



ACADEMIC DISHONESTY AND CLINICAL MISCONDUCT AMONG NURSING STUDENTS IN A UNIVERSITY IN MEXICO

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ABSTRACT

Academic dishonesty is defined as any act be it intentional or not of deceit by a student with the objective of obtaining an unearned benefit or advantage. It is a common problem among students that poses a threat to the quality of learning by the students as well as the integrity of their evaluation, there is also a proposed risk to the continuation of these practices into their professional career. **Objective:** To evaluate correlation between academic dishonesty and professional misconduct among nursing students. **Materials and methods:** This study utilized a quantitative observational, prospective and cross-sectional analytic design to evaluate academic dishonesty among nursing students using a convenience sampling method. Sample. 161 students enrolled in a clinical module from a nursing bachelor program from a higher-level educational institution in Mexico. A self-administered, validated questionnaire was used for data collection. **Results:** A total of 94.4% of participants reported having committed at least one act of academic dishonesty and 85.7% reported having committed at least one act of clinical malpractice, the relationship between two practices showed a weak positive correlation based on Spearman correlation coefficient ($r=.369$, $p<0.01$) indicating that participating students who engaged in more practices of academic dishonesty had a higher probability of presenting behaviors of clinical malpractice. **Conclusion:** Behaviors of academic dishonesty as well as clinical misconduct are common among nursing students in Mexico, and a positive correlation was found between the two. It is important to create changes to the curriculum or teaching practices to better this problem.

KEYWORDS: Students, nursing; Malpractice; Education, nursing; Academic dishonesty; Academic misconduct.

INTRODUCTION:

Academic dishonesty also known as academic misconduct or academic fraud can have a varied conceptualization depending on the consulted sources, although various authors agree that it has a few universal defining characteristics, for example Tee and Curtis (2018) define it as any act by a student to obtain an unjust benefit from any submitted work, which could encompass any type of deception or fraudulent activity such as plagiarism, collusion, cheating, forgery or helping another commit an academic offence, it has the aim of misrepresenting the academic achievements of the student (Nazare & Filipe, 2016).

This is a problem of great magnitude in every educational level and poses a risk to the students' education, as well as the integrity of the evaluation of their knowledge (Diez, 2015). Academic dishonesty has become a prevalent problem among higher education institutions, not being nursing the exception, in various studies it has been found that the prevalence of this phenomenon is rising worldwide, with the highest reported prevalence being in South Africa with 88% and the lowest being in the United States of America with 53% of nursing students reporting that they had committed at least one act of academic dishonesty (Theart & Smit, 2012; Winrow, Reitmaier & Winrow, 2015). Although it has been reported that nursing students' attitude towards this type of behavior is unsympathetic compared to other professions (Bultas, 2017), this is still a concerning pattern since nursing is a profession that requires honesty and ethical behavior as well as professionalism, characteristics that are in opposition to those displayed in academic dishonesty.

In the case of professional malpractice specifically clinical misconduct as is inside of the health sector it can be defined as a lasting phenomenon in which the patient is at risk of harm caused by a health worker or professional who lacks the qualifications or is irresponsible in the care while at the same time being incapable or indisposed to rectify this situation (Mauritius, 2016).

Throughout time various studies have been conducted to the exploration and comprehension of academic dishonesty in various fields, including in recent years nursing, with the goal of being able to apply this knowledge to education in nursing. An interesting finding among a recent studies was that there appears to be a statistically significant difference between the prevalence of academic dishonesty and age, where older students were found to commit these acts more frequently, as well as students which had a higher number of completed credits, which could translate to a higher prevalence of clinical malpractice further on, other studies have also begun to study the prevalence of dishonesty in nursing student's clinical practice, for example a Malaysian study reported that 74.6% of participants reported having committed at least one act of dishonesty in the clinical setting (Abusafia et al., 2018).

Considering the prevalence of academic dishonesty in a global scale as well as the lack of study among a Latin American nursing students, specifically in Mexican context, the present investigation had the purpose of studying the correlation between academic dishonesty and clinical malpractice among nursing students in a bachelor level in a Mexican university.

MATERIALS AND METHODS:

This is a quantitative observational study; it utilized a prospective and cross-sectional analytic design to evaluate academic dishonesty among nursing students using a convenience sampling method.

Participants. The participants of this study consisted of students enrolled in a clinical module from a nursing bachelor program from a higher-level educational institution in Mexico. A total of 161 students participated in the study ranging from fifth to eight semesters. The selection criteria utilized were that the students must be enrolled in the transpiring year, they must have coursed or be coursed a clinical module, indistinct sex and of legal age. The only criteria for exclusion was that they did not agree to participate in the investigation. The elimination criteria were that the instrument was not filled to completion or identification of error in the filling out of the instrument.

Instrument. A self-administered, validated questionnaire was used for data collection which measured four dimensions in the main variable and three dimensions in the second variable.

The recollection of data was conducted via the use of a self-administered asynchronous questionnaire. The instrument consisted of two parts, the first included four questions regarding the sociodemographic characterization of the respondents these being age, semester coursed, sex and average grade. The second part of the instrument consisted in 22 items created from already existing questionnaires adapted to the cultural context as well as Mexico's educational environment, these sought out to measure the reported prevalence of academic dishonesty and malpractice or clinical dishonesty among the nursing students. The 22 items were rated utilizing a 5-point Likert scale that ranged from 1 to 5, with 1=never, 2=almost never, 3=sometimes, 4=frequently, 5=very frequently.

The instrument was developed by the authors based on a comprehensive review of existing literature on the subject, it presented content validity (Abusafia et al., 2018; McClung and Kraenzle 2018; Brown et al., 2018), construct validity (positive item correlations) and Reliability (Cronbach's alpha value was 0.864). A pilot was applied to 20 nursing interns with the discussion of each item after the application where the questions were reported to be perceived as comprehensible.

Statistical analysis plan. The results were dichotomized with students who reported never and almost never having committed dishonest behaviors being categorized as honest students and students who reported having committed dishonest behaviors sometimes to very frequently as dishonest students, the results for the items for clinical malpractice were also dichotomized in the same manner to obtain frequency, measures of central tendency and variability were calculated, as well as 95% confidence intervals were obtained. The type of data distribution, and correlation coefficient. Significance level <0.05 .

Statistical software. Excel 2019 (v19.0) and IBM SPSS statistic 25.

Ethical aspects. Previous to the administration of the questionnaire all of the par-

ticipants were informed of the purpose of the study as well of the fact that participation was voluntary, and that if they so wished they could refuse to participate or withdraw from the study. All of the students that participated in this study were assured the confidentiality of the information they provided as well as their maintained anonymity.

RESULTS AND DISCUSSIONS:

The participants were composed mostly by female students ($n=129$, 80.1%), the median age being 21.48 ± 2.983 years. The majority of the students were coursing fifth semester ($n=53$, 32.9%) followed by sixth and eighth semester that accounted for 24.2% and 29.8% respectively, while eighth semester had the least amount of participation with 13%. The median self-reported grade was 8.409 ± 0.510 .

Self-reported frequency of behaviors of academic dishonesty among nursing students.

As seen in Table 1 of the most reported behavior of academic dishonesty was to include for evaluation someone who did not participate in a team project (36.6%), followed by working with another student in the elaboration of individual school work without authorization of the professor (23.6%) and letting another student copy the answers during a test (13.7%). The least reported unethical behavior was submitting the same (or substantially similar) work in more than one course without the knowledge or approval of the evaluating professor (1.9%), followed by presenting another student's material as their own work for academic evaluation (3.1%) and obtaining and/or distributing the answers to a test (4.3%). The other five behaviors were reported in a range of 5% to 11.8% of the participating students.

Table 1. Frequency of academic dishonesty

Academic dishonesty behavior	Frequency (%)
Presented another student's material as their own work for academic evaluation	3.1
Submitting the same (or substantially similar) work in more than one course without the knowledge or approval of the evaluating professor	1.9
Copied other student's answers during a test	6.2
Used unauthorized devices or material during a test	5
Obtaining and/or distributing the answers to a test	4.3
Working with another student in the elaboration of individual schoolwork without authorization of the professor	23.6
Letting another student copy the answers during a test	13.7
Prepared work for another student to submit as his own for evaluation	11.2
Include for evaluation someone who did not participate in a team project	36.6
purposefully introduced fictitious statements in a work to turn in	7.5
Fabricating information or results in a nursing laboratory practice report	11.8

$n=161$.

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Self-reported frequency of behaviors of clinical malpractice among nursing students.

As seen in Table 2 among the clinical malpractice behaviors the most reported were discussing patients' cases in public spaces or with nonmedical personnel (19.9%) followed by reporting or recording interventions that were not performed (11.8%) and reporting or recording vital signs that were not recalled accurately (11.2%). The least reported behavior was breaking sterile technique without reporting it nor replacing the contaminated items (3.7%) followed by Created generic nursing sheets for various patients (4.3%) and not reporting an incident or error committed that involved a patient (5%) The other five behaviors were reported by 6.2% to 8.7% of the participating students.

Table 2. Frequency of clinical malpractice.

Clinical malpractice behavior	Frequency (%)
Discussing patients' cases in public spaces or with nonmedical personnel	19.9
Breaking sterile technique without reporting it nor replacing the contaminated items	3.7
Do not wash hands between every patient	8.7

Did not report an incident or error committed that involved a patient	5
Performed or attempted a procedure on a patient without adequate knowledge or adequate supervision	7.5
Reporting or recording interventions that were not performed	11.8
Reporting or recording vital signs that were not recalled accurately	11.2
Reported or recorded a clinical evaluation of a patient which was partially of completely fabricated	6.2
Created generic nursing sheets for various patients	4.3
Used the same care plan on multiple patients without or with minimal modification	6.8
Taking institutional equipment or materials for personal use	6.8

$n=161$.

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Comparison of mean academic dishonesty and clinical malpractice values

Table 3 shows the descriptive statistics of the two variables presented, where academic dishonesty had a mean value of 1.4472 ± 1.73169 , and clinical malpractice presented a lower mean value of $.7205 \pm 1.44140$.

Table 3. Descriptive statistics of analytic variables

	Academic dishonesty	Clinical malpractice
n	161	161
Mean	1.4472	.7205
Mean standard error	.13648	.11360
Median	1.0000	0.0000
Mode	0.00	0.00
Standard deviation	1.73169	1.44140
Variance	2.999	2.078
Range	12.00	10.00
Minimum	0.00	0.00
Maximum	12.00	10.00

$n=161$

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Correlation between Academic dishonesty and Clinical malpractice

Table 4 demonstrates the relationship between acts of academic dishonesty and clinical malpractice in the participants where a weak correlation was identified based on Spearman's Rho correlation coefficient ($r=.369$, $p<0.01$).

In Figure 1 a second order model in structural equation modeling is observed, this model allows the visualization of the predictive behavior of the students that have committed acts of academic dishonesty and their possible attitude in clinical practice with a coefficient of determination of $R^2=0.4518$ this is a relatively low value of certainty which could be corrected with the help of a larger sample size.

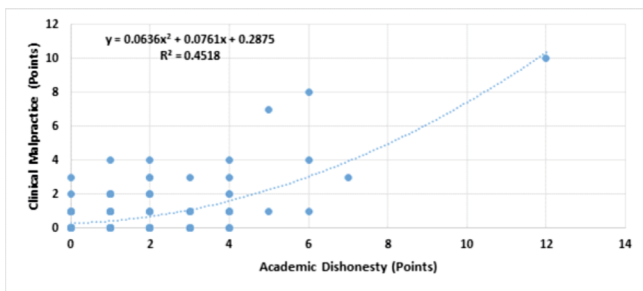
Table 4. Correlation between Academic dishonesty and Clinical malpractice

Spearman's Rho	Correlation coefficient	.369**
	Sig. (bilateral)	.000
	n	161

**The correlation is significant at the 0,01 level (2 tails).

$n=161$

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Figure 1. Correlation between Academic dishonesty and Clinical malpractice

n=161

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Table 5 displays the frequency distribution of the variables, Academic dishonesty and clinical malpractice, in the case of dishonest students 10.6% presented clinical malpractice and 26.1% did not report clinical malpractice indicating that not all dishonest students engage in conducts of clinical malpractice. Of the honest students 6.2% reported clinical malpractice while 57.1% do not present clinical malpractice.

In Table 6 Pearson's chi-squared value ($p=0.002$) indicates that the variable academic dishonesty has a statistically significant bivariate association with the variable clinical malpractice.

The odds ratio for the variable of academic dishonesty observed in Table 7 is of 3.724, which indicates that participants who self-reported having committed acts of academic dishonesty have a 3.724 higher probability of presenting clinical malpractice, the lower limit of the confidence interval of 1.572 also indicates that there is a correlation between the two variables and as such is considered an educational problem.

Table 5. Contingency table for bivariate analysis

	Categories		Malpractice		Total
			Student with clinical malpractice	Student without clinical malpractice	
Academic dishonesty	Dishonest student	Recount	17	42	59
		total %	10.6%	26.1%	36.6%
	Honest student	Recount	10	92	102
		total %	6.2%	57.1%	63.4%
Total	Recount		27	134	161
	total %		16.8%	83.2%	100.0%

n=161

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Table 6. Chi-square hypothesis tests of independence

	Value	gl	Asymptotic significance (2 faces)	Exact significance (2 faces)	Exact significance (1 face)
Pearson's chi-squared	9.677 ^a	1	.002		
Continuity correction ^b	8.363	1	.004		
Likelihood ratio	9.326	1	.002		
Fisher's exact test				.004	.002
Linear by linear association	9.617	1	.002		
N of valid cases	161				

a. 0 cells (0.0%) have expected a count less than 5. The minimum expected count is 9.89.

b. It has only been calculated for a 2x2 table

n=161

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Table 7. Risk estimation for students with academic dishonesty

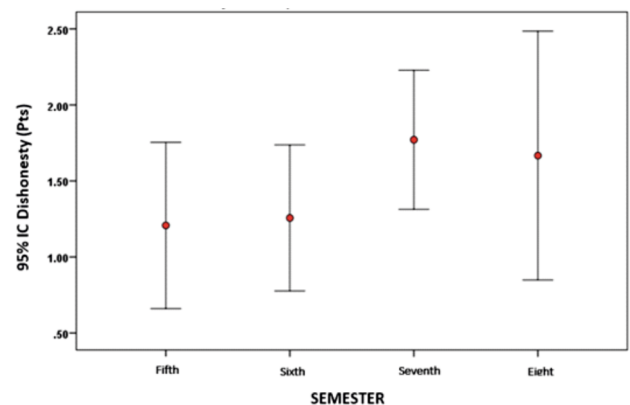
	Value	95% Confidence interval	
		Inferior	Superior
Odds ratio for variable Academic dishonesty (Dishonest student/Honest student)	3.724	1.572	8.819
Malpractice cohort= Student with clinical malpractice	2.939	1.442	5.992
Malpractice cohort= Student without clinical malpractice	.789	.663	.940
N of valid cases	161		

n=161

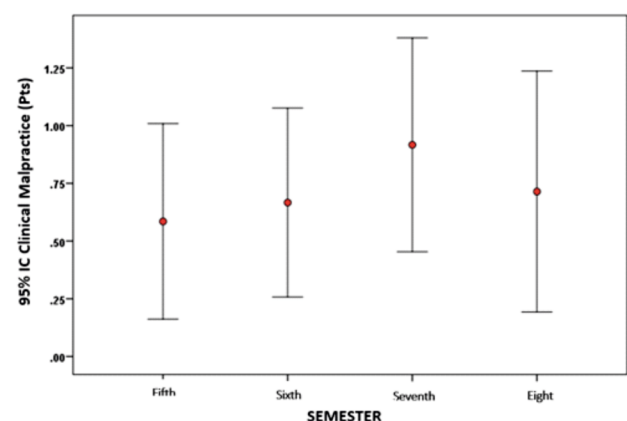
Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

A comparison was made between each semester (fifth to eighth) for the measurement of the variable "Academic dishonesty", as demonstrated in Figure 2 there were no significant differences are observed between the measurements therefore it can be stated that there is no statistically significant difference in the rates of academic dishonesty depending on the semester the students were coursing, although slight increase can be observed in the measurements of academic dishonesty in seventh and eight semesters compared to fifth and sixth semester this could be further explored with a larger sample.

Another comparison was made between each semester (fifth to eighth) for the measurement of the variable "Clinical malpractice" as demonstrated in Figure 3, were in the same manner no statistically significant difference was identified in the rates of clinical malpractice depending on the semester the students were coursing.

Figure 2. Comparison between the mean value of Academic dishonesty between semesters

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020.

Figure 3. Comparison between the mean value of Clinical malpractice between semesters

Source: Surveys of nursing students. Faculty of Higher Studies, National Autonomous University of Mexico, 2020

The present study found that a minority of the participating students were found to be committing acts of academic dishonesty with 36.6% of the students being classified as dishonest, this prevalence of academic dishonesty is inferior to that reported in other countries the highest reported in a South African study being of 88% and the lowest reported of 53% of nursing students reporting having committed at least one act of academic dishonesty in their academic trajectory (Theart & Smit, 2012; Winrow, Reitmaier & Winrow, 2015).

A similar pattern is reported in conducts of clinical malpractice (16.8%) where the minority of participants also reported having committed acts of clinical malpractice, this value is lower than that reported in a previous study conducted with Korean nursing students where the prevalence of nursing students who engaged in at least 1 of 10 studied unethical clinical behaviors was of 66% (Park et al., 2014).

The prevalence of each unethical conduct varied widely depending on the behavior from 3.1% to 36.6% in behaviors of academic dishonesty and 3.7% to 19.9% in behaviors of clinical malpractice.

In this study there was no significant difference found in the prevalence of academic dishonesty or clinical misconduct in nursing students of different ages, sex or courting semester, this data is in contrast to previous studies which demonstrate that these are variables that affect the prevalence of academic dishonesty among students (Bultas, 2017; Abusafia et al., 2018) although it does match with a previous study where there was not a significant relationship between cheating or professional misconduct and grade, point average or gender, but it did with age (Winrow et al 2015).

Regarding the mean value of academic dishonesty 1.4472 ± 1.73169 and clinical malpractice presented a lower mean value of $.7205 \pm 1.44140$, although this value is higher to one previously reported in Korea where the mean score of self-reported acts of unethical clinical behavior was of 0.27 (S.D. 0.33) on a 0-2 scale (Jun Park et al, 2014). In addition to identifying the prevalence of these conducts this study also questioned whether the frequency of academic dishonesty and clinical malpractice had any significant association, and as such a weak positive correlation was found between behaviors of academic dishonesty and clinical malpractice this result lies in accordance to previous work that identified a positive relationship between perception of behaviors in the classroom and clinical setting (McClung & Kraenzle, 2018).

The further analysis of the correlation between the two variables, with the analysis of correlation between the items corresponding to the different dimensions that composed each demonstrated that there could be a link between the dimensions of Falsification/Fabrication in academic dishonesty and Perjury or inadequate filling of nursing records in behaviors of clinical misconduct which could mean that these two are conceptually matched, although further investigation is needed to verify this.

CONCLUSIONS:

This study works to expand the knowledge of academic dishonesty and clinical malpractice in nursing students inside of a Mexican context, we concluded that it demonstrates the high prevalence of these conduct and confirms the necessity of a continued study of these phenomena among nursing students, especially in our particular cultural context. Although it is impossible to pinpoint a single cause for these conducts since a series of different factor can be involved in these actions, a few possible explanations proposed in previous works are the pressure students face to excel in an increasingly competitive culture, a prospective unstable job market after graduation and the pressure to be high achieving students (Hurn et al., 2020). Another possible reason is the normalization of these behaviors among students (Hendy and Montargot, 2019). It is in any case important that nursing students adhere to strict ethical codes as their future profession is one where values such as integrity, honesty, and responsibility (CIE, 2001) are important to the development of a healthy nurse-patient relationship, as weak as to the rest of the medical team. It is in this context the importance of nurse educators to instill the values of integrity and professionalism during the students' formation, as there is a possibility of these conducts to continue well into their professional life.

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