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RESEARCH ARTICLE

The Learning Contract and its Impact on Scholarship among Moroccan Nursing Students

Abderrahmane Lamiri^{1,*} , Amina Lhbibani² , Rabia Qaisar¹ , Driss Khoaja³ , Omar Abidi³ , Abderrahim Khyati³  and Hind Bouzoubaa³ 

¹Higher Institute of Nursing and Health Techniques of Casablanca, Casablanca, Morocco

²Laboratory of Physical Chemistry of Materials, Ben M'Sik Faculty of Sciences, Hassan II University of Casablanca, Casablanca, Morocco

³Interdisciplinary Group of Didactics of Science & Educational Sciences (GIDS&SE-ENSC), The Multidisciplinary Laboratory in Sciences and Information Communication and Education Technology (LAPSTICE), Ben M'Sik Faculty of Sciences, Hassan II University of Casablanca, Casablanca, Morocco

Abstract:

Background:

E-learning refers to the use of new technologies to deliver distance learning programs. This mode of learning is also considered one of the innovative teaching/learning methods best suited to the current conditions, which entail the suspension of face-to-face courses due to the COVID-19 pandemic to ensure continuity of training, overcome learning difficulties and increase student autonomy and motivation. Our study focuses on this teaching model as an example of an apprenticeship contract, often adopted in technical, vocational, work-linked training. The aim of this study is to measure the perception of this learning contract through e-learning and its impact on learning among multi-skilled nursing students in semester four (S4) of the Professional License of the Higher Institute of Nursing and Health Techniques of Casablanca within the framework of the course of nursing care in psychiatry.

Methods:

A group of 58 students participated in a survey conducted by questionnaire, with a response rate of 86.20%.

Results:

The results revealed that the students had a positive perception regarding the use of the learning contract; according to them, the learning contract approach increases autonomy, motivation and the application of the theoretical courses in practice.

Conclusion:

The learning contract offers several advantages as a learning strategy and this has been implemented in different nursing education contexts, which may encourage nursing educators to use this contract more widely in theoretical and also practical teaching.

Keywords: E-Learning, Learning contract, Didactic analysis, Nursing education activities, ISPITS casablanca, Psychiatry.

Article History

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1. INTRODUCTION

The year 2020 has proven a special year for the world of education, imposing long-distance learning for students in all levels and cycles of training. The sudden disruptions generated in the programming of teaching have also favoured an intensive application of new technologies in training, especially the use of e-learning, a pedagogical tool that offers several

advantages [1, 2] and is considered an innovation and a facilitator of access to continuing education [3].

In nursing education, training courses prepare students to integrate a health system that is thirsty for personnel, certainly in quantity but, above all, in quality. Likewise, the nursing profession can only develop through competent, reflective professionals who think critically as they perform their everyday duties [4]. This requires, first of all, the development of skills and the ability to act effectively in situations [5].

In Morocco, after an era of latency, nursing education has

* Address correspondence to this author at the Higher Institute of Nursing and Health Techniques of Casablanca, Morocco; Tel: +212 5227-04671; E-mail: abderrahmane.lamiri-etu@etu.univh2c.ma

undergone a resurgence under the increased demand for nursing personnel. In 2015, the Ministry of Health estimated the maximum need, according to health map standards, at 20,537 nurses [6].

The training system, represented mainly by the Higher Institutes of Nursing and Health Technology (ISPITS) [7], was then expanded and diversified in terms of training supply to fill this gap. However, this change has brought with it another challenge that affects the quality of training [8].

The quality of training depends essentially on a good relationship between teacher and student. This is the domain of the learning contract between teacher and trainees, which is an agreement that makes explicit what a learner will do to achieve specified learning outcomes [9].

In a similar vein, Chan and Wai-tong, 2000 [10], argue that contract learning emphasizes learner activities, teacher interaction, and subject matter and implicitly promotes work and discovery learning.

Therefore, it was important to study the impact of the learning contract often adopted in technical, vocational, work-linked courses, particularly those included in distance education in nursing through e-learning for future nurses at ISPITS Casablanca. Implementation of this strategy places students in favourable conditions of learning and contractualisation, thus allowing greater autonomy, developing professionalization and reducing the risk of failure [10].

In addition, little research has explored nursing students' perception of the impact of the learning contract in distance education *via* e-learning in nursing. Moreover, no studies have been identified, to date, on the learning contract and its impact on nursing learning in Morocco.

2. LITERATURE REVIEW

The learning contract is defined by Knowles [3], as a tool that allows the learner and the teacher to establish a pre-established plan. In this sense, the learning contract remains an essential tool for the trainer and the student, it is a bilateral agreement that serves to indicate, in a precise manner, the objectives, the activities or the means adopted to achieve the commitments of each party.

In this sense, the same author [3] has qualified the learning contract as the most effective strategy to promote self-direction in adult learners, as it improves the learners' sense of responsibility and allows the establishment of learner-centred learning objectives.

Thus, Przesmycki [11] states that the contract is a tool to help develop the project, a source of motivation, a tool for socialisation, and a tool that has psycho-pedagogical value because it allows the learner to gain self-confidence, a methodological aid for the learner.

Others who have worked on the learning contract have stated that this tool has a positive impact on students' knowledge acquisition ability, learning satisfaction and academic productivity [12, 13].

Much research on the learning contract has shown that this

pedagogical tool has proven to be effective, especially with regard to the factors that influence and enhance learner motivation, namely (a) confidence, (b) recognition of value, (c) responsibility and (d) satisfaction [14, 15]. Furthermore, the learning contract serves as a tool for improving students' learning autonomy and motivation, as well as assisting learners in making a personal and relevant choice of assignments that are relevant to their needs. As a result, contract learning typically includes a list of options from which learners can choose [16, 17].

Knowles [18] has shown that the learning contract helps students to organise their learning more effectively, and encourages them to develop creativity through knowing and using the most appropriate resources and strategies in the learning process.

In addition, learning contracts offer another important and useful advantage in the process of integrating theory and practice [19].

The learning contract has limitations in that its use requires individual supervision which takes time to complete and even a lot of effort, all of which adds to the lack of knowledge of the students in this learning method, but its use in acquiring nursing knowledge has given a clear improvement in the autonomy and motivation of the nursing learners [10].

3. MATERIALS AND METHODS

3.1. Ethical Considerations

After obtaining institutional approval from the ISPITSC management and the Ministry of Health in Morocco, all participants were informed of the purpose of the study, the conduct of the study, their freedom to participate, and the anonymity and confidentiality of the information collected. A written consent form was obtained from each participant. In addition, participants were informed that only the researchers would have access to the data collected, which would be destroyed at the end of the study.

3.2. Study Design

To better understand this approach, which is little understood in our context, we chose to conduct descriptive exploratory research, with the goal of proposing provisional explanations, or deductive and confirmatory in nature, with the goal of determining the extent to which a theory holds in a given environment, and particularly to describe the impact, perceived by the multi-skilled nursing students of semester four of the ISPITSC, of the learning contract in the distance education of the psychiatric nursing course taught *via* e-learning.

This research is part of an exploratory quantitative approach that uses a questionnaire as a data collection tool, based on a Likert scale ranging from 1 to 5 (strongly agree = 1; agree = 2; neutral = 3; disagree = 4; strongly disagree = 5), and exhaustive sampling includes all multi-skilled nursing students enrolled in semester four (N=58).

3.3. Participants and Setting

The distance-learning course took place following the suspension of the face-to-face courses starting in March 2020 due to the occurrence of the COVID-19 pandemic in the spring session of the 2019–2020 academic year. Our sample is composed of 58 students from the nursing option, multipurpose nurses of semester four, who were enrolled on a regular basis in the professional bachelor cycle at ISPITSC in Morocco and participated in the nursing course in psychiatry at a distance by e-learning.

3.4. Procedures

Nursing in Psychiatry' is a 50-hour course in the major module of Medical and Nursing Specialty Pathologies that consists of two main theoretical chapters encompassing medical and nursing specialty pathologies. The different sessions were delivered in a distance learning mode through e-learning *via* a platform integrated into the ISPITSC website, using technology to enable students to develop professional skills related to nursing in Psychiatry.

Given the nature of the present study, which aims to describe the impact of the learning contract on nursing e-learning distance education, at the beginning of the course, the first video conference session was devoted to presenting the course outline with the objectives and evaluation modalities, introducing the concept of the learning contract to the students, providing explanations and answering various questions related to its use for the psychiatric nursing course. After completing the course, students were asked to complete the questionnaire.

3.5. Measurement Instrument

To meet the objectives of our research, we used a valid questionnaire entitled 'Perceived Benefits of Contract Learning', which was developed by Cheng [11], used and adapted by several authors in several contexts as a reference tool [10–12] and is based on Knowles' contract [13].

For this research, the measuring instrument used, with a slight modification, is the one adapted by Rye [14], which is composed of 23 items on a Likert scale from 1 to 5 (strongly agree, agree, neutral, disagree and strongly disagree). The mean and standard deviations of each item were calculated on the basis of the scores attributed to the answers from 1 to 5 (1 strongly agree, 2 agree, 3 neutral, 4 disagree, 5 strongly disagree) according to the conditions of use of the questionnaire.

All students in the target population were asked to complete an anonymous questionnaire following the course. This data collection instrument consists of a self-assessment scale that covers four aspects of the learning contract: (a) the ability to use the learning contract, (b) impacts on student autonomy in learning, (c) effects on motivation in learning, and (d) effects on theory to practice application. Cronbach's Alpha coefficients for the four domains ranged from 0.74 to 0.87, according to the questionnaire's creator (Cheng, 1997), indicating a good level of internal consistency.

Questions to investigate the impact of the learning contract as perceived by the students were addressed to nursing students in the ISPITSC S4 Multi-Purpose Nursing Option who received the Psychiatry Nursing Distance Education course through e-learning. Data collection was conducted during the first two weeks of September 2020.

Permission to use the questionnaire in this study was requested and granted by Rye [20] the author of the adapted version, and a pre-test was conducted with 10 students from the nursing program to clarify concepts and eliminate any ambiguity. The internal consistency of the measurement instrument was calculated by Cronbach's alpha coefficient of 0.913.

3.6. Statistical Analysis

To exploit the data that the questionnaire collected, we used a descriptive analysis by calculating the mean and the standard deviation.

The interpretation of the results is carried out according to the model described [21]. Indeed, when an average is less than three, the perception is considered positive, and when an average is greater than three, the perception is considered negative.

4. RESULTS

4.1. Characteristics of the Sample

The response rate to the questionnaires was 86.20%. Among the participants, the female gender was predominant (93 percent of respondents), and the majority (85 perfect) were aged between 19 and 22 years old as shown in Fig. (1)

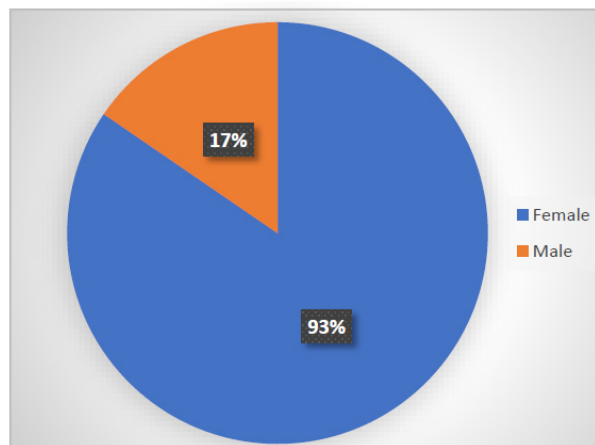


Fig. (1). Distribution of students by gender.

4.2. Questionnaire Results

According to the results in Table 1, the averages of the responses on all items range from 1.65 to 2.31. All averages are below three, which reflects a positive perception of the ability to use the learning contract, autonomy and motivation in learning and also the application of theory in practice.

Table 1. shows the means and standard deviations of the statements in the questionnaire ‘Perceived benefits of contract learning’ adapted by Rye [20] and developed by Cheng [21].

S.No	Statements	Average	Standard deviation
1.	The learning contract was easy to build in this course.	1.76	0.72
2.	It was easy to identify the objectives, resources, evidence of achievement and evaluation criteria appropriate to the course.	1.78	0.68
3.	I was able to implement what I had planned in the learning contract for the course.	1.86	0.73
4.	It was easy to access relevant learning resources.	1.73	0.70
5.	Instructions on how to use the learning contract were adequate.	1.84	0.59
6.	Tutors were supportive of the process.	1.18	0.39
7.	My teacher was supportive of this process.	2.31	0.82
8.	The resources provided by the Institute were sufficient.	2.31	1.06
9.	Resources provided by the clinical setting were sufficient.	1.86	0.64
10.	I can learn deeply and permanently through the apprenticeship/internship contract.	1.76	0.69
11.	My course based on the learning contract helped me to link knowledge to practice.	1.86	0.67
12.	My course based on the learning contract has helped me to apply knowledge to practice.	1.78	0.68
13.	My learning contract-based course helped me to improve my clinical skills.	1.71	0.57
14.	The learning contract-based course gave me more confidence in my own abilities.	1.67	0.59
15.	The learning contract increases my responsibility for the course.	1.80	0.70
16.	The use of learning contracts makes learning more autonomous.	1.80	0.67
17.	The use of a learning contract increases my control over learning.	1.80	0.76
18.	The use of a learning contract increases my autonomy in learning.	1.90	0.94
19.	The learning contract increases my motivation to learn.	1.98	0.92
20.	I appreciate this type of learning method.	1.96	0.76
21.	The course based on the learning contract meets my learning needs.	2.00	0.97
22.	I prefer learning this way rather than the classic method.	1.65	0.72
23.	The learning contract increases my interest in the course.	1.90	0.79

DISCUSSION

The results of this study clearly showed that the S4 multi-skilled nursing students from ISPITSC who benefited from the Psychiatry Nursing e-learning course had a positive perception (mean <3) of the use of the learning contract, which is fully corroborated with the literature data. In this sense, several authors have confirmed that the learning contract is a teaching and learning strategy that aims at individualisation and personalisation of learning, supports autonomy, encourages students to develop continuous learning and prepares nurses to face the reality of care practice and change [8, 10].

In our study, the students agreed that the learning contract made learning more autonomous; these results are consistent with those of other similar studies, including several that have confirmed that the use of the learning contract in nursing education allows students to develop confidence, independence and autonomy of learning [3, 8,9, 21].

According to students, the learning contract is a means of motivation; other research similarly concluded that the use of this contract fosters confidence in learning abilities and development and strengthening of motivation [9, 11, 22 - 25], and grants the student more responsibility in the educational process [22], increases commitment and motivation, and leads to changes in behaviours related to learning [23].

In this study, the learning contract contributes to the application of what is theoretical in the practical environment.

Keyser [23], Barrington and Street [21] reported similar conclusions and confirmed the capacity of the learning contract to facilitate and promote the integration of theory into practice. In this sense, Barrington and Street [24] showed that the learning contract is a learning strategy that is purely adapted to the practice of care, allowing for greater consistency between theory and practice.

It should be added here that despite the difficulties of using contract learning, especially those related to preparation, involvement of supervisors and first time use of this tool by students, the beneficial effects have been clearly demonstrated which corroborates with another study conducted in a similar nursing context [10].

CONCLUSION

This quantitative descriptive study described the perceptions of the S4 multi-skilled nursing students at ISPITSC of the impact of the learning contract on psychiatric nursing education *via* an e-learning platform. Overall, the results of this research reveal students' perceptions of the impact of the learning contract: students' perception of this didactic approach has several positive aspects. Although these aspects are similar to the written word, the profile of the students and the particularities of the cultural environment where the study took place allowed for a better understanding of the students' perception and, consequently, an adaptation of the strategies for improving teaching practice in the Moroccan context.

In conclusion, the results affirm that the learning contract offers several advantages as a teaching/learning strategy. It has been tested in different nursing education contexts, which may encourage nursing educators around the world, and especially in Morocco, to generalise this tool in both theoretical and practical teaching.

LIMITATIONS

The sample size is small due to financial, logistical and technical constraints and does not yet allow for generalization. Indeed, distance education through e-learning requires an internet connection and adequate computer equipment, but unfortunately for our Moroccan context, many students do not have access to these means. In addition, technical problems related to the platform used, which is a generic pedagogical platform similar to LMS (Learning Management Systems) and a completely free and open-source solution that allows teachers to create and disseminate educational pathways in a simple and intuitive way [25], have been another factor limiting students' access to several distance learning sessions, and also the limitation of using the self-assessment method, which has yet to be developed using other methods

LIST OF ABBREVIATION

LMS = Learning Management Systems

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the local ethics committee of the Higher Institute of Nursing Professions and Health Techniques of Casablanca, Morocco.

HUMAN AND ANIMAL RIGHTS

No animals were used in this study. Reported experiments on humans were in accordance with the Helsinki Déclaration.

CONSENT FOR PUBLICATION

Informed consent was obtained from all participants.

STANDARDS OF REPORTING

STROBE guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

Data supporting the conclusions of the article are available from the corresponding author [L.A] upon request.

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CONFLICT OF INTEREST

The author's declare no conflict of interest, financial or otherwise.

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