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Attitudes towards plagiarism among faculty members in Egypt: a cross-sectional study

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Abstract

Plagiarism is considered one of the most critical aspects of academic misconduct and violates academic integrity. This research aimed to assess faculty members' attitudes towards plagiarism (ATP) in 40 Egyptian universities using a questionnaire designed to explore such behaviour in the academic community. In 2018, the ATP questionnaire, in an Arabic version of 25 statements, was distributed to measure positive and negative ATP as well as the subjective norms. Additionally, these attitudes were examined according to three main variables. The results revealed a moderate attitude among the respondents ($n=254$) as the mean scores for positive attitudes, negative attitudes, and subjective norms were 28 ± 7, 20 ± 3, and 20 ± 4, respectively. There were no significant differences between the groups in terms of studying abroad and training on academic integrity and scientific writing. According to specialization, mean scores indicated that the faculty in the disciplines of basic and applied sciences had a stronger ATP than faculty from the disciplines of social sciences, education, and arts. Given the tested ATP, the study recommended several procedures by the Supreme Council of Universities, including developing an academic integrity policy, launching an obligatory training programme on plagiarism, and establishing an international publishing unit in each campus to disseminate awareness of academic integrity.

Keywords Ethics · Plagiarism · Academic integrity · Higher education · Egyptian universities · Research evaluation

Note: The paper was previously published in Arabic language in the International journal of library and information science: a publication of Egyptian Library Association (Ali 2019).

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Introduction

Academic corruption refers to several manifestations, such as plagiarism, fabrication, and fraud. Nevertheless, plagiarism is the most prevalent form of academic misconduct (Naveen et al. 2017; Pupovac et al. 2010). One of the most prominent definitions of plagiarism, on which many studies have been based, is as follows: "Plagiarism involves literary theft, stealing (by copying) the words or ideas of someone else and passing them off as one's own without crediting the source" (Park 2003). This definition is widely consistent with the definitions in international dictionaries, such as Cambridge, Oxford, and Webster (Plagiarism 2018a, b, c).

Husain et al. (2017) classified the factors leading to plagiarism into five main categories which have been addressed in many previous studies examining different aspects of plagiarism, especially among postgraduates and faculty members. Institutional factors consist of a scarcity of handling sensitive issues such as the absence of plagiarism policies and its penalties and a lack of awareness of plagiarism and its seriousness, yielding unintentional plagiarism (Carnero et al. 2017; Husain et al. 2017; Jansz and Sari 2015; Pupovac et al. 2010; Rathore et al. 2015). Academic factors include the difficulty of tasks assigned to researchers and faculty members suffering from pressure to publish their papers to seek promotions; poor skills in English scientific writing, especially for non-native speakers; and limited access to the data and information required in some disciplines (Carnero et al. 2017; Cheak et al. 2013; Eret and Gokmenoglu 2010; Husain et al. 2017; Jansz and Sari 2015; Jeyaraj 2018, Naveen et al. 2017; Rathore et al. 2015; Uplaonkar 2018). Personal factors include lack of time, desire for advanced positions, and extent of awareness and understanding of plagiarism among faculty members along with their attitudes towards it (Eret and Gokmenoglu 2010; Yasami and Yarmohammadi 2014; Khemiss et al. 2019; Lin 2020). Technological factors include easy access to Internet resources and copying them as well as lack of both awareness and use of plagiarism software (Do Ba et al. 2017, Husain et al. 2017, Kattan et al. 2017, Kirthi et al. 2015, Naveen et al. 2017, Omonijo et al. 2017). Finally, external factors include peer pressure and peer behaviour, culture, and family pressure (Husain et al. 2017). Striving for appropriate recognition of the motivation for plagiarism, a questionnaire measuring attitudes towards plagiarism (ATP) has been developed by Mavrinac et al. (2010) and used as a predictive model for preventing plagiarism. Several studies have applied the ATP questionnaire to measure ATP of students, researchers, and faculty members in several medical disciplines in some universities (Pupovac et al. 2010; Kirthi et al. 2015; Jain et al. 2015; Kattan et al. 2017; Mansour et al. 2017; Bettaieb et al. 2020; Sohrabi et al. 2018; Marar and Hamza 2020).

In Egypt, under the terms of scientific committees for faculty promotion issued by the Supreme Council of Universities (SCU), Article (28) of the Promotion Rules states that it is obligatory to obtain a plagiarism report approved by the Digital Libraries Unit (DLU) at SCU. This report is to identify the plagiarism rates using iThenticate (Supreme Council of Universities 2017). In order to guide faculty members towards avoiding plagiarism, the DLU is developing a training programme to avoid plagiarism. One of the programme requirements is to assess the ATP of the faculty. Therefore, the present study sought to (1) explore the ATP of Egyptian faculty members and (2) examine the association between the ATP and specialization, studying abroad, and training on academic integrity and scientific writing.

Participants and methods

Study design

As shown in Fig. 1, this study was designed according to four basic phases.

Participants and sampling

The study population consisted of applicant faculty who received plagiarism detection reports for promotion issued by the DLU in 2018. The total number of them was 2495 faculty members from 23 governmental universities and 17 private ones. A representative sample of the study population was obtained according to the Sample Size Calculator (Raosoft 2018) with 95% confidence. The sample size was 334 (13% of the population).

Used questionnaire: validation and implementation

The ATP questionnaire developed by Mavrinac et al. (2010) was used to measure these attitudes among Egyptian faculty members. The questionnaire was used in some countries that are similar to Egypt in terms of the level of higher education, such as Croatia (Pupovac et al. 2010), India (Joshi 2018), Pakistan (Uplaonkar 2018), Iran (Shaghaghi and Vasfi 2019), and Tunisia (Bettaieb et al. 2020). The original questionnaire includes two parts: (1) demographic data and (2) three factors related to attitudes containing 29 statements. The factors consist of the following: factor 1 (12 statements), positive attitudes that reflect approval and justification of plagiarism; factor 2 (7 statements), negative attitudes expressing condemnation and disapproval of plagiarism; and factor 3 (10 statements), subjective norms, which represent beliefs about the prevalence and acceptance of plagiarism

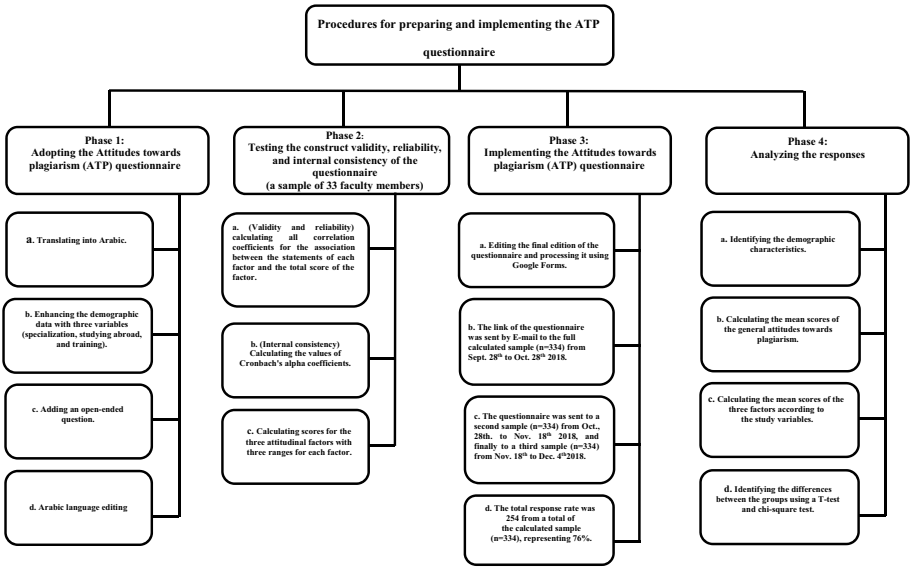

Fig. 1 Procedures for preparing and implementing the ATP questionnaire

in academic communities. The statements are scored based on a five-point Likert scale (from 1 for strongly disagree to 5 for strongly agree). In the present study, the variables of specialization, studying abroad, and training on scientific ethics were added to the demographic data to examine the correlation between ATP scores and those major variables.

Validation and implementation

The questionnaire was translated into Arabic and reviewed for linguistic and statistical accuracy. A sample of 33 faculty members was used to examine the construct validity, reliability, and internal consistency of the questionnaire:

1. All correlation coefficients (r) for the association between the statements of each factor and the total score of the factor were calculated (the tabular value at the significance level of 0.05 = 0.361). While all values of "r" for the statements of the first factor (positive attitudes) and the total degree of the factor were statistically significant, the values for the association between the statements of the second factor (negative attitudes) and the total score of the factor were statistically significant except for the following 2 statements:

- "A plagiarized paper does no harm to science".
- "Since plagiarism is taking other people's words rather than tangible assets, it should NOT be considered as a serious offense".

Additionally, the associations between the statements of the third factor (subjective norms) and the total degree of the factor were statistically significant except for the following 2 statements:

- "I keep plagiarizing because I haven't been caught yet".
- "I work (study) in a plagiarism-free environment".

Accordingly, four statements were removed from the Arabic edition of the ATP questionnaire to be adapted to the Egyptian academic environment, so the total statements were then 25.

2. The values of Cronbach's alpha coefficients were calculated to examine the internal consistency of the ATP questionnaire. It was found that all the consistency coefficients were significant at the level of 0.05 (positive: 0.845, negative: 0.635, subjective norms: 0.760), indicating that there was a sufficient correlation between the factors and that the questionnaire has an acceptable degree of internal consistency.

The DLU at SCU, the holder of the applicants' data, provided ethical approval for this research. The fulfilment of the questionnaire was not mandatory; the agreement of each participant to complete his/her sent copy was considered personal consent. The questionnaire was sent to the full sample according to the calculated size ($n = 334$). Because of the marked decrease in responses, two other samples were sent. Sending and receiving responses occurred over a period of approximately two months until the number of responses reached 254, which is 76% of the calculated sample ($n = 334$).

Statistical analyses

Statistical analysis of the collected data was performed using SPSS version 21 (IBM Corp.). The total scores of each factor were calculated. The differences between the groups

included in the sample (such as basic and applied sciences and other disciplines) were identified using a *T*-test and chi-square test. The distribution of the responses was calculated for each statement and *P* value < 0.05 indicated statistical significance. The mean scores and the standard deviation were calculated to show the general attitude and the attitude in each of the groups included in the study sample.

Results

Table 1 shows the scores for the attitudinal factors measuring ATP followed by the reference range for each factor. It should be noticed that the ranges in this research differ from its peer mentioned in the original study by Mavrinac et al. (2010), as a result of removing four statements after examining the construct validity. The demographic characteristics of 254 respondents are depicted in Table 2. Approximately 73% of respondents belonged to basic and applied sciences. Only 31.1% were educated abroad and 32.7% received training on academic integrity and scientific writing.

Tables 3 and 4 indicate the overall ATP of Egyptian faculty members and the attitudes according to the basic variables used in this study. Positive ATP was low, meaning that plagiarism was refused. This is considered a favourable attitude from the academic integrity perspective, although the score for this attitude was close to the minimum of the range (moderate). The extent of negative attitudes was also acceptable since it was high but at the low level in this range (high). Although the acceptable level of subjective norms should be low, the level of this factor in this study was moderate, which means that the respondents disapproved, to some extent, of the idea that plagiarism is acceptable in the academic community. As such, it may be stated that there is a moderate ATP among faculty members. The same attitude was prevalent for all the variables stated in Table 4, except for the disciplines of basic and applied sciences, which showed moderately positive attitudes. Thus, faculty members in these disciplines accept and justify plagiarism more than those in other disciplines.

Furthermore, Table 4 clarifies the significance of the differences among the respondents in the three factors according to the study variables. The calculated values of T were not statistically significant at the 0.05 level among the respondents in terms of training on

Table 1 Scores for the three attitudinal factors with three ranges for each factor

Attitudinal Factor	Score		
	N. of Statements	Reference range	
Positive attitude	12	Low[a]	12–28
		Moderate	29–45
		High	46–60
Negative attitude	5	Low	5–11
		Moderate	12–18
		High[a]	19–25
Subjective norms	8	Low[a]	8–18
		Moderate	19–29
		High	30–40

[a]Favorable attitude from the academic integrity perception

Table 2 Demographic characteristics of faculty members ($n=254$)

Sex	Male		Female			
	N	%	*N*		%	
	158	62.2	96		37.8	
Specialization	Basic and applied sciences		Others: social sciences, education and arts			
	N	%	*N*		%	
	186	73.2	68		26.4	
Education from abroad	Yes		No			
	N	%	*N*		%	
	79	31.1	175		68.9	
Training on academic integrity and scientific writing	Yes		No			
	N	%	*N*		%	
	83	32.7	171		67.3	
Places of training		In Egypt	Abroad		Both	
	N	%	*N*	%	*N*	%
	55	66.3	17	20.5	11	13.2
Designation	Lecturer		Assistant Professor		Professor	
	N	%	N	%	N	%
	22	8.7	144	56.7	88	34.6

The number of respondents according to the universities: 17 private universities: 19 (7.5%), and 23 governmental universities include Cairo: 26 (10.6%), Alexandria: 29 (11.4%), Ain Shams: 8 (3.1%), Assiut: 16 (6.3), Tanta: 14 (5.5%), Mansoura: 23 (9%), Zagazig: 24 (9.4%), Helwan: 14 (5.5%), Minya: 9 (3.5%), Monufia: 9 (3.5%), Suez Canal: 12 (4.7%), Fayoum: 2 (0.8%), Benha: 8 (3.1%), South Valley: 1 (0.4%), Beni Suef: 5 (2%), Kafr El Sheikh: 6 (3.5%), Sohag: 9 (3.1%), Port Said: 3 (1.2%), Damanhur: 3 (1.2%), Damietta: 4 (1.6%), Aswan: 5 (2%) Sadat City: 4 (1.6%) Suez: 1(0.4%)

Table 3 Mean scores of the attitudes towards plagiarism (ATP) among Egyptian faculty members

General attitude	Mean scores and standard deviation (SD ±)		
$N=254$	Positive attitude	Negative attitude	Subjective norms
	28 ± 7	20 ± 3	20 ± 4
	Low[a]	High[a]	Moderate

[a]Favorable attitude from the academic integrity perception

academic integrity and studying abroad, but there were significant differences between the two groups of specialization: the *T* value was significant for positive attitudes and subjective norms, and it was in the direction of the disciplines of basic and applied sciences. Additionally, the *T* value was significant for negative attitudes, and it was in the direction of the disciplines of social sciences, education, and arts.

The responses for the first factor (positive ATP, Online Appendix 1) showed that the mean scores were between 1.742 and 3.437. Moreover, all the chi-square values were statistically significant for all statements of this factor, where the values were in the direction

Table 4 Attitudes towards plagiarism (ATP) according to the study variables and the significance of differences between the groups

Variable (*N.*)		Mean score ± standard deviation (SD)			*T* (Sig.)		
		Positive attitude	Negative attitude	Subjective norms	Positive attitude	Negative attitude	Subjective norms
Specialization	Basic and applied sciences ($n=186$)	29 ± 7 Moderate	20 ± 3 High[a]	21 ± 4 Moderate	3.400 (0.001)	3.313 (0.001)	2.525 (0.012)
	Others: social sciences, education and arts ($n=67$)	25 ± 8 Low[a]	21 ± 3 High[a]	19 ± 4 Moderate			
Education from abroad	Yes ($n=79$)	27 ± 7 Low[a]	20 ± 3 High[a]	20 ± 4 Moderate	0.602 (0.548)	0.248 (0.805)	0.725 (0.4699)
	No ($n=175$)	28 ± 7 Low[a]	20 ± 3 High[a]	20 ± 4 Moderate			
Training on academic integrity and scientific writing	Yes ($n=83$)	28 ± 8 Low[a]	20 ± 3 High[a]	20 ± 4 Moderate	0.355 (0.723)	0.250 (0.802)	0.185 (0.853)
	No ($n=171$)	28 ± 7 Low[a]	20 ± 3 High[a]	20 ± 4 Moderate			

T T-test, *Sig* significance of difference

[a]Favorable attitude from the academic integrity perception

of agreeing with the statements (2, 3, 5). For statement 2, approximately 53% of the respondents accepted the use of the same method used in other previous studies if it is the same in their papers. For statement 3, about 57% of respondents supported self-plagiarism and believed that it is not punishable because it does not cause any harm. For statement 5, 50.4% agreed that self-plagiarism should not be punishable in the same way as plagiarism. In contrast, the values were in the direction of disagreeing with the statements (1, 4, 6, 7, 8, 9, 10, 11, and 12). This disagreement (rates ranging from 59.4 to 91.3%) indicated that they rejected most aspects of plagiarism.

Regarding the second factor (negative ATP, Online Appendix 2), the mean scores were between 3.409 and 4.397, and all the chi-square values were statistically significant for all the statements. Of all the responses, those in the direction of agreement (statements 13, 15, 16, and17) had a proportion between 64.1 and 96.1%.

In contrast, the degree of subjective norms (Online Appendix 3) was moderate, yielding an unacceptable matter from the standpoint of academic integrity. The mean scores of these factor responses were between 1.767 and 3.559, and all the chi-square values were statistically significant. Fifty-seven percent of respondents agreed that authors deny plagiarism although they practice it (statement 18). The values were in the direction of disapproving of the statements (20, 21, 22, 23, 24, and 25), since the rates of disapproval ranged between 63 and 92%, except for statement 20. All these statements relate to the justification for plagiarism.

Discussion

In the past, the discussion and research on plagiarism in the academic community have been a source of concern and shame, and plagiarism has not been seen as worthy of analysis (Lyon 2008). Recently, plagiarism has become a growing area of interest in many studies that have begun to reveal its causes, treatment, policies, and related technologies, especially in the Internet age (Lyon 2008; Rezanejad and Rezaei 2013). The current results revealed disparate levels of the key attitude factors: the mean score for positive attitudes was low (=28), approaching the moderate level; the mean for negative attitudes (=20) was close to moderate; and the mean for subjective norms was moderate (=20). Comparing this overall outcome with the results of previous studies measuring ATP among faculty members and researchers, one would find high consistency. The study conducted by Kirthi et al. (2015) revealed moderate attitudes of graduates and faculty towards plagiarism in an Indian institution for health care. Further, the high and moderate attitudes of the faculty members and students were explored by Rathore et al. (2015) in 7 faculties of medicine in Pakistan. The most two recent studies have reached the same findings; at the Faculty of Medicine of Tunis Bettaieb et al. (2020) concluded that both positive attitudes and subjective norms were between low to moderate whereas the negative attitudes were moderate, and the study on researchers at a tertiary care hospital in Riyadh by Marar and Hamza (2020) reported moderate average scores for all attitudes.

These results have been interpreted as an indicator of the acceptance of plagiarism and lack of appropriate knowledge of it. Based on the characteristics of the present study sample, 67.3% of the faculty members did not receive training on academic integrity and scientific writing in their universities, which is largely in line with the study by EL-Berry (2018), who found an awareness of plagiarism among only 60% of the faculty members in an Egyptian university. This awareness certainly has an effect on

the formation of ATP. In contrast to Bettaieb et al. (2020) whose results revealed that academics who received courses in scientific writing were less accepting plagiarism, the statistical tests in the current study did not show significant differences between those who received training and those who did not receive any training, which agrees with the studies by Rathore et al. (2015) and Kattan et al. (2017). This is necessarily thought to be a result of the deficiency of training content provided by Egyptian universities, especially with the results showing that 66% of the respondents received training at Egyptian universities. As proven by many studies, providing an effective training programme would have a favourable impact on attitudes towards and knowledge of plagiarism (Fazilatfar et al. 2018; Mansour et al. 2017; Khemiss et al. 2019; Bettaieb et al. 2020).

The results also showed that only 20% of the sample believed that a scientific study could not be conducted without plagiarism (statement 8). This finding is in line with those of Kirthi et al. (2015), in which 11% of the faculty members agreed, Bettaieb et al. (2020) which revealed that 90% of respondents disagreed, and Marar and Hamza (2020) with nearly 80% disagreement. This common result proves that plagiarism and its justifications are refused. As such, most respondents in this study rejected many of the reasons for plagiarism, which mostly stated in the positive attitude section. For example, 81% refused to use other authors' words without citing them because there are few expressions to describe something (statement 1), 90% expressed discontent about justifying copying parts of a similar study published in a foreign language without citing if the researcher cannot write well in this language (statement 7), and 87% disapproved of the idea that short deadlines should be a justification for plagiarism (statement 9).

However, the justification for using the same method used in previous studies in a situation with a similar approach (statement 2) had responses indicating agreement (53%) and neutrality (16.5). This justification was supported by several answers to the open-ended question in the questionnaire, with many researchers claiming that many phrases appearing in the method are widely used in studies dealing with the same topic. These phrases are thus called constants and cannot be reformulated; otherwise, they can lose their meaning. This explains why some respondents suggested excluding the method from plagiarism detection, and this was clearly shown in the basic and applied sciences. For the subjective norms, with respect to the reason that widespread plagiarism among everyone motivates researchers to plagiarise (statement 20), the results showed uncertainty since the proportions were similar (30% agree, 30% neutral, 40% disagree). In addition, 68% disapproved of plagiarism as a motivation to achieve progress in writing research papers (statement 22), and 92% rejected the idea that the obligations and tasks of a researcher justified plagiarism (statement 24). All these results are consistent with the studies performed by Rathore et al. (2015), Kirthi et al. (2015), and Bettaieb et al. (2020).

In terms of self-plagiarism, 57% of faculty members agreed that it should not be punishable because it does not cause harm (statement 3), 17% were impartial, and 50% agreed that self-plagiarism should not be punishable in the same manner as plagiarism (statement 5), which is consistent with the studies by Kirthi et al. (2015) and Rathore et al. (2015). However, 83% disagreed that researchers have a right to quote from their previous papers to complete later ones without citing (statement 11). Likewise, 63% refused to copy a sentence or two from previous research and paste into subsequent research without citing (statement 23), indicating, like the findings of Marar and Hamza (2020), some vagueness in the knowledge of the concept of self-plagiarism. This was confirmed by some of the answers to the open-ended question, since some suggested that self-plagiarism rates should not be considered during plagiarism detection if the authors refer to their previous papers.

The present study has been fully consistent with the study by Kirthi et al. (2015) regarding penalties for plagiarism and its consequences. Of the respondents, 64% agreed that plagiarists should not be considered as belonging to the academic community (statement 13), while only 48% agreed that their names should be disclosed to this community, and the proportion of neutral responses rose to 28% (statement 14). Furthermore, 91% considered plagiarizing is as bad as stealing an exam (statement 16), and 59% disagreed with the idea of exempting young researchers from strict punishment (statement. 6). There is no doubt that these penalties will incite a fear of punishment among researchers and thus reduce plagiarism rates. In addition, 91% of respondents agreed that plagiarism leads to a lack of investigative spirit (statement 17), which is considered the most serious consequence of plagiarism. Finally, 96% of respondents agreed that the issues of plagiarism and self-plagiarism should be discussed in the status quo in which scientific research ethics are violated (statement 15).

As for the ATP questionnaire, this study, one of a few studies focussing on faculty members, has applied this questionnaire after removing four statements that resulted from its validation test. Likewise, such adaptation occurred when this questionnaire was examined in Iran, where the number of statements was reduced from 29 to 22 after translation to Persian (Sohrabi et al. 2018). Similar to Bettaieb et al. (2020), this study experienced a weak response to the questionnaire because plagiarism is a very delicate issue, which may have made faculty members abstain from replying; this has been confirmed by previous research such as that conducted by Rezanejad and Rezaei (2013).

It is evident from the results of this study that many official procedures should be implemented to increase awareness of the concept of plagiarism and its negative impact on scientific research in Egyptian universities. In fact, this awareness should be spread not only to faculty members but also to all stakeholders involved in evaluating scientific research, such as scientific committees for promotion, reviewers, editors, and academic leadership. Some research has recommended diverse official procedures (Rathore et al. 2015; Kirthi et al. 2015; Singh 2017; Marar and Hamza 2020; Bettaieb et al. 2020; Khemiss et al. 2019; Levine and Pazdernik 2018; Joshi 2018), the most efficacious of which are the university's policies preventing plagiarism and all manifestations of the violation of academic integrity, academic awareness campaigns, training programmes on academic writing and plagiarism avoidance skills, and centres for maintaining scientific research ethics. Therefore, the following recommendations can be taken into consideration in Egypt:

1. The DLU can design a training programme on plagiarism that may include the following basic components: the concept of scientific plagiarism and related terms, plagiarism detection software, realistic models of plagiarism in various disciplines, techniques for avoiding plagiarism, and the negative effects of plagiarism and its consequences. This programme should be an obligatory requirement for academic promotion.
2. The SCU can form a higher committee for developing a policy of academic integrity including plagiarism and its punishment.
3. Establishing an international publishing unit in each university to spread awareness of academic integrity, to facilitate publishing procedures in well-reputed journals by providing courses in scientific writing and international publishing for all disciplines, and to provide translation and editing services.

Conclusion

The results of the current study revealed a moderate ATP among the faculty members of Egyptian universities. Further, the results did not show any significant differences between the groups with respect to studying abroad and training on academic integrity and scientific writing. In contrast, in terms of specializations, the mean scores indicated that the disciplines of basic and applied sciences had a stronger ATP than the disciplines of social sciences, education and the arts. The respondents rejected a lot of justifications for plagiarism, and there was little obvious recognition of self-plagiarism and the penalties for plagiarism. They significantly agreed on the implications of plagiarism and the need for these issues to be addressed. The underlying importance of this study stems from the fact that faculty members represent the basic pillar of academic integrity, and their ATP, whether positive or negative, affect their students and academic behaviour in general. Furthermore, this study can support university leaders in formulating policies to address or reduce plagiarism and promote academic integrity in universities.

Limitations and future work

The critical limitation of this study was that this study was conducted only one year after executing plagiarism detection for the research of faculty members applying for promotion in Egyptian universities. This procedure was not familiar before, and not all aspects of plagiarism might be perceived by applicants. Consequently, all that had an impact on their responses to the questionnaire. The results, therefore, can be compared to the results of a subsequent study can be conducted after three years, and the ATP of the faculty members can also be measured using the same questionnaire. The differences between the two studies will interpret the changes in the ATP after a longer period of implementing the plagiarism detection. Like all studies that rely on questionnaires, it should be expected that responses to the current questionnaire include bias, lies, or haphazard answers. Therefore, some suggest that such studies are enhanced by some other studies that use personal interviews with the participants (Rezanejad and Rezaei 2013). A focus group approach can also be conducted with both faculty members and the reviewers of the promotion committees to achieve this target.

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Compliance with ethical standards

Conflict of interest The author has no conflicts of interest to declare that are relevant to the content of this article.

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