

*Factors influencing the clinical internship:
a survey of 3rd year medical students at the Faculty of Medicine of
Constantine*

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Abstract

In medicine, the hospital internship is integrated into the training. The objective of the internship must have close links with the theoretical training received in the amphitheater. The pedagogical quality of the internship can be influenced by different factors. This survey prompted us to adopt a qualitative approach with 3rd year medical students. A total of sixty-six 3rd year medical students doing their practical internship at the internal medicine department of Benbadis University hospital center in Constantine took part. A questionnaire that included several items was used for data collection. The study showed that 50% of the learners consider that the internship is good. The majority of trainees consider that they learned a lot from this internship. The general organization of this internship is good according to 84.6% of the trainees. According to 89.4% of students, the objectives of internship were explained. Among the factors affecting the internship, we noted the importance of good supervision, the general climate in the internal medicine department which favored the exchange of information and the expression of opinions, the practice feedback with the group. It was noted that the large number of learners in each group is a factor that creates pressure on the place of the internship.

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1. Introduction

In medicine, the hospital internship is integrated into the training. The objective of the internship must have close links with the theoretical training received in the amphitheater. The organization of the internship requires an agreement on the objectives and exchanges between the teachers of the theory and the professionals of the structures which host the interns. Its objective is to train undifferentiated doctors who will be able to subsequently undertake their residency in specialties.

During this intensive period of training, the extern actively participates in the care of patients within the hospitalization services; the various internships are organized according to periodic rotations in several departments. The extern is thus confronted with a wide range of learning situations, both authentic and diversified, under the supervision of expert clinicians. This confrontation with “life-size” professional experiences is essential to the development of professional skills. It is, in fact, only in action that the declarative, conditional and procedural knowledge can be developed into knowing how to act judiciously and efficiently. “During a medical internship, the student is generally in a real situation in the hospital; he can observe, reflect, provide explanations, participate in the care of the patient. The student is at the center of teaching when students are led to actively acquire knowledge, thanks to teaching techniques that make them feel needs, motivate them, give them the pleasure of discovering data and new experiences. The purpose of this work is to answer the

research question: What factors influence the clinical internship of 3rd year medical students?

We hypothesized that we would be able to identify the factors that should be taken into account in order to assess the quality of the course and the practices of the teacher trainers.

2. Objective

The main objective of our study was to explore the factors that interact on the quality of the clinical internship of 3rd year medical students at the Constantine Faculty of Medicine. The final objective is to improve the quality of hospital internships.

3. Material and methods

This study was a qualitative descriptive survey exploring the feedback of externs who completed an internship between October 2019 and April 2020. The data collection period was shortened due to the interruption of internships due to the health situation linked to the COVID 19 pandemic. This period was thus spread out between October 1, 2019 and March 11, 2020. Students were contacted during the confinement by email and phone to participate in the study. Each extern of both genders, having completed the internship in Internal Medicine, between October 13, 2019 and March 11, 2020 was invited to give their feedback by

anonymously filling out a form as part of a voluntary process.

In order to collect and explore the factors, we used a questionnaire that included 13 items on:

- Demographic data
- Overall evaluation of the internship
- Organization of the internship
- Welcome
- Learning Semiology at the patient's bedside
- Usefulness of the internship notebook
- Learning objectives
- Feedback

The questions covered several qualitative variables and questions quantified by a 5-level Likert psychometric scale. The Likert scale is an attitude scale that measures the intensity of opinions, indicating the degree of agreement or disagreement formulated as follows:

- Strongly Agree (SA) = 5
- Agree (A) = 4
- I don't know (Undecided) = 3
- Disagree (D) = 2
- Strongly disagree (SD) = 1.

Data collection and statistical analysis were performed using IBM SPSS 20.0 statistics for Windows software.

The values of the Likert scale are fixed by specifying the minimum and maximum, which are:

- 1-1.50: represents "Strongly disagree"
- 1.51-2.50: represents "Strongly disagree"
- 2.51-3.50: represents "I don't know"
- 3.51-4.50: represents "Agree"
- 4.51-5: represents "Strongly agree"

The measures of central tendency calculated in our study are the means. Dispersion measurements: the standard deviation (Standard Deviation). Qualitative variables were analyzed by percentages and frequencies.

4. Results

Sixty-six participants /124 trainees assigned to the internal medicine department, Benbadis University hospital center, answered the questionnaire. The predominance was female (77.3%, n= 51) (Fig.1). Figure 2 illustrates the results of the student survey with regard to the overall assessment, and shows that 50% of learners consider the internship to be good; for 28.8% of learners, the internship is sufficient; 16.7% find it

insufficient and 4.50% of learners find it excellent.

Table 1 illustrates the results with regard to the factors influencing the progress of the clinical internship:

Q1. The general organization of this course is good

It was observed in the present study that 84.6% of learners believe that the general organization of the course is good.

Q2. On arrival, I was well received and integrated into the care team in the service

The results show that 83.1% of learners believe that they were well received and integrated into the care team in the department.

Q3. The objectives of the course have been explained

Regarding the objectives of the internship, 89.4% of students agree that the objectives of the internship have been explained.

Q4. A responsible tutor was ready to help me, supervise me and give me explanations

86.3% of learners tend to agree that a tutor was willing to help, supervise and explain to them (mean = 4.23 ± 1.049).

Q5. The group discussion session (feedback) increased my interest and motivation for the course

It was found in this study that 86.2% of learners agreed that the feedback session increased their interest and motivation for the internship course.

The results on the factors related to learning semiology are shown in Table 2.

Q1. I have been exposed to a variety of clinical signs

It was noted that the majority (90.7%) agree that they have been exposed to a variety of clinical signs.

Q2. During this internship, I practiced gestures and techniques.

Regarding the practice of gestures and techniques, the tendency of their answers was that they do not know (mean = 3.21 ± 1.504).

Q3. I was able to achieve learning objectives according to my internship notebook.

In this study, it was noted that 2/3 (66.2%) of learners agree that they were able to achieve learning objectives according to their course notebook (mean = 3.51 ± 1.174).

Q4. Educational visits have been learning opportunities for me.

Among the respondents, 80.3% agree that the educational visits have been learning opportunities for them.

Q5. The teachers are well prepared to supervise us.

Respondents tend to “agree” (mean= 4.06 ± 1.120).

Q6. I learned a lot during this internship.

Learners tend to respond that they strongly agree (mean = 3.95 ± 1.029), and 81.8% of learners agree that they learned a lot from this internship course.

Q7. The number of learners in relation to teachers was:

According to 87.9% of the participants, the number of learners compared to teachers was high or adequate and 12.1% found it insufficient.

5. Discussion

1. Discussion of research methodology

1.1 Originality and strengths of study:

The aim of this study was to identify the factors influencing the clinical internship course of 3rd year externs of the Faculty of Medicine of Constantine, Benbadis University hospital center of Constantine.

The institutional objectives of the internship are the learning of semiology. We have implemented a qualitative study and the results are rich. Thus, this work met the set objective: to describe the factors influencing the clinical internship of students by collecting their feedback,

in order to assess the quality of their clinical internship. Because there are few or no surveys on this subject in our faculty institution, this work has made it possible to know a little more about the gaps and needs of these learners vis-à-vis through their practical learning. Indeed, a better knowledge of these factors is essential to value them. We chose to use a 5-level Likert scale, a tool that allowed us to "document and dissect" the opinion and vision of the learners on the different aspects of the internship course. However, this study has several limitations.

1.2 The limitations and biases of the study:

In the case of this survey, the sample size was small. The non-participation of students in the questionnaire could be partly explained by the cessation of internships due to the Covid19 pandemic. The distribution of the questionnaire was done indirectly by email during the period of confinement and summer university holidays.

2. Discussion of results

The results of this research work describe and highlight factors having an impact on the learning of learners in their first

immersion internship in a clinical environment. Clinical internships are a major issue in the training of doctors.

Assessing these factors is very important to assess the quality of learning, identify strengths and weaknesses and make relevant improvements. Learning in a clinical setting is complex and challenging.

The general evaluation of the results of our study shows that most of the 3rd year medical learners agreed on the fact that they learned a lot during their internship, the objectives explained, it was also proved that the organization of this internship was good.

Regarding clinical activities, most of the learners felt that they “completely agreed” that they were able to practice the anamnesis and the doctor-patient relationship.

Although 17% of learners felt that the course was insufficient, the majority of learners stated (agreed) that they were exposed to a variety of clinical signs,

and they felt they had achieved the objectives of learning according to the internship book.

As for the usefulness of the course book in their learning, the learners were mostly

neutral (tended to answer that they did not know). It will be necessary to be attentive to this pedagogical gap concerning the usefulness of the internship notebook that the students are entrusted with, and which

they will have to have completed by their internship supervisor in order to be validated. It is important to explain to learners the usefulness of the course book. The practice of feedback is a very important factor, thus 86.2% of learners believe that it increases their interest in the clinical internship, which positively impacts the educational quality of the internship. Pedagogical support and supervision of learners are necessary for the smooth running of the course. Clinical exposure during visits promotes learning. Nevertheless, 25% of participants believe that the number of trainers in relation to teachers is high. Teacher trainers need to be aware of these factors that may negatively impact learning. But overall in our study, we noted several factors influencing the internship positively.

Several studies have looked at the factors influencing the internship of health science students [1] [2] [3]. As pointed out by D. Vanpee in 2007, internships during medical studies represent a crucial moment in the training of medical students to gradually develop and consolidate professional skills [4]. Learning in a clinical setting is complex and constitutes a challenge.

Indeed, during the clinical internship, the extern is confronted with a wide range of learning situations, both authentic and diversified, under the supervision of clinical experts. This confrontation with “life-size” professional experiences is essential to the development of

professional skills. It is, in fact, only in action that declarative, conditional and procedural knowledge can be developed into knowing how to act judiciously and effectively [5]. Professional expertise necessarily requires the construction of knowledge organized and indexed within functional and easily transposable operating schemes [6]. Clerkship, thanks to the variety of different clinical exposures it provides, seems to provide an environment conducive to the development of professional skills.

However, for several authors, externship does not adequately fulfill its educational mission [7] [8] [9] [10]. Externship is also subject to a very compartmentalized hospital organization, with its services. Internship settings assume a dual vocation of providing care and professional training, goals that are not always easily

reconciled [11]. Collecting feedback from learners is an essential pedagogical method, it allows the assessment of the quality of teaching and the improvement of student learning conditions.

The results of studies on the satisfaction of medical interns diverge, such as a study conducted in Saudi Arabia at Umm Alqura University in Mecca, found that medical interns were only moderately satisfied with what they had learned during their internship year [12].

Another study in Iran reported that medical interns at Shahid Beheshti University of Medical Sciences were

dissatisfied with their internship program [13].

6. CONCLUSION

Third-year medical students have a positive perception in favor of exploring the factors influencing their clinical learning, which allows them to express their educational expectations. These learners need a favorable environment (climate in the service, exchange of information, expression of opinions, motivation of trainees, etc.) to promote the educational quality of hospital internships and the overall improvement of students in medicine. The prospects of this study are extended by the establishment of a regular evaluation of clinical internships by learners.

Table 1: Factors influencing the clinical internship of 3rd year medical students

Items	Value	Frequency	%	Mean	Standard deviation
Q1. The general organization of this internship course is good	Strongly disagree	1	1.5	4.17	1.054
	Disagree	8	12.3		
	I don't know	1	1.5		
	Agree	24	36.9		
	Strongly Agree	31	47.7		
	Total	65	100		
Q2. On arrival, I was well received and integrated into the care team in the service	Strongly disagree	2	3.1	4.09	1.114
	Disagree	8	12.3		
	I don't know	1	1.5		
	Agree	25	38.5		
	Strongly Agree	29	44.6		
	Total	65	100		
Q3. The objectives of the internship course have been explained	Strongly disagree	2	3.2	4.41	1.037
	Disagree	5	7.6		
	I don't know	00	00		
	Agree	16	24.2		
	Strongly Agree	43	65.2		
	Total	66	100		
Q4. A responsible tutor was ready to help me, supervise me and give me explanations	Strongly disagree	1	1.5	4.23	1.049
	Disagree	8	12.1		
	I don't know	00	00		
	Agree	23	34.8		
	Strongly Agree	34	51.5		
	Total	66	100		
Q5. The group discussion session (feedback) increased my interest and motivation for the internship course	Strongly disagree	1	1.5	4.28	0.944
	Disagree	4	6.2		
	I don't know	4	6.2		
	Agree	23	35.4		
	Strongly Agree	33	50.8		
	Total	65	100		

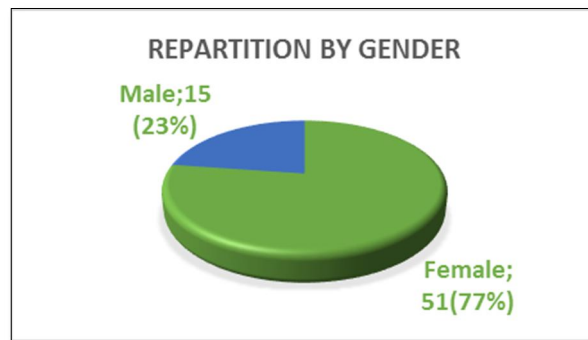


Figure1: Repartition of participants by gender

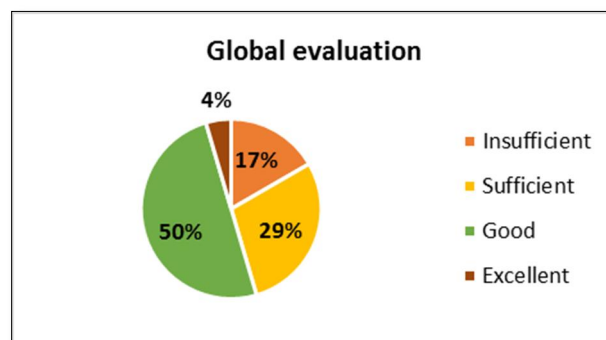


Figure2: Global evaluation of the clinical internship

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