

# Dissatisfaction between medical providers and patients in the Republic of Kazakhstan.

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## Research article

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# Abstract

The continuous increase in dissatisfaction among patients toward health care providers remains high in the Republic of Kazakhstan. To confirm the researcher's previous results and see any other possible outcomes in the present study, we decided to investigate randomly selected patients and health care providers from both private and state medical hospitals. We investigated the possible factors in miscommunication between health care providers and patients to understand and discuss this demand and to develop recommendations for further improvement. The cross-sectional study of 500 patients (response rate, 85.4%) and 500 health care providers (response rate, 86.4%) from some private and state hospitals in the city of Nur-Sultan, Kazakhstan, was carried out based on their answers from a questionnaire containing the Patient-Practitioner Orientation Scale (PPOS) and scales assessing life and job satisfaction, job effort-job reward balance, and patient evaluation of communication. Our study showed that the majority of health care providers and even patients were doctor-centered. The patient-centered orientation of health care providers was negatively correlated with age ( $P=0.000218$ ) and life satisfaction ( $P=0.000001$ ). In patients, contrarily, patient-centeredness was enhanced by higher life satisfaction ( $P=0.040$ ), although negatively correlated with age ( $P=2.659E-21$ ). This study has demonstrated that younger health care providers and those with lower life satisfaction are more patient-centered. Older respondents and those with higher life satisfaction, in contrast, reported doctor-centered attitudes. The majority of younger patients have a stronger belief in good health associated with patient-centered care whereas the older population preferred a more doctor-centered care. In all patients, the preference of patient-centered care was associated with higher satisfaction in life.

# Background

Patient-centered care is an important aspect of high-quality care. [1]. "Patient-centered medicine" was first described by Balint in 1970 [2]. Since then, the term has become well-known in modern developing medicine. Medicine's regard for the patient's decision has become essential in modern medical care system. Even though, historical evidences show that initially the medicine has been mostly physician-centered, recently high-quality care is defined to be secure, effective, impartial and patient-centered by the Institute of Medicine [3]. The reason is that without patient-centered medicine, communicative and informative patients, doctors cannot perform their job accurately. Physicians can expertise and help the patient if only the patient will discuss and talk about its symptoms as patients are experts who experienced their own diseases [4]. Some countries make disorganized and ineffective steps in the process of the transformation to predominant patient-centered medicine. Such countries mainly keep the doctor-oriented system. The previous and current research mainly focuses on possible reasons for physician-oriented system of Kazakhstan [5]. During Soviet period, the country was affected by many political and economical factors that caused the lag in many social scopes including medicine. However, since independence of the country, it showed significant progress in the medical sphere, although still shows the inclination to doctor-oriented care [6]. The sufficient flow of budget and enough amount of facilities and equipment usually provide good treatment, and lack of them might be the reason for

maintaining doctor-oriented system. De Man claims that health system's compulsion about patient-centered care relates to the weak structural health system elements. He emphasizes that underfunding, lack of important medical equipment leads to non-qualified medical workforce [3,4]. According to the research provided in Iran quality of healthcare is directly dependent on the availability of resources [5]. But at the same time some articles shows that new technologies and equipment not the only solution for patient-centered care. [1]. Organizational factors that influence the use of technology include policies, resources, culture, social norms, management commitment, training programs, and employee empowerment. It has been noted that the effects of implementing technology—for example, information technology—can vary widely depending on the setting, [7] presumably due to differences in the social-organizational environment such as workflow, work tasks and processes, and the people in the environment. [8]. Such issues has been reported by highly equipped general hospitals in the developed countries [1, 7, 8], which deliver annual feedback of common errors including patient-centered care which helps to improve in case of failure. Some doctors Sub-Saharan African health system exemplifies the results of poor medical condition [3]. For instance, Democratic Republic of Congo struggles with the poor policies on human resources, inadequate medical training programs, and unrestrained increase in number of private clinics which poorly follow regulated health systems [3]. Implementation of the high technologies in the hospitals extremely important to increase the quality of medical care rather than for patient-centered care which requires more complex approach involving social, professional, ethical and cultural norms [6].

The absence of such approach affects the overall performance of the treatment where miscommunication is one of the outcomes breaching the norms of patient-centered interaction. According to Commonwealth's fund study in developed countries like USA, Australia, Canada, the doctor-patient relationship shows a satisfactory level [9]. This was due to various factors, for example, in the US, the four-fifth of doctors made specific plan of treatment for every patient taking into account the preferences of patients showing serious doctor's attitude to the patient. Also, the same study showed that more than the half of physicians asked the patients for their opinions about the treatment, which is of high importance in patient-centered care.

Another reason for staying behind the current system might be patient's mistrust to its doctors [10]. Patients barely trust the physician who do not behave well with them or show harshness, reluctance. In such situation, it is almost impossible to build adequate doctor-patient relationships. In turn, this impedes the implementation of the patient-centered care. For patient, it is essential when the physician involves the patient to the communication and decision-making process. This really helps make the process of the consultation more efficient and advantageous for both sides. The doctor can help the patient and make better decision, in addition, this makes the patient feel the responsibility for its health, which might impact the person's further careful attitude to its health. Some believe that sensitive and courteous physicians can communicate better with patient and obtain patient's full trust [10].

Patient-centered care involves the implementation of personal preferences, needs, requirements and good doctor-patient communication which consequently lead to the proper treatment of the patient. Meanwhile,

there are many other factors which affect the physician's performance, like the level of proficiency, skillfulness, working conditions and etc. Physicians should communicate on the way of relationship with trust and confidence on what they prescribe and what they perform or suggest. However, the physicians with the lack of knowledge, or some skills usually fail to provide high quality care which leads to mistrust by patients and other negative outcomes [6,9,10].

In the previous study we mentioned that current policies focus on punishing organizations for high complaint ratings instead of examining the problem for possible solutions and we examined the orientations of doctors and patients during the visit to doctor to explore the role of the perceptions and expectations of doctors and patients about themselves and each others. We hypothesized that a majority of doctors and nurses in hospitals of Astana city, Kazakhstan, would not be patient-centered and a majority of patients would be; thus, the lack of congruence could be leading to patient dissatisfaction with care. But results showed that besides medical personnel the majority of patients were also doctor-centered [6].

In this study we want to confirm our previously investigated hypothesis on newly collected data from doctors, nurses and patient from different medical clinics in the city of Astana.

## Methods

### Participants

We asked 500 medical providers to participate in the study, and 432 agreed to fill out the questioner; the response rate was 86,4%. A total of 500 patients from randomly selected different departments, and 427 patients were agree to take a part of this study; the response rate was 85,4%. All medical providers were randomly selected from different departments to obtain a representative sample of the hospital staff. There were no missing data in the survey responses.

### Ethical consideration

Full ethical approval was received from the Institutional Research Ethics Committee at Nazarbayev University, Nur-Sultan, Kazakhstan and complied with the Declaration of Helsinki Ethical Principles for Medical Research. Permissions and approvals were obtained from hospitals management. Prior to participation, the participants were provided with detailed information about the study in Kazakh and Russian languages. Written consent was obtained for each participant.

### Questioners

The Provider-Patient Orientation Scale (PPOS)<sup>18</sup> was developed to assess doctors' and patients' orientations toward one another during the doctor visit. We chose the PPOS because it can compare both provider and patient orientations to check for congruence. The original PPOS contains 18 questions, responses are recorded on a 6-point scale (higher score means more patient orientation), and the

response scores are summed. We used the original PPOS with 6-point scale for all provider participants. To check the consistency in meaning the PPOS was translated from English into Russian and back into English.

Patients were asked to read each item and mark the appropriate circle to indicate how much they agreed or disagreed with each option: strongly agree, moderately agree, slightly agree, slightly disagree, moderately disagree, strongly disagree.

Several other potentially relevant scales were included on the questionnaire for doctors, nurses, and patients: the Satisfaction with Life Scale (5 items),<sup>21</sup> the Job Satisfaction Scale (16 items),<sup>22</sup> and the Effort-Reward Imbalance Questionnaire (22 items). The imbalance between effort and reward was measured by the ER ratio, with effort score being the numerator and reward score the denominator, multiplied by a correction factor to allow for unequal number of questions in the numerator and denominator, as previously proposed by Siegrist et al.<sup>23</sup> For patients only, we included the Communication Assessment Tool for Patients (15 items).<sup>24</sup> Patients do not consistently see the same provider because of Kazakhstan's healthcare delivery system, so the responses to this scale reflect general experiences rather than experiences with specific providers. In addition to the previous measures, the demographic characteristics age and sex were collected for all participants, and type of provider (doctor or nurse) and department were collected for providers.

## Data analyses

All questions were coded in the same direction (higher score means more patient orientation) and summed. The PPOS mean was calculated by dividing the sum by the number of responses. PPOS mean was dichotomized with the cutoff point at 3.5 points (the midpoint between disagree and agree). The binary variable was calculated by collapsing categories: strongly disagree, somewhat disagree, and disagree on the one hand (value 1) and strongly agree, somewhat agree, and agree on the other hand (value 2). Similar binary variable was created for patients by collapsing strongly and slightly disagree (value 1) and slightly and strongly agree (value 2); again, the cutoff point was at 3.5 points.

Descriptive analyses of the binary measures of provider-patient orientation were conducted using cross-tabulations, calculation of percentages, and chi-square tests. Associations of the provider-patient orientation with covariates were assessed using Pearson correlation coefficients and linear regression. In additional sensitivity analyses, multivariable logistic regression (binary provider-patient orientation outcome variable) and linear regression (continuous binary provider-patient orientation outcome variable) were used to adjust for all other available covariates, using the maximum number of participants with valid data in a given model. Differences in mean scores were analyzed by analysis of variance (ANOVA). SPSS Statistics software was used for all analyses.

# Results

## Demographic Characteristics

Patients were similarly distributed throughout the age groups. However, doctors and nurses were distributed more heavily in the younger age groups. The nurses were almost all female, while the sex distribution of doctors was similar to that of patients. The distribution of participants by age and sex is shown in Table 1. We found no differences in the sex distribution of providers between different hospital departments.

Table 1  
Distribution of respondents with valid data on the provider-patient orientation scale by age and sex

<b>Variable</b>	<b>Doctors N = 311</b>	<b>Nurses N = 121</b>	<b>Patients N = 427</b>
Age group			
≤ 30 years	35 (11.3%)	44 (36.4%)	96 (22.5%)
31–40 years	114 (36.7%)	46 (38%)	132 (30.9%)
41–50 years	101 (32.5%)	24 (19.8%)	107 (25.1%)
51–60 years	49 (15.8%)	7 (5.8%)	75 (17.6%)
> 60 years	12 (3.9%)	0 (0%)	17 (4.0%)
Sex			
Male	95 (30.5%)	14 (11.6%)	150 (35.1%)
Female	216 (69.5%)	107 (88.4%)	277 (64.9%)

#### PPOS Data for Providers (Doctors and Nurses)

We found no significant differences in PPOS scores between doctors and nurses or between male and female providers (doctors and nurses).

Table 2 shows the proportions of providers who could be characterized as patient-oriented. Two features are noteworthy. First, the vast majority of providers were doctor-oriented. Overall, only 10,6% of providers identified themselves as patient-oriented. Second, the proportions were similar between males and females, but the proportion of patient-oriented providers was smaller among doctors (8,7%) than among nurses (15,7%). The proportion of patient-orientated providers is higher among the ages of 31–40 years old (16,2%) and 41–50 years old (10,4%) than among the ages of younger than 30 years old (5,1%) and older than 50 years old (5,3%).

Table 2  
Patients-oriented providers and patients with valid  
data on the provider-patient orientation scale.

<b>Variable</b>	<b>Providers N = 432</b>	<b>Patients N = 427</b>
Overall	46/432 (10.6%)	59/427 (13.8%)
Sex		
Male	12/109 (11%)	22/150 (14.7%)
Female	34/323 (10.5%)	37/277 (13.3%)
Provider		
Doctor	27/311 (8.7%)	
Nurse	19/121 (15.7%)	
Age group		
≤ 30 years	4/79 (5.1%)	18/96 (18.7%)
31–40 years	26/160 (16.2%)	21/132 (15.9%)
41–50 years	13/125 (10.4%)	8/107 (7.5%)
51–60 years	3/56 (5.3%)	6/75 (8.0%)
> 60 years	0/12 (0.0%)	6/17 (35.3%)

#### Ppos Data For Patients

Table 2 shows the proportions of patients who could be characterized as patient-oriented. Overall, the proportion of patients who identified as patient-oriented (13,8%). Proportion of patient-orientation among the patients was higher among the ages ≤ 40 years old (34,6%) and ≥ 60 years old (35,3%).

#### Other Variables for Providers and Correlations with PPOS Data

The other variables collected from providers were life satisfaction, job satisfaction, job effort, job reward, and the ER ratio as a measure of ER imbalance. Most variables were distributed symmetrically, and we found no major differences between doctors and nurses or between males and females. Table 3 shows the correlation coefficients between the PPOS and other factors measured in providers. Correlation coefficient estimates the direction and strength of association between 2 continuous variables; the square of the coefficient indicates the proportion of variation in dependent variables (PPOS) explained by independent variables.

Table 3  
Correlation between provider-patient orientation scale (PPOS)  
and covariates for providers (n = 432)

Variable	Correlation coefficient	P value
Age	-0.18	0.000218
Sex	-0.05	0.305
Doctor/nurse	0.001	0.976
Life satisfaction	-0.23	0.000001
Job satisfaction	0.07	0.158
Job effort	0.002	0.962
Job reward	0.02	0.685
Job effort-reward ratio	-0.016	0.742

There was a negative correlation between PPOS and age (R -0,18, P value 0,000218), and PPOS and life satisfaction (R -0,23, P value 0,000001).

The correlations between PPOS and other variables for patients suggest that life satisfaction was significantly associated with PPOS; patients with higher scores on life satisfaction were more patient-oriented (R 0,44, P value 2,659E-21). Age variable was inversely associated with PPOS; elder patients were less patient oriented (R -0,10, P value 0,040). (Table 4).

Table 4  
Correlation between provider-patient orientation scale (PPOS) and  
covariates for patients (n = 427)

Variable	Correlation Coefficient	P value
Age	-0.10	0.040
Sex	0.02	0.680
Life satisfaction	0.44	2.659E-21
Communication assessment	0.08	0.094

#### Comparing the PPOS between Providers and Patients

Using dichotomized PPOS scale with a cutoff at 3.5 points, the proportion of patient-oriented participants was highest among nurses (15,7%) compared to 13,8% of patients and 8.7% of doctors. The difference between the 3 groups was marginally statistically significant (P = 0.049). (Not shown in the table). In

multivariable analysis, the difference between providers and patients could be explained by adjustment for age (OR:1,07 (95%CI 1.00-1.15), P value 0,040 – for nurses) and for life satisfaction (OR:0,19 (95%CI 0.08–0.50), P value 0,01- for nurses; OR:1,99 (95%CI 1.59–2.49), P value 1,261E-9 - for patients) (Table 5).

Table 5

Effects of covariates age, sex and life satisfaction (SLS) on the PPOS\* in providers (doctors/nurses) and patients

Covariate	Doctors N = 311		Nurses N = 121		Patients N = 427	
	OR (95%CI)	P Value	OR (95%CI)	P Value	OR (95%CI)	P Value
Age	0.98 (0.94–1.03)	0.457	1.07 (1.00-1.15)	0.040	1.00 (0.98–1.03)	0.759
Sex**	0.93 (0.39–2.25)	0.875	1.66 (0.36–7.62)	0.513	1.66 (0.88–3.13)	0.114
SLS	0.77 (0.53–1.12)	0.178	0.19 (0.08–0.50)	0.001	1.99 (1.59–2.49)	1.261E-9
*PPOS scale was dichotomized with a cutoff of > 3.5 points						
**Female sex was set as an indicator						

## Discussion

Medical service provided by all medical personnel ought to be safe, compelling, qualified, satisfactory, and centering on the patients [11]. Nowadays, a wide run of constructive approaches, which were developed to handle the doctor-oriented issues begun to be actual around the world. These approaches include trainings as well as workshops such as stress and emotion management, proper motivational interviewing and empathy [12]. They are mostly aimed at teaching doctor-patient communication skills to healthcare professionals, doctors and medical students [13]. Various scholars have revealed that developing skills and qualities mentioned above are crucial for medical residents to reach a patient-centered care [14]. Originally we have been focused on this suggestion that development of doctor-patient communication skills will improve dissatisfaction among the patients, but results of our present study and fact of gradual increase of patients' complaints against medical care providers in Kazakhstan show that probably communication skills is not the only reason of overall problem and require further detailed investigation [15]. The Ministry of Health reported that most of the complaints were based on problems with the organization of medical care and poor quality of medical services, including medicinal provision, qualification and communication provided by medical personnel [15]. From these perspectives we would like to discuss different possible reasons resulted in conflicts between patients and medical providers.

Ministry of Health reports about arrangement of commission, which take over control of all medical providers through assessment of their knowledge and medical skills [15].

Some studies suggested that managerial vertical power of overall political system might affect health care organizations reflecting on quality of the medical care [16]. It was revealed that power is all around us, affecting patients, professionals, and health institutions, and power plays have an important role in all relationships. This was observed in the lack of teamwork due to the interprofessional relationships in a hierarchical structure with vertical power and ineffective communication flows. Considerable evidence supports the idea that interdisciplinarity in the health care system is a fallacy that pervades the institutional discourse but is not practiced in reality [17, 18, 19]. This explains the paradox of teamwork reported in studies by Björkdahl [17] and Ehnfors et al. [18], where a cultural conception of “we work better together” is not efficient in the clinical setting. [20].

On the way from Ministry of Health to the medical practitioner we have endless departments of middle management including administration of the hospitals which responsible for basic organization of work, implementation of facilities, training and etc., which should set up the environment for comfortable interaction between doctors and patients. It is interesting to investigate the efficiency of each hierarchical level of local healthcare management: how good all these levels of organizations and departments are connected, how far they are effective and functional, since their mission is to make medical service processes comfortable and productive.

In most of the cases medical providers are not satisfied with environment developed without taking into account their real needs and problems which they experience during their work. Such discomfort might reflect on the interaction of doctors with their patients which usually come with extremely high expectations of high quality without understanding the above mentioned matters which leads to miscommunication and disappointment in medical care [21]. Such patients can suppress their medical providers expecting doctor-centered approach by receiving medical prescription and cure [22]. For most of the patients it is easier to find solution of their problem through punishment of their doctor rather than to have a discussion or negotiation. This kind of judgment widely practiced at each level of management in any field of our country, which has communistic background and it probably has been reflected on attitude of our population. Some authors discuss about similar issues common among post-communistic countries [23]. All of them describe issues related to paternalism among the doctors and patients followed by punishment which was common during the communist regime. Researchers from post-communists countries describe different ways of their transition from old traditional format of paternalism into patient-centered approach through promotion of autonomy among the patients. Therefore, the widespread introduction of measures aimed at improving doctors and patient safety is of particular scientific and practical interest.

Also, some authors mention that less attention payed to the importance of risk management for orientation of healthcare providers in case of clinical incidence oriented not only on safety of patients but also legal protection of medical providers [16].

Nowadays the healthcare issues are arising in the medical organizations of Kazakhstan. One of the targeted moments for improving safety among the patients and medical providers is the provision of medical care within the framework of the national health care system, focused on international standards, but operating in the legal field of the country. Meanwhile, there are no works in the Republic of Kazakhstan summarizing international experience in managing health care risks. In practice, risk management of US health system today processes such as mandatory registration of incidents and clinical incidents with further screening procedures. Nowadays in Kazakhstan this model was implemented in the hospitals of University Medical Center and successfully underwent accreditation process for JCI international standard. But this is a single case of such experience in Kazakhstan which also requires long term of realization. Some authors identified that quality of medical care should comply with principles of safety, adequacy, high scientific, technological and professional level of providing with economic efficiency for medical facilities [16].

Our study showed high prevalence of doctor-oriented medical providers and doctor-oriented patients compare to patient-centered medical providers and patients.

Traditional and common way of doctor-patient relationship in Kazakhstan is based on paternalistic attitudes which common among the post-communist countries [23]. Patient-centered approach consider patients autonomy defined as the patient's right to make treatment decisions independently, which is widely known but only in theory [23,24]. Nowadays we are on the way to be changed and learn patients' autonomy on practice which is not easy and need to be publicly clarified and promoted. This way of interaction between patients and doctors takes years to be changed [23].

In the previous study we discussed that doctor-patient miscommunication affects overall medical care, but in case of our country we have revealed that miscommunication is just one of the instrument which can fulfil the gap affecting overall doctor-patients interaction. Communication skills between doctor and patients used to be just a part of some clinical subjects in the medical curriculum of all medical schools of our country. From 2017–2018 all medical schools in the Republic of Kazakhstan implemented Communication as a separate and mandatory course in the medical curriculum. Further development of patient-centered communication Guideline based on cultural and local communicative specificities will be essential to be used by practitioners along with as a treatment protocols which help to improve their skills to communicate with patients as important part of treatment rather than emotional communication which always affect overall interaction.

Life satisfaction Scale can become a social determinant of health in our study as one of the major reason of shift from perception of patient-centered care among our respondents into doctor-centered health care. This study has demonstrated that younger health care providers and those with lower life satisfaction are more patient-centered. Older respondents and those with higher life satisfaction, in contrast, reported doctor-centered attitudes. The majority of younger patients have a stronger belief in good health associated with patient-centered care whereas the older population preferred a more doctor-

centered care. In all patients, the preference of patient-centered care was associated with higher satisfaction in life.

In our study we manipulated that at the beginning of career younger health care providers are more enthusiastic with their newly gained skills and helpfulness in society and more patient-oriented due to high expectations from job reward but with years and negative experience in the life due economical instability along with extremely slow progress of salary increase finally leads to emotional distress and low motivation among health care providers and make them less patient-centered even after getting their stability and good salary when they get aged.

Current finding that senior health care providers which were satisfied with life remained to be not patient-centered suggested an area for more detailed investigation and improvement. We suspect that above mentioned tendency might gradually decrease motivation to work in spite of extensive experience. Aged care givers follow the rules and regulations developed by higher hierarchical level of healthcare management which doesn't consider a feedback or direct communication due to the multiple intermediate hierarchical levels of executors so called "middle management". There is no direct exchange and delivery of information about real needs of medical practitioners which could report about existing problems necessary to be solved. It originates from vertical power of local political system reducing motivation at each level coming down due to increased disconnection of upper level management with those which perform their regular work and deliver this regulations to medical practitioners. The best thing about being on the middle of this managerial hierarchical levels is lower responsibility since they are not original developers and neither medical practitioner, they can be considered as transmitters of information but in most of the cases absolutely useless and ineffective [25]. This is one of the reasons why miscommunication will always take a place among our healthcare providers and patients and why patient-orientation will be less possible.

Vertical power and disconnection of workflow due to complex organization of healthcare management leads to reduction of motivation among healthcare providers to be a patient-centered.

Our study showed high prevalence of doctor-oriented medical providers and patients as well. Traditional and common way of doctor-patient relationship in Kazakhstan is based on ethical paternalism widely described in the literature.

## Conclusions

We concluded that regardless of individual socio-economical factors which were included in our questionnaire most of the patients still expect the doctor to be paternalistic [26]. However, many doctors tend to overestimate their ability in communication. [27], Further, the treatment prescribed by the physician may not bring anticipated results. In our study doctor-oriented patients visit doctor-oriented doctors which finally lead to vicious circle of dissatisfaction. We believe that doctor-centered communication among the patients is based on their high expectations from health care providers to

solve any health problems and at the same time we know that lack of patient-centered care among the health care providers leads to distrust and unsuccessful treatment [28].

This attitudinal dispute, which ultimately leads to miscommunication and frustration, is understandably difficult for professionals to contend with. We should rise the importance of promoting the principle of autonomy in medical decision-making among medical providers and patients. The autonomy of patients should be part of the professional duties of the physician's as a core of clinical skills. For this reason, the patient autonomy issues in medical education in Kazakhstan should be devoted to greater importance.

## **Declarations**

### **Ethics approval and consent to participate**

Approved by Institutional Research Ethical Committee on Feb.20,2013. Nazarbayev University, Kazakhstan, Nur-Sultan city.

### **Consent for publication**

Available

### **Competing interests**

The authors declare that they have no competing interests.

### **Author's contributions**

A.Z., B.J.C. – conception and design of study, A.K.-acquisition of data, A.Z.,A.K.-analysis and interpretation of data, literature review and data collection – G.K.,M.K.,A.A.

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