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### Comparison of the academic satisfaction of MSc students of midwifery education with counselling in midwifery courses and job satisfaction of graduates of two courses, Iran 2020: a cross-sectional study

**Background:** In order to improve the quality of university services and adopt appropriate educational policies, continuous monitoring is essential. The purpose of this study was to compare the academic satisfaction of students in two fields of midwifery education and counseling in midwifery and job satisfaction of graduates of two fields.

**Methods:** In the comparative-analytical cross-sectional study, by complete enumeration survey method, 300 students and graduates of the master's degree consisted of 150 midwifery education graduates and student, and 150 counseling in midwifery graduates and students from the region 2 of the country's health (Tabriz, Urmia and Ardabil Universities of Medical Sciences) entered the study in 2020-2021. Data collection tools were questionnaires of demographic characteristics, Minnesota job satisfaction and educational satisfaction. Data analysis was performed using SPSS software version 21.

**Results:** The mean (standard deviation:SD) of the overall score of academic satisfaction of counseling students in midwifery was 129.3 (17.7) from the range of 0-205 and that of the midwifery education was 126.7 (17.7) from the range of 0-205 ( $P > 0.05$ ). The mean (SD) job satisfaction of counseling in midwifery graduates was 56.0 (9.6) and that of the midwifery education was 57.9 (9.5) from the range of 0-95. Job satisfaction rate of majority of midwifery education graduates (49.3%) was very good, whereas it was moderate (58.7%) in counseling graduates, ( $P > 0.05$ ). The mean (SD) score of satisfaction with the payment system ( $P = 0.035$ ) and job conditions ( $P = 0.015$ ) in midwifery education graduates was significantly higher.

**Conclusions:** There was no significant difference between students in the two courses in terms of academic satisfaction. The job satisfaction of the graduates of counseling in midwifery was significantly low in terms of payment system and job conditions, in comparison to midwifery education. **Keywords:** Educational satisfaction, Job satisfaction, Midwifery education, Counseling in midwifery, Students, Graduates

مقایسه رضایتمندی دانشجویان کارشناسی ارشد مشاوره در مامایی و آموزش مامایی و رضایتمندی دانش آموزان مقطع دانشگاههای کلان منطقه دو، سال 1399: یک مطالعه مقطعی

**مقایسه رضایتمندی تحصیلی دانشجویان کارشناسی ارشد مشاوره در مامایی و آموزش مامایی و رضایتمندی دانش آموزان مقطع دانشگاههای کلان منطقه دو، سال 1399: یک مطالعه مقطعی**

**زمینه و هدف:** به منظور بهبود کیفیت خدمات دانشگاه و اتخاذ سیاست‌های آموزشی مناسب، نظارت مستمر ضروری است. هدف از این مطالعه مقایسه رضایتمندی دانشجویان دو رشته آموزش مامایی و مشاوره در مامایی و رضایتمندی دانش آموزان دو رشته بود.

**روش:** این پژوهش مقطعی مقایسه‌ای-تحلیلی بر روی 300 نفر دانشجوی و دانش آموزته در مقطع کارشناسی ارشد شامل 150 نفر دانشجوی و دانش آموزته رشته مشاوره در مامایی و 150 نفر دانشجوی و دانش آموزته آموزش مامایی در دانشگاههای کلان منطقه دو (دانشگاههای علوم پزشکی تبریز، ارومیه و اردبیل) در سال 1399 و به صورت نمونه‌گیری تمام شماری انجام پذیرفت. ابزار گردآوری داده‌ها پرسشنامه‌های مشخصات دموگرافیک، رضایتمندی شغلی مینه سوتا و رضایتمندی تحصیلی بود. تجزیه و تحلیل داده‌ها به وسیله نرم افزار SPSS نسخه 21 انجام شد.

**یافته‌ها:** میانگین (انحراف معیار) نمره کلی رضایتمندی تحصیلی دانشجویان مشاوره در مامایی 129/3 (17/7) از دامنه 0-205 و آموزش مامایی 126/7 (17/7) از دامنه 0-205 بود. میانگین (انحراف معیار) رضایتمندی شغلی دانش آموزان مشاوره در مامایی 56/0 (9/6) و آموزش مامایی 57/9 (9/5) از دامنه 0-95 بود. میزان رضایتمندی شغلی اکثریت دانش آموزان آموزش مامایی (49/3٪) خیلی خوب و اکثریت دانش آموزان مشاوره در مامایی (58/7٪) متوسط بود. میانگین (انحراف معیار) نمره رضایتمندی از سیستم پرداخت در دانش آموزان آموزش مامایی 56/0 (9/6) بیشتر بود ( $p = 0.035$ ). از نظر شرایط شغلی نیز میان نمره دانش آموزان آموزش مامایی 56/0 (9/6) بیشتر بود ( $p = 0.015$ ).

**نتیجه‌گیری:** رضایتمندی تحصیلی بین دانشجویان دو رشته تفاوت معنی‌دار نداشت. رضایتمندی شغلی در محیط نظام پرداخت و شرایط کاری در دانش آموزان مشاوره در مامایی در مقایسه با آموزش مامایی به طور معنی‌دار کمتر بود.

**واژه‌های کلیدی:** رضایتمندی تحصیلی، رضایتمندی شغلی، آموزش مامایی، مشاوره در مامایی، دانشجویان، دانش آموزان

**مقدمه:** من أجل تحسين جودة الخدمات الجامعية و اعتماد سياسات تعليمية مناسبة، فإن المراقبة المستمرة ضرورية. كان الغرض من هذه الدراسة هو مقارنة الرضا الأكاديمي للطلاب في مجالين من مجالات تعليم القبالة و الإرشاد في القبالة و الرضا الوظيفي لخريجي مجالين.

**الطريقة:** في الدراسة المقطعية التحليلية المقارنة، من خلال طريقة مسح العد الكامل، يتألف 300 طالب و خريج لدرجة الماجستير من 150 خريجاً و طالب في تعليم القبالة، و 150 إرشاداً لخريجي القبالة و الطلاب من المنطقة الثانية في البلاد الصحة (جامعات العلوم الطبية في تبريز و أرومية و أردبيل) دخلت الدراسة في 2020-2021. كانت أدوات جمع البيانات عبارة عن استبيانات للخصائص الديموغرافية و الرضا الوظيفي في مينيسوتا و الرضا التعليمي. تم إجراء تحليل البيانات باستخدام برنامج SPSS الإصدار 21.

**النتائج:** كان المتوسط (الانحراف المعياري: SD) للنتيجة الإجمالية للرضا الأكاديمي لطلبة الإرشاد في القبالة 129.3 (17.7) من النطاق 0-205 و تعليم القبالة 126.7 (17.7) من النطاق 0-205 ( $P > 0.05$ ). كان متوسط الرضا الوظيفي (SD) للإرشاد لدى خريجي القبالة 56.0 (9.6) وكان تعليم القبالة 57.9 (9.5) من النطاق 0-95. كانت نسبة الرضا الوظيفي لغالبية خريجي تعليم القبالة (49.3٪) جيدة جداً، بينما كانت متوسطة (58.7٪) في إرشاد الخريجين، ( $P > 0.05$ ). كان متوسط درجة الرضا عن نظام الدفع ( $P = 0.035$ ) و ظروف العمل ( $P = 0.015$ ) في خريجي تعليم القبالة أعلى بكثير.

**الخلاصة:** لا توجد فروق ذات دلالة إحصائية بين طلبة المقررين من حيث الرضا الأكاديمي. كان الرضا الوظيفي لخريجي الإرشاد في القبالة منخفضاً بشكل ملحوظ من حيث نظام الدفع و ظروف العمل، مقارنة بتعليم القبالة. **الكلمات المفتاحية:** الرضا التربوي، الرضا الوظيفي، تعليم القبالة، الإرشاد في القبالة، الطلاب، الخريجين

**مڈوائفری اور مڈوائفری کی تعلیم میں ماسٹر آف کونسلنگ طلباء کے تعلیم کا موازنہ اور علاقے کی بڑی یونیورسٹیوں میں ان کے فارغ التحصیل طلباء کی ملازمت پر گفتگو۔ 2016؛ ایک کراس سیکشنل مطالعہ**

**پس منظر اور مقصد:** یونیورسٹی کی خدمات کے معیار کو بہتر بنانے اور مناسب تعلیمی پالیسیاں اپنانے کے لیے، مسلسل نگرانی ضروری ہے۔ اس مطالعے کا مقصد مڈوائفری کی تعلیم کے دو شعبوں میں طلباء کے تعلیم اور دائیوں میں مشاورت اور دونوں شعبوں کے فارغ التحصیل افراد کی ملازمت کا موازنہ کرنا تھا۔

**طریقہ:** یہ تقابلی تجزیاتی کراس سیکشنل مطالعہ پوسٹ گریجویٹ اسٹڈیز میں 300 طلباء اور گریجویٹس پر کیا گیا جس میں 150 طلباء اور مڈوائفری کونسلنگ کے فارغ التحصیل طلباء اور علاقے کی بڑی یونیورسٹیوں (میڈیکل سائنسز کی یونیورسٹیوں) میں 150 طلباء اور مڈوائفری تعلیم کے فارغ التحصیل شامل ہیں۔، ارمیا اور اردبیل) 1399 میں نمونے کے ذریعے۔ ڈیٹا اکٹھا کرنے کے ٹولز آبادیاتی خصوصیات کا سوالنامہ، مینیسوتا ملازمت سے اطمینان اور تعلیمی اطمینان تھے۔ ڈیٹا کا تجزیہ SPSS سافٹ ویئر ورژن 21 کا استعمال کرتے ہوئے کیا گیا۔

**نتائج:** مڈوائفری میں کونسلنگ طلباء کے تعلیمی اطمینان کے مجموعی اسکور کا اوسط (معیاری انحراف) 129.3 (17.7) تھا اور مڈوائفری کی تعلیم 126.7 (17.7) کی حد سے 126.7 (17.7) تھی۔ مڈوائفری میں کونسلنگ کے فارغ التحصیل افراد کا اوسط (معیاری انحراف) ملازمت کا اطمینان 56.0 (9.6) تھا اور دائی کی تربیت 57.9 (9.5) کی حد میں 57.9 (9.5) تھی۔ مڈوائفری گریجویٹس کی اکثریت کی ملازمت سے اطمینان کی شرح (49.3٪) بہت اچھی تھی اور مڈوائفری کونسلنگ گریجویٹس کی اکثریت (58.7٪) اعتدال پسند تھی۔ مڈوائفری گریجویٹس میں ادائیگی کے نظام سے اطمینان کا اوسط (معیاری انحراف) اسکور نمایاں طور پر 7.4 (2.4) سے زیادہ تھا۔ ملازمت کے حالات سے، مڈوائفری گریجویٹس کا اوسط اسکور 10.0 (2.8 فیصد) نمایاں طور پر زیادہ تھا ( $p = 0.015$ )۔

**نتیجہ:** دونوں شعبوں کے طلباء کے درمیان تعلیمی اطمینان میں کوئی خاص فرق نہیں تھا۔ ادائیگی کے نظام کے شعبے میں ملازمت کے اطمینان اور دائی کی تربیت کے مقابلے مڈوائفری کونسلنگ گریجویٹس میں کام کے حالات نمایاں طور پر کم تھے۔

**مطلوبہ الفاظ:** تعلیمی اطمینان، ملازمت سے اطمینان، مڈوائفری ایجوکیشن، مڈوائفری کونسلنگ، طلباء، گریجویٹس

## INTRODUCTION

Job satisfaction is the feeling of happiness that a person has from what he does and causes him to become attached (1). In other words, job satisfaction is a desirable evaluation of one's job and increases a person's morale and productivity and leads to physical and mental health (2). Job satisfaction is not a single concept and should be considered as a set of different tasks, relationships, roles, and rewards that are all connected (3).

Job dissatisfaction leads to antisocial behaviors such as poor service, absenteeism, relocation, and job abandonment of employees and undesirable products, as well as physical and mental disorders high blood pressure, stress or developing bad habits like smoking (4).

Also the greater the correlation between the individual's interest in the job, the better the chance of achieving positive results is, such as success in education and work and job satisfaction consequently. On the other hand, a person is more motivated to try to get the job he wants. Highly motivated individuals pursue the necessary effort to successfully complete a goal or achieve a decent degree of their desired job (5).

According to Lent et al. (2007), academic satisfaction means the degree of enjoyment and happiness of an individual with his role and experiences as a student (6). Evidence shows that student satisfaction leads to educational success that increases students' academic motivation, so the with high educational satisfaction is more motivated to achieve high grades (7). Measuring the level of satisfaction with education can be a basis for guiding students and an indicator for improving performance and show the rate of success of students in their future careers (8). It can be mentioned that student satisfaction increases the interest in learning and education (9). Researchers believe that environmental, personal, and economic factors can be effective in increasing students' satisfaction with education and consider the culture and atmosphere of the university as environmental factors that affect students' academic satisfaction (10). Therefore, improving the quality of university services and adopting appropriate educational policies for students, as well as continuous monitoring of student satisfaction is essential (11).

Arfai et al. Conducted a descriptive study entitled "Interest in studying midwifery". They related factors in students of Tehran University of Medical Sciences in order to determine the interest of midwifery students in their field of study. Findings of their study showed that the level of students' interest in their field of study was low with an average score of 37.5% and most of them (80.8%) did not choose the field with interest. The most important factors related to students' tendency to study in this field were its usefulness in all stages of individual life and the existence of exciting experiences in the midwifery profession (12). In 2000, Weber conducted a descriptive study on the factors affecting students' academic failure. The results showed that personality factors, motivation and interest, feeling of satisfaction, feeling of loneliness, drug addiction, expectation of success and family conditions had an effect on academic success in universities

(13). Mirmolaei et al. Conducted a cross-sectional study in 2005 entitled "Job Satisfaction Survey of Employed Midwives". 92.8%, job security 69.7%, managerial policy and workplace conditions and conditions 64.9%, supervision and supervision 48.6% and relationship with personal life were 49.8% low. There was a positive and statistically significant correlation between overall job satisfaction with all its dimensions, which was the highest correlation with the management policy dimension. Also, the level of overall job satisfaction with housing status, years of service, employment status, place of work, and shift showed that there was a significant relationship between work and interest in the midwifery profession (14). Trainees of this field were expected to have maximum knowledge, awareness and responsibility in doing their duties and acquire the required skills to the highest degree (15). Evaluating the interest of students and graduates of this profession can be a valuable official guide to properly evaluate the field: Because of the very broad roles that midwifery has, including counseling, education, care, treatment, support, and research. The field of midwifery care, including prenatal care, prenatal care, childbirth, puerperium and childcare up to six years, (16). Since no studies have been conducted to evaluate the trends in this field at the master's level, and the master's degree in counseling in midwifery is a relatively newly established field and is about seven years old. Since the establishment of this field, there has been no study on the level of satisfaction of students in this field and as a result the job satisfaction of graduates of this new field compared to the previous field of midwifery education in the universities that train these students. However, there is a growing competition between graduates of these two disciplines for limited scientific opportunities and job opportunities. This study has been designed and implemented in relation to the expressed gaps and creating the necessary transparency for feedback to officials and stakeholders. With the hope and purpose to be used in future decisions.

On the other hand, because midwifery experts do not have enough information in choosing these two fields in the master's degree, it can be a guide for choosing the field they want in the master's degree.

The objective of this study was the comparison of the academic satisfaction of MSc students of midwifery education and counseling in midwifery courses and job satisfaction of graduates of these two courses in the region 2 of the country's health.

## METHODS

This research was a comparative-analytical cross-sectional study. Participants were 75 midwifery education graduates, 75 counseling graduates, 75 midwifery education students and 75 counseling students, chosen by the complete enumeration survey method from the region 2 of the country's health including Tabriz, Urmia, and Ardabil universities of medical sciences. Sampling started in September 2020 and ended in February 2021. Initially, 304 students and graduates in the master's degree in counselling in midwifery and midwifery education were surveyed, of which 300 consented to enter the study and completed the

questionnaires. Three midwifery education graduates (due to dropout) and counselling in midwifery graduate (due to unwillingness to participate in the study) were excluded from the study. The criterion for students' entry was to study for a master's degree in midwifery education or counseling in midwifery in 2020 in one of the three universities of medical sciences in Tabriz, Urmia, and Aardabil. Inclusion criteria for graduates were, employment with a master's degree in midwifery counseling or midwifery training in the last 7 years. Exclusion criteria for graduates included dropout, change of major, unwillingness to cooperate after enrollment, physical or mental illness.

The sample size based on the study of Arfai et al. (12) using the formula for estimating a ratio and the ratio of educational satisfaction of 37.5%,  $p = 0.375$ ,  $\alpha = 0.05$ ,  $d = 0.011$  (study accuracy), was calculated using the following formula for a total of 300 people.

$$n = \frac{z^2 p(1-p)}{d^2}$$

Due to simultaneous sampling with the COVID-19 pandemic, researchers telephoned participants through information available in the training section. After introducing themselves and stating the objectives of the study, the researcher, after justifying them, if they wish to participate in the study, asked them to fill in the relevant questionnaires (by phone or e-mail). The importance of completing the questionnaire correctly was emphasized and to ensure the confidentiality of information, no name was entered and the questionnaires were coded. After obtaining the ethical code (IR.TBZMED.REC.1399.212) from the ethics committee of Tabriz University of Medical Sciences, sampling was performed.

The data collection tool was questionnaire. A demographic questionnaire included personal characteristics (age, marriage, years of university entrance, university, father education, mother education, family income, habitation, diploma type, diploma grade, quota, Last Semester GPA.) Arfaei Academic Satisfaction Questionnaire was used for investigating the academic satisfaction of students (12). This questionnaire has 4 sections. The first part of the personal domain affecting the choice of field includes 13 questions and 65 points, the second part of the social domain affecting the choice of field includes 8 items and 40 points, the third part of personal perceptions in the field of study includes 12 items and 60 points and the fourth part of the educational field has 8 Question and 40 points. Question 42 is a general question about interest in the current field and question 43 is related to the re-selection of the current field. Question 44 is an open question for the items considered in this questionnaire. Satisfaction of the study field was determined among nursing and midwifery students of Qazvin University of Medical Sciences and Health Services in 2014. The face validity of the questionnaire was confirmed by 10 professors and the required corrections were made using the comments provided. 9) (and Cronbach's alpha (75%) was confirmed (17).

Job satisfaction of graduates was investigated by Minnesota Job Satisfaction Questionnaire (MSQ) which consisted of 19

items and 6 subscales of the payment system (3 questions), type of job (4 questions), opportunities for advancement (3 questions), organizational climate (2 questions), leadership style (4 questions) and physical condition (3 questions), which is used to measure job satisfaction. The MSQ was scored on a Likert scale, with scores of 1, 2, 3, 4, and 5 for "strongly disagree", "disagree", "Agree", "strongly agree", respectively. To obtain the total score of the MSQ, the scores of all items were added together and the job satisfaction rate divided to three levels.

- Scores between 19 and 38 indicated low job satisfaction.
- Scores between 38 and 57 indicated Moderate that job satisfaction.
- Scores above 57 indicated that job High satisfaction.

First designed and built by Brayfield and Rothe (1951) at the University of Minnesota. To ensure the validity of the questionnaire, Poladi Reyshahri used the content validity method with the opinion of professors and experts in the field of management. He also used confirmatory factor analysis to check the validity of the questionnaire and confirmed the validity of the questionnaire. Martins and Proença obtained 0.91 for overall job satisfaction, and Puladi Reyshahri obtained reliability in his research using three methods of composing even and odd questions 0.83, Cronbach's alpha 0.80 and Guttman 0.84 (18).

In the present study, Cronbach's alpha for the total score of job satisfaction was calculated to be 0.823. Also, Cronbach's alpha for the total score of educational satisfaction was 0.859. SPSS software (version 21) was used for data analysis. Descriptive statistics, including frequency (percentage), mean (standard deviation: SD) and range, were used to show the data. The normality of the data distribution was determined by the Kolmogorov-Smirnov test, where only the domain of physical conditions from the job satisfaction did not have a normal distribution. A Chi-square test was used in order to compare qualitative data between the two groups. Independent t-test to compare quantitative data with normal distribution and Mann-Whitney test to compare quantitative data with abnormal distribution were used. Moreover, linear regression analysis adjusted for confounders was used for between-group comparison. Before conducting linear regression, the assumptions of the regression, including normality of the residuals, homogeneity of the residual variance, multicollinearity of independent variables and independence of the residuals were studied. The significance level in all tests was considered less than 0.05.

## RESULTS

The mean (standard deviation: SD) age of students in the two groups of counselling in midwifery and midwifery education was 31.59 (6.5). The mean (SD) age of graduates in the two groups was 35.45 (6.4).

More than half of the students in both groups (56%) and about two-thirds of the graduates of both groups (66%) were married. Most students (88.6%) and graduates (81.3%) expressed their family income as sufficient. The majority of students (99.3%) and graduates (98%) of the two fields lived in cities. The majority of students (88%) and graduates (87.7%) were

accepted with free quota .There was statistically significant difference between the 4 groups in terms of age ( $p < 0.001$ ), year of university entry ( $p < 0.001$ ), type of university ( $p < 0.001$ ) and grade point average of the last semester ( $p = 0.011$ ). There was a significant difference between the two

groups of graduates in terms of the University of study ( $p < 0.001$ ) and the grade point average of the last semester ( $p = 0.007$ ). There was a significant difference between the students of the two fields in terms of the University of study ( $p < 0.001$ ) (Table 1).

Table 1. Frequency distribution of demographic characteristics of the subjects							
	Graduates		Students		P <sup>t</sup>	P <sup>Gs</sup>	P <sup>St</sup>
	Mid-Edu n=75	Counseling n=75	Mid-Edu n=75	Counseling n=75			
<b>Age*</b>	35.97 (6.5)	34.94 (6.3)	31.28 (6.2)	31.90 (6.9)	<0.001 <sup>+</sup>	0.780 <sup>±</sup>	0.937 <sup>±</sup>
<b>Marriage</b>					0.333 <sup>κ</sup>	0.605 <sup>κ</sup>	1.000 <sup>κ</sup>
Single	27 (36%)	24 (32%)	33 (44%)	33 (44%)			
Married	48 (64%)	51 (68%)	42 (56%)	42 (56%)			
<b>Year of university entrance</b>					<0.001 <sup>§</sup>	0.242 <sup>§</sup>	0.070 <sup>§</sup>
2014	19 (25.3%)	14 (18.7%)	0 (0.0%)	0 (0.0%)			
2015	12 (16.0%)	20 (26.7%)	0 (0.0%)	0 (0.0%)			
2016	31 (41.3%)	24 (32.0%)	0 (0.0%)	8 (10.7%)			
2017	13 (17.3%)	17 (22.7%)	14 (18.7%)	14 (18.7%)			
2018	0 (0.0%)	0 (0.0%)	21 (28.0%)	18 (24.0%)			
2019	0 (0.0%)	0 (0.0%)	26 (34.7%)	24 (32.0%)			
2020	0 (0.0%)	0 (0.0%)	11 (14.7%)	14 (18.7%)			
<b>University</b>					<0.001 <sup>κ</sup>	<0.001 <sup>#</sup>	<0.001 <sup>#</sup>
Tabriz	75 (100%)	37 (49.3%)	59 (78.7%)	42 (56%)			
Urmia	0 (0.0%)	38 (50.7%)	0 (0.0%)	33 (44.0%)			
Ardabil	0 (0.0%)	0 (0.0%)	16 (21.3%)	0 (0.0%)			
<b>Fathers education</b>					0.536 <sup>κ</sup>	0.499 <sup>κ</sup>	0.282 <sup>κ</sup>
Illiterate	3 (4.0%)	2 (2.7%)	2 (2.7%)	4 (5.3%)			
Primary school	13 (17.3%)	7 (9.3%)	12 (16.0%)	15 (20.0%)			
Secondary school	30 (40.0%)	40 (53.3%)	27 (36.0%)	25 (33.3%)			
College	29 (38.7%)	26 (34.6%)	34 (45.4%)	31 (41.4%)			
<b>Mothers education</b>					0.374 <sup>κ</sup>	0.856 <sup>κ</sup>	0.344 <sup>κ</sup>
Illiterate	12 (16.0%)	9 (12.0%)	15 (20.0%)	7 (9.3%)			
Primary school	10 (13.3%)	20 (26.7%)	14 (18.7%)	20 (26.7%)			
Secondary school	45 (60.0%)	36 (48.0%)	28 (37.3%)	28 (37.3%)			
College	8 (10.6%)	10 (12.0%)	18 (24.0%)	20 (26.7%)			
<b>Family income</b>					0.279 <sup>§</sup>	0.676 <sup>§</sup>	0.151 <sup>§</sup>
Sufficient	60 (80.0%)	62 (82.7%)	64 (85.3%)	69 (92.0%)			
Insufficient	16 (20.0%)	13 (17.3%)	11 (14.7%)	6 (8.0%)			
<b>Habitation</b>					0.567 <sup>κ</sup>	1.000 <sup>#</sup>	1.000 <sup>#</sup>
City	73 (97.3%)	74 (98.7%)	75 (100%)	74 (98.7%)			
Village	2 (2.7%)	1 (1.3%)	0 (0.0%)	1 (1.3%)			
<b>Diploma type</b>					0.104 <sup>κ</sup>	1.000 <sup>#</sup>	0.209 <sup>#</sup>
experimental sciences	74 (98.7%)	74 (98.7%)	74 (98.7%)	70 (93.3%)			
mathematics and physics	1 (1.3%)	1 (1.3%)	1 (1.3%)	5 (6.7%)			

Table 1. Continued							
	Graduates		Students		P <sup>t</sup>	P <sup>Gs</sup>	P <sup>St</sup>
	Mid-Edu n=75	Counseling n=75	Mid-Edu n=75	Counseling n=75			
<b>Diploma grade</b>					0.106 <sup>s</sup>	0.820 <sup>s</sup>	0.909 <sup>s</sup>
Less than 16	14 (18.7%)	15 (20.0%)	10 (13.3%)	13 (17.3%)			
16-18	35 (46.7%)	35 (46.7%)	33 (44.0%)	28 (37.3%)			
More than 18	26 (34.7%)	25 (33.3%)	32 (42.7%)	34 (45.3%)			
<b>Quota</b>					0.694 <sup>&amp;</sup>	0.381 <sup>&amp;</sup>	0.600 <sup>&amp;</sup>
Free	64 (85.3%)	69 (90.2%)	68(90.7%)	64 (85.3%)			
Witness and veteran	7 (9.3%)	3 (4.0%)	3 (4.0%)	5(6.7%)			
Others	4(5.3%)	3(4.0%)	4(5.3%)	6(8.0%)			
<b>GPA*/ last semester</b>	18.31 (1.1)	17.80 (0.73)	18.16 (1.1)	18.06 (0.8)	0.011 <sup>+</sup>	0.007 <sup>±</sup>	0.910 <sup>±</sup>

Mid – Edu: Midwifery education; P<sup>t</sup> : Significance level between all groups; P<sup>Gs</sup> : Significance level between graduates; P<sup>St</sup>: Significance level between students; + :one – way ANOVA; ± : Tukey HSD; &: Pearson Chi – Square; \$: Linear – by – Linear Association; #: Fishers Exact Test; \*Age and GPA of the last semester were reported based on mean (SD)

Table 2. Comparison of job satisfaction scores between graduates of two fields of counseling in midwifery and midwifery education				
Occupational satisfaction	Graduates		Attainable scores	p-value
	Mid-Edu (n=75) Mean (SD)	Counseling (n=75) Mean (SD)		
Payment system	7.4 (2.4)	6.6 (2.3)	0-15	0.035 <sup>#</sup>
Job type	14.1 (3.1)	14.4 (3.0)	0-20	0.615 <sup>#</sup>
Progress opportunities	7.3 (2.4)	7.7 (2.5)	0-15	0.367 <sup>#</sup>
Organizational atmosphere	6.0 (1.8)	5.8 (1.9)	0-10	0.570 <sup>#</sup>
Method of leadership	12.8 (2.2)	12.3 (2.0)	0-20	0.159 <sup>#</sup>
Physical conditions	10.0 (2.8) *	9.0 (3.0) *	0-15	0.015 <sup>&amp;</sup>
Total score	57.9 (9.57)	56.0 (9.6)	0-95	0.219 <sup>#</sup>

\*: Median (Range); # : Independent samples t test ; &: Mann-Whitney U

The mean (standard deviation: SD) scores of the total job satisfaction of the graduates of counselling in midwifery and midwifery education were 56.0 (9.6) and, 57.9 (9.5), respectively, from the range of 0-95. There was no statistically significant difference (p = 0.219). In terms of job satisfaction, the mean (SD) score of satisfaction with the payment system in graduates of midwifery education was 7.4 (2.4) that was significantly higher than counselling in midwifery (6.6 (2.3)) (p=0.035). In terms of job conditions, the mean (SD) score of midwifery education graduates (10.0 (2.8)) was significantly higher than counselling in midwifery (9.0 (2.8)) (p = 0.015). (Table 2).

In terms of job satisfaction, about half (49.3%) of the midwifery education graduates had very good satisfaction, and more than half of the counselling in midwifery graduates had moderate satisfaction (58.7%); however, the difference between the two groups was not significant (p=0.209) (Table 3).

According to the results of linear regression model adjusted for confounding variables to compare job satisfaction of

midwifery education graduates and counselling in midwifery, there was a significant difference between the two fields in the domain of payment system (B=0.021, 95% Confidence Interval: 0.006 to 0.049; p=0.041). There was no significant difference in other domains, and no test conditions were established for the domain of job conditions (Table 4).

Table 3. The frequency of occupational satisfaction level among graduates of two fields of counseling in midwifery and midwifery education			
Occupational satisfaction	Graduates		p-value
	Mid-Edu (n=75) n (%)	Counseling (n=75) n (%)	
<b>Low</b>	2 (2.7%)	2 (2.7%)	
<b>Moderate</b>	36 (48.0%)	44 (58.7%)	0.209 <sup>*</sup>
<b>Very good</b>	37 (49.3%)	29 (38.7%)	

\*: Nonparametric Test) P-values were reported based on

**Table 4. Results of Linear regression model to compare occupational satisfaction between graduates of two fields of counseling in midwifery and midwifery education**

Variable	B	95% Confidence Interval		R <sup>2</sup>	P-value
		Lower	Upper		
Payment system	0.021	0.006	0.049	0.380	0.041 <sup>s</sup>
Job type	0.001	-0.020	0.023	0.370	0.893 <sup>s</sup>
Progress opportunities	0.005	-0.022	0.033	0.371	0.702 <sup>s</sup>
Organizational atmosphere	0.002	-0.037	0.034	0.370	0.922 <sup>s</sup>
Method of leadership	0.012	-0.019	0.043	0.373	0.450 <sup>s</sup>
Physical conditions*	-	-	-	-	-
Total score	0.005	-0.002	0.012	0.379	0.147 <sup>s</sup>

Linear regression model adjusted for University and Enterace.year  
\*Linear regression assumptions were not established for physical conditions

According to the results of linear regression model adjusted for confounding variables to compare job satisfaction of midwifery education graduates and counselling in midwifery, there was a significant difference between the two fields in the domain of payment system (B=0.021, 95% Confidence Interval: 0.006 to 0.049; p=0.041). There was no significant difference in other domains, and no test conditions were established for the domain of job conditions (Table 4). There was no difference between the two groups in terms of the mean (SD) total score of educational satisfaction of midwifery education students (126.7 (17.7)) and counselling

in midwifery (129.3 (15.7)) from the range of 0-205. In terms of domains, the difference between the two groups was not significant (Table 5). According to the results of the linear regression model adjusted for confounding variables to compare the educational satisfaction of midwifery education and counselling in midwifery students, no difference was observed between the two groups (Table 6). Regarding the last two questions of the questionnaire about the interest in the field of study and re-choosing of the current course, the interest of the majority of students in the

**Table 5. Comparison of educational midwifery and midwifery satisfaction scores between students of two fields of counseling in**

Educational satisfaction	Students		Attainable scores	p-value
	Mid-Edu (n=75) Mean (SD)	Counseling (n=75) Mean (SD)		
Importance	44.5 (6.4)	45.6 (4.8)	0-65	0.222*
Imaging	36.1 (6.4)	37.3 (6.3)	0-60	0.229*
Effect	19.9 (6.0)	19.6 (4.6)	0-40	0.725*
Role	26.3 (5.2)	26.7 (5.8)	0-40	0.604*
<b>Total</b>	<b>126.7 (17.7)</b>	<b>129.3 (15.7)</b>	<b>0-205</b>	<b>0.350*</b>

\* : Independent samples Test

**Table 6. Results of Linear regression model to compare educational satisfaction between students of two fields of counseling in midwifery and midwifery education**

Variable	B	95% Confidence Interval		R <sup>2</sup>	P-value
		Lower	Upper		
Importance	-0.009	-0.023	0.005	0.033	0.195 <sup>s</sup>
Imaging	-0.008	-0.021	0.005	0.033	0.211 <sup>s</sup>
Effect	0.002	-0.014	0.017	0.022	0.845 <sup>s</sup>
Role	-0.004	-0.019	0.011	0.024	0.599 <sup>s</sup>
Total score	0.003	-0.017	0.002	0.029	0.303 <sup>s</sup>

Linear regression model adjusted for University and Semester. Score

two fields of counselling in midwifery (76%) and midwifery education (73%) was addressed to be high and very high and also two-thirds of the counselling in midwifery students (69.3%) and midwifery education (66.6%) mentioned that they would choose their current field if they had the opportunity to re-choose.

## DISCUSSION

The objective of this study was to compare the academic satisfaction of postgraduate students in midwifery education and counseling in midwifery and to compare the job satisfaction of graduates of two fields in two health regions of the country from September 2020 to February 2021.

Half of the midwifery education graduates had very good satisfaction, and more than half of the counselling in midwifery graduates had moderate satisfaction. There was no significant difference in the mean score of total job satisfaction between the two groups of counselling graduates and midwifery education. In terms of job satisfaction domains, the score of satisfaction with the payment system and job conditions in midwifery education graduates was significantly higher than counselling. The mean total score (0-205) of educational satisfaction of midwifery education students (126.7) and counselling in midwifery (129.3) and its domains were not significantly different between the two groups.

Higher education gives employees access to better and more executive jobs, with more diversity and independence, which have a positive relationship with job satisfaction (19). Therefore, examining the job satisfaction of working undergraduate midwifery and graduate midwifery and comparing them can be a good guide for the authorities of midwifery education and health system.

Considering that the present study is the first study in the field of comparing the two fields of midwifery education and counseling in midwifery, but in general, the results can be compared and discussed with similar studies.

The results of the present study on the total score of job satisfaction with a cross-sectional study of Mir Molaei et al. In 2005 entitled Job satisfaction of working midwives with 251 participants by cluster sampling method among midwives working in health centers and hospitals of science universities Tehran medical were selected, the satisfaction rate of 60% of employed midwives was consistent (14).

There was a significant difference between the graduates of the two fields in terms of the domain of the payment system, and the lowest score in the two groups was related to this domain. This issue is consistent with the study by Keivanloo et al., in which the lowest level of job satisfaction of Sabzevar University of Medical Sciences staff was related to the domain of payment (20). In the study of Sotoudeh et al., the lowest level of job satisfaction was also in the payment system (21). Graduates of midwifery education in the domain of payment system have obtained a higher score (7.4) which, according to the data of the present study, can be attributed to the reasons for job promotion and higher salaries and benefits. The results of Wang study showed that promotion and raising salaries is one of the most important factors of job satisfaction; promotion leads to higher salaries, more job

desirability, more responsibility and freedom in decision making, and finally, more satisfaction (19).

In the present study, counselling in midwifery graduates in the domain of payment system (6.6) obtained lower scores, which can be related to the lack of the right of counselling in midwifery visits.

Also, in this study, the rate of interest of the majority of students in the two fields of counselling in midwifery and midwifery education is high and very high. Also, two-thirds of the students in counselling in midwifery and midwifery education mentioned that they would choose their current field if they had the opportunity to re-choose, while in the study of Arfai et al., the majority of midwifery students (80.8%) were not interested enough to study in this field and also 65.7% of students mentioned that if they give the national exam again, they will not choose the field of midwifery, which is not consistent with the present study (12). The reason for this difference may be the difference in the participants' educational level. And the high educational satisfaction of graduate students may be due to their greater familiarity with the field of study and the acquisition of higher professional practical skills and hope for better job opportunities. In a study conducted by Mehrabian et al. with the participation of managers and head nurses of different government hospitals affiliated to Gilan University of Medical Sciences, they found that there is a positive relationship between job satisfaction and personal characteristics such as age, level of education and work experience (22). In a similar study, it was found that position and education are related to job satisfaction; managers and authorities are more satisfied. It also showed that in associate degree and above, with the increasing educational degree, the rate of job satisfaction increased (23). Studies have shown that there was a significant difference between students' educational satisfaction based on the scientific level, country of study, the field of study and assessment time. The satisfaction of students of supplementary educations was different from students of bachelors' degree due to their scientific ability, experience and expectations (24).

There was a significant difference between the two groups of graduates and students in terms of the University of study, which was due to the unequal number of students and graduates of the relevant Universities or the lack of fields in the studied Universities.

Strengths and weaknesses of the study: One of the strengths of this study is that this is the first comparison between students and graduates in the master's degree in midwifery education and counseling in midwifery. For example, in Tabriz University of Medical Sciences, despite 7 years of admission in the field of midwifery counseling and more than five graduation courses in this field and more than a quarter of a century in midwifery education, no feedback on students' academic satisfaction and satisfaction with job of the graduates of these fields and the comparison of these two fields was not done in the whole region of the two countries. In this study, the researchers first examined job satisfaction and academic satisfaction of two master's degree programs. Incomplete socio-demographic information about the place of service or service history is one of the limitations of the

study. The small number of students in master's degrees, especially in the new field of midwifery counseling, and the low number of graduates of two fields from Tabriz University of Medical Sciences, Urmia, and Ardabil are among the weak points of the study. The unequal number of participants in the study from 3 universities as well as the lack of midwifery education in Urmia University of Medical Sciences and the lack of midwifery counseling in Ardabil University of Medical Sciences should be considered as out-of-control constraints in this study.

The data of this study can be a solution to improve the potential problems of students and graduates of midwifery in the master's degree, for midwifery education and midwifery counseling universities to use in their planning, so that it can increase the motivation of midwifery students. It should also be a guide for candidates for the master's degree in midwifery so that they can consciously choose the field of their choice. According to the results obtained in the present study, the job satisfaction of most graduates of midwifery education and counseling in midwifery is moderate and high. Satisfaction with the payment system was generally low. Satisfaction with the physical working conditions and payment system in counseling in midwifery graduates was less than midwifery education. Educational satisfaction in these two master's degree was moderate. Also, the majority of students expressed great interest in their field and would choose their current field if they could re-choose. It is expected that education authorities and policymakers improve the job status and social status of the graduates by providing

appropriater eforms in the payment system and physical working conditions, especially in the newly established field of counselling in midwifery.

In this study, the two curriculums were not compared. It is suggested that a comparative study be developed in this regard in terms of the quality of education in the two fields as well.

#### Ethical considerations

Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc. have Sciences approved this research, ethics code IR.TBZMED.REC.1399.212.

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