Původní sdělení | Original research article

Rashomon Effect on the Decision Process of Severe Coronary Artery Pathology: "Coronary Artery Bypass Surgery or Percutaneous Coronary Angioplasty"

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"We can't agree on facts and act on perceptions."

Christian Davenport

"If the doors of perception were cleansed everything would appear to man as it is."

William Blake

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SOUHRN

Úvod: Film Rašómon je mistrovské dílo režiséra Kurosawy, v němž svědkové popisují tentýž případ vraždy z různého pohledu. Existuje ale rozdíl v tom, co vidí a jak to vnímají. Tento jev se nazývá Rašómonův efekt. Cílem této studie bylo zjistit, zda nálada lékaře v různém pracovním prostředí má vliv na rozhodování o indikacích a léčbě.

Materiál a metody: Náš vzorek tvořilo celkem 54 lékařů (29 kardiologů a 25 kardiochirurgů), kteří si prohlédli koronarogram pacienta se závažným postižením koronární tepny dvakrát, s odstupem 30–45 dnů v různém prostředí. Pro stanovení nálady po indikování invazivního postupu bylo lékařům položeno 6 otázek. Pro srovnání kategorických údajů byl použit chí kvadrát test. Opakovaná srovnání poměrů se analyzovala pomocí Bonferroniho korigovaného Z-testu. První a druhé klinické indikace se porovnávaly McNemarovým testem podle pacientova koronarogramu v rámci skupiny. Výsledky analýzy byly prezentovány jako frekvence (procento). Statistická významnost byla stanovena na úrovni $p < 0,05$.

Výsledky: Podle kardiologů a kardiochirurgů existuje statisticky významný rozdíl v odpovědích na otázky v závislosti na náladě v prvním a druhém časovém bodu s výjimkou rozdílu v odpovědích v náladě „právě teď jsem v pohodě". V druhém časovém bodu, kdy 55,2 % kardiologů odpovědělo maximálně „naprosto pravda", odpovědělo 64 % operatérů „většinou pravda" ($p = 0,024$). Byl zjištěn statisticky významný rozdíl ($p = 0,041$) mezi kardiology a chirurgy v rozvrstvení klinických indikací podle koronarogramů pacientů při první konzultaci; tedy o samotě, v tichu a při větším soustředění. Zatímco 55,2 % kardiologů odpovědělo „perkutánní", zněla odpověď 76 % chirurgů „operace". Naopak neexistoval statisticky významný rozdíl ($p = 0,136$) v distribuci intervenčních výkonů ve druhé situaci, tedy v přeplněném a hlučném prostředí. Zatímco 51,7 % kardiologů odpovědělo „stent", 72 % chirurgů odpovědělo „operace". Nebyl nalezen žádný rozdíl mezi distribucemi indikací 1 a 2 mezi kardiology ($p = 1$) nebo mezi chirurgy ($p = 1$).

Závěr: Náladu mohou faktory vnějšího prostředí ovlivňovat a někdy mohou působit zmatek. Kardiolog nebo chirurg mohou vědomě nebo nevědomky preferovat konkrétní metodu léčby. To, že nepřijmou opačné nebo jiné řešení, lze vysvětlit nepsanými, zaběhnutými zvyklostmi na daném pracovišti, osobními nebo klinickými postupy i způsobem výuky v době studia. To vše může vést k rozdílným rozhodnutím o léčbě v různou dobu u jednoho a téhož klinického případu.

ABSTRACT

Introduction: "Rashomon" is Kurosawa's masterpiece. Witnesses describe the same murder from different perspectives. But there is a difference between what they see and what they perceive. This is called the "Rashomon Effect". The aim of this study is to determine whether the mood of clinicians in different work environments has an effect on treatment indication decisions.

Material and methods: The sample consisted of 54 clinicians, consisting of cardiologists (n = 29) and cardiovascular surgeons (n = 25). The angiography of a patient with severe coronary artery pathology was

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watched by the clinicians twice, at intervals of 30–45 days, in environments with different characteristics. 6 questions were asked to determine the moods after an indication for invasive treatment. Chi-square test was used to compare categorical data. Multiple comparisons of ratios were analyzed with the Bonferroni corrected Z test. The McNemar test was used to compare the first and second clinical indications according to the patient's angiography within the group. Analysis results were presented as frequency (percentage). Significance level was taken as $p < 0.05$.

Results: According to cardiologists and surgeons, there is a statistically significant difference in the answers given to the questions about moods at the first and second time points, except for the difference in the responses given to the mood: "I'm calm right now." At the second time point, where 55.2% of cardiologists answered "definitely true" at most, 64% of surgeons answered "mostly true" ($p = 0.024$). There was a significant difference ($p = 0.041$) between cardiologists and surgeons in the distribution of clinical indications according to the patient's angiographic images at the first consultation; namely during the isolated, silent, and more concentrated condition. While 55.2% of the cardiologists gave the answer "percutaneous", 76% of the surgeons gave the answer "operation". However, there was no significantly different ($p = 0.136$) distribution of interventional indications in the second condition, namely the crowded and noisy situation. While 51.7% of the cardiologists gave the answer "stent", 72% of the surgeons gave the answer "surgery". There is no difference between the distributions of indication 1 and indication 2 among cardiologists ($p = 1$) or among surgeons ($p = 1$).

Conclusion: Mood can be affected by environmental factors. Environmental factors can sometimes be confusing. The cardiologist or surgeon may be knowingly or unknowingly next to a treatment method. The unwritten, standardized institutional habits, personal or clinical protocols, and the approach orientation of the training received may explain the practice of ignoring the opposite decision. All these may result in different treatment decisions being made at different times in the same clinical case.

Keywords:
Bypass
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PTCA

Introduction

As depicted in the movie Rashomon, released in 1950 by the famous director Akira Kurosawa, what people see and perceive in the same event may be different. This situation, which will later be called the "Rashomon effect" or the "Kurosawa effect",[1] is based on the explanations of three different witnesses in three different ways as to whether the death of a samurai was a suicide or a murder. The fourth character is then added to the film, observing the event and giving the first seemingly objective account of what happened. The script of the movie is based on the story "Rashomon", written in 1914 by the writer Ryunosuke Akutagawa (1892–1927). The interpretation of the subjective point of view in the decision-making process and the effect of these interpretations on reality are skillfully demonstrated in this film.

When we look at our clinical practices, isn't that our story too? We have all had a self-criticism of the first indication we received after reevaluating a clinical case. Although we are not always aware of it, the Rashomon effect can appear in our decisions in the treatment of cardiovascular diseases.[2,3] Can type of education, current mood, socioeconomic effects, personal interests, and expectations affect the most accurate or true indication decision?

The aim of this study is to determine whether the mood of clinicians in different work environments has an effect on treatment indication decisions.

Material and methods

The target population of the study was 54 clinicians, consisting of cardiologists (n = 29) and cardiovascular surgeons (n = 25). All the clinicians work in the same hospital. Medical specialists with five or more years of professional experience were included in the study.

Questioning case

A patient who underwent emergency coronary angiography with the diagnosis of acute coronary syndrome was included in the study (Table 1). A 34-year-old male patient underwent drug-eluting stent (DES) implantation into the left anterior descending artery (LAD) twice; for the first time nine years ago and for the second time four years ago. Coronary angiography was performed urgently for the third time with the diagnosis of acute coronary syndrome. Angiographic images can be viewed in "Images 1, 2, and 3". The patient had been using insulin for 23 years due to the type 1 diabetes mellitus. The patient was a 19-pack-a-year smoker. There was a family history of heart disease. Troponin I value was 3.1 ng/dl, and ejection fraction was 58% with mild anteroseptal wall motion dysfunction. Other echocardiographic findings were normal. There were no pathological findings in chest radiographs and bilateral caroticovertebral color Doppler results. The patient initially refused any interventional treatment or operation. Therefore, 1 week later, CABG × 2 (left ınternal mammary artery to left anterior descending artery, aorta-saphenous graft to posterior descending artery) bypass was performed from the left 5th intercostal area by thoracotomy. He was operated on again due to bleeding. There was no problem in the clinical controls after discharge.

Angiography images were shown to cardiologists and cardiac surgeons in different environments twice, 30 to 45 days apart. At each consultation, the patient's medical

Table 1 – Patient's clinical data

Age (years)	Gender	PCI Syntax II	CABG Syntax II	EuroSCORE	EF	DM	COPD	PAD	BMI (kg/m^2)
34	Male	10.5	1.4	0.62%	55%	+	–	–	25.2

Table 2 – State-Trait Anxiety Inventory-1

	Definitely not true	Somewhat true	Mostly true	Definitely true
I'm calm right now	1	2	3	4
I feel safe	1	2	3	4
I'm nervous right now	1	2	3	4
I feel regret	1	2	3	4
I am at peace right now	1	2	3	4
I'm not having any fun right now	1	2	3	4
I'm worried about what's going to happen to me	1	2	3	4
I feel rested	1	2	3	4
I'm worried right now	1	2	3	4
I feel comfortable	1	2	3	4
I have confidence	1	2	3	4
I'm in a bad mood right now	1	2	3	4
I'm so angry	1	2	3	4
I feel my nerves are so tense	1	2	3	4
I feel relieved	1	2	3	4
I'm happy with my situation right now	1	2	3	4
I'm worried right now	1	2	3	4
I feel stunned with excitement	1	2	3	4
I'm happy right now	1	2	3	4
I'm in good spirits right now.	1	2	3	4

Table 3 – Questions to cardiologists and cardiac surgeons

	Definitely not true	Somewhat true	Mostly true	Definitely true
I'm calm right now	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)
I feel rested	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)
I'm worried right now	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)
I'm nervous right now	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)
I'm not having any fun right now	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)
I'm confident right now	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)	Yes (..) No (..)

data were given again and the experts were informed. The strategy for each application was different.

1. The first consultation was performed in the early morning before daily activity, when the clinician was alone in a quiet environment, preferably in the isolated physician's office.
2. Second consultation 5 days after the first was performed during daily activity, when the clinician was in a tumultuous environment, preferably in the crowded (> 3 co-workers) catheter laboratory.

Random combinations were made for these two environments, and the clinician was randomly selected to evaluate the images. Then, one of the similar question groups in the State-Trait Anxiety Inventory-1 (STAI-1) test was selected, and a 6-question survey was prepared (Tables 2 and 3).[4,5]

According to the results of this survey, four different situations were evaluated statistically:

1. comparison of moods by cardiologists and surgeons at the first and second time points;
2. comparison of indications by cardiologists and surgeons at the first and second time points;
3. comparison of moods at the first consultation for clinical decision-making and indication;
4. comparison of moods at the second consultation for clinical decision-making and indication.

Table 4 – Comparison of moods at the first and second time points by cardiologists and surgeons (* Pearson chi-square test)

Mood	Cardiologist (n = 29)	Surgeon (n = 25)	Total	Test sta.	*p**
I'm calm right now 1					
Definitely not true	2 (6.9)	0 (0)	2 (3.7)	4.821	0.185
Somewhat true	3 (10.3)	0 (0)	3 (5.6)		
Mostly true	5 (17.2)	6 (24)	11 (20.4)		
Definitely true	19 (65.5)	19 (76)	38 (70.4)		
I'm calm right now 2					
Somewhat true	5 (17.2)[a]	3 (12)[a]	8 (14.8)	7.457	**0.024**
Mostly true	8 (27.6)[a]	16 (64)[b]	24 (44.4)		
Definitely true	16 (55.2)[a]	6 (24)[b]	22 (40.7)		
I feel rested 1					
Definitely not true	1 (3.4)	2 (8)	3 (5.6)	2.926	0.403
Somewhat true	5 (17.2)	4 (16)	9 (16.7)		
Mostly true	9 (31)	12 (48)	21 (38.9)		
Definitely true	14 (48.3)	7 (28)	21 (38.9)		
I feel rested 2					
Definitely not true	4 (13.8)	4 (16)	8 (14.8)	2.044	0.563
Somewhat true	7 (24.1)	10 (40)	17 (31.5)		
Mostly true	12 (41.4)	8 (32)	20 (37)		
Definitely true	6 (20,7)	3 (12)	9 (16,7)		
I'm worried right now 1					
Definitely not true	23 (79.3)	21 (84)	44 (81.5)	0.799	0.671
Somewhat true	3 (10.3)	3 (12)	6 (11.1)		
Mostly true	3 (10.3)	1 (4)	4 (7.4)		
I'm worried right now 2					
Definitely not true	20 (69)	15 (60)	35 (64.8)	0.498	0.780
Somewhat true	6 (20.7)	7 (28)	13 (24.1)		
Mostly true	3 (10.3)	3 (12)	6 (11.1)		
I'm nervous right now 1					
Definitely not true	20 (69)	19 (76)	39 (72,2)	1.739	0.628
Somewhat true	5 (17.2)	5 (20)	10 (18.5)		
Mostly true	3 (10.3)	1 (4)	4 (7.4)		
Definitely true	1 (3.4)	0 (0)	1 (1.9)		
I'm nervous right now 2					
Definitely not true	16 (55.2)	14 (56)	30 (55.6)	0.090	0.956
Somewhat true	10 (34.5)	9 (36)	19 (35.2)		
Mostly true	3 (10.3)	2 (8)	5 (9.3)		
I'm not having any fun right now 1					
Definitely not true	21 (72.4)	18 (72)	39 (72.2)	2.347	0.504
Somewhat true	6 (20.7)	4 (16)	10 (18.5)		
Mostly true	1 (3.4)	3 (12)	4 (7.4)		
Definitely true	1 (3.4)	0 (0)	1 (1.9)		
I'm not having any fun right now 2					
Definitely not true	15 (51.7)	14 (56)	29 (53.7)	0.213	0.975
Somewhat true	11 (37.9)	8 (32)	19 (35.2)		
Mostly true	2 (6.9)	2 (8)	4 (7.4)		
Definitely true	1 (3.4)	1 (4)	2 (3.7)		

Pokračování na další straně

Table 4 – Comparison of moods at the first and second time points by cardiologists and surgeons (* Pearson chi-square test)					
Mood	**Cardiologist (n = 29)**	**Surgeon (n = 25)**	**Total**	**Test sta.**	***p****
I'm confident right now 1					
Definitely not true	1 (3.4)	0 (0)	1 (1.9)	3.286	0.350
Somewhat true	2 (6.9)	0 (0)	2 (3.7)		
Mostly true	5 (17.2)	7 (28)	12 (22.2)		
Definitely true	21 (72.4)	18 (72)	39 (72.2)		
I'm confident right now 2					
Definitely not true	1 (3.4)	0 (0)	1 (1.9)	2.746	0.433
Somewhat true	2 (6.9)	0 (0)	2 (3.7)		
Mostly true	7 (24.1)	7 (28)	14 (25.9)		
Definitely true	19 (65.5)	18 (72)	37 (68.5)		

Statistical methods

Data were analyzed with IBM SPSS V23. The chi-square test was used to compare categorical data according to physicians and indications, and multiple comparisons of ratios, were analyzed with the Bonferroni-corrected Z test. The McNemar test was used to compare the first and second clinical indications according to the patient's angiography within the group. The analysis results were presented as a frequency (percentage). The significance level was taken as $p < 0.05$.

Results

According to cardiologists and surgeons, there is no difference in the distribution of answers given to the questions about moods at the ***first*** *and* ***second*** *time points*, except for the difference in the distribution of responses given to the mood "I'm calm right now" at the second time point, where 55.2% of cardiologists answered "definitely true" at most, 64% of surgeons answered "mostly true" ($p = 0.024$) (Table 4).

There was a significant difference ($p = 0.041$) between cardiologists and surgeons in the distribution of clinical indications according to the patient's angiographic images at the first consultation; namely during the isolated, silent, and more concentrated condition. While 55.2% of the cardiologists gave the answer "percutaneous", 76% of the surgeons gave the answer "operation". However, there was no significantly different ($p = 0.136$) distribution of interventional indications in the second condition, namely the crowded and noisy situation. While 51.7% of the cardiologists gave the answer "stent", 72% of the surgeons gave the answer "surgery" (Table 5). There is no difference between the distributions of indication 1 and indication 2 among cardiologists ($p = 1$) or among surgeons ($p = 1$).

There were no differences in the distribution of answers given to the questions about moods at the first and second time points (Tables 6 and 7).

Discussion

In this study, we tried to answer the question of whether the decisions of cardiac surgeons and cardiologists regarding the indication for invasive treatment in the same patient could vary according to the "environment and physiological mood". According to cardiologists and surgeons, at the second time point, in other words, in settings such as "an operating room or catheter laboratory, crowded and noisy environments with more than 3 employees, departure from work", there was a difference in the distribution of the responses given to the mood as: "I'm calm now, right now." While 55.2% of cardiologists answered "definitely true", 64% of surgeons answered "mostly true", which could indicate that catheter laboratories could be more stable than operating rooms due to the stressful environment. However, this situation did not

Table 5 – Comparison of indications at the first and second time points by cardiologists and surgeons (* Yates correction [continuity correction];** McNemar Test)					
	Cardiologist (n = 29)	**Surgeon (n = 25)**	**Total**	**Test sta.**	***p****
Indication 1					
Surgery	13 (44.8)	19 (76)	32 (59.3)	4.19	**0.041**
Stent	16 (55.2)	6 (24)	22 (40.7)		
Indication 2					
Surgery	14 (48.3)	18 (72)	32 (59.3)	2.224	0.136
Stent	15 (51.7)	7 (28)	22 (40.7)		
*p***	1.000	1.000			

Table 6 – Comparison of moods according to indication at the first time point

	Indication 1				
Mood	**Surgery**	**Stent**	**Total**	**Test sta.**	***p****
I'm calm right now 1					
Definitely not true	2 (6.3)	0 (0)	2 (3.7)	2.337	0.506
Somewhat true	1 (3.1)	2 (9.1)	3 (5.6)		
Mostly true	6 (18.8)	5 (22.7)	11 (20.4)		
Definitely true	23 (71.9)	15 (68.2)	38 (70.4)		
I feel rested 1					
Definitely not true	3 (9.4)	0 (0)	3 (5.6)	7.451	0.059
Somewhat true	6 (18.8)	3 (13.6)	9 (16.7)		
Mostly true	15 (46.9)	6 (27.3)	21 (38.9)		
Definitely true	8 (25)	13 (59.1)	21 (38.9)		
I'm worried right now 1					
Definitely not true	24 (75)	20 (90.9)	44 (81.5)	3.291	0.193
Somewhat true	4 (12.5)	2 (9.1)	6 (11.1)		
Mostly true	4 (12.5)	0 (0)	4 (7.4)		
I'm nervous right now 1					
Definitely not true	24 (75)	15 (68.2)	39 (72.2)	2.304	0.512
Somewhat true	5 (15.6)	5 (22.7)	10 (18.5)		
Mostly true	3 (9.4)	1 (4.5)	4 (7.4)		
Definitely true	0 (0)	1 (4.5)	1 (1.9)		
I'm not having any fun right now 1					
Definitely not true	22 (68.8)	17 (77.3)	39 (72.2)	2.474	0.480
Somewhat true	7 (21.9)	3 (13.6)	10 (18.5)		
Mostly true	3 (9.4)	1 (4.5)	4 (7.4)		
Definitely true	0 (0)	1 (4.5)	1 (1.9)		
I'm confident right now 1					
Definitely not true	1 (3.1)	0 (0)	1 (1.9)	7.774	0.051
Somewhat true	1 (3.1)	1 (4.5)	2 (3.7)		
Mostly true	11 (34.4)	1 (4.5)	12 (22.2)		
Definitely true	19 (59.4)	20 (90.9)	39 (72.2)		

make a difference between the two professionals in terms of indication decisions.

Interestingly, PCI and CABG decisions in the 1st and 2nd environments did not change among cardiologists and among surgeons. Both groups showed the same consistency in their decisions. In spite of the fact that there was no difference between both clinicians according to their moods at the first estimation-time, which was generally made in a more comfortable situation such as in the physician's office, when the clinician is alone, quiet environment, early in the morning, a significant difference emerged in the treatment indication: cardiologists decided on PCI, surgeons decided on CABG. Additionally, their decisions still did not change in a more stressful working environment and a narrower time frame after a time interval. The tendency to avoid individual intervention may become evident in decisions made in an extremely stressful environment or under work fatigue.

The cinema director Akira Kurosawa depicts the four people in his movie with a cynical look. No matter how well-intentioned these four witnesses were, they got away from the truth. The clinician has the risk of seeing the clinical picture they "want to see" by evaluating the patient from their own point of view while giving indications. The gradual increase in hybrid approaches in the cardiovascular field leads to the emergence of different interdisciplinary perspectives. This may increase the success of treatment, but when communication problems are added to the assumption that each discipline agrees with each other, it can cause complications.

Differences in human observations give different meanings to the same phenomenon/case.[6] CABG and PCI decisions can be controversial, especially for patients in the gray zone. For example, the difference between SU-AVR, TAVI, or conventional AVR decisions in the same patient may be caused by the insurance payment institution, the

Table 7 – Comparison of moods according to indication at the second time point (* Pearson chi-square test)					
	Indication 2				
Mood	**Surgery**	**Stent**	**Total**	**Test sta.**	***p****
I'm calm right now 2					
Somewhat true	6 (18.8)	2 (9.1)	8 (14.8)	1.032	0.597
Mostly true	14 (43.8)	10 (45.5)	24 (44.4)		
Definitely true	12 (37.5)	10 (45.5)	22 (40.7)		
I feel rested 2					
Definitely not true	4 (12.5)	4 (18.2)	8 (14.8)	1.572	0.666
Somewhat true	9 (28.1)	8 (36.4)	17 (31.5)		
Mostly true	14 (43.8)	6 (27.3)	20 (37)		
Definitely true	5 (15.6)	4 (18.2)	9 (16.7)		
I'm worried right now 2					
Definitely not true	21 (65.6)	14 (63.6)	35 (64.8)	0.302	0.860
Somewhat true	7 (21.9)	6 (27.3)	13 (24.1)		
Mostly true	4 (12.5)	2 (9.1)	6 (11.1)		
I'm nervous right now 2					
Definitely not true	19 (59.4)	11 (50)	30 (55.6)	0.553	0.758
Somewhat true	10 (31.3)	9 (40.9)	19 (35.2)		
Mostly true	3 (9.4)	2 (9.1)	5 (9.3)		
I'm not having any fun right now 2					
Definitely not true	16 (50)	13 (59.1)	29 (53.7)	2.001	0.572
Somewhat true	11 (34.4)	8 (36.4)	19 (35.2)		
Mostly true	3 (9.4)	1 (4.5)	4 (7.4)		
Definitely true	2 (6.3)	0 (0)	2 (3.7)		
I'm not confident right now 2					
Definitely not true	1 (3.1)	0 (0)	1 (1.9)	0.785	0.853
Somewhat true	1 (3,1)	1 (4,5)	2 (3,7)		
Mostly true	8 (25)	6 (27.3)	14 (25.9)		
Definitely true	22 (68.8)	15 (68.2)	37 (68.5)		

experience of the cardiologist or surgeon, prejudices towards the procedures, and the habit of the hospital/clinic to approach such patients.[7] In this case, the "truth" can be deliberately or unknowingly put in the background. Subjective comments or mandatory decisions may come to the fore. Can we break down the prejudices with our intuition, mood, and education?[8] Which indication is correct in these cases?

Whether an invasive or surgical approach or a medical treatment approach is preferred prior to the ischemia trial, perhaps the best strategy is to involve patients in the decision process.[2] The role of the Rashomon effect has been investigated by interesting studies in the medical literature, such as: examination of ventricle function with echocardiography,[9] data collection approaches in scientific studies,[10] dual antiplatelet therapy,[11] medical cost,[12] integrated care/teamwork in cardiovascular fields.[13]

In the first setting, there were two major indication differences between cardiologists and surgeons: PCI and

CABG. So, can this be prevented? How can an almost absolute treatment indication be provided? There is a very difficult strategic way to do this in medicine: The 10th Man Rule.[14] In short, while 9 people agree on the same issue in a team of 10 people, the 10th man is in charge of proving that this idea is wrong. Although this is a near-impossible concept in crowded clinical environments, applying this concept to our own mindset may help us make more objective decisions. This approach may be particularly important in the risk assessment of a patient. Maybe a different person should be appointed as the 10th man at each council meeting.

How should the usual process be followed for the right scientific, invasive, or surgical experience and appropriate decision-making environment? The Rashomon effect first increases, then stabilizes during the decision making process, and finally the Rashomon effect's share of the decision gradually decreases. Although this situation is not valid in the field of medicine, it has been statistically formulated in detail in the field of engineering.[15]

Why couldnt we use a whole scale with proven reliability, such as the STAI-1 momentary mood test, in this study? We conducted a preliminary study. We asked dif-

ferent patients, different cardiologists, and different cardiac surgeons to answer the 20-question STAI-1 test after angiography screening. No one answered more than five questions, even in a quiet environment. Many of the mood questions on the STAI test were similar, which even led to a reaction. For example, questions such as "I'm in a bad mood right now" and "I'm so angry". Clinicians were negative in answering many of these related questions in the preliminary study. We created a short form by removing some items from the scale that did not serve the research purpose (for example, "I feel safe right now" and "I feel regret") and using related items only once (for example, "I'm not in a good mood right now" and "I'm in a good mood right now"). Answering all the questions in the STAI scale is valuable in evaluating psychiatric diseases, but if we wanted all the questions on the STAI-1 scale to be answered, we could not have done this study.[5]

Traditional medical education focuses on our work as physicians who are self-sufficient and able to make decisions on their own. However, medical treatment should be tailored to the individual characteristics of each patient in today's modern medicine approach. This can be achieved by working as a "heart team" and making the councils to work more functionally.

"DECISION" which is preferred among several alternatives is actually a choice. The decision will affect medical processes. Every decision we make will directly or indirectly affect every matter of interest and the next decision. This will lead to the formation of a decision-making culture. With this method, respect and reliability among physicians and hospitals can be permanently achieved.

The environment may be a confounding factor. Councils and their decision-making habits are therefore

important. Although it is tried to be handled objectively, many factors, such as treatment payment conditions allowed by the financing institution, can cause the "*Rashomon effect*". The decision-making process can be affected by the guidelines, but mostly by the habits of the institutions and the experience of clinicians, and there are also many factors that affect decision making according to the clinical treatment approach. In addition, the cardiologist or surgeon may be knowingly or unknowingly next to a treatment method. The unwritten, standardized institutional habits, personal or clinical protocols, and the approach orientation of the training received may explain the practice of ignoring the opposite decision.

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Conflict of interest

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