

### Strengths and Weaknesses of Clinical Education Settings from the Viewpoint of Midwifery Students and Educators of Tabriz University of Medical Sciences

**Background:** Achieving a desirable clinical education requires continuous assessment of the current situations in clinical education and identifying the strengths and weaknesses. This study aimed to assess the strengths and weaknesses of the clinical education fields.

**Methods:** This is a cross-sectional and descriptive study in which the strengths and weaknesses of clinical education settings were investigated from the viewpoints of all students and educators of Tabriz faculty of nursing and midwifery in 2010. Data collecting tool was based on Weldner and Laurent questionnaire. Research sample, equal to research community, was 156 midwifery students and 13 midwifery educators selected through census method. Collected data were analyzed by descriptive and analytic (Chi square) statistics through SPSS (ver.13) software.

**Findings:** The major weaknesses of clinical education settings were inaccessibility to necessary information prior to clinical education, lack of study rooms and conference spaces for students, and opportunities to interact with some faculty and university headquarters. The major strengths were considering students' educational needs, providing adequate clinical wards and equipment, and various cases. There were significant difference between views of students in various educational sections toward evaluation of clinical education in half of items ( $p < 0.05$ ).

**Conclusions:** Providing necessary information prior to clinical education, introducing written learning objectives, revising the method of students' assessment and removing physical deficiencies in clinical settings can be an effective step towards improving the quality of clinical training.

**Key words:** Clinical Education, Midwifery students, Educators, Strengths and Weaknesses

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### نقاط الضعف و القوه في دورات التعليم السريري من خلال رؤية طلاب و اباته قسم الواه في جامعه تبريز للعلوم الطبيه

**التمهيد و الهدف:** إن الحصول على تعليم سريري مطلوب للريتم الى بتقييم مستمر للوضعية العاليه حتى يتسنى لنا التعرف على نقاط القوه و الضعف في هذا المجال و هدف هذه الدراره هو التعرف على نقاط القوه و الضعف في دورات التعليم السريري.

**الأسلوب:** هذه الدراره تمت بشكل (توصيفي - مقطعي) و كانت بهدف الحصول على نقاط القوه و الضعف في دورات التعليم السريري في قسم الواه من خلال آراء الطلاب و المدرسين في جامعه تبريز الطبيه. تم تجميع المعلومات عبر استمارات في سنه ١٣٨٩ هـ.ش و تم تحليل المعلومات عبر برنامج Spss.

**النتائج:** إن عدم وجود معلومات كافيه عند الطلاب قبل الدخول الى الدراره، و عدم وجود مكان كافي لأجل المطالعه و قاعات التدريس و ايضا عدم وجود اماكن الإرتباط مع مسئولين الكليه و الجامعه

كانت من اهم النقاط السلبيه و إن وجود تجريرات و الأقسام السريريه الكافيه ووجود تنوع في المرضى الذين يستطيع الطالب أن يكتسب منهم الخبره كانت من اهم نقاط القوه في التعليم السريري كان هناك اختلاف ذو قيمه من جبره اخصائيه بين طلاب السنه الثانيه و الثالثه و الاخيره ( $p < 0.05$ )

**الإستنتاج:** إن اعطاء المعلومات الكافيه قبل بدئ الدراره و اعطاء الاشراف بشكل مكتوب و اعاده النظر في اسلوب تقييم الطلاب و ايجاد مساهمات تعليميه كافيه تكون قدم مؤثر في رفع المستوى التعليمي.

**الكلمات الرئيسيه:** التعليم السريري، طلاب قسم الواه، المدرسين نقاط الضعف و القوه.

### نقاط ضعف و قوت دورهای آموزش بالینی از دیدگاه دانشجویان مامایی و مربیان دانشگاه علوم پزشکی تبریز

**زمینه و هدف:** برای دستیابی به آموزش بالینی مطلوب، وضعیت موجود باید به صورت مستمر ارزیابی گردد و نقاط قوت و ضعف آن شناسایی شود. این مطالعه با هدف بررسی نقاط ضعف و قوت دوره‌های آموزش بالینی انجام گردید.

**روش:** این مطالعه یک پژوهش توصیفی - مقطعی است که در آن نقاط ضعف و قوت دوره‌های آموزش بالینی از دیدگاه کلیه دانشجویان و مربیان مامایی دانشکده پرستاری و مامایی تبریز در سال ۱۳۸۹ مورد مطالعه قرار گرفت. ابزار جمع آوری اطلاعات پرسشنامه وندرولانزنت بود. نمونه پژوهش برابر با جامعه پژوهش به تعداد ۱۵۶ نفر دانشجوی مامایی و ۱۳ نفر مربی مامایی بود که به روش سرشماری انتخاب شدند. داده‌های جمع‌آوری شده با استفاده از آمار توصیفی و استنباطی (کای اسکواتر) از طریق نرم‌افزار SPSS (ver.13) مورد تجزیه و تحلیل قرار گرفت.

**یافته‌ها:** عدم دسترسی دانشجویان به اطلاعات لازم قبل از ورود به دوره، عدم وجود فضای مطالعه و کنفرانس برای دانشجویان، عدم امکان تماس با برخی از مسئولین دانشکده و دانشگاه از اهم نقاط منفی و در نظر گرفته شدن نیازهای آموزشی دانشجویان، وجود تجهیزات و بخش بالینی کافی، وجود موارد بیماری متنوع از مهمترین نقاط مثبت آموزش بالینی بوده است. اختلاف معنی‌دار آماری بین دیدگاه دانشجویان سال دو، سه و آخر در مورد نصف آیت‌های مربوط به ارزیابی دوره‌های آموزش بالینی وجود داشت ( $P < 0.05$ ).

**نتیجه‌گیری:** فراهم نمودن اطلاعات لازم قبل از شروع دوره، ارایه اهداف آموزشی مكتوب، بازبینی نحوه ارزیابی دانشجویان و رفع کمبودهای فیزیکی در محیط بالینی می‌تواند گامی مؤثر در راستای ارتقای کیفیت آموزش بالینی باشد.

**واژه های کلیدی:** آموزش بالینی، دانشجویان مامایی، مربیان، نقاط ضعف و قوت

### تبریز میڈیکل یونیورسٹی میں مڈوائفری طالبات اور ٹیچروں کی نظر میں کلینکل تعلیم کے مثبت اور منفی پہلو۔

**بیک گراؤنڈ:** مطلوبہ کلینکل ٹریننگ کے لئے موجودہ صورتحال کا مستقل جائزہ لیتے رہنا ضروری ہے تا کہ اسکی کمزوریاں اور مثبت نکات کا علم ہوتا رہے۔ یہ تحقیق اسی غرض سے انجام دی گئی ہے۔

**روش:** اس تحقیق میں مڈوائفری طالبات اور ٹیچروں کی نظر میں کلینکل ٹریننگ کی روشوں کے مثبت اور منفی پہلو سمجھنے کی کوشش کی گئی ہے۔ اس تحقیق میں ایک سو چھپن طالبات اور تیرہ ٹیچروں کو شامل کیا گیا تھا۔ ان کے جوابوں کا تجزیہ کائی اسکواتر اور ایس پی ایس ایس سافٹ ویئر سے کیا گیا۔

**نتیجے:** طالبات کو پڑھائی شروع ہونے سے قبل کسی طرح کی معلومات فراہم نہیں کی گئی تھیں جس سے انہیں اپنی تعلیم کے بارے میں کچھ مفید معلومات ملتی۔ وہ اپنے شعبے کے کسی بھی استاد یا متعلقہ فرد سے رابطہ کرنے سے قاصر تھیں، انکے لئے کسی بھی طرح کے سیمینار اور کانفرنس کا انتظام نہیں کیا گیا تھا۔ البتہ اس شعبے میں ضروری مشینیں اور سازوسامان کافی تھی جو ایک مثبت پہلو ہے۔

**سفرار:** کلاسوں کے آغاز سے پہلے طالبات کو ضروری معلومات فراہم کی جائیں، انہیں کتابیں یا جزوے فراہم کئے جائیں، طلباء و طالبات کی تعلیمی سرگرمیوں کی جانچ پڑتال اور ضروری ساز و سامان کی فراہمی سے تعلیم کو بہتر بنانے میں کافی مدد ملتی ہے۔

**کلیدی الفاظ:** کلینیکل ٹریننگ، مڈوائفری، مثبت پہلو۔

## INTRODUCTION

Nursing and midwifery courses are carried out in two theoretical and clinical parts; each part has specific features. Theoretical education leads to the augmentation and improvement of students' clinical performance and clinical education eliminates requirements of the theoretical education (1).

Clinical education consists of: preparing students for coordinating basic scientific information and fulfilling skills, accompanied by diagnosing, curing, and caring patients, and acquiring different professional skills (2). In this kind of education, the students have interaction with the educators, and the environment applies the theoretical contents in practice (3). Education & learning in clinical sections are important, complicated, and unpredictable (4). Clinical education is very important because of containing more than 50 percent of educational planning (5). Preparing students for the real world is today's important subject in health care and world's academic institutes (6). If the clinical education cannot prepare students with the required skills to health care delivery, it would be digressed from its principal role (7, 8). Training and educating appropriate midwives and nurses for clinical field is an important matter in educating students. The results of researches have shown that there are some basic concerns in relation with nurses and midwives clinical education (9). Although this kind of education is necessary and important in educating students, it has been a controversial matter up to now. Different studies show that none of the clinical education settings can provide a positive learning environment for nursing and midwifery students (10).

In order to acquire the desirable clinical education, the existing education should be assessed continuously and the strengths and weaknesses should be identified (11). If the evaluation is carried out on principals, it will prevent from many problems of educational plans as well as will be very helpful in improvement of them (12).

Evaluation is an inseparable part of every educational plan, and assessing system of educational plans could be helpful in quality improvement of clinical education plans in B.S degree of nursing & midwifery. Studies show that investigating the quality of clinical education from the viewpoint of students is very valuable in preparing educational experiences (10). Student's experiences in clinical performance present a wider viewpoint in expanding effective clinical education in nursing and midwifery (13).

Results gained from a study in Azad University of Kerman showed that in nursing and midwifery student's ideas the biggest problems in clinical education are related to clinical environment and application of taught principals on the patients respectively (14). The result of another study at Azad University of Yazd showed that eleven percent of nursing & midwifery students assessed the clinical educational environment very weak (15). From midwifery students' views of Babol University of Medical science, lack of experienced clinical educators, problems related to pre-clinical educations and clinical evaluation were the main problems of clinical education (16). Also in a study at Azad

Shahid – Sadughi Faculty of Nursing and Midwifery(2003), the majority of educators and students mentioned some problems in this period including inadequate access to facilities, lack of cooperation between the health care term, and dispersion of internship in clinical section. They believed that there must be some changes in the fulfillment of internship (3).

The result of preliminary study carried out by researchers and colleagues on the midwifery students in the last semester of Tabriz University of Medical Science showed that in most of the students' ideas there were some problems related to the clinical education of educators, physical facilities and accessible equipment in clinical environment and various cases of illness for training (17). Also another study in Tabriz Faculty of Nursing & Midwifery mentioned the reasons for not learning some skills such as: inappropriate position allocation of educators for some sections, presence of a great number of students in each group, absence of educators in some sections, lack of students interest and forcing additional work to do on behalf of the sections' staffs to students (18).

The rapid changes in health care and needs of population, especially in last fifty years, requires some changes in nursing and midwifery education (19), and also investigating clinical education of universities is one of the research priorities of Medical Education Center. Therefore, the aim of this study is to investigate the strengths and weaknesses of clinical education settings from the viewpoint of educators and midwifery students of Tabriz University of medical science in order to meet the needs by assessing the existing condition and identify the strengths and weaknesses and formulate strategies for improving the quality of clinical education.

## METHODS

This is a cross-sectional and descriptive study in which the strengths and weaknesses of clinical education settings were investigated from the viewpoint of the midwifery students and educators of Tabriz Faculty of Nursing and Midwifery in 2010.

Participants were all the midwifery students of 3, 4, 5, 7, 8 and 9 semesters (Daytime and nighttime periods) with clinical education experience, and all of the midwifery educators with the experience of clinical education in last semester that were employed in faculty formally or by contract. Because of the limited research community, research sample equal to research community was 156 midwifery students and 13 midwifery educators selected through census method. Guest or transferred students and the students who were studying with the aforementioned classes were not included in the study because of leaving study. Data collecting tool was standard questionnaire which was codified in Ball State University by Weldner and Laurent in 1999 and consists of two parts: demographic characteristics of research samples and research objectives consist of 26 statements (19).

The second part of the tool assessed the clinical education in 5 dimensions. Questions one to five were related to the students' knowledge before their entrance to the setting, six to eleven were related to facilities in clinical education,

twelve to seventeen were related to the educators clinical education status from the viewpoint of students and educators, questions 18 to 22 were related to students assessment process by educators and questions 23 to 26 were related to the general viewpoint toward clinical settings. The validity of the questionnaire was determined by ten competent professors and its reliability was determined 0/89 by test-retest method. The data were collected by specified student's and educator's questionnaires after gaining formal introduction letter from the faculty, explaining aims of research for the cases under study, mentioning their voluntarily and consciously participation, and making them sure that data will remain confidential and the results will be submitted to them. The permission for carrying out the research was taken from the ethics committee of Tabriz University of Medical Science (number 5/4/1833). Collected data were analyzed using descriptive and analytic (chi-square) statistics through SPSS (ver. 13) software.

## RESULTS

149 students (95/5%) out of 156 and 12 educators (92/3%) out of 13 returned the questionnaires. In this research, the average age of students under study was  $22/51 \pm 2/68$  and most of them (120 individuals equal to 81/1%) were single. 70 student (47/6%) were studying in the first innings (daytime periods) and 77 (52/4 %) were in second innings (nighttime periods). The mean number of students in clinical group were about  $5 \pm 0/94$ . The average age of educators was  $42/9 \pm 4/7$  and most of them (191/6%) were married. Their experience was at least 12 years and at most 23 years. All of them had MS degree. Most of the students (55/27%) believed that the educating guides and aims haven't been informed to them at the beginning of the setting, while educators (58/3%) had the opposite idea.

- Access to opportunities before beginning of clinical education settings from the viewpoint of midwifery students and educators:

According to Table 1, most of the students believed that

they didn't have access to procedures and ethical standards, managers and staffs, plans for every settings, recognition of patients, the aims of clinical settings, familiarity with rules and regulations and time of each setting before the beginning of clinical education settings. Most of the educators claimed that the students didn't have access to know the patients and get familiar with the managers and staffs.

In most of the educators and students ideas all of these opportunities would be helpful if they were accessible. In their ideas knowing the patients (90/9\_91/6), getting familiar with the rules and regulations (100\_97/8), introducing the aims of clinical settings (100\_98/5), planning for every setting (100\_97/7), required time for every settings( 100-97/8) and ethical standards of procedures (100-94 ) respectively would be helpful if they were accessible .The results of Table 2 show the midwifery students and educators' viewpoints about the strengths and weaknesses of clinical education on facilities and the status of educators' clinical education.

- The process of students evaluation by educators:

Half of the educators (50%) believed that receiving feedback from students about their clinical performance was daily but almost half of the students (45/4%) believed it was at the end of the setting (from daily, middle of the period, end of the period). Most of the students (60%) and educators (72/27%) believed that the degree of surveillance on students' performance were appropriate according to their clinical experiences and skills (among too much, appropriate, inadequate). In most educators' ideas (77/8%) and students (60/3%) the final assessment of the clinical education was based on log book. Using the log book in clinical settings in order to farther the objectives (effective, almost effective, not effective) in most of the students' ideas (47/8%) was almost effective, and in most of the educators' ideas (40%-40%) was effective and almost effective. About the final assessing process of the clinical education settings by the educators, almost half of the students (43%) expressed that they didn't receive any talking but half of the

**Table1. The Frequency of Students' and Educators' views about Accessibility of Opportunities before the Beginning of the Clinical Education Setting**

| Opportunities  | students      |           | educators     |         |
|--|---------------|-----------|---------------|---------|
|  | accessibility |           | accessibility |         |
|  | Yes           | No        | Yes           | No      |
| Knowing the patients                                   | 21(14.1)      | 128(85.9) | 4(36.4)       | 7(63.6) |
| Getting familiar with the rules and regulations        | 55(36.9)      | 94(63.1)  | 7(63.6)       | 4(36.4) |
| Introducing the objectives of the clinical setting     | 49(30.9)      | 103(69.1) | 8(72.7)       | 3(27.3) |
| Planning for each setting                              | 18(12.1)      | 131(87.9) | 9(81.8)       | 2(18.2) |
| Necessary time for each setting                        | 60(40.3)      | 89(59.7)  | 8(72.8)       | 3(27.3) |
| Getting familiar with procedures and ethical standards | 11(7.3)       | 138(92.6) | 6(54.5)       | 5(45.5) |
| Appropriate covering                                   | 79(53)        | 70(47)    | 10(40.9)      | 1(9.1)  |
| Getting familiar with headquarters and staffs          | 17(11.4)      | 132(88.6) | 5(45.5)       | 6(54.5) |

**Table2. Frequency of Students and Educators' views about the Questions Related to Clinical Education Settings Assessment**

| Students' and Educators' views n(%)   | Yes      |           | No        |           | To some extent |           |
|---|----------|-----------|-----------|-----------|----------------|-----------|
|   | Students | Educators | Students  | Educators | Students       | Educators |
| 1)Adequate guides about patients and responsibilities by the educator   | 48(33.1) | 10(83.3)  | 14(9.7)   | -         | 83(57.2)       | 2(16.7)   |
| 2)Students' understanding about what they are expected  | 36(25)   | 9(75)     | 1(21.5)   | -         | 77(53.5)       | 3(25)     |
| 3)Considering students' educational needs in clinical education planning  | 23(16.1) | 9(75)     | 3(23.1)   | -         | 87(60.8)       | 3(25)     |
| 4)Preparing locker room for the students  | 52(36.4) | 6(50)     | 45(31.5)  | 1(8.3)    | 46(32.2)       | 5(41.7)   |
| 5)Preparing studying room for students  | 7(5)     | 1(8.3)    | 120(85.1) | 8(66.7)   | 14(9.9)        | 3(25)     |
| 6)Preparing adequate clinical section for students  | 53(38.1) | 6(60)     | 4(24.5)   | 2(20)     | 52(37.4)       | 2(20)     |
| 7)Adequate variety of patients for meeting the objectives of the clinical education settings  | 23(17.3) | 7(58.3)   | 1(23.3)   | 2(16.7)   | 79(59.4)       | 3(25)     |
| 8)Adequate training aids for meeting the objectives of the clinical education settings  | 56(42.1) | 4(36.4)   | 31(23.3)  | 1(8.3)    | 46(34.6)       | 6(54.5)   |
| 9)Adequate equipment (complete delivery pack, IUD pack, catheterization pack) for meeting the objectives of the clinical education settings | 68(54)   | 5(55.6)   | 12(9.2)   | -         | 46(36.5)       | 4(44.4)   |
| 10)Considering educational level and students' educational needs by the educators   | 25(18.7) | 10(83.3)  | 6(11.9)   | 1(8.3)    | 93(69.4)       | 1(8.3)    |
| 11)Giving adequate opportunity for the student to communicate with the educator   | 55(41)   | 10(83.3)  | 8(13.4)   | -         | 61(45.5)       | 2(16.7)   |
| 12) Giving adequate answers to students' questions  | 57(41.9) | 9(81.8)   | 8(5.9)    | -         | 71(52.2)       | 2(16.7)   |
| 13)encouraging students to learn by the educator  | 57(41.9) | 11(9.7)   | 8(13.2)   | -         | 61(44.9)       | 1(8.3)    |
| 14)Creating continuous changes in students' clinical education according to their capabilities  | 20(13.8) | 8(66.7)   | 45(31)    | -         | 80(55.2)       | 4(33.3)   |
| 15)Students' adequate attention to clinical education settings  | 75(51.7) | 7(58.3)   | 1(0.7)    | -         | 69(47.6)       | 5(41.7)   |
| 16)Using logbook in furthering the educational objectives effectively   | 40(29.9) | 4(40)     | 0(22.1)   | 2(20)     | 64(47.8)       | 4(40)     |

educators (50%) believed that they talked to the students before and after the final assessment and give their marks (among talking to the student before and after the assessment, just before the assessment, just after the assessment, and not talking).

- The general viewpoint about the clinical settings:

In most of the students ideas (66/77%) clinical learning experience was a general experience to all of the students (from general experience and specific experience) and in most of their ideas (50%) the final assessment of clinical education was spent very well (from very negative experience, very positive ,washing time, and spending it very well). Unfortunately, 30/3% of the students believed that it was a waste of time and just 14/8% expressed it as a very positive experience. Clinical staff's mood was sometimes high and sometimes low in most of the students' idea (46/1%) and in most of the educators ideas (36/4%, 36/4%) it was sometimes high and sometimes low and usually low (among always high, usually high, sometimes high and sometimes low, usually low) that was one of the negative points of the clinical education.

The results in Table 3 are about comparing the ideas of the

students in second year, third year and last year about the clinical education settings that showed a significant difference in the ideas of these 3 groups in 8 items of 16 items ( $p < 0.05$ ).

### DISCUSSION

The only important member in the process of education is the student (23). Investigating the clinical education settings in five fields from the viewpoint of midwifery educators and students of Tabriz Faculty of Medical Science showed that each field had strengths and weaknesses. According to the results of this study more than half of the students (55.2%) and a considerable percent of educators (41.7%) expressed that they were not informed about the written educational objectives and guidelines at the beginning of the setting. Also in investigating the fields:

1) From Students' viewpoints about access to opportunities, which should be given to them before entering the setting, there were lack of familiarity with the procedure and its ethical standards, lack of familiarity with the masters and staffs, lack of planning for every setting, lack of knowing the patients, lack of introducing the objectives of clinical

**Table3. Comparing the views of the Second, third and fourth Year Students about Questions Related to Clinical Education Settings Assessment**

| Students' and Educators' views<br>n(%)  | Yes            |               |                | No             |               |                | To some extent |               |                | P-<br>value |
|---|----------------|---------------|----------------|----------------|---------------|----------------|----------------|---------------|----------------|-------------|
|   | Second<br>year | Third<br>year | Fourth<br>year | Second<br>year | Third<br>year | Fourth<br>year | Second<br>year | Third<br>year | Fourth<br>year |             |
| 1)Adequate guides about patients and responsibilities by the educator   | 17<br>(45.9)   | 14<br>(45.2)  | 12<br>(18.5)   | 1<br>(2.7)     | 6<br>(16.1)   | 8<br>(12.3)    | 19<br>(51.4)   | 12<br>(38.7)  | 45<br>(69.2)   | 0.06        |
| 2)Students' understanding about what they are expected  | 15<br>(41.7)   | 7<br>(22.6)   | 0<br>(15.4)    | 4<br>(11.1)    | 6<br>(19.4)   | 1<br>(32.3)    | 17<br>(47.2)   | 18<br>(58.1)  | 34<br>(52.3)   | 0.02*       |
| 3)Considering students' educational needs in clinical education planning  | 9<br>(24.3)    | 5<br>(16.1)   | 5<br>(7.9)     | 5<br>(13.5)    | 1<br>(35.5)   | 14<br>(22.2)   | 23962.2<br>)   | 15<br>(48.4)  | 44<br>(69.8)   | 0.04*       |
| 4)Preparing locker room for the students  | 15<br>(41.7)   | 9<br>(29.0)   | 22<br>(34.4)   | 1<br>(30.6)    | 12<br>(38.7)  | 7<br>(26.6)    | 10<br>(27.8)   | 10<br>(32.3)  | 25<br>(39.1)   | 0.61        |
| 5)Preparing studying room for students  | 1<br>(2.9)     | 0<br>(0)      | 2<br>(3.1)     | 2<br>(91.4)    | 27<br>(90)    | 4<br>(84.4)    | 2<br>(5.7)     | 3<br>(10)     | 8<br>(12.5)    | 0.72        |
| 6)Preparing adequate clinical section for students  | 20<br>(58.8)   | 10<br>(33.3)  | 17<br>(27)     | 4<br>(11.8)    | 8<br>(26.7)   | 20<br>(31.7)   | 10<br>(29.4)   | 12<br>(40)    | 26<br>(41.3)   | 0.03*       |
| 7)Adequate variety of patients for meeting the objectives of the clinical education settings  | 9<br>(27.3)    | 4<br>(13.3)   | 8<br>(13.6)    | 9<br>(27.3)    | 9<br>(30)     | 1<br>(18.6)    | 15<br>(45.5)   | 17<br>(56.7)  | 39<br>(66.1)   | 0.36        |
| 8)Adequate training aids for meeting the objectives of the clinical education settings  | 16<br>(47.1)   | 13<br>(44.8)  | 19<br>(32.8)   | 6<br>(17.6)    | 8<br>(27.6)   | 17<br>(29.3)   | 12<br>(35.3)   | 8<br>(27.6)   | 22<br>(37.9)   | 0.53        |
| 9)Adequate equipment (complete delivery pack, IUD pack, catheterization pack) for meeting the objectives of the clinical education settings | 18<br>(52.9)   | 12<br>(46.2)  | 31<br>(55.4)   | 2<br>(5.9)     | 3<br>(11.5)   | 7<br>(12.5)    | 14<br>(41.2)   | 11<br>(42.3)  | 18<br>(32.1)   | 0.75        |
| 10)Considering educational level and students' educational needs by the educators   | 9<br>(26.5)    | 6<br>(20)     | 7<br>(11.9)    | 1<br>(2.9)     | 5<br>(16.7)   | 8<br>(13.6)    | 24<br>(70.6)   | 19<br>(63.3)  | 44<br>(74.6)   | 0.19        |
| 11)Giving adequate opportunity for the student to communicate with the educator   | 5<br>(44.1)    | 11<br>(36.7)  | 1<br>(35.6)    | 2<br>(5.9)     | 5<br>(16.7)   | 1<br>(18.6)    | 17<br>(50)     | 14<br>(46.7)  | 27<br>(45.8)   | 0.55        |
| 12) Giving adequate answers to students' questions  | 18<br>(52.9)   | 9<br>(30)     | 20<br>(33.3)   | 2<br>(5.9)     | 5<br>(16.7)   | 1<br>(1.7)     | 14<br>(41.2)   | 16<br>(53.3)  | 39<br>(65)     | 0.02*       |
| 13)encouraging students to learn by the educator  | 20<br>(58.8)   | 10<br>(33.3)  | 9<br>(31.7)    | 4<br>(11.8)    | 7<br>(23.3)   | 7<br>(11.7)    | 10<br>(29.4)   | 13<br>(43.3)  | 34<br>(56.7)   | 0.04*       |
| 14)Creating continuous changes in students' clinical education according to their capabilities  | 10<br>(27)     | 4<br>(12.9)   | 4<br>(6.2)     | 4<br>(10.8)    | 2<br>(38.7)   | 26<br>(40)     | 23<br>(62.2)   | 15<br>(48.4)  | 35<br>(53.8)   | 0.004<br>*  |
| 15)Students' adequate attention to clinical education settings  | 22<br>(59.5)   | 9<br>(29)     | 35<br>(53.8)   | 0<br>(0)       | 1<br>(3.2)    | 0<br>(0)       | 15<br>(40.5)   | 21<br>(67.7)  | 30<br>(46.2)   | 0.04*       |
| 16)Using logbook in furthering the educational objectives effectively   | 16<br>(44.4)   | 4<br>(14.8)   | 12<br>(20)     | 3<br>(8.3)     | 7<br>(25.9)   | 9<br>(31.7)    | 17<br>(47.2)   | 16<br>(59.3)  | 29<br>(48.30)  | 0.01*       |

\* Significant level

setting, lack of familiarity with the rules and regulations and time for each setting. From the clinical educators' viewpoints the negative points were lack of knowing the patients, masters and staffs. Positive points of setting from the viewpoints of the both groups were: presenting adequate guidelines about patients and students' responsibilities, students' clear understanding of what they are expected and considering students' educational needs in their planning. By the way, in most of the students' and educators' viewpoints familiarity with the rules and regulations, introducing the objectives of the clinical education setting and planning for each setting were the cooperative opportunities before the beginning of clinical education setting. The results of the study show that in

most of the students' and educators' ideas the objectives of the clinical education were clear before the beginning of the period or on the first days of the setting (2,3,21,22) and it seems it didn't correspond with the result of the current study from the students' viewpoints. Maybe the result of this difference is the recent changes in the way of assessing students' clinical education. Clinical learning evaluation form of Logbook, consisting of behavioral objectives with the least leanings, is prepared lately for the midwifery students and has been executed recently that seems to make clear the written objectives and settings' program if the plan is continued and executed completely. Regarding the mentioned studies, making objectives accessible on time will be helpful in eliminating the

problem. Additionally, the students are obliged to fill the notebook of midwifery clinical skills that its execution will be helpful too.

An educational program begins with the students' needs (23) and as paying attention to the students' needs is one of the positive points of the plan, so this shows an effective cooperation between the students and the educators and masters. This program accompanied by objectives should be in students' hands on time.

2) On the facilities of the clinical education: in most of the students' ideas the positive points were: the existence of adequate equipment in order to fulfill the objectives of the clinical education, the possibility of communicating more with the manager in order to express the problems, appropriate number of patients for the clinical education setting, also appropriate number of students in group.

In students' ideas the negative points of this dimension were: lack of studying place for the students and communicating less with the master; and the positive points from the educators' viewpoints were: adequate clinical section, various patients, appropriate equipment, the possibility of students' communication with the master, appropriate number of patients and students in group with the clinical section. Negative point from the educators' viewpoints was lack of studying place for the students. The results of most of the studies show that students' assessment of facilities and equipments of adequate education in clinical environment was weak or average (3, 11, 15, 16, 22). As in Hadizade's study, 49.5% of students reported weak facilities and equipment (11). Also Ebrahimi expressed the problems related to facilities and equipments as the main problems from the students' viewpoints (27). This was in concordance with this study on the lack of studying place and locker room but not in accordance with the other facilities. It seems that the reasons of most of the midwifery students' consents from the facilities of this faculty were: main changes in the planning of clinical section by the manager, reducing the number of students in group and making it appropriate with the educational objectives, harmonizing with the hospitals' and health centers' managers, and making them satisfied with preparing some necessary equipments for students. Also in Omidvar's study, the students were dissatisfied with the lack of appropriate place for conference (16).

3) Educators' clinical education:

Most of the students assessed none of the cases as completely positive, except their own adequate attention and concern in clinical education field.

There were some factors that were strong points in educators' ideas such as: considering the educational level and students' educational needs, giving adequate opportunity to communicate with educators, presenting adequate response to students' questions, creating continuous changes appropriate to the students' capabilities and encouraging students to learning.

Salmani's and Amiriyani's assessment of the way of communication between the educators with students from students' viewpoints was average and from educators' viewpoints was good (15). Also in Sarikosi's study, the communication between the educators and student was

average from the students' viewpoints that is in accordance with this study (24). One of the most effective features of clinical educators in Alavi's study was exact and detailed response to students' questions (25). In most of the clinical education studies, the educators were in appropriate situation (11, 22, and 26). Clinical educators have a basic role in learning process by assessing the problems and educational needs, preparing important information and presenting it, recognizing the progress, giving reaction and following it, increasing the learning process by knowledge, inclination and new skills and assessing the learners' capabilities (23). It seems that the reason of students' enough attention and concern in clinical education fields was the existence of motivation. There is a relationship between motivation, learning and behavior. Motivation means student's inclination to accept learning. The educator's role is to facilitate student's approach to the final goal and prevent from delay. So in this study the role of educator in student's attention and concern is undeniable. In Omidvar's study, the students were dissatisfied with the lack of appropriate place for conference that is in accordance with this study (16).

4) Assessing students by educators: In most of the students' and educators' viewpoints the positive points of the plan were: appropriate observation on student's performance according to their experiences and skills and final assessment of the clinical education setting according to Logbook. The negative points from the students' viewpoints were: getting reaction to clinical performance at the end of the setting and the educators' not explaining them about the final assessing process. By the way, in educators' and students' ideas using Logbook, in fulfilling educational objectives, was to some extent effective. The results show that in most of the individual's ideas clinical assessment research was accompanied by problems and didn't satisfy the way of assessment (2, 11, 16, 22, and 27).

Assessment is a systematic process that the value of teaching and learning is judged. Assessment process is: collecting data, summarizing, interpreting and using them in order to identify the success of one action. Although assessment is done at the end of the program, it is the worst time to assess. Assessing after education is a weak and dangerous idea. Collecting data may be impossible, incomplete and even wrong at this point of time. Periodical assessment allows the educator to be informed of the progress in students' plans. On the other hand, reacting continuously and following the plans are one of the clinical educator's duties. So holding workshops on methods of correct assessment, accompanied with logical and necessary guidelines could be helpful in eliminating this problem.

5) On general viewpoint about clinical settings: from most of the students' viewpoints the positive point was: assessing the clinical education setting by the students that were good; and the negative point was: the clinical staffs' changing mood. In one study, the students' and educators' general viewpoints to the settings were positive (3). In some studies, students' general viewpoints about clinical education setting were assessed that is in concordance with this study (15, 28). Other researchers' results show that some problems in clinical education were related to staffs'

behaviors that have the same results with this study (16, 29, and 30).

Cooperation of the clinical environment's staffs, staffs' familiarity with students' duties and educational plans, justification of problems, educators and students' better mutual understanding, and asking for staff's help in students' education will be helpful in eliminating the problem. The results of a study showed some side-effects in students' and educators' clinical experiences such as hospital and its staffs (31).

Comparing the viewpoints of the second year, third year and last year students about clinical education settings showed that in half of the cases there was a significant difference ( $p < 0.05$ ) between these 3 group's ideas. In all the cases without any exception, the second year students' assessment about the clinical education was more positive in comparison with other 2 groups. This shows students' expectations increase with their educational levels and there should be some policies to promote changes in clinical education as students enter higher levels.

Some of the limitations of this study were: not investigating students' and educators' viewpoints qualitatively, not comparing students in lower levels and not investigating clinical sections separately and comparing them with each other. So it's recommended to try to eliminate the weak points in next studies.

According to the results of the research the negative points of the clinical education were: lack of students' knowledge and access to necessary information prior to clinical education such as lack of introducing clinical setting's

objectives and written educational objectives before entering to the setting, lack of studying place and conference hall for the students, and clinical assessment's lack of appropriate reaction and educators' speech with students about final assessment of students. Also the positive points of clinical education were: paying attention to students' educational needs, adequate equipment and clinical section, various patients, the possibility of communicating with the manager, appropriate number of students and patients for the clinical education settings; and on assessment, appropriate surveillance on students performance according to their clinical experience and skills and final assessment based on the Logbook.

So strengthening the positive aspects and eliminating the negative ones can be an effective step in promoting the quality of clinical education. Observing to fill the Logbook clinical assessment forms and clinical skills Statistics booklet correctly by students and educators can be helpful. Also Continuous reinforcement of educator's clinical education status and increasing their knowledge and skills through training workshops and programs would be helpful.

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