 3			
sig	.000				
cheating_favorability	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***
Observed N	34	58	88	62	57
χ^2	24.696	df: 4			
sig	.000				
context_support_for_Cheating	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***
Observed N	22	66	118	65	29
χ^2	97.167	df: 4			
sig	.000				
unfair_Scoring	***never***	***once***	***sometimes***	***always***	
Observed N	57	31	181	23	
χ^2	221.699	df: 3			
sig	.000				
unfair_Article_evaluation	***never***	***once***	***sometimes***	***always***	
Observed N	79	68	71	95	
χ^2	210.136	df: 3			
sig	.000				
plagiarism_in_Articles	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***

item	answers				
Observed N	21	68	71	95	44
χ^2	53.291	df: 4			
sig	.000				
plagiarism_no_referencing	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***
Observed N	11	52	65	126	45
χ^2	118.241	df: 4			
Sig					
hope_to_have_contribution	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***
Observed N	119	133	36	6	5
χ^2	256.301	df: 4			
Sig	.000				
knowledge_instrumentality	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***
Observed N	83	132	47	33	5
χ^2	160.600	df: 4			
Sig	.000				
CV_importance	***com agree***	***agree***	***no idea***	***disagree***	***com disagree***
Observed N	91	124	49	27	9
χ^2	147.800	df: 4			
Sig	.000				

Table 2. Frequency distribution and chi-square test for each item

Com.: completely

In the first item, we asked the degree to which students are aware of current problems related to their major. Responses were significantly gathered in 'agree' and 'completely agree' (χ^2= 410.816, df= 4, p<.001). Many students thought they would have a contribution to their society (χ^2= 256.301, df= 4, p<.001) and perceived their special knowledge as helpful (χ^2= 160.600, df= 4, p<.001). For a significant number of students, having a rich CV and publication record was important (χ^2= 147.800, df= 4, p<.001).

Students reported frequently witnessing exam cheating by their classmates (χ^2= 247.120, df= 3, p<.001). Many students reported the prevalence of academic dishonesty (AD) among professors (χ^2= 229.478, df= 4, p<.001). In contrast, most of them reported they had 'never,' or only 'once,' cheated in exam(s) (χ^2= 155.135, df= 3, p<.001). Students reported more AD by their classmates (χ^2= 155.135, df= 3, p<.001) than by themselves (χ^2= 520.010, df= 3, p<.001). In addition, they perceived their classmates (χ^2= 129.102, df= 3, p<.001) plagiarizing more than they themselves do (χ^2= 358.298, df= 3, p<.001).

Some students thought that cheating in exams is acceptable, or they had no idea about it (completely agree= 34, agree= 58, and no idea= 62). Although most answers were cumulated in disagree and completely disagree points (χ^2= 24.696, df= 4, p<.001), the number of students agreeing or completely agreeing with cheating acceptability is considerable and could be an index of what exists in society. In the same way, many students had no idea of contextual support for cheating or AD in their faculties (χ^2= 97.167, df= 4, p<.001). Surprisingly, many others agreed (66 persons) or completely agreed (22 persons) with perceiving the existence of contextual support for cheating. Most students disagreed or completely disagreed that they had copy-pasted from the Internet (χ^2= 53.291, df= 4, p<.001) or used others' writings without citation (χ^2= 118.241, df= 4, p<.001). Nevertheless, the number of agreeing or even completely agreeing students is not ignorable (copy-pasting from the Internet= 89 and copying without citation= 63).

Students thought their professors evaluate their work unfairly (χ^2= 221.699, df= 3, p<.001). They also complained about unfair article evaluation by agreeing with 'my professors do not read the articles in order to score' (χ^2= 210.136, df= 3, p<.001).

Demographics and AD

In this research, we included male and female students from different levels and groups (years and faculties). Here are our results for gender, major, and level as factors. We used multivariate analysis of variance (MANOVA) to compare self_AD, classmate_AD, professors'_AD, contextual_AD, and plagiarism across these groups. Table 3 shows means separated by gender.

variable	Gender	Mean	Std. Deviation	N
self_AD	man	5.622	1.691	111
	woman	4.947	1.501	169
classmate_AD	man	7.819	2.277	111
	woman	7.136	2.182	169
professors'_AD	man	7.451	1.463	111
	woman	7.497	1.622	169
contextual_AD	man	24.712	3.558	111
	woman	24.557	3.264	169
plagiarism	man	6.459	2.044	111
	woman	6.846	1.939	169

Table 3. Means separated by gender

Before applying the multivariate F-test, we reviewed its statistical assumptions to make sure that our data allowed MANOVA to produce reasonable results. Dependent variables (self_AD, classmate_AD, professors'_AD, contextual_AD, plagiarism) correlated significantly (R: -.154 to.612, P<.01). Box's Test proved the equality of covariance matrices (Box's M= 11.934, $F_{15,\ 222035.970}$= 1.496, P=.097). Levene's Test showed that the error variances of all dependent variables were equal among groups (self_AD: $F_{1,\ 278}$= 2.571, p=.110; classmate_AD: $F_{1,\ 278}$= 3.151, p=.077; professors'_AD: $F_{1,\ 278}$= 1.643, p=.201; contextual_AD: $F_{1,\ 278}$=.661, p=.417, plagiarism: $F_{1,\ 278}$=.160, p=.690). Table 4 includes both multivariate and between-subject tests to examine mean differences between male and female respondents.

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Multivariate test							
Effect		**Value**	**F**	**Hypothesis df**	**Error df**	**Sig.**	**Partial Eta Squared**
Gender	Pillai's Trace	.043	2.455	5	274	.034	.043
	Wilks' Lambda	.957	2.455	5	274	.034	.043
Test of between subject							
Source	**Dependent Variable**	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Partial Eta Squared**
	self_AD	30.514	1	30.514	9.357	.002	.033
Gender	**classmate_AD**	31.319	1	31.319	7.077	.008	.025
	professors'_AD	.145	1	.145	.060	.807	.000
	contextual_AD	1.620	1	1.620	.142	.707	.001
	plagiarism	10.018	1	10.018	2.551	.111	.009

Table 4. Multivariate and between-subject tests to examine mean differences between male and female

Multivariate F was statistically significant ($F_{5, 274}$= 2.455, p=.034) with an effect size of .043. This showed there was at least one mean difference (of the five dependent variables) between males and females. In order to examine the source of the difference, we applied a between-subject test which runs a univariate F-test for each dependent variable. As shown in the table, men (5.622) scored higher in self_AD than women (4.947) did (F= 9.357, p=.002, Eta Squared=.033). Men (7.819) outscored women (7.136) in reported classmate_AD (F= 7.077, p=.008, Eta Squared=.025), too. The effect size was too small for both differences. There were no significant differences between men and women in terms of professors'_AD (F=.060, p=.807), contextual_AD (F=.142, p=.707), and plagiarism (F= 2.551, p=.111).

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variable	Year	Mean	Std. Deviation	N
self_AD	first	4.625	1.606	112
	second	5.222	1.680	72
	third	5.532	1.977	47
	fourth	6.180	1.945	50
classmate_AD	first	6.384	1.847	112
	second	7.444	1.971	72
	third	8.404	1.963	47
	fourth	8.640	2.028	50
professors'_AD	first	7.036	1.530	112
	second	7.958	1.551	72
	third	7.596	1.690	47
	fourth	7.600	1.340	50
contextual_AD	first	23.268	3.049	112
	second	25.167	3.411	72
	third	25.702	3.747	47
	fourth	25.800	2.603	50
plagiarism	first	6.661	1.966	112
	second	6.806	1.990	72
	third	6.745	2.080	47
	fourth	6.620	2.029	50

Table 5. Means separated by education by years

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Table 5 represents means of self_AD, classmate_AD, professors'_AD, contextual_AD, and plagiarism for groups with different levels of education by year. We wanted to find out if there was a change in students' attitudes on AD across years. Again, a MANOVA test was used, but this time with year as the source of variance. Covariance matrices were not significantly different (Box's M= 52.885, $F_{45,\ 101352.373}$= 1.132, P=.252). Error variances of all dependent variables were equal among groups: self_AD: $F_{3,277}$= 2.113, p=.099; classmate_AD: $F_{3,277}$= 1.396, p=.244; professors'_AD: $F_{3,\ 277}$=.870, p=.457; contextual_AD: $F_{3,\ 277}$=1.869, p=.135; plagiarism: $F_{3,\ 277}$=.061, p=.980.

Multivariate test							
Effect		**Value**	**F**	**Hypothesis df**	**Error df**	**Sig.**	**Partial Eta Squared**
Year	**Pillai's Trace**	.249	4.987	15	825.000	.000	.083
	Wilks' Lambda	.760	5.242	15	754.034	.000	.087
Test of between subject							
Source	**Dependent Variable**	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Partial Eta Squared**
	self_AD	90.252	3	30.084	9.783	.000	.096
Year	**classmate_AD**	240.045	3	80.015	21.454	.000	.189
	professors'_AD	39.878	3	13.293	5.664	.001	.058
	contextual_AD	350.925	3	116.975	11.426	.000	.110
	plagiarism	1.383	3	.461	.115	.951	.001

Table 6. Multivariate and between subject tests to examine mean differences between students with different education by year

Multivariate F confirmed differences among groups ($F_{15,\ 825}$= 2.455, p=.034) with a small but statistically significant effect size of .083. That is, students in different levels of education by year reported different

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levels of perceived AD, at least in one component. We subjected the data to a univariate F-test to see where the difference was.

The univariate F-value was significant for self_AD (F= 9.783, p=.000, Eta Squared=.096), classmate_AD (F= 21.454, p=.000, Eta Squared=.189), professors'_AD (F= 5.664, p=.001, Eta Squared=.058), and contextual_AD (F= 11.426, p=.000, Eta Squared=.110). Perception of plagiarism was not different among students with various educational levels (F=.115, p=.951, Eta Squared=.001).

Further considerations using multiple comparisons for means showed that first-year students (4.625) perceived significantly less self_AD than their third (5.532) and fourth (6.180) year peers did. Second-year students (5.222) expressed almost the same level of perceived self_AD as first-year students. Perceived classmate_AD was also different among students. Students' level of belief in the prevalence of AD grew significantly as they went from year one (6.384) to year two (7.444), from year two to year three (8.404), and from year three to year four (8.640). Interestingly, the changes in all three transitions are statistically significant. Students' reported levels of AD among professors grew significantly from the first (7.036) to the second year (7.958). It returned a bit back to a distance which was not significantly different from the first year (third= 7.596 and fourth= 7.600). In the case of contextual_AD, which implies the degree to which students perceived their academic environment justified AD, we also have an interesting finding. Students' belief in the existence of a somehow support for misconduct grew significantly from the first (23.268) to the second year (25.167) and stayed almost flat (with a very slow positive slope) through the third and the fourth years.

Dependent Variable	(I) Year	(J) Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
self_AD	first	second	-.597	.265	.150	-1.301	.107
		third	-.907	.305	.019	-1.716	-.097
		fourth	-1.555	.298	.000	-2.348	-.762
	second	third	-.310	.329	1.000	-1.183	.564
		fourth	-.957	.323	.020	-1.816	-.100
	third	fourth	-.648	.356	.420	-1.595	.299
classmate_AD	first	second	-1.060	.292	.002	-1.836	-.2858
		third	-2.020	.336	.000	-2.912	-1.128
		fourth	-2.256	.328	.000	-3.129	-1.383
	second	third	-.959	.362	.051	-1.922	.003
		fourth	-1.196	.355	.005	-2.140	-.251
	third	fourth	-.236	.392	1.000	-1.278	.807
professors'_AD	first	second	-.923	.231	.001	-1.537	-.308
		third	-.560	.266	.218	-1.267	.148
		fourth	-.564	.261	.187	-1.257	.128
	second	third	.363	.287	1.000	-.401	1.126
		fourth	.358	.282	1.000	-.391	1.108
	third	fourth	-.004	.311	1.000	-.831	.823
	fourth	first	.564	.261	.187	-.128	1.257
contextual_AD	first	second	-1.899	.483	.001	-3.183	-.614
		third	-2.434	.556	.000	-3.912	-.957
		fourth	-2.532	.544	.000	-3.978	-1.086
	second	third	-.535	.600	1.000	-2.130	1.059
		fourth	-.633	.589	1.000	-2.190	.932

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Dependent Variable	(I) Year	(J) Year	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
	third	**fourth**	-.098	.650	1.000	-1.825	1.629

Table 7. Multiple comparisons for mean between students with different education by years

Further, we went on to examine how students from different faculties (Social Sciences, Management, and Psychology) differed in terms of self_AD, classmate_AD, professors'_AD, contextual_AD, and plagiarism. The descriptive table (Table 8) summarizes the condition. We could see some differences, but were they big enough to be mentioned as a systematic variance? Let's review the MANOVA test to find out.

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Variables	Faculty	Mean	Std. Deviation	N
self_AD	Social sciences	5.272	1.782	81
	Management	5.426	1.987	115
	Psychology	4.847	1.622	85
classmate_AD	Social sciences	7.877	2.221	81
	Management	7.435	2.031	115
	Psychology	6.882	2.089	85
professors'_AD	Social sciences	7.642	1.316	81
	Management	7.661	1.566	115
	Psychology	7.035	1.721	85
contextual_AD	Social sciences	25.469	3.062	81
	Management	24.357	3.109	115
	Psychology	24.141	3.855	85
plagiarism	Social sciences	6.975	1.968	81
	Management	6.252	1.964	115
	Psychology	7.059	1.960	85

Table 8. Means separated by faculty

Box's test showed no significant difference between covariance matrices (Box's M= 41.763, $F_{30,\ 288737.406}$= 1.355, P=.093). Error variances for all dependent variables were equal among groups from the three faculties (self_AD: $F_{2,\ 278}$= 1.065, p=.346; classmate_AD: $F_{2,\ 278}$=.351, p=.704; professors'_AD: $F_{2,\ 278}$= 2.153, p=.118; contextual_AD: $F_{2,\ 278}$=1.466, p=.233; plagiarism: $F_{2,\ 278}$=.050, p=.952).

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Multivariate test							
Effect		**Value**	**F**	**Hypothesis df**	**Error df**	**Sig.**	**Partial Eta Squared**
Faculty	**Pillai's Trace**	.094	2.728	10.000	550.000	.003	.047
	Wilks' Lambda	.908	2.720	10.000	548.000	.003	.047
Test of between subject							
Source	**Dependent Variable**	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Partial Eta Squared**
	self_AD	16.870	2	8.435	2.535	.081	.018
Faculty	**classmate_AD**	41.303	2	20.652	4.661	.010	.032
	professors'_AD	22.644	2	11.322	4.717	.010	.033
	contextual_AD	85.858	2	42.929	3.849	.022	.027
	plagiarism	40.141	2	20.070	5.203	.006	.036

Table 9. Multivariate and between subject tests to examine mean differences between students from different faculties

As the multivariate F-test shows, there was a significant difference ($F_{10, 550}$= 2.728, p=.047) with a small effect size of .047 among groups. The univariate F clarified that classmate_AD (F= 4.661, p=.010, Eta Squared=.032), professors'_AD (F= 4.717, p=.010, Eta Squared=.033), contextual_AD (F= 3.849, p=.022, Eta Squared=.027), and plagiarism (F= 5.203, p=.006, Eta Squared=.036) differed among different faculties, although self_AD was not different among students from various faculties (F=2.535, p=.081, Eta Squared=.018).

Multiple comparisons for means showed that Psychology students (6.882) perceived significantly less classmate_AD than Social Sciences students did (7.877). Management students perceived fairly the same level of classmate_AD (7.435) as Social Sciences students did. Their mean distance from Psychology students was not significant, too. Psychology students (7.035) scored less than Social Sciences (7.642) and

Management students (7.661) in perceived AD among professors. Management and Social Sciences students had almost the same attitude towards AD among professors. Students from the Faculty of Social Sciences (25.469) reported more contextual_AD than their peers from the Faculty of Management (24.357) and the Faculty of Psychology (24.141). Management and Psychology students perceived equal levels of contextual_AD. Students' belief in the existence of plagiarism was different between Management (6.252) and Social Sciences students (6.975), and between Management and Psychology students (7.059). Means were near between Psychology and Social Sciences students.

Dependent Variable	(I) Faculty	(J) Faculty	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
classmate_AD	Social Sciences	Management	.442	.305	.447	-.294	1.177
		Psychology	.994	.327	.008	.207	1.781
	Management	Psychology	.552	.301	.203	-.173	1.278
professors'_AD	Social Sciences	Management	-.019	.225	1.000	-.560	.522
		Psychology	.607	.241	.037	.027	1.186
	Management	Psychology	.626	.222	.015	.092	1.159
contextual_AD	Social Sciences	Management	1.113	.484	.067	-.054	2.279
		Psychology	1.328	.518	.033	.079	2.578
	Management	Psychology	.215	.478	1.000	-.935	1.366
plagiarism	Social Sciences	Management	.723	.285	.035	.037	1.409
		Psychology	-.083	.305	1.000	-.818	.651
	Management	Psychology	-.807	.281	.013	-1.483	-.130

Table 10. Multiple comparisons of means among students from different faculties

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Age, Perception of Effectiveness for One's Major, and DA

In this section, we will review the correlation of age and perception of the effectiveness of one's major (operationalized by knowledge of current problems in students' major, students' hope to have a contribution, perceived knowledge instrumentality, and perceived CV importance) to various types of AD. We used Pearson's moment coefficient to examine possible associations. Table 11 represents the zero-order correlation coefficients.

	1	2	3	4	5	6	7	8	9
1.age									
2.knowing_current_problems_in_major	-.093								
3.hope_to_have_contribution	.072	.041							
4.knowledge_instrumentality	.176**	.119*	.386**						
5.CV_importance	.179**	-.027	.196**	.372**					
6.self_AD	.259**	-.035	.203**	.157**	.047				
7.classmate_AD	.366**	-.089	.137*	.174**	.080	.596**			
8.professors'_AD	.072	-.073	.063	.093	.039	.169**	.286**		
9.contextual_AD	.234**	-.087	.032	.109	.068	.217**	.612**	.562**	
10.plagiarism	-.067	-.030	-.112	-.088	.000	-.281**	-.154**	-.078	.491**

Table 11. Correlation coefficient matrix

Age was positively related to knowledge_instrumentality (r=.176, p<.01), CV_importance (r=.179, p<.01), self_AD (r=.259, p<.01), classmate_AD (r=.366, p<.01), and contextual_AD (r=.234, p<.01). There was no significant association between age and knowing_current_problems_in_major (r= -.093, p>.05), hope_to_have_contribution (r=.072, p>.05), professors'_AD (r=.072, p>.05), and plagiarism (r= -.067, p>.05).

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Knowing_current_problems_in_major was not significantly related to self_AD (r= -. 035, P>.05), classmate_AD (r= -.089, p>.05), professors'_AD (r= -.073, p>.05), contextual_AD (r= -.087, p>.05), and plagiarism (r= -.030, p>.05). Hope_to_have_contribution was positively correlated with self_AD (r=.203, p<.01) and classmate_AD (r=.173, p<.05). Professors'_AD (r=.063, p>.05), contextual_AD (r=.031, p>.05), and plagiarism (r= -.112, p>.05) were not significantly associated with hope_to_have_contribution.

Knowledge_instrumentality, with the same pattern, correlated positively with self_AD (r=.157, p<.01) and classmate_AD (r=.174, p<.05), but not with professors'_AD (r=.093, p>.05), contextual_AD (r=.109, p>.05), and plagiarism (r= -.088, p>.05). CV_importance was not significantly related to self_AD (r=.047, p>.05) and classmate_AD (r=.080, p>.05), professors'_AD (r=.039, p>.05), contextual_AD (r=.068, p>.05), and plagiarism (r=.000, p>.05).

Conclusion

Our findings largely aligned with those of previous research, yet we uncovered several noteworthy results. For instance, when asked about the prevalence of academic dishonesty (AD) among their professors, only 7 out of 300 participants (approximately 2%) chose the option "never." This low level of trust in the university system suggests potential implications for university authorities. A promising area for future research could involve exploring how general societal distrust influences students' trust in academic integrity. Another significant observation from our study was the discrepancy in the reporting of AD. Half of our respondents admitted to having witnessed AD among their classmates, but only 16% confessed to engaging in AD themselves. This suggests a lack of honesty among participants when reporting their own involvement in AD. Consistent with previous studies[21][22][23][24], our research indicated that female students are generally less likely to commit AD. However, it's important to consider the views of scholars like [25], who suggest that men might be more inclined to self-report AD, and [26], who caution against drawing broad conclusions about gender differences in AD without more thorough investigation.

Another important finding of our study is that by accumulating experience and a shared understanding of the academic environment, students increasingly believe in the existence of some kind of "dirty world" in academia. Every year, students become more confident that academia is a place in which cheaters become more successful. Of course, some of them might become tempted not to stay behind.

Our participants did not view plagiarism with the gravity it deserves, despite its significant impact on the reputation of Iranian academia over the past decade. Plagiarism, which Miguel Roig[7][8] regards as sometimes "the most serious form of research misconduct," is widespread in Iran. Our survey, along with our practical experience and review of the literature, indicates a profound lack of awareness about plagiarism. This lack of awareness extends beyond students to include many professors in Iran, who are often uninformed about the proper rules for using others' work.

Statements and Declarations

Ethics

Ethical review and approval were not formally available for this study, as an IRB system was not established. However, the study was conducted in accordance with the Declaration of Helsinki and national ethical guidelines. Participants provided written, verbal, or implied informed consent as described in the Methods; their data were anonymized prior to analysis, and all protections for participant confidentiality and autonomy were observed.

Data Availability

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

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