

NHA ExCPT Exam

Authored by: Stephani Howarter, Ph.D.

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Introduction

The Exam for the Certification of Pharmacy Technicians (ExCPT), as produced by the National Healthcareer Association (NHA), is a high-stakes certification examination with the purpose of evaluating the knowledge associated with the performance of tasks required for entry-level practice as a pharmacy technician. This report explains the current marketplace for pharmacy technician certification exams. The NHA ExCPT exam development process is outlined along with analyses conducted to assess the quality of the exam development process and the valid use of scores. Finally, additional resources available for those that use the ExCPT exam are summarized.

THE CURRENT MARKETPLACE

In the pharmacy technician certification space, there are three types of consumers: individual certification candidates, employers of pharmacy technicians, and pharmacy technician educators. These consumer groups have different priorities in selecting a certification provider. Individual consumers are looking at employer acceptance of the credential, price, convenient testing location, quality preparation tools, and customer service. Employers look to the quality of the certification program (see the Exam Development section on page 3), the support services provided to the employer to assess the readiness of employees to challenge the examination, the alignment of the examination to the employer's workforce needs, and the cost impact on training in the workforce. Educators choose a certification partner that supports student success throughout the training program and acceptance of potential employers of the certification credential.

NHA competes with other certification exam sponsors in the pharmacy technician marketplace, except where competition has been foreclosed by legislation or regulation. NHA is actively working to pull down these unnecessary barriers to consumer choice.

THE NHA SOLUTION

The ExCPT, as produced by the National Healthcareer Association (NHA), has been developed in accordance with the Standards for Educational and Psychological Testing (2014), following rigorous best practices in the testing industry. The ExCPT is the preferred certification for many consumers, particularly employers and educators, because NHA has invested substantially in both the examination and its support services. The development of the ExCPT exam will be the focus of this white paper.

As an example of support services, NHA has developed certification preparation materials geared to adult learners such as practice examinations that are linked to content and provide immediate explanations for incorrect answer selections. NHA supports instructors, teaching in either school programs or employer training programs, by providing data analytics to identify topics for which additional training is needed by individuals, or for the class as a whole.

NHA also offers best-in-class customer support, receiving industry-high customer satisfaction ratings. Certification candidates are guided through the process from start to finish to ensure that they understand the eligibility requirements, register to take the examination at a convenient testing site, and have access to their examination results. ExCPT credential holders rely on quality service in obtaining continuing education units and recertification.



EXAMINATION DEVELOPMENT

The test development process is outlined in the following sections as evidence to the reliability of the ExCPT exam and the validity of the score inferences.

Intended Use

The ExCPT is a high-stakes certification examination with the purpose of evaluating the knowledge and skills associated with the performance of tasks required for entry-level practice as a pharmacy technician. It is intended for use for certification of pharmacy technicians and the award of pharmacy technician credentials. The examination is not intended to be a direct predictor of job performance in the pharmacy technician field. The fundamental mandate governing the examination is to assess whether or not an entry-level candidate has successfully demonstrated the minimum core competencies necessary to be certified as a pharmacy technician.

Item Format

The ExCPT items are in a 4-option multiple choice format with a single correct answer. The items are assembled into a test form according to the content domain topic percentages set forth in the test plan, described further in the Validity Evidence section below, and critical thinking levels required by the test plan. Each examination form is comprised of 100 scored items plus an additional 20 unscored pretest items. All scored responses are assessed as correct or incorrect, with no partial credit awarded for any item and no penalty for guessing.

SCORE INTERPRETATIONS

The ExCPT exam is a pass/fail exam with a range of possible scaled scores from 200 to 500. Scores across all forms of the ExCPT examination are equated and are directly comparable. The cut score for the exam is a score of 390. A candidate's score is compared to this cut score and scores of 390 or higher are passing scores. If a candidate fails the exam, he or she will receive a score report with a diagnostic breakdown of his or her performance in the major content domains. Candidates who fail the exam must wait at least one month before retaking the exam. Those candidates

that are unsuccessful after two additional attempts will be required to wait one year before testing again.

VALIDITY EVIDENCE

The ExCPT is developed in adherence to the Standards for Educational and Psychological Testing (2014) proffered by the American Education Research Association, American Psychological Association, and National Council on Measurement in Education. The ExCPT has maintained accreditation by the National Commission for Certifying Agencies (NCCA) since the accreditation was first awarded in 2008, including full reaccreditation in 2013. This provides assurance that the examination has undergone repeated, extensive evaluation by an accrediting agency and consistently has demonstrated a high level of quality as a valid and reliable assessment instrument. The process for examination development for the ExCPT is consistent with industry best practice for high-stakes certification examinations.

An exam score is considered valid if it measures what it intends to measure and nothing else. Gathering validity evidence is an ongoing process from building the exam to post-administration. Therefore, validity is considered a matter of degree for an exam and not all or none. The test score, interpretation, and proposed uses are evaluated for validity evidence, not the test itself.

Building content validity evidence rests on the appropriateness of the test content and the procedures followed in specifying and generating the test content. The ExCPT exam was constructed using content that directly aligns with the objectives of the test blueprint, outlined by subject matter experts. The detailed test plan (which may also be referenced as the content outline or examination blueprint) is based on the results of a nationwide job analysis study, in which pharmacists, pharmacy technicians, pharmacy technician employers, and pharmacy technician educators across the nation responded to a survey asking about the frequency and importance of tasks performed in the field. An email link to the survey was sent to approximately 12,000 individuals, as well as posted in state association newsletters and made available on several social media websites specific to the pharmacy technician

industry. Based on the data obtained from these survey responses, psychometrician-facilitated discussions of the job analysis committee, composed of subject matter experts, are conducted to organize the test plan into three major content domains. The final deliverable from this process is the exam content specifications (subtopics for each of the major domains). The current test plan includes 90 exam specifications. A group of trained test developers and content subject matter experts build each examination form strictly to meet these exam specifications. The current test plan is available for downloading at <http://www.nhanow.com/certifications/pharmacy-technician>.

Items that pass through item review are then sent through a bias review process in which a committee of 4-5 individuals, who are trained in fairness and sensitivity standards, read each item for potential bias or inflammatory wording. Any items flagged at this step must be revised prior to use or rejected. This is done to examine potential sources of construct-irrelevant variance, extraneous factors that are unrelated to what the test is intended to measure. Although the bias review committee completes a qualitative check of all items on the examination to ensure items are not biased toward any particular demographic group, additional quantitative item level analyses are conducted to flag items where performance is different for subgroups of interest (e.g., gender and ethnicity). Differential item functioning and test speededness analysis results are conducted. Administration summary statistics of the exam are tracked and kept in the Technical Manual.

Before a first form for a new blueprint is released for use, it is placed in a provisional scoring environment. Psychometricians evaluate how items are performing on an initial representative sample of candidates. These items are all evaluated based on psychometric principles such as the proportion responding correctly and the correlation between the candidates' performance on each item and the performance on the examination as a whole. After all items have been assessed and the final set of items meeting the required level of performance identified, a cut score study is conducted with content subject matter experts who rate the difficulty level of each item as it relates to an established definition of a minimally qualified practitioner. These ratings

are transformed into a passing score and the subject matter expert committee reviews the impact data relative to this passing score for acceptability. The results of the cut score study are presented to the NHA Certification Governing Board (an independent board who oversee examination development and administration) for approval prior to implementation.

RELIABILITY EVIDENCE

The reliability of test scores is a precondition for their validity, but not the whole of validity. Reliability refers to the consistency of test scores across different administrations of the same test, alternate forms, or other parallel test forms. In more concrete terms, if test scores fluctuate a great deal over time, forms, or items, the test may not be able to measure what it is supposed to measure regardless of the validity evidence available (Thompson, 2003). It is important to note that tests themselves do not have reliability, only the test scores derived from them do. Reliability of test scores is a function of both the test and the examinees to whom the test is administered (Thompson & Vacha-Haase, 2000). Although, like all other standardized tests, NHA's reliability findings will not directly transfer to individual test takers to the degree that test takers are similar to the sample used for the reliability study, users can reasonably expect comparable reliability of test scores on the ExCPT.

The focus of a reliability study is dependent on how scores are expected to generalize or remain consistent. In the case of the ExCPT, the primary interest is in how scores might be expected to generalize to parallel tests constructed of different items. Subsequent forms developed with the same test plan are built from the pretest items that have appropriate statistical properties and according to the same test specifications. Because the item statistics are known for these items, the overall test statistics for the subsequent forms are inferred and scores can be statistically equated to account for differences in the difficulty level. Additionally, reliability estimates are calculated for each major content domain (as well as overall) to ensure that items of similar content are indeed performing in a manner that is consistent with expectations. The reliability estimates and standard error of measurement (SEM) for the major and minor sub-scales on the ExCPT can be found in the Technical Manual.

NHA recognizes the necessity to reassess the ExCPT exam regularly in response to the changing needs of the pharmacy profession. In order to update our pharmacy technician certification exam with the timeliest and most relevant industry information available, we are currently undertaking the exam development steps for a new exam described herein, which will help ensure our products reflect the most current responsibilities and duties of the pharmacy technician profession.

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