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A survey of grading scale variations in Doctor of Pharmacy programs ☆

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Abstract

Objectives: The first objective of this survey was to determine if there is a common grading scale utilized in Doctor of Pharmacy programs throughout the United States. Based on preliminary research, this question has not been addressed for professional pharmacy education. The study's second objective was to begin to explore different aspects of grading scales used, academic freedom in grading, and the institutional breakdown of grading scales.

Methods: An online survey tool was developed and distributed to the School of Pharmacies' respective Dean of Academic Affairs or alternate via e-mail to elicit responses. Subsequent second and third e-mail requests were sent at one-week intervals after a nonresponse.

Results: The net survey response rate was 61%. The overall study results determined that there was no grade scale predominately used by pharmacy schools or colleges, whether compared across all courses or across only specific type courses (didactic, laboratory, and experiential), and regardless of whether public or private, or what size the enrollment. There were significant consistencies in what constitutes a passing grade as well as the percentages that correlate to specific grades.

Conclusions: The results provide guidance for both established and new schools of pharmacy, in that any grading scale adoption is essentially acceptable among pharmacy schools. Future research should compare Doctor of Pharmacy program grading policies with other professional doctorate programs, to determine if other professional programs have developed common grading policies.

Keywords: Grading Scales; Assessment; Pharmacy Programs

Introduction

Before 1987, the number of pharmacy schools (72) in the United States had remained relatively constant for many years.[1] The 2012 Accreditation Council for Pharmacy Education (ACPE) annual report shows 127 current pharmacy schools.[2] With this rapid expansion and concerns over viable employment opportunities on graduation, we must consider ways to effectively compare new graduates from different schools.[1]

Currently, there is no widely accepted standard metric employed when evaluating and comparing new pharmacy graduates. When attempting to contrast baseline pharmacy knowledge, there are limited options, the most available information is the North American Pharmacist Licensure Examination (NAPLEX), class rank, and student grade point averages (GPAs).[3] While the NAPLEX is designed to measure a candidate's knowledge of pharmacy practice, its conventional reporting as a pass/fail-type exam does not allow one to utilize it as comparable data. GPAs are the most common quantitative metric used to differentiate

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students in terms of academic ability. However, a number of factors limit the direct comparison of GPAs obtained from different pharmacy schools.[4] One must consider the differences between individual schools/colleges' pharmacy curricula when comparing GPAs. We make an assumption of baseline knowledge of pharmacy by virtue of a school/college meeting the ACPE accreditation standards.[2] This article is an attempt to survey the landscape of differences between grading scales and GPA to gain understanding into how we may compare pharmacy grading. There has been limited research in this area. Barnes et al.[5] showed no difference in cumulative mean GPA when calculated using retrospective application of plus/minus and whole-letter grading scales; however, when calculating final GPA, these are not the only grading scales utilized within pharmacy education. The most common grading scales currently used are different letter grades with and without plusses and minuses, pass/not pass, and numerical grades.

Despite the lack of a standardized evaluation metric, pharmacy managers and residency directors need to utilize measurable, quantitative parameters to distinguish between potential employees and residents.[4,6] The lack of a standardized grading scale makes utilizing the available data even more challenging since one may be comparing apples to oranges. Jungnickel[4] reports that many residency directors feel that class ranking and GPA provide limited information when assessing individual practice ability, as they measure academic achievement mostly in traditional didactic courses and not in a practice setting. Under the oversight of the Accreditation Council for Pharmacy Education, Doctor of Pharmacy programs vary greatly in structure and content, including factors such as pre-pharmacy requirements, material taught, teaching and learning approaches, and duration and structure of practice experiences. ACPE currently does not have any oversight regarding the use and selection of grading scales. In addition, grades may have far different meanings at different pharmacy schools. For example, based on curricular and programmatic differences, a 3.5 cumulative GPA at two different pharmacy schools may represent very distinct differences in knowledge and skills.[4]

This issue of grading scale standardization came to light as we sought to create a standardized grading scale for our curriculum at a new college of pharmacy. The College planned to adopt a scale that was ubiquitous to ensure a uniform format for our graduates. A detailed literature search performed prior to this study's creation revealed a dearth of research and/or literature on the use of grading scales in post-secondary education. In particular, there was almost none identified that concerned pharmacy education. Pedagogical studies of grading scales utilized in medical education were the closest related field with published literature. However, medical education focused on a discipline-wide transition from letter grades to pass/fail grading. Bloodgood et al.[7] reported that using pass/fail instead of letter grades improved students' psychological well-being and satisfaction, without any reduction in performance in courses or clerkships, United States Medical Licensing Examination test scores, success in residency placement, or level of attendance. Our study was designed as an initial effort to delve into this area of academic research in pharmacy education.

The objectives of this survey were two-fold. The first objective was to determine if there is a common grading scale that is currently utilized in Doctor of Pharmacy programs throughout the United States. The second objective was to begin to explore different aspects of the grading scales in use, to decide whether academic freedom is allowed in grading, and to determine the institutional breakdown of grading scales.

Methods

An online survey tool (SurveyMonkey.com, LLC Palo Alto, CA) was developed to elicit from each school or college of pharmacy whether one or more grading scales were utilized, what those scale(s) were, for what type of courses were they used, what was the rationale for diverse grading scales, and how were grades reported on transcripts (Appendix 1). In addition, the online survey collected basic institutional data, including the school/college's public or private status and annual class size (Appendix 1). Respondents and institutions would not be anonymous, since by tracking responses, unnecessary reminder e-mail requests could be avoided. However, the confidentiality of the respondents and their institutions was maintained. The study design was granted exempt status by the College's Institutional Review Board. Statistical analyses of survey results were performed using Statistical Package for the Social Sciences (SPSS) version 19 (IBM Corporation, Somers, NY). The survey results were directly exported from SurveyMonkey in SPSS format. The chi-square test was used to determine whether the observed frequencies of survey results markedly differ from the frequencies that would be expected by chance.

The intent was to solicit Deans of Academic Affairs, and when one could be identified via the school/college website, such was done. Where one was not identifiable or an e-mail address was not available or accessible, alternative academic administrator selections were made. Schools/colleges of pharmacy were identified from the listing of pharmacy schools and colleges available from the American Association of Colleges of Pharmacy website. For each school or college, its institutional website was consulted to determine if there was only one campus and if there was an identifiable academic dean along with contact information. What constituted a "campus" was based on the determinations whether the institutional sites were separated and whether an academic officer was present, since the accreditation status of many sites was in transition. For the purposes of this study, 129 separate campuses of pharmacy were identified.