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## ORIGINAL ARTICLE

### Development of a Tool for evaluating the Social Capital of the academic system in Mashhad University of Medical Sciences in 2020

Background: Universities are the first line of social capital production centers in every society, among which the medical universities are the most important because of their great duties to promote common health services and educate professional students. Despite this, there is no standard social capital assessment tool in medical science university in Persian. Therefore, the present study was designed to develop a tool for measuring social capital in Mashhad University of Medical Sciences, in order to improve the level of social capital of faculty members, staff, and managers to have a significant impact on the development of this index in the field of health education and student performance.

Methods: Integrating quantitative and qualitative method has been applied in the present study in Mashhad University of medical sciences during 2019-2020. In the quantitative part, different variables affecting on social capital were obtained using related literature reviews and then they were finalized using Delphi method and expert panels' opinions. In the qualitative part, a proper questionnaire prepared and data analysis performed using structural equation method. Finally, descriptive statistics methods were used to characterize the sociological features of the sample and confirmatory factor analysis was used to evaluate the social capital model. Lights Pression 3.8 and LISBEL version 3.8

social capital model, using SPSS software version 20 and LISREL version 8.8. **Results:** We found 7 dimensions for social capital questionnaire and 27 components affecting on social capital dimensions. We also found that there are more different factors influencing on social capital such as structural, communicational, cognitive, management, organizational, group and individual. Also, the overall reliability of the Social Capital Questionnaire was calculated to be 0.893 in Cronbach's alpha, which indicates the high reliability of the research instrument. Moreover the calculated value of t for each factor load of each indicator with its hidden structure or variable is above 1.96. Therefore the Validity of the questionnaire for measuring the concepts can be validated. Conclusions: Based on the findings of this study; we observed that effective components to develop the social capital model in Mashhad university of medical sciences include the component of social accountability system in the structural dimension of social capital, trust in the communication dimension of social capital, perception of justice and job satisfaction in the individual dimension of social capital, and knowledge sharing in the organizational dimension of social capital. These components should be socially noticed by university faculty members.

Keywords: Social Capital, University of Medical Sciences, Health System, Research instrument

# طراحی ابزار سنجش سرمایه اجتماعی نظام آموزش عالی در دانشگاه علوم پزشکی مشهد در سال ۱۳۹۹

زمینه و هدف: با عنایت به این مهم که دانشگاه کانون تولید سرمایه های اجتماعی است و دانشگاه علوم پزشکی به لحاظ اهمیت ارائه خدمت در شرایط بحرانی و تربیت دانشجویان فرهیخته، بسیار حائز اهمیت است. با این وجود، تا به حال ابزار استاندارد برای سنجش سرمایه اجتماعی در دانشگاه علوم پزشکی به زبان فارسی طراحی نشده است. لذا مطالعه حاضر با هدف تدوین ابزار سنجش سرمایه اجتماعی در دانشگاه علوم پزشکی مشهد طراحی شده است، تا با ارتقای سطح سرمایه اجتماعی اعضای هیأت علمی، کارکنان و مدیران دانشگاه تأثیر بسزایی در توسعه این شاخص در حیطه آموزش حوزه سلامت و عملکرد دانشجویان داشته باشیم.

روش: این مطالعه یک مطالعه ترکیبی (کمی-کیفی) می باشد که در دانشگاه علوم پزشکی مشهد در طی سال های ۱۳۹۸-۱۳۹۹ انجام شده است. در مرحله اول، با بررسی متون مرتبط، متغیرهای موثر بر سرمایه های اجتماعی، استخراج شدند سپس متغیرهای استخراج شده با استفاده از روش دلفی و پس از رسیدن به اجماع نظر خبرگان نهایی شدند. پس از این در بخش کمی، پرسشنامه مرتبط با ابعاد نهایی تهیه و برای تحلیل داده ها از روش معادلات ساختاری استفاده شده است. در نهایت برای تحلیل داده های مرحله دوم، از روش های آمار توصیفی برای تشریح ویژگی های جامعه شناختی نمونه و از تحلیل عاملی تأییدی و نرم افزارهای SPSS نسخه ۲۰ و لیزرل نسخه ۸/۸ برای ارزیابی مدل سرمایه اجتماعی استفاده گردید.

یافته ها: هفت بعد برای پرسشنامه سرمایه اجتماعی شناسایی شده و برای ابعاد سرمایه اجتماعی تعداد ۲۷ مؤلفه گزارش شد. نتایج تحقیق نشان داد، عوامل زیادی بر سرمایه اجتماعی مؤثر هستند از جمله آن عبارتند از عوامل ساختاری، ارتباطی، شناختی، مدیریتی، سازمانی، گروهی و فردی. همچنین پایایی کلی پرسشنامه سرمایه اجتماعی ۱۸۹۳ بر حسب آلفای کرونباخ محاسبه شد که نشان دهنده قابلیت اعتماد (پایایی) بالای ابزار تحقیق را دارد و مقادیر محاسبه شده ۲ برای هر یک از بارهای عاملی هر نشانگر با سازه یا متغیر پنهان خود بالای ۱۸۹۶ است. لذا می توان روایی سوالات پرسشنامه برای اندازه گیری مفاهیم را معتبر نشان داد.

نتیجه گیری: براساس یافتههای این مطالعه، مشاهده گردید که مؤلفه سیستم پاسخگویی اجتماعی در بعد ساختاری، اعتماد در بعد ارتباطی، ادراک عدالت و رضایت شغلی در بعد فردی و تسهیم دانش در بعد سازمانی از مؤلفه های مؤثر در طراحی مدل توسعه سرمایه اجتماعی در دانشگاه علوم پزشکی مشهد بوده که باید مورد توجه ویژه اعضای هیأت علمی دانشگاه قرار گیرد.

واژه های کلیدی: سرمایه اجتماعی، دانشگاه علوم پزشکی، نظام سلامت، ابزار سنجش

## تطوير أداة لتقييم رأس المال الاجتماعي للنظام الأكاديمي في جامعة مشهد للعلوم الطبية في ٢٠٢٠

الخلفية: الجامعات هي الخط الأول لمراكز إنتاج رأس المال الاجتماعي في كل مجتمع ، و من بينها الجامعات الطبية هي الأهم بسبب واجباتها الكبيرة في تعزيز الخدمات الصحية المشتركة و تعليم الطلاب المحترفين. على الرغم من ذلك ، لا توجد أداة قياسية لتقييم رأس المال الاجتماعي في جامعة العلوم الطبية باللغة الفارسية. لذلك صممت الدراسة الحالية لتطوير أداة لقياس رأس المال الاجتماعي في جامعة مشهد للعلوم الطبية ، من أجل تحسين مستوى رأس المال الاجتماعي لأعضاء هيئة التدريس و الموظفين و المديرين ليكون لها تأثير كبير على تطوير هذا المؤشر في مجال التثقيف الصحي و أداء الطلاب.

الطرق: تم تطبيق أسلوب التكامل الكمي و النوعي في الدراسة الحالية في جامعة مشهد للعلوم الطبية خلال ٢٠١٩-٢٠٢٠. في الجزء الكمي ، تم الحصول على المتغيرات المختلفة التي تؤثر على رأس المال الاجتماعي باستخدام مراجعات الأدبيات ذات الصلة ثم تم الانتهاء منها باستخدام طريقة دلفي و آراء لجان الخبراء. في الجزء النوعي ، تم إعداد الاستبيان المناسب و تحليل البيانات باستخدام طريقة المعادلة الهيكلية. أخيراً ، تم استخدام طريقة المعادلة الهيكلية . أخيراً ، تم استخدام طرق الإحصاء الوصفي لتوصيف السمات الاجتماعية للعينة ، و تم استخدام تتحليل عامل التأكيد لتقييم نموذج رأس المال الاجتماعي ، باستخدام برنامج SPSS الإصدار مدر LISREL عليه الصدار مدر

النتائج: وجدنا ٧ أبعاد لاستبيان رأس المال الاجتماعي و ٢٧ مكونًا تؤثر على أبعاد رأس المال الاجتماعي. وجدنا أيضًا أن هناك المزيد من العوامل المختلفة التي تؤثر على رأس المال الاجتماعي مثل الهيكلية و التواصلية و المعرفية و الإدارة و التنظيمية و الجماعية و الفردية. أيضًا، تم حساب الموثوقية الإجمالية لاستبيان رأس المال الاجتماعي لتكون ٢٠٨٩٠ في ألفا كرونباخ، مما يشير إلى الموثوقية العالية لأداة البحث، علاوة على أن القيم المحسوبة لـ لمكل حمل لكل مؤشر بهيكله الخفي أو متغيره أعلى ١٩٦٤. لذلك، يمكن التحقق من صحة أسئلة الاستبيان لقياس المفاهيم.

الخلاصة: بناء على نتائج هذه الدراسة. لأحظنا أن المكونات الفعالة لتطوير نموذج رأس المال الاجتماعي في جامعة مشهد للعلوم الطبية تشمل مكون نظام المساءلة الاجتماعية في البعد الهيكلي لرأس المال الاجتماعي ، والثقة في البعد الاتصالي لرأس المال الاجتماعي ، و و و و و و الله العدالة و الرضا الوظيفي لدى الفرد. بُعد رأس المال الاجتماعي و مشاركة المعرفة في البعد التنظيمي لرأس المال الاجتماعي. يجب ملاحظة هذه المكونات اجتماعيا من قبل أعضاء هيئة التدريس بالجامعة.

**الكلمات المفتاحية:** رأس المال الاجتماعي ، جامعة العلوم الطبية ، النظام الصحي ، أداة الحث

## مشہد یونیورسٹی آف میڈیکل سائنسس میں ماہر افرادی قوت کی جانچ پڑتال کرنے کے لئے سافٹ ویر ماڈل بنانا

بیک گراونڈ: یونیورسٹیاں سماجی سرمایہ یعنی ماہر افرادی قوت کی ٹریننگ کا مرکز ہوتی ہیں اور میڈیکل یونیورسٹیاں اپنے طلباء کے ذریعے یعنی ڈاکٹروں کے ذریعے بحرانی حالات میں صف اول میں رہتی ہیں اور اسی وجہ سے ان کی اہمیت کا اندازہ لگایا جاسکتا ہے لیکن اس کے باوجود فارسی زبان میں کوئی ایسا ٹول نہیں بنایا گیا ہے جس سے میڈیکل یونیورسٹیوں میں ماہر افرادی قوت کا اندازہ لگایا جاسکے ۔ مشہد یونیورسٹی آف میڈیکل سائنسس نے اس غرض سے ایک سافٹ ویر ماڈل تیار کیا ہے ۔

روش: یہ ایک ترکیبی تحقیق ہے جو دوہزار بیس اور اکیس میں مشہد یونیورسٹی آف میڈیکل سائنسس میں انجام دی گئی تھی۔ پہلے مرحلے میں مربوطہ متوں کا جائزہ لیا گیا اور ماہر افرادی قوت پر اثرانداز ہونے والے عوامل بھی نکالے گئے ۔ یہ کام ڈلفی روش سے کیا گیا ۔ اس کے بعد ماہرین کے اتفاق کے بعد اسے حتمی شکل دی گئی ۔ دوسرے مرحلے میں ڈیٹا کے تجزیے کے لئے ایس پی ایس ایس اور لیزرل آٹھ اعشاریہ آٹھ سے استفادہ کیا گیا ۔

نتیجے: ماہر افرادی قوت کے تعلق سے سوالنامے میں سات عوامل شامل ہیں اور ان سات عوامل شامل ہیں اور ان سات عوامل کے ذیل میں ستائیس عناصر شامل ہیں ۔ اس تحقیق سے پتہ چلا ہے کہ بہت سے عوامل ماہر افرادی قوت پر اثرانداز ہوتے ہیں جن میں اسٹرکچرل عوامل، ارتباطی عوامل ، مینجیریل فیکٹرس ، آرگنائزیشنل فیکٹرس اور گروہی نیز فردی عوامل قابل ذکر ہیں ۔ سفاوش: اس تحقیق سے پتہ چلتا ہے کہ اسٹرکچرل لیول پر سماجی مسائل کا حل ، ارتباطی لیول پر اعتماد ، اور عدالت نیز اپنے کام سے راضی رہنا اور آرگنائزیشنل لیول پر طلبہ کو علمی موضوعات میں شریک کرنا شامل ہیں اور ان فیکٹرس پر مشہد یونیورسٹی آف میڈیکل سائنسس کی اکیڈمیک کونسل نے خاص توجہ دی ہے۔

كليدى الفاظ: مشبد ، اكيدُميك كونسل ، ميديكل يونيورستى

### INTRODUCTION

Since modern organizations are increasingly facing with complex and turbulent environments, along with human, financial and economical capitals, another investment is called "social capital" (1). This concept refers to the communications between members of a network as the valuable resource which realizes goals of members through creating norms and mutual trust (2). The social capital that has sociological roots is an appropriate bed for operating from human capitals and it is considered as a way for achieving success (3). The managers and people who can make a human capital in an organization and promote it, make the occupational and organizations success possible (4). Since creating social capital balances the operations and promotes them, considering the specifications of social capital and the advantages, it seems that the managers can promote it via creating special behaviors and norms. The social capital gives meaning to the life of individuals and makes the life more simple and enjoyable (5). The social capital is mainly based on social and cultural factors and its identification is a type of capital; however, in developed countries with considerable management level, or management of organizations and corporations it can make new identification of socioeconomic systems and help managers for directing the systems in a better way (6). Since the voluntary cooperation is the main factor for the effective execution of the strategic decisions of the organization (7) and one of the main challenges of managers is attracting this cooperation and consequences following not cooperating of staff in crisis; therefore, it is expected that the organizations benefiting from the main factor and a rich resources including social capital. So it can provide requirements of strengthening human relations and interactions and provide the participation of staff in realizing organizational goals through the first way (7) (8) . Results of some studies including Jafari et al (2020) with the title of "Investigation on organizational citizenship behavior and social capital in Tehran University of Medical Sciences" showed that the support of citizenship behavior component of staff can increase the social capital in the hospital and the consent and efficiency in the staff (9). Amin Tojar et al (2015) in a research called "the Effect of Social Capital on Organizational Citizenship Behavior: Case Study is the staff in Mashhad" stated that the social capital is one of the key definitions of staff and organizations (10). Also, Hogarh (2015) in a research with the title of "social capital and citizenship behavior for training active persons" through a model stated that how developing social plans are placed in active citizenship behaviors (11). Aryani et al (2012) through a research showed that all indices of social capitals including structural, communicational, and cognitive indices affected the organizational citizenship behaviors (12). Nejatbakhsh Esfahani et al (2012) through a research titled "Studying the relationship between social capital and organizational citizenship behavior in Iran Carpet Stock Company" stated that there was a direct relationship between different dimensions of social capital and organizational citizenship behavior (13).

Also, in the domestic study done by Raznahan and Molaeighara (2016) in a research called "Presenting an inborn models of social capital development", it was mentioned that the consideration and significant importance of social capital should be defined in producing public profitdriven behaviors or in other words, preventing from individual profit-driven libertine behaviors Mostafazadeh and Sadeghi (2014) in a research titled" Designing a Social Capital Development Model in Universities and Higher Education Centers", designed a model for the development of social capital in universities and higher education centers. The statistical analysis of results approved the model and showed the development of social capital in two objective and subjective dimensions and five individual, group, organizational, structural and managerial components and twenty eight accessible indices

In fact, the people's health is more dependent on social

factors and phenomena than medical cares (16). Therefore, the concept of social capital in organizations that offer vital services including universities of medical sciences is more important. Numerous interactions of staff of the university of medical sciences with people and faculty members with students of medical education and the nature of the presented services by them in crises as one of the main fields for establishing social groups and a basis for learning the production of social capital is more important. Also considering the fact that the university is the center of producing social capitals, and faculty members at the university of medical sciences with educating graduates in the field of health and treatment as well as considering the importance of their services which is the administrator of the development of the health of the society, educating and training students in the medicine field are so important; therefore, the social capital development in the medicine training field causes voluntary and citizenship behaviors, increasing quality of services and reducing human faults. Performed studies showed that the social capital development in universities of medical sciences – including Mashhad University of Medical Sciences as the biggest center for offering health services in the East of the country-was not occurred properly and despite the performed researches, the dimensions and the reason were not elucidated correctly. According to this, the researcher seeks for the valid and the stable research methods to study the issue in a disciplinebased manner. Hence, considering the importance of social capitals in the organization, it seems that identifying the available status of planning for development is more important; although, the lack of appropriate tools to do research on the society makes the measurement of social capitals more difficult, it is important to design suitable tools. In addition, in the present research it will be tried to present a model for the social capital development especially for the research statistical society as its goal and the type of offered services to see the strength of human interactions and relations and through the first method of participation of staff and faculty members in realizing goals of the university of medical sciences and promotion of quality of the offered services.

#### **METHODS**

The present study is an applied-combined study. Both quality and quantity analyses were studied at the same time. The present research was performed in two steps, at first, the texts were studied in Google Scholar website and social capital assessment tools were searched and experts were surveyed through the Delphi method and in the second step, the social capital model was assessed. At first, related texts were studied and the variables affecting social capitals were extracted. Then, the extracted components including 39 components in 7 dimensions through the Delphi method were finalized after collecting opinions of experts and 27 components were reduced. According to the basis of the available experiences in this field and as the reviews on former studies compatible with the content analysis technique, the most important factors, components, and indices were identified and determined from the history of the research, as well as the primary conceptual model was formulated.

The statistical society of the study at the first step included 25 faculty members of Mashhad University of Medical Sciences and Azad University of Mashhad. In the selection of experts, two experiencing cases (having more than five years work experience) and scientific experiences (at least Assistant Professors) were considered. Therefore, the selected experts had appropriate scientific and experimental records in this field. From these, 14 persons were faculty members of Mashhad University of Medical Sciences and Azad University of Mashhad and 11 persons were senior managers of Mashhad University of Medial Sciences. The criterion for the entrance of the interviewees to the study was being appropriately familiar with the concept of social capital and having research and training records in this field. The tools for gathering information at the first step were a semistructured and structured questionnaires and the apparent validity of tools were approved by the university experts. The dimensions related to the structure of social capital were determined by the semi-structured questionnaire and through using the structured questionnaire; the experts' team were polled through Delphi method and determined in three steps in connection with components of each dimension of social capital with the Likert scale.

The analysis of the data of the first step was performed in the following way: the opinion of the experts team at each round of using the Delphi method as the Likert scale was scored

from one to five respectively (5: I totally agree, 4: I agree, 3: Average, 2: I disagree, 1: I totally disagree). The criterion for accepting each component at each round was the placement of it in the quarters 3 to 4 (75 to 100 percents) and if the score of the component was placed in this quarter, it could be accepted, if the collective bargaining for the component placed between quarters 2 and 3 (50 to 75 percents) it was sent to the next round of Delphi for re-polling. The components that their collective bargaining was placed between quarters 0 to 2 (0 to 50 percents) were omitted from the model. At each step of Delphi method, the results of the former step together with the related questionnaire were sent for experts. Finally, the components of the model were completed at three Delphi rounds and opinions were collected.

The statistical society at the second step included all experts and managers of Mashhad University of Medical Sciences (regular and contractual staff having two-year work experiences in Mashhad) were 1400 participants, 303 of them were selected using accessible measurement. The measurement tools in the second step included a researcher-made questionnaire for the social capital structure which was available online for the samples and people answered the related questions with personal consent and awareness. For content validity, the Content Validity Ratio (CVR) of 0.78 and Content Validity Index (CVI) of 0.75 were considered (17). Questions with content validity higher than this criterion were entered the questionnaire and their content validity were approved. Finally, for analyzing data of the second step, the descriptive statistical methods were used for describing the sociological specifications of the sample as well as a confirmatory factor analysis was used for evaluating the social capital model.

## **RESULTS**

Totally from analyzing related texts, 39 components were extracted as factors affecting the social capital. The components related to the social capital were structural, communicational, cognitive, managerial, organizational, group and individual. At the first step of research, these variables were sent to experts in the form of questionnaires and after concluding results of experts' opinions via Delphi method and in three rounds, the components affecting the social capital were reduced to 27.

Results of the Quantitative Part

At the second step, 303 participants attended the research and the specifications of the model are mentioned in Table 1.

Table 1. Sociological specification	ations of participants attended the research		
Specifications	Related Specifications	Number	Percentage
C	Male	183	60.4 %
Sex	Female	120	39.6 %
	25 years-old and less	5	1.7 %
	Between 26 to 35 years-old	62	20.5 %
Age	Between 36 to 45 years-old	143	47.2 %
	Between 46 to 55 years-old	75	24.8 %
	More than 55 years-old	18	5.9 %

Table 1. Continued.			
Specifications	<b>Related Specifications</b>	Number	Percentage
	Bachelor's Degree	105	34.7 %
Academic Degree	Master's Degree	121	39.9 %
	PhD Degree	77	25.4 %
O ' ' ' 111 P ''	Expert	224	73.9 %
Organizational Job Position	Director	79	26.1 %
	Less than 5 years	48	15.8 %
Work Records	6 to 10 years	34	11.2 %
	11 to 15 years	90	29.7 %
	16 to 20 years	63	20.8 %
	More than 20 years	68	22.4 %

After ensuring the relationship between the research variables to study the social capital model, the structural equation modeling was used. For this purpose, considering the fact that the structural models were made from two structural and measurement parts, in the measurement part of the model of this research, two confirmatory factor models existed; first the confirmatory factor analysis was used for these two parts, i.e. citizenship behavior and social capital. The results are mentioned as follows.

At first, it should be ensured that we could use the available data for analysis and the considered data for factor analysis were appropriate. For this purpose, the KMO index (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) which is an index of adequacy and the Bartlett test were used. The KMO index should be at least 0.5, a meaningful level of Bartlett test was lower than 0.5 and the related factor loading was more than 0.5 (18). The results of factor analysis were performed using SPSS, Version 20 and LISREL, Version 8.8 for social capital and citizenship behavior structures which are shown in Table No. 2.

According to the data of table No. 2, the KMO was higher than 0.5 and the meaningful level of Bartlett test was lower than 0.5 and the factor load related to each criterion was higher than 0.5. It could be stated that there was an agreement between the achieved results and theoretical structure and the factor models were confirmed.

The calculated "t" value for each factor loads of each indicator with the structure or the hidden variable was higher than 1.96. Therefore, the validity of questions of the questionnaire could be shown valid to measuring concepts. Actually, the table No. 3 shows that whatever the research

intended to assess through questions of the questionnaire, it was realized by this tool made by the social capital model with the approach of citizenship. Also the relationships between structures will be referable.

## DISCUSSION

As stated above, the social capital is among the most important resources of power in human groups and societies. At the present essay, with the aim of designing a tool for assessing social capital in higher education system of Health field, identifying and extracting dimensions and components of social capital by the researchers of this field, were the most important dimensions and components that were designed in a model frame. As mentioned before, no similar research has designed a model along with the social capital development in Universities of Medical Sciences. The available models showing dimensions and different components of the social capital are seen in studies of Nahapiet and Goshal, Putnam, Stone and Fukuyama and it can be said that all the models tried to cover a part of the concept of Social Capital (19) (20) (21) (22). While we are sure to consider the designed model at the present research a consistent model, it includes all dimensions of the concept of social capital. Also, we can rarely find a research that has consistently designed social capital assessment tools at Universities of Medical Sciences of the country as it was performed at the present research.

The main requirements for moving toward the social capital development and as the current status of the country (Corona Pandemic), it is highly important to provide the possibility of more appropriate management for current crises.

Table 2. Confirmator	ry Factor Analys	is for Social Capital an	d Citizenship Behavior	Structures	
Structure	КМО	Bartlett Expressive Level	<b>Explanted Variance</b>	Cronbach's Alpha	Repeated Times
Citizenship Behavior	0.756	P<0.0001	61.23	0.89	1
Social Capital	0.723	P<0.0001	78.76	0.87	1

tructure	Dimension	Criterion	Factor Loading	t-Value	P-Level
		Altruism	0.79	9.365	0.001
		Social Manner	0.80	21.66	0.001
		Loyalty	0.80	11.46	0.001
		Magnanimity	0.84	16.84	0.001
	Individual	Sacrifice	0.88	13.81	0.001
ior		Citizenship Virtuousness	0.91	18.54	0.001
ehav		Respect	0.87	16.90	0.001
Citizenship Behavior		Perseverance	0.89	10.86	0.001
ensk		Voluntary Spirit	0.71	12.37	0.001
Citiz		Mutual Personal Service	0.75	17.50	0.001
		Self-development	0.81	10.94	0.001
		Personal Skill and Expertise	0.86	16.96	0.001
		Organizational Obedience	0.88	14.52	0.001
	Organizational	Organizational Loyalty	0.85	13.77	0.001
		Organizational Participation	0.75	14.28	0.001
		Network Union	0.81	20.68	0.001
	Structural	Network Configuration	0.76	15.94	0.001
		Social Responding System	0.88	12.79	0.001
		Appropriate Organization	0.92	9.31	0.001
	Communication	Friendship	0.81	11.17	0.001
		Reliability	0.90	20.72	0.001
		Mutual Relations	0.79	10.52	0.001
		Common Language	0.80	14.76	0.001
	Cognitive	Values	0.80	8.17	0.001
		Integrity	0.84	21.13	0.001
		Attitude	0.88	14.52	0.001
	Management	Related Training Plans	0.91	15.41	0.001
oital		Sociability Plans	0.87	11.32	0.001
Social Capita		Decision-making Method	0.89	20.55	0.001
ocia		Negotiation Strategy	0.71	15.78	0.001
<b>0</b> 1		Organizational Policy	0.75	15.78	0.001
	Organizational	Organizational Spirituality	0.81	11.71	0.001
		Quality of Work Life	0.86	15.54	0.001
		Knowledge Sharing	0.88	10.19	0.001
		Flexible Policy	0.79	18.15	0.001
	Group	Collective Identity	0.89	10.21	0.001
		Common Values	0.84	9.59	0.001
		Norms of Group Behavior	0.79	12.56	0.001
	Individual	Commitment	0.80	21.56	0.001
		Patience	0.80	11.53	0.001
		Justice Perception	0.84	13.46	0.001
		Job Satisfaction	0.88	20.89	0.001

The comparison of the current research at this part showed that although the results had relative convergence with some other research, they did not correspond with other research including the research of Mostafazadeh and Sadeghi (2014) with the title of "Designing the social capital development model at universities and higher education institutes", since the results of dimensions were different from the current research. They designed a social capital development model at universities and institutes of higher education. The results of statistical analysis of the model confirmed and showed the social capital development in two objective and subjective dimensions and five individual, group, organizational, structural, and managerial components and twenty eight accessible indices. This difference in results can be the main difference of organizations of the universities affiliated with ministry of health with other universities, because at universities of medical sciences following interactions with people and the type of offering services in crises, the communicational and cognitive dimensions that have more effect on citizenship behavior can have significant effect on social capital development. In addition, the results of the research by Rashmi et al (2018) (the comparison of the status of social capital from the viewpoint of managers and experts of the education development of universities of medical sciences of the country) showed that the score of the structural capital dimension among experts and managers was lower than two cognitive dimensions and relationship dimension which was similar to this study. According to study performed by Part (1992), the constitutional type of social capital and its structural dimension were introduced because this capital was a structure that was the origin of relationship and cognitive capital. Without the network with physician center (structural capital), there is a low possibility that staff can develop relationships with confidence (relationship capital); however, this prevents from forming common forms and norms in the support of risk taking and performing organizational activities (cognitive capital). In this regard, identified dimensions at the social capital development model at Mashhad University of Medical Sciences match some dimensions of the results of the studies performed by Vans and Papamarkes (2002), Rosalind (2008), Ramstrom (2008), Kasa (2009), Fallah (2019) (Presentation of a framework for reproduction of social capital using metasynthesis approach), research plan (2018) (social capital management scenarios at national, religious and revolutionary occasions), Mir et al (2020) (Designing and testing the social capital development model for marketing banks with the qualitative approach of Phenomenology and its role in loyalty of customers), Sabermaash et al (2017) (Analysis of the moderating role of organizational commitment in connection with social capital and occupational performance), Saki (2019) (Analysis of Aftab Provincial Channel in increasing social capital among workers of Arak city), Banaei et al (2019) (a systematic look on the concept of social capital, the whatness, whyness and howness), Abdollahzadehfard (2018) (Analysis of role of social capital in the development of citizenship behavior of residents of urban areas, case study: Abiverdi area and kouye danehgah of Shiraz).

The results of the research as the former models and available analysis at this research provided the possibility for studying the status of social capital at the university through making questionnaire tools. The considerable note is that the tool has been designed as the available factors of social capital in the university and it has completely been corresponded to the available conditions of the university and medical education field.

Finally, considering results and findings from the present research and the importance of the subject at universities of the country especially Mashhad University of Medical Sciences, the researcher presents the following conclusion as the findings and experiences in this study and it can surely affect the designing social capital development model at Mashhad University of Medical Sciences.

Results of the research from the responses to the research questions are as follows:

Question 1: What are dimensions of social capital development model appropriate for Medical Sciences University of Mashhad?

Considering the results of the present study, in response to question one, dimensions of social capital development model appropriate for Mashhad University of Medical Sciences are structural, communicational, managerial, organizational, group and individual models.

Some suggestions and solutions are recommended in the following:

Considering the role and place of social capital in development and progress of the country especially in scientific affairs of the medical education field, the faculty members and managers of Mashhad University of Medical Sciences should pay attention to all dimensions and components that made the suggested social capital development model at Mashhad University of Medical Sciences and consider required planning for social capital development at Medical Sciences University of Mashhad. In fact, faculty members and managers of the organization should pay attention to structural, communicational, managerial, organizational, group and individual dimensions of social capital.

In this regard, if the faculty members and senior university managers can increase the social capital in universities, it can be predicted that the operation in the medical education field and offering services in universities will be significantly increased. The social capital supervises a social-structural resource and it is assets of individuals and facilitates the entrance of persons to social actions. Some experts know this capital as a dynamic item and the most important item of the social-cultural system of the society.

According to the findings of this study it is suggested that managers and heads of Mashhad University of Medical Sciences have special attention on individual, group, and organizational dimensions at social capital variable. Since these dimensions have highest average grade among study dimensions and also has lower standard deviation or it has the most homogenous responses. (i.e. the disagreement of experts in connection with these dimensions were lower that other dimensions). Therefore, according to the components of this dimension the following suggestions are mentioned:

- The place of social capital should be determined in the manifesto and prophecy of the university.
- The managers, deputies, professors, and students should have citizenship behavior approach.
- They should support social capitals.
- They have to pay attention to the development of social capital level at medical education field, processes and performances.

And finally according to the findings from this study it was seen that the social responding system in the structural dimension, the trust in the communicational dimension, the perception of justice and job conception of the individual dimension and dividing knowledge in the organizational dimension are effective components in designing the social capital development model at Medical Sciences University of Mashhad that should be specially considered. Because these components were considered at other models and theories related to designing social capital-social development model and no attention was paid to it, so according to the results of this research, the experts and pundits at Mashhad University of Medical Sciences paid attention to the components and knew it more effective in the path of social capital at Mashhad University of Medical Sciences. Therefore, it was the turning and modern points of this study as its dimensions and components.

We hope that with more efforts to the importance of the social capital at Mashhad University of Medical Sciences, some steps will be taken for increasing efficiency in the medical education field and optimizing the performance of staff and students and voluntary and citizenship behaviors to increase quality of services and reduce human defects. So it can finally cause development of health within the society and training educated students.

#### **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. The ethics committee of Mashhad University of Medical Sciences approved this research, ethics code IR.MUMS.REC.1398.075.

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