

Student Learning Contracts: Considerations for Implementation in Pharmacy Experiential Experiences

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Abstract

Student learning contracts (SLC) are documented with success in education to attain the goals of knowledge, value, and skills. The achievement of these goals is facilitated by the application of the SLC literature in education and in healthcare professional training within pharmacy practice experiential experiences (PPEE). This paper describes evidence regarding the potential use of SLC and provides SLC components to develop and implement in PPEE.

Keywords: Student learning contracts; Healthcare professional students; Pharmacy education; Experiential experiences

Introduction

Facilitating effective learning in healthcare practice professional training is imperative in the education of student healthcare learners. Significant expectations and responsibilities are required in the training of healthcare professional students within pharmacy practice settings. The Accreditation Council for Pharmacy Education (ACPE) incorporates specific standards for Introductory Pharmacy Practice Experience and Advanced Pharmacy Practice Experience practice training settings [1]. The required outcome standard key elements address the development, maturation, and advancement of foundational knowledge, practice and care approach and essentials, and the personal and professional development of knowledge, skills, abilities, attitudes, and behaviors of the graduate. These key elements require the pharmacy educational community to achieve certain standards in providing pharmacy clinical training education.

ACPE standards require pharmacy practitioner educators to establish expectations of the educatee to fulfill outcome measures. The achievement of these educational outcomes consists of learner accountability and individual autonomy in the training environment to facilitate long-term knowledge. Student training is achieved through the education of healthcare professional students' with a learner-centered approach that encourages lifelong learning in the adult pupil. The skill sets achieved help the novice educatee to develop professional competence within their training and for future professional workplaces.

Despite the availability of ACPE standards, healthcare professional student training in the practice setting can pose a challenge to healthcare practitioner educators. Student skill sets may vary with deficiencies in clinical skills and problems with ethical and medical professionalism as a few examples. These deficits influence student performance achievements within the productivity of their training. Clearly defined requirements affect deficiencies with positive effects on the students' productivity. Well-defined expectations allow for the achievement of performance objectives by holding the learner

accountable for their education, but they may also help in motivating the individual. The learning environment impedes learning situations and is a significant challenge for the educator with a lack of motivation in the learner. The incorporation of learning contracts in the teaching environment encourages student motivation by including their goals to self-direct learning. This collaborative learning effort by the educator and the educatee allows for the needs of the learner to be addressed and for the increased responsibility of the learner in their education. These learning contracts allow the educator and the educatee to agree on the students' initiative in their learning to support education. They allow the student to take ownership and responsibility for their education and training, further motivating the learner.

Learning contracts benefit the learning environment by allowing multiple learning styles to receive individualized training within small groups of learners [2]. Other benefits of learning contracts include the promotion of active learning, self-reflection, and educator-educatee interaction to promote student learning needs in their selected learning experience. Active learning allows for student engagement with improved motivation by actively involving students in their learning to benefit more from the learning process. Self-reflection allows the learner to mentally process the experiences or knowledge for deeper, longer-lasting learning in their reflection of the experience. The educator-educatee interaction helps to build positive relationships. Additionally, the incorporation of learning contracts allows for self-accountability of the learner to encourage student creativity and to prepare them as competent future healthcare professionals.

Student Learning Contracts (SLC) are effectively implemented in multiple educational discipline settings. They vary in comparison to regular contracts, which are rigid in their flexibility, to meet the needs of the student at the particular setting. Reports of their incorporation are documented primarily in nursing healthcare professional students in the medical literature, but other healthcare professionals are described [3-17]. They are also described as negotiated action or professional development plans [18]. These formal agreements allow for collaboration, open communication, respect, and accountability between the educator and the learner to meet the goals of the student in acquiring knowledge, values, and skills [18,19].

SLC permit individualization, independence, and facilitation of lifelong learning skills in educational experiences [3]. The partnership associated with SLC fosters an environment that promotes active participation of self-directed learning and should be incorporated as an integral part of the training program [14]. Contracts allow for the clarification of expectations, encouragement of student-centered learning, and increased student motivation by allowing the learner to take an active role in setting goals that are meaningful and significant to the educatee. Benefits include an increase in autonomy, confidence, motivation, and knowledge [7,13]. Skills gained or refined from self-directed clinical training experiences provide students the ability to function effectively in the healthcare training experience and in future work environments [10].

Pharmacy practice experiential experiences (PPEE) are similar in training to other healthcare professional education programs that develop practice skills that are appropriate within their respective profession. These abilities are assessed through active-learning sessions in which the learner demonstrates their abilities. In the clinical setting, SLC individualize and assess student training of active learning activities. In pharmacy education, the incorporation of SLC in the literature and PPEE is limited and has been described as the early form of continuous professional development [17,20-22]. Berger and Felkey found that students who contracted grades improved in performance and evaluation in a communication course [20]. Hardigan studied learning contracts in a pharmacy patient counseling course that allowed students to contract for a grade. He found that all the students achieved their contracted grade with the majority of issues related to the application of the contract as result of the unfamiliarity [17]. In an evaluation of a learning contract contained within an experiential manual, of the 58 students that evaluated the use of the manual, 62% felt that the agreement was useful [21]. PPEEs incorporate learning contracts as a resource to address the requirements of an experiential experience or to address deficiencies identified in earlier rotations. These objectives may help to encourage lifelong learning. In the typical learning environment, contracts are used to address the personal learning goals and objectives of the student.

SLC include elements as agreed on by both parties for the specific training environment. Contracts normally consist of goals, objectives, learning strategies, evaluations, deadlines, meeting dates, and implications for breach of contract [23]. Contract specific criteria may be adjusted within the learner and educator agreement with contract customizations to address short- and long-term education and career goals identified by the educatee. The SLC components are discussed in the sections below.

Differences in learning styles, motivation, and self-directedness affect the learning environment. An educator's main issue in clinical practice settings is related to these challenges in educating students. Multiple approaches may be considered to assist in student learning. Within this document, SLC are highlighted as one potential item to incorporate to allow for a more effective learning environment. This review summarizes implemented SLC in healthcare professional training by gathering education literature [23] to enable the use of SLC in the PPEE. The main objective of this review is to identify SLC components to incorporate within pharmacy professional experiences.

Student Learning Contracts

SLC provide a plan between the learner and the educator within a specific setting to meet the expectations of the experience [18]. Contracts may include complex components that require simplification in the SLC to avoid student confusion or frustration. Elements in the contract require a discussion by both parties to ensure that the document is appropriate for the experience. Students should be involved in the development and revision of contracts because the contracts are not fixed. SLC may require adjustments or amendments following an evaluation of the objectives or as appropriate for the individual student. The contract must be reviewed after the contract has been developed. Main components of the contract should include learning objectives, strategies to meet the objectives, and documentation of objective measures of outcome [7,18]. Other criteria may include, but are not limited to include goals, deadlines, penalties, and meeting times. Table 1 provides an example of a basic PPEE learning contract.

Components	Examples
Goal(s)	To effectively communicate patient recommendations.
Objective(s)	To demonstrate effective communication skills in providing patient therapy recommendations with healthcare professionals.
Learning strategies	Research effective communication skills. Observe a preceptor providing patient recommendations to healthcare professionals. Role play a patient therapy recommendation to a preceptor. Self-critique practice presentation of patient therapy recommendation.
Outcome Measures	Provide an effective patient recommendation to a healthcare professional that is observed by the preceptor.

Table 1: Main Contract Component Example

Goals: SLC incorporate goals to achieve a desired end-point of the clinical experience. Goals may include, but are not limited to communication skills, professional behaviors, specific knowledge and skills, teamwork and management skills. The contracts may include short-term and long-term aims that require reevaluation at least once during the training. This reexamination allows both parties to revise the goals based on met or unmet aims and, also to review short-term goals that build into long-term goals. Successful contracts incorporate this dialogue to support the learner in their professional development.

Objectives: The first main component of the SLC is the development of objectives. The structure and plan of objectives help the learner move toward long-term educational goals. The learner should be involved in the development of the objectives. Specific objectives allow the educator to address the learning process by identifying what the learner wants to accomplish or what skills they want to develop. Other objectives are based on formal requirements of institution standards. One example of an educator-identified objective is to maintain and uphold professional standards of the academic institution, including ideal behaviors within the profession. Other objectives are established at the experience level expected of the student.

Learning Strategies: The second main component of an SLC is the development of learning strategies. To achieve the learning objectives, learning strategies are developed to meet those expectations. The student must identify how they will accomplish the learning objective after the evaluation of expectations, strengths, and weaknesses. These must be considered to develop effective plans. Learning strategies will include the incorporation of activities and/or projects to meet the learning objectives.

Outcome Measures: The last main component of the SLC is the objective measure of outcome. The educator and learner identify how to document and assess the achievement of the accomplished learning objective in a measurable form. Once identified and discussed, it allows ongoing constructive support to facilitate learning for the desired outcomes.

Additional Contract Components: SLC may contain a number of other items that vary dependent on the learner, educator, and the setting. These may include deadlines, meeting dates, and implications for breach of contract. Meeting dates provide an opportunity to discuss the goals and objectives, which allows the learner to attain a sense of accomplishment or an opportunity to revise the strategies to meet the objective. In the contract breach clause, both parties must identify the impact to the student if a deviation from the agreement occurs.

Materials and Methods

The studies for this review were obtained through literature searches up to March 2015.

Authors	Year	Title	Description	Study Population	Outcome
Ramli A, Joseph L, Lee SW [8]	2013	Learning pathways during clinical placement of physiotherapy students: a Malaysian experience of using learning contracts and reflective diaries	Evaluated twenty-six learning contracts during clinical placements.	Physiotherapy students	Contract evaluations identified similar themes within the student developed contracts that may be helpful in enhancing the physiotherapy learning environment.
Gregory D, Guse L, Dick DD, Davis P, Russell CK [4].	2009	What clinical learning contracts reveal about nursing education and patient safety.	Evaluated sixty clinical learning contracts for unsafe patient care events in struggling students. SLC were developed for student (n=60) that did not meet competencies and were considered unsafe.	Nursing Students	Patient safety (errors, near misses, potential adverse effects, and adverse effects) were impacted in students with unmet competencies (56% failed interception rate) and failure was found in 8 students.
Bailey ME, Tuohy D [5]	2009	Student nurses' experiences of using a learning contract as a method of assessment.	Sixty students assessed the learning contract.	Nursing students (final year)	Conflicting opinions of the use of contracts as an assessment tool.
Rye KJ [3]	2008	Perceived Benefits of the Use of Learning Contracts to Guide Clinical Education in Respiratory Care Students	Twenty-four students completed the student contract in developing, implementing, and evaluating the contract. Eight-one percent (21/24) of students completed the survey.	Respiratory therapy students; ages 22- 44 y (26.4)	Respondents agreed they could use the learning contracts; 2 had difficulty in developing the contract, 95% agreed the learning contract facilitated their ability to apply their knowledge, 90% felt the contract could help with autonomy and motivation to meet knowledge, skills, and clinical attitudes.
Chan S, Wai-tong C [7]	2000	Implementing contract learning in a clinical context: report on a study	Forty-seven students evaluated the use of a learning contract	Nursing students (3rd year)	Increase in autonomy and motivation to learn; lack of contract experience and limited time in clinical areas resulted in challenges.
McDermott MM, Curry RH, Stille FC, Martin GJ [6]	1999	Use of learning contracts in an office-based primary care clerkship.	176 students evaluated attaining a learner centered learning goal.	Medical students (3rd (45%) and 4th (55%) year) in a primary care clerkship	Pursuance of a learning centered goal more worthwhile than didactic but less worthwhile than office experiences. Future studies should be conducted to determine if the contracts promote independent learning following graduation.
Hardigan P [17]	1994	Investigation of Learning Contracts in Pharmaceutical Education	Sixty-one students evaluated for preference in contract grading and learning self-directedness within a pharmacy patient counseling course.	Pharmacy students	Authors were in favor of contract grade support, but not in all courses. Students felt the experience was useful and meaningful.

SLC: student learning contracts

Table 2: Healthcare Professional Student Learning Contract Literature Review 3-8, 17

Relevant literature was identified through searches of PubMed and Google Scholar using the following terms: “student-learning contracts”, “healthcare professional students”, “pharmacy education”, and “experiential experiences”. The data were gathered from a structured review of each study. Aspects of the published studies were examined for the key features of the authors, year, study title, study description, study population, and outcomes (Table 2).

Results

In total, 15 papers were identified in the review. Most of the studies involved nursing students as the healthcare professionals in training. Other healthcare professions described within the implementation of learning contracts included pharmacy, physiotherapy, and respiratory therapy. Favorable results were found in the learning contracts with autonomy and motivation as a major benefit. In the literature that evaluated the contracts, similar goals were included that could be used to identify clinical site training. One study found that the incorporation of the contracts allowed educators to address the needs of students with significant deficiencies. However, due to the limited details within some of those studies, not all identified studies are presented in the table format. Table 2 describes the literature identified with greater details regarding SLC.

Discussion

This review included the use of learning contracts in the training of healthcare professional students. An SLC incorporates a formal agreement between the learner and the educator that may be incorporated into the PPEE. An SLC allows for knowledge, skills, and values to be incorporated into these experiences. Pharmacy students benefit from SLC due to similarities in clinical training approaches. Studies indicate that the incorporation of SLC results in student autonomy and motivation, which are important within the pharmacy field [3,7]. The main benefit of the contract is that it allows students to take increased responsibility for their learning, which will help them in their future careers.

This review aimed to present available literature on SLC in addition to identifying components to incorporate into PPEE. The data collected from these studies indicate a potential role for SLC within healthcare professional training. Although the majority of the data are found within the nursing field, contracts can be implemented in other healthcare fields. Components varied among the studies presented, but the information highlights the flexibility of contracts on issues such as patient safety [4].

Concerns with learning contracts highlight the uncertainty within some areas of the educational community. Concerns about SLC are associated with added stress for students and contracting for a grade [15]. Learner anxiety and frustration occur when the student is not orientated to the SLC [7]. This added angst may hinder the role of the SLC, affecting the collaboration and learning process. Other concerns include the lack of goal-setting as a priority, which may be addressed by the educator by incorporating a professionalism goal for the setting. Another issue with the SLC is the required time to revise and

renegotiate the contract. This process helps the learner to identify goals after the accomplishment of others, and as long as an agenda is set, the meeting may be productive. Cultural and social barriers are other considerations of resistance in the negotiation of the contract. Differences in language and culture may result in different interpretation, so the negotiation process can be seen as disrespectful when discussion with the educator or the individual focuses on the individual versus working as a team. Despite these concerns, knowledge of the SLC concerns allows both parties to be aware of the limitations associated with SLC and to identify the best approach within the specific learning environment.

Conclusion

In summary, SLCs allow for learners to be self-directed and to take responsibility for their learning. The partnership resulting from these contracts allows for collaboration between both parties for the acquisition of knowledge, values, and skills, including an empowerment of the learner. Despite the lack of pharmacy literature regarding the use of learning contracts in pharmacy education, SLC have a potential role in the experiential setting. Futures studies are needed to continue to define the role of contracts in pharmacy education and their impact on career goals.

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