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## ORIGINAL ARTICLE

## A SWOT Analysis of Integrating Humanities into Medical Sciences Curricula

**Background:** Due to the significant developments and unforeseen crises in public health, doctors must be lifelong learners to respond to these challenges. Considering the role of art in medical education, the purpose of this study was to determine the internal (Strengths and Weaknesses) and external (Opportunities and Threats) factors in the integration of medical humanities and arts into medical curricula. **Method:** This study employed a descriptive-analytical design. The target population was faculty members being knowledgeable in arts and medical education. The research instrument was a researcher-made valid questionnaire ( $\alpha$ =0.78). SWOT analysis was conducted by matrix. An independent t-test was used to compare the mean scores of the SWOT based on demographic characteristics. The data were analyzed using SPSS version 16.

**Results:** Presence of active faculty members and relevant experts and proven track recorded in arts and medical education as special mission were the most effective strengths, while lack of a fixed and forward-looking program was the primary weakness. The presence of the Faculty of Arts at Birjand was the best opportunity, and the instability of managers and some programs in upstream institutions was the biggest threat. The average score of strengths and weaknesses was 2.62 and opportunities and threats were 2.42.

**Conclusion:** The SWOT matrix analysis indicated a strength-opportunity or developmental position. This finding is not influenced by demographic characteristics. In this position, internal strengths outweigh weaknesses, and opportunities exceed external threats. Thus, it is possible to integrate humanities into medical education with strong developmental strategies.

Keywords: Humanities, Arts, Strategic Plan, Curriculum, Medicine

## تحليل SWOT لدمج العلوم الإنسانية في مناهج العلوم الطبية

الخلفية: نظرا للتطورات الهامة والأزمات غير المتوقعة في مجال الصحة العامة، يجب أن يكون الأطباء متعلمين مدى الحياة للاستجابة لهذه التحديات. بالنظر إلى دور الفن في التعليم الطبي، كان الغرض من هذه الدراسة هو تحديد العوامل الداخلية (نقاط القوة والضعف) والخارجية (الفرص والتهديدات) في دمج العلوم الإنسانية والفنون الطبية في المناهج الطبية.

الطريقة: استخدمت هذه الدراسة التصميم الوصفي التحليلي. كان المجتمع المستهدف هو أعضاء هيئة التدريس ذوي المعرفة في الفنون والتعليم الطبي. وكانت أداة البحث عبارة عن استبيان صالح من صنع الباحث .( $\alpha = 0.78$ ) تم إجراء تحليل SWOT بواسطة المصفوفة. تم استخدام اختبار  $\alpha = 0.78$  بناءً على الخصائص الديموغرافية. تم تحليل البيانات باستخدام SPSS الإصدار  $\alpha = 0.78$ 

النتائج: كان وجود أعضاء هيئة التدريس النشطين والخبراء ذوي الصلة والمسار المؤكد المسجل في الفنون والتعليم الطبي كمهمة خاصة هي نقاط القوة الأكثر فعالية، في حين كان الافتقار إلى برنامج ثابت وتطلعي هو العامل الأساسي ضعف. كان وجود كلية الآداب في بيرجند هو أفضل فرصة، وكان عدم استقرار المديرين وبعض البرامج في المؤسسات العليا هو التهديد الأكبر. وكان متوسط نقاط القوة والضعف ٢,٦٢ والفرص والتهديدات ٢,٢٤.

الاستنتاج: أشار تحليل مصفوفة SWOT إلى فرصة القوة أو الوضع التنموي. ولا تتأثر هذه النتيجة بالخصائص الديموغرافية. في هذا الموقف، تفوق نقاط القوة الداخلية نقاط الضعف، وتتفوق الفرص على التهديدات الخارجية. وبالتالي، فمن الممكن دمج العلوم الإنسانية في التعليم الطبي مع استراتيجيات تنموية قوية. الكلمات المفتاحية: العلوم الإنسانية، الفنون، الخطة الإستراتيجية، المنهج، الطب

# تحلیل وضعیت برنامه درسی ادغام علوم انسانی در برنامه درسی علوم یزشکی مبتنی بر هنر با راهبرد SWOT

زمینه و هدف: نظر به تحولات قابل توجه و بحران های پیشبینی نشده بهداشت عمومی، پزشکان باید یادگیرندگان مادام العمر سازگاری باشند که به این چالش ها پاسخ دهند. هدف مطالعه حاضر، سنجش عوامل اثرگذار درونی (قوت ها و ضعف ها) و بیرونی (فرصت ها و تهدیدها) بر توسعه علوم انسانی پزشکی به واسطه هنر در برنامه درسی یزشکی است.

روش: این مطالعه از نوع توصیفی—تحلیلی و جامعه آماری اعضای هیأت علمی آگاه از هنر و آموزش پزشکی می باشد. ابزار تحقیق پرسشنامه محقق ساخته بود. تحلیل SWOT با رسم ماتریس انجام شد. جهت مقایسه میانگین امتیازات عوامل SWOT با ساس مشخصات دموگرافیک از آزمون T مستقل استفاده گردید. تحلیل آماری داده ها با نرم افزار SPSS نسخه ۱۶۶ انجام شد.

یافته ها: برخورداری از اعضای هیأت علمی فعال و کارشناسان مرتبط و سابقه اجرای فعالیت های هنر و آموزش پزشکی در ماموریت ویژه هنر و سلامت مؤثر ترین نقاط قوت و عدم برنامه ثابت و آینده نگر مهمترین نقطه ضعف درونی بود. وجود دانشکده هنر و علوم انسانی در دانشگاه بیرجند بهترین فرصت خارجی و عدم ثبات مدیران و تا حدی برنامه ها در نهادهای بالادستی بیشترین تهدید بیرونی است. میانگین امتیاز کلی نقاط قوت و ضعف ۲/۶۲ و فرصت و تهدید ۲/۴۲ بود.

نتیجه گیری: تحلیل ماتریس SWOT از موقعیت قوت-فرصت یا وضعیت توسعه ای برخوردار بود. این نتایج تحت تأثیر مشخصات دموگرافیک قرار نداشت. نقاط قوت برضف داخلی غلبه دارد و فرصت ها از تهدیدهای بیرونی بیشتر است و با راهبردهای توسعه ای قوی می توان در زمینه ادغام علوم انسانی در آموزش پزشکی موفق شد. واژه های کلیدی: علوم انسانی، هنر، برنامه استراتژیک، برنامه درسی، پزشکی

## ہیومینٹیز کو میڈیکل سائنسز کے نصاب میں ضم کرنے کا SWOT تجزیم

پس منظر: صحت عامہ میں اہم پیش رفتوں اور غیر متوقع بحرانوں کی وجہ سے، ڈاکٹروں کو ان چیلنجوں کا جواب دینے کے لیے تاحیات سیکھنے والے ہونا چاہیے۔ طبی تعلیم میں آرٹ کے کردار پر غور کرتے ہوئے، اس مطالعے کا مقصد طبی نصاب میں طبی انسانیت اور فنون کے انضمام میں داخلی (طاقت اور کمزوریاں) اور بیرونی (موقع اور خطرات) عوامل کا تعین کرنا تھا۔

ظریقہ: اس مطالعہ نے ایک وضاحتی تجزیاتی ڈیزائن کو استعمال کیا۔ ٹارگٹ آبادی کا فیکلئے ممبران تھا جو آرٹس اور میڈیکل کی تعلیم سے واقف تھے۔ تحقیقی آلہ ایک محقق کا بنایا ہوا درست سوالنامہ تھا $(\alpha=0.78)$  SWOT تجزیہ میٹرکس کے ذریعہ کیا گیا تھا۔ آبادیاتی خصوصیات کی بنیاد پر SWOT کے اوسط سکور کا موازنہ کرنے کے لیے ایک آزاد ٹی ٹیسٹ استعمال کیا گیا تھا۔ اعداد و شمار کا تجزیہ SPSS ورژن  $(\alpha=0.78)$  کا استعمال کرتے ہوئے کیا گیا۔

نتائع: فعال فیکلئی ممبران اور متعلقہ ماہرین کی موجودگی اور آرٹس اور میڈیکل ایجوکیشن میں خصوصی مشن کے طور پر ریکارڈ شدہ ثابت شدہ ٹریک سب سے زیادہ موثر طاقتیں تھیں، جبکہ ایک مقررہ اور مستقبل کے حوالے سے پروگرام کی کمی بنیادی تھی۔ کمزوری برجند میں فیکلئی آف آرٹس کی موجودگی بہترین موقع تھی، اور مینیجرز کا عدم استحکام اور آپ اسٹریم اداروں میں کچھ پروگرام سب سے بڑا خطرہ تھا۔ طاقتوں اور کمزوریوں کا اوسط سکور ۲٫۲۲ تھا اور مواقع اور خطرات ۲٫۲۲ تھے۔

تھیجم: میٹرکس تجزیہ نے طاقت کے مواقع یا ترقی کی پوزیشن کی نشاندہی کی. یہ تلاش آبادیاتی خصوصیات سے متاثر نہیں ہے۔ اس پوزیشن میں، اندرونی طاقت کمزوریوں سے زیادہ ہے، اور مواقع ہیرونی خطرات سے زیادہ ہیں۔ اس طرح، مضبوط ترقیاتی حکمت عملیوں کے ساتھ ہیرمینٹیز کو طبی تعلیم میں ضم کرنا ممکن ہے۔

مطلوبہ الفاظ: ہیومینٹیز، آرٹس، اسٹریٹجک پلان، نصاب، طب

## INTRODUCTION

The ultimate goal of medical education lies in maintaining and promoting people's health. Recognizing the multifaceted nature of human existence, medical universities must instill a comprehensive understanding of "health" in their students that encompasses all dimensions of human well-being and its intricate connection to sociocultural factors. In line with this perspective, the World Health Organization (WHO) defines health not merely as the absence of disease or infirmity but rather as a state of complete physical, mental, and social wellbeing (1). Further broadening this definition, the WHO incorporates the spiritual dimension as the fourth pillar of health. This holistic approach to health necessitates the convergence of biological, social, and cultural factors (2). Consequently, overall health manifests within the context of a healthy society characterized by sound social and human relationships. Hence, a physician's responsibility extends beyond merely restoring physical health; the medical profession encompasses all the other aspects of human existence.

Humans have a diverse range of physical, emotional, and cultural needs. Accordingly, the educational program designed to equip healthcare professionals should reflect these multifaceted values. The underlying philosophy or values and beliefs of the curriculum should emphasize this crucial aspect. The mission of a general medicine program is to cultivate responsible, compassionate, humanitarian, and self-empowered graduates who are fully committed to actively improving community health (3).

Modern medical education is characterized by acquiring knowledge and skills alongside developing medical attitudes and values. All disciplines within the realm of medical humanities play a crucial role in providing high-quality education for future physicians. Numerous studies conducted elsewhere (4-8) and the limited number of studies conducted in Iran (9, 10) have emphasized the importance of humanities in cultivating the sociocultural competencies of physicians (11). For instance, art criticism enhances visual skills in medical students. Literature serves as a rich source of information about the nature and emotions of human beings, their behavior, and the narrative of illness while fostering simultaneously imagination. Philosophy strengthens the analytical and synthetic thinking skills of physicians. Medical and professional ethics are closely intertwined with the physician-patient relationship and the interactions between physicians and their colleagues (12). Therefore, the integration of humanities into medical education cultivates physicians who are capable of effectively communicating with diverse people who have unique needs and beliefs (13).

Recognizing the significance of medical humanities and the transformative power of arts in fostering professional and specialized medical skills while acknowledging the arts' current marginalization in medical curricula, this study aimed to investigate the internal (strengths and weaknesses) and external (opportunities and threats) factors influencing the integration of arts-based medical humanities into medical curricula. In order to accomplish this goal, a SWOT analysis

was utilized, taking into account various university-related factors, both internal and external. This analysis considered the strengths, weaknesses, opportunities, and threats that affect the implementation of arts-based medical curricula. The perspective of experts in this field, specifically experienced faculty members, was taken into consideration.

# **METHODS**

The present study was applied in terms of its purpose and descriptive-analytical in terms of its nature and method. The study was conducted at Birjand University of Medical Sciences in 2020-2021. The statistical population included faculty members being knowledgeable in art and medical education. A convenient sample was recruited, and 13 informed faculty members were selected and interviewed in person. The research tool was a researcher-made questionnaire that assessed the impact of governing bodies, upstream documents, educational-cultural infrastructure potentials, executive and research experiences, and specialized and interested human resources on the development of art-based medical humanities in medical education and curriculum. The questionnaire examined the internal strengths and weaknesses, as well as external opportunities and threats of art in medical education. The questionnaire items were derived from a previous study that analyzed the status of arts in medical education from the perspective of medical education experts (11). Face validity (content) was assessed as a measure to determine the validity of the instrument. Indeed, the questionnaire was approved by 7 expert faculty members. Cronbach's alpha coefficient (0.78) was measured to determine the instrument's reliability. The questionnaire included seven questions on strengths, four questions on weaknesses, three questions on threats, and six questions on opportunities.

SWOT analysis is a strategic planning technique used to evaluate an organization's strengths, weaknesses, opportunities, and threats (14). SWOT stands for Strengths, Weaknesses, Opportunities, and Threats (15). Opportunities are external factors that can bring positive outcomes for the organization, while threats are external factors that can hinder the organization's survival (16). Strengths are internal capabilities that can give the organization an advantage over its competitors, and weaknesses are internal resources that the organization lacks compared to its competitors (16). SWOT analysis aims to identify an organization's strengths and weaknesses, as well as the opportunities and threats it faces (17).

Faculty members responded to the strengths, weaknesses, opportunities, and threats of "integrating humanities into medical sciences with an arts approach" such that the total importance for each of these dimensions was 100% (1). Each component that had the greatest importance was given a higher percentage. Each of the questions in the four mentioned categories was also given a ranking. For strengths and opportunities, the rank was 3 to 4, with 3 indicating a relative strength or opportunity and 4 indicating the greatest strength or opportunity. Weaknesses and threats were ranked 1 to 2, with 2 indicating a relative threat or weakness and 1 indicating a severe threat or weakness. Subsequently,

the importance score of each question was multiplied by the rank to obtain the score for each question. The total scores of the questions in each dimension were added to obtain the score for that dimension. As such, the score range for strengths and opportunities was 3 to 4, while the total scores for threats and weaknesses ranged from a minimum of 1 to a maximum of 2. The questionnaire scores were also compared with demographic variables such as gender and educational parameters such as teaching experience, management experience, and medical education. All information in the questionnaire was kept confidential, and any faculty member could withdraw from the study at any stage of the project.

# **SWOT** analysis

A SWOT analysis was employed to evaluate the information and data gathered from the questionnaire (the current state of arts and medical education) to propose development strategies. The ultimate goal was to identify the external and internal factors that influence the development of arts and medical education at Birjand University of Medical Sciences. Accordingly, the questionnaire was completed after determining the internal strengths and weaknesses as well as the external opportunities and threats. Afterward, the importance was multiplied by the rank to determine the total score for each component. Finally, the total scores of all components related to external (strengths and weaknesses) and internal (opportunities and threats) factors were added together separately and divided by 2. If the total score of the final factors of matrix was greater than 2, it indicated that the opportunities of Birjand University of Medical Sciences outweigh the threats and strengths outweigh the weaknesses. However, if the total score was less than 2, it meant that threats outweigh opportunities and weaknesses outweigh strengths. In this way, two numbers were obtained that indicated the position of Birjand University of Medical Sciences in the SWOT matrix. Subsequently, a comparative analysis was conducted between internal strengths and weaknesses and external opportunities and threats. This analysis was performed in a two-by-two manner within each cell of the SWOT matrix (Table 1). Strategies were developed for each comparison. It is important to note that the university's strategies were formulated based on the SWOT analysis and the suggestions of faculty members who were knowledgeable in the concepts of medical education and art curriculum.

The independent t-test was employed to compare the mean scores of strengths, weaknesses, opportunities, and threats related to the integration of humanities in medical sciences with an arts approach curriculum in terms of gender, teaching experience of 10 years or less, medical education background, and management experience. Moreover, Pearson's correlation coefficient was used to examine the relationship between teaching experience and SWOT dimension scores. Statistical analysis was performed with SPSS software version 16 (SPSS Inc., Chicago, IL).

## **RESULTS**

The findings indicated that Birjand University of Medical Sciences is in a developmental stage regarding the integration of humanities in medical education using arts. As illustrated in Table 3, a total of 13 faculty members or Education Development Center experts participated in this study. Among the participants, 8 were female and 5 were male. All participants held doctoral degrees. Table 3 presents detailed information regarding their degrees in medical education, teaching experience, and management experience.

Table 2 (Appendix Data) presents an analysis of the internal and external factors influencing the advancement of art and medical education. Based on this analysis, the components "Having active faculty members and..." and "Implementing art and medical education activities..." with an importance score of 0.22 and respective ranks of 3.92 and 3.85, were the most effective internal factors in promoting the integration of humanities into medical education. Conversely, the item "Holding arts panels and ...," with an importance score of 0.08 and a rank of 3.08, held the least important internal strength. Additionally, the item "Lack of a fixed and forwardlooking plan," with an importance score of 0.35, was the most significant internal weakness. In contrast, the least important internal weakness was "The inflexibility of the faculties ...". Regarding the external factors affecting the implementation of arts and medical education, the item "Existence of a faculty of arts and humanities" with an importance score of 0.21 and a rank of 4 was the best opportunity for integrating humanities into medical sciences at Birjand University of Medical Sciences. However, "Existence of related tourist attractions," with an importance score of 0.09 and a rank of 3.08, exhibited the least importance among external opportunities. The item "Instability of managers and ...," with an importance score of 0.47 and a rank of 1.23, was the most significant external threat to the integration of the humanities program into medical education. In this context, the least threat to the integration program was "The approval of similar plans at the national level," which had an importance score of 0.24 and a rank of 1.85.

Table 1. SWOT matrix and its analysis to determine strategies							
		Internal Factors					
		Weaknesses	Strengths				
External Factors	Opportunities	Strengthening Strategies (Revision) WO	Development/Offensive Strategies SO				
	Threats	Defensive Strategies WT	Competitive Strategies ST				

Table 2. SWOT analysis matrix of internal and external factors							
Internal environment	Components of SWOT analysis	Importance	Rank	Points			
Strengths	${\bf S1:} \ Conducting \ relevant \ research \ at \ the \ national \ level \ (in \ the \ National \ Strategic \ Research \ Center)$	0.14	3.23	0.44			
	<b>S2</b> : Support provided by the vice-chancellor of the university for the advancement of the curriculum of arts-oriented medical sciences and humanities	17.0	77	66			
	S3: Presence of active faculty members and relevant exp erts	0.22	92	84			
	<b>S4</b> : Production of educational content related to humanities and medical education (printing and editing of books)	0.12	3.23	0.40			
	<b>S5:</b> Engagement in the arts and medical education arena for five years, gaining necessary experience and establishing connections with art specialists	0.22	3.85	0.83			
	<b>S6</b> : Holding a panel on art and medical education and introducing the Visual Thinking Strategy educational program at a national congress	0.08	3.08	0.26			
	\$7: The inclusion of Birjand University of Medical Sciences' areas of academic distinction in the Green Book	0.12	3.38	0.40			
	W1: Instability of university administrators	0.28	1.31	0.36			
Weaknesses	W2: Lack of associated full-time geographical faculty	0.19	1.77	0.34			
	$\mathbf{W3} \text{:}$ Inflexibility of the faculties in terms of curriculum implementation according to the approved curricula	0.21	1.46	0.30			
	W4: Absence of a fixed and forward-looking plan	0.35	1.15	0.40			
Opportunities	<b>O1:</b> The presence of faculties of arts and humanities with all relevant disciplines at both Birjand University and Islamic Azad University	0.21	4.00	0.82			
	<b>O2</b> : Alignment with the 6th Development Plan and the Comprehensive Scientific Map of the country and higher education programs in health	0.19	3.77	0.72			
	O3: The attention of governmental institutions to arts and humanities in medical sciences and the possibility of patenting	0.20	3.62	0.74			
	<b>O4</b> : The existence of similar initiatives in other countries integrating art and medical education and the possibility of modeling and localizing them	0.14	3.08	0.44			
	O5: Existence of related tourist attractions	0.09	3.08	0.28			
	O6: Signing a Memorandum of Understanding with the Arts Faculty of Birjand University	0.17	3.38	0.26			
Threats	<b>T1</b> : Instability of managers and, to some extent, programs in upstream institutions (Elimination of arts and health program from Region 9)	0.47	1.23	0.58			
	T2: Approval of similar programs at the national level	0.24	1.85	0.44			
	T3: Insufficient awareness of the country's scientific community in this regard	0.28	1.69	0.48			

The overall average score for internal strengths and weaknesses was 2.62, while the overall average score for external opportunities and threats was 2.42. Based on these scores, the SWOT matrix analysis positioned the program in a "strength-opportunity" or "developmental" situation (Figure 1). This indicated that the program's strengths outweigh its internal weaknesses and that opportunities outweigh external threats. With strong developmental strategies, the program could achieve success in integrating humanities into medical education. The mean total scores for the various items constituting internal strengths and weaknesses, as well as external opportunities and threats, were compared based on demographic characteristics (Table 3). The t-test results showed that only the mean total scores for strengths were significantly higher for women than for men. However, considering all internal and external factors, no difference in the university's status was observed between the two genders. It is noteworthy that the overall status of BUMS in terms of internal strengths and weaknesses, as well as external opportunities and threats, is not affected by

demographic characteristics. Additionally, the regression results showed no association between teaching experience and internal strengths and weaknesses or external threats and opportunities (Table 4).

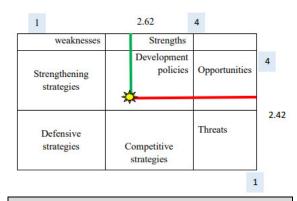


Figure 1. SWOT analysis matrix of integrating humanities in medical education

## **DISCUSSION**

This study examined the internal and external factors influencing the integration of humanities into the medical curriculum through arts. It employed a SWOT matrix to evaluate these factors and put forth effective implementation strategies. The findings revealed that Birjand University of Medical Sciences is in a developmental (opportunitystrength) stage regarding the integration of humanities into medical sciences using art. This represents the most favorable situation with the least environmental fluctuations. This position indicates that the organization has ample opportunities in its external environment and substantial strengths internally. In this scenario, active expansion of activities takes centeral stage. An organization in this position is expected to act aggressively by capitalizing on existing opportunities and strengths. Strategies are developed in this situation to highlight Birjand University of Medical Sciences' competitive advantages. These policies address suggested solutions for utilizing strengths effectively to capitalize on emerging opportunities. Given these findings, strategy development should prioritize the combination of strengths and opportunities to achieve the desired outcome.

A key strength of Birjand University of Medical Sciences in integrating the humanities into medical education through art lies in its faculty members and experts, as well as the support of the university's educational vice-chancellery for advancing the art-based humanities and medical education curriculum. Consistent with this finding, a strategic analysis of the Department of Medical Management and Information Science in Isfahan also identified the presence of young, motivated, and specialized faculty members in their respective fields as a major strength (14). An analysis of the status of accountable medical education at Kerman University of Medical Sciences from the perspective of clinical faculty members also highlighted the collaboration between faculty members, experts, and students as a major strength (15). Other strengths of Birjand University of Medical Sciences included the implementation of art and medical education activities under the special mission of art and health (2015-2020), gaining experience and establishing connections with art experts, conducting national-level research (three projects at the National Center for Strategic Research), being in line with the academic differentiating areas of Birjand University of Medical Sciences, producing educational content related to humanities and medical education (publishing and editing books), and holding an art and medical education panel at the National Congress of Art and Health in Neyshabur (2018). These indicated that Birjand University of Medical Sciences has the potential to be a pioneer in integrating humanities into medical education through arts.

While it had several strengths, there were also areas that require improvement. These weaknesses included the lack of full-time geographical faculty members, the absence of a fixed and forward-looking plan, the inflexibility of other faculties in implementing the curriculum in accordance with approved curricula, and the instability of university managers. A previous study identified the lack of a follow-up system as a major weakness of the accountable medical education program at Kerman University of Medical Sciences (15). In line with the findings of this study, a strategic review of the School of Medical Management and Information Science at the University of Isfahan also identified the instability of managers as a major weakness (14). According to the participants of the study, several factors were identified as external opportunities for the development of art and medical education at Birjand University of Medical Sciences. These factors included the attention of governmental bodies to arts and humanities in medical sciences, the possibility of patent registration, alignment with the Sixth Development Plan and the Comprehensive Scientific Map of the country and the Higher Education Plan for Health, the existence of the Faculty of Art and Humanities in Birjand, the signing of a memorandum of understanding with the Faculty of Art at Birjand University, the presence of similar projects in integrating art and medical education in other countries and the possibility of modeling and localization, and the existence of related tourism and tourist attractions. Similar to the present study, the attention of the country's macro-management, such as the Ministry's emphasis on establishing new undergraduate and graduate programs, has been an opportunity for the Faculty of Management and Information Science in Medicine (14).

The insufficient awareness among the country's scientific community regarding the integration of arts and humanities into medical education, coupled with the instability of leadership and, to some extent, programs in higher-level institutions, could pose a threat to the development of this field. The level of community awareness is a crucial factor in strategic analysis, as evidenced by the fact that increased community awareness has been identified as the primary opportunity for the accountable medical education program at Kerman University of Medical Sciences (15).

Prior research has demonstrated that CEO turnover significantly impacts managerial accountability, and leadership instability in educational systems leads to a decline in organizational commitment among managers (16). This instability hinders the implementation of necessary changes for new educational structures and reduces organizational performance (17). Each university employs unique strategies tailored to its specific context. Nonetheless, all universities seek strategies that leverage their strengths and opportunities to address their challenges and threats

Table 4. Correlations between the history of educational activity (in years) and the scores of the questionnaire sections

Threats Opportunities Weaknesses Strengths Pearson Correlation

-0.33 (0.26) -0.08 (0.79) -0.03 (0.91) -0.03 (0.90) Educational experience - correlation (significant level)

#### Table 5. Developmental or aggressive strategies

#### Development (aggressive) strategies SO (Optimal use of capabilities and opportunities)

Advancing medical school infrastructure and equipment for institutionalizing medical humanities with an arts approach for the general medicine program

Development and promotion of interdisciplinary educational capacities

Development of arts-based educational technologies

Development and empowerment of influential employees and researchers per the needs of the university and society

The development of comprehensive measures regarding arts-based medical education with an approach to integrating humanities into medical sciences

Development of research infrastructure

#### Strengthening strategies

Support for professors, students, and staff who are active in the fields of art and medical education

Modifying the organizational chart of education at the university

#### Competitive strategy

Cooperation with other universities in art and medical education studies (medical humanities)

#### Consolidation (defensive, survival) strategies

Compilation of the university's green book

Promoting the awareness of the scientific community across the country

while simultaneously pursuing development, alignment with emerging technologies, and their overall objectives. In light of these findings, strategic planning should emphasize the integration of strengths and opportunities to achieve desired outcomes. Considering the current status of Birjand University of Medical Sciences, most of the arts and developmental medical education strategies are growth-oriented or aggressive. These developmental strategies are outlined in Table 5.

The proposed strengthening strategies, which highlighted the developmental (aggressive) nature of the University of Birjand's strategies, seek to increase opportunities while mitigating weaknesses. Additionally, collaboration with other universities will be fruitful in empowering the university against the threats of competitive strategies. To minimize weaknesses and threats, consolidation (defensive, survival) strategies have been proposed to structurally and fundamentally strengthen the integration of medical and humanities curricula (Table 5).

# LIMITATIONS

This study presented a novel and innovative approach to the context of medical humanities and arts in medical education, offering a new perspective on the so-called overlooked curriculum. However, it has certain limitations. These limitations include the small sample size, the lack of

generalizability of the findings to other medical universities in the country, and the unfamiliarity of faculty members with the concepts of arts and medical humanities in medical education.

# **CONCLUSION**

The findings of this study indicate that the integration of humanities into medical education through arts is still in its developmental stage. Therefore, when planning to integrate humanities into the medical curriculum, it is necessary to employ developmental strategies that empower staff and utilize experienced faculty members.

# **Ethical considerations**

Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc. have been completely observed by the authors. This study has been approved by the Research Ethics Committee of the National Center for Strategic Research in Medical Education, the ethical code: IR.NASRME.REC.1400.255

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