The Trend of Four Consultation Models in Four Specialties at Four Tertiary Care Hospitals

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Abstract

Background and Aim: Multiple consultation models exist in medical practice. A comprehensive doctor-patient relationship serves as a foundation to bring about a positive outcome in terms of patient health. However, evidence of doctors' impact on improving patients' mental and physical health through a specific model is sparse. This study aimed to identify the most common consultation models adopted in four different specialties at four hospitals in Riyadh, Saudi Arabia.

Methods: From four tertiary care hospitals of Riyadh, clinicians (n=263) with clinical experience >3 years from Internal Medicine, Surgery, Family Medicine, and Psychiatry departments participated in this observational study. A 27-items questionnaire describing five consultation models was carried out in hard copy and a soft copy using the Snowball sampling method to receive the responses that were analyzed by using SPSS version 23.0 in the form of descriptive results.

Results: Out of 263, most clinicians (n=121, 46.0 %) were found to practice a blended consultation approach while dealing with patients. The 2nd most common adopted consultation model was the Deliberative model (n= 109, 41.4%). Other consultation (Informative and Interpretive) models were the least practiced models (1.5%).

Conclusion: The blended consultation is found to be the most practiced consultation model. A clinician should adopt an attitude that is flexible and empathetic towards patients' needs and expectations. Consideration should be given to assisting physicians in adapting their roles for interpersonal styles to the preferences of various patients. This expanded role will result in improved health outcomes for diverse populations utilizing health care.

Key words: Deliberative model, Doctor Behavior, Family Medicine, Interpretive Model, Paternalistic Model, Informative Model, Psychiatry

Introduction

In the debate for doctor-patient relationships, different consultation models have been suggested over the years. One of the theories implies that people, once in distress or illness, unwillingly look for a wiser, older, and more experienced character [1]. Another model is patient-centred care that focuses on patients through their personal needs and expectations. A different approach called "treat to target" has substantiated vast influence in many areas of medicine [2,3]. This approach is used to monitor long-term chronic disease that requires adjustments to therapy during the treatment process to keep up with the disease progression.

All these models elucidate the patient's role in medical decision-making and the nature of the doctor-patient relationship. Emanuel and Emanuel discussed the doctor-patient relationship models based on different circumstances [4]. These models are a) Paternalistic, b) Informative, c) Interpretive, and d) Deliberative).

The Paternalistic model (PM) is also known as the parental or priestly model [5-7]. As the name suggests, and while using the paternalistic approach, the physician acts as a parent. Their opinion is imposed on the patient, and some information regarding the disease is given to the patient to encourage them to follow the physician's opinion. This approach ensures that the best interventions are made available to the patient. This model safeguards what is best for the patient, yet with their negligible involvement in decision-making. The Informative model (Inf M) is also recognized as a scientific, engineering, or consumer model [4,6]. While using the informative approach, the patient is provided with detailed information about their health and lets them choose what is best. Patients' values are well known and what is lacking is the health information, and hence, the doctor plays a crucial role in providing this missing information. Whereas, in the Interpretive model (Int M), all information is given to the patient [8]. The physician as a counsellor also helps clarify the values for the patient and choose the treatment option that best achieves these values. Therefore, the interpretive doctor aims to bring coherence between the patient's values and priorities. Moreover, in the Deliberative model (DM), the physician acts as a teacher or friend and provides the patient with all information regarding the disease. Both determine through negotiation what medical values are most important to the patient; a compulsion is typically avoided with this model [7,9].

Despite an ever-increasing number of treatment options, patients' relationships with their doctors are still unsatisfactory due to communication problems [10]. The persistence of patient discontent, despite rising medical knowledge and capacity, suggests that the problem is not with the quality of medical therapy, but with how it is conveyed, delivered and communicated while debating the patient's utility; there is an ongoing debate about whether paternalism is still relevant or to be avoided. Some argue that it is only suitable for a mentally compromised patient and should be used in emergency cases. On the other

hand, we have the Inf M, which may be justified in a walk-in clinic where minimal patient-physician interaction exists, i.e., the patient is diagnosed on the spot and given all the treatment options to choose whatever suits their medical values [9]. In Eastern communities, including the Chinese context, the physicians tend to hold a more directive approach to make the decision, and, even so, it is still up to the patients to make the final decision [11,12].

After an extensive literature review, we could not find any study that reported on what type of model was most frequently used in the Arab community of doctors. We initiated this study to investigate the physician-patient relationship in Saudi Arabia, demonstrate which models are most frequently occurring in Saudi healthcare practice, and the factors affecting the choices of these models among different specialties of physicians. Therefore, this study intended to explore the most common consultation models used by clinicians in Saudi Arabia as: 1) It highly affects patient satisfaction, which in turn affects compliance positively and results in fewer malpractice complaints, 2) It helps doctors reach a correct diagnosis, 3) It also encourages patients to give information with confidence and trust.

Material and Methods

Study design and setting

Asnowball sampling method was adopted for a quantitative observational study that was carried out at four tertiary care hospitals, namely, King Khalid University Hospital (KKUH), King Fahad Medical City (KFMC), Prince Sultan Military Medical City (PSMMC), and King Saud Medical City (KSMC) located in Riyadh, Saudi Arabia. Data were collected from December 2017 to April 2018.

Study subjects and data collection

Both male and female clinicians having a minimum of three years of clinical experience from any four specialties, Internal Medicine, Surgery, Family Medicine, and Psychiatry, participated in this study.

A snowball non-probability sampling technique was used. Before the actual data collection, a pilot study was done to calculate the time required to complete the questionnaire and check its appropriateness. The pilot study also helped ensure content validity. The study sample size was calculated using a one-way proportion equation (N= $(Z2\alpha)$ (P (1-P)/D2) and collected 297 samples as estimated with 95% confidence level and 4% precision.

Study Instrument

After an extensive literature review, we developed the questionnaire to quantify the Paternalistic model (PM), the Informative model (Inf M), the Interpretive model (Int M), and the Deliberative model (DM)[12,13]. Initially, a set of 39 items were created by a team of experts from the department of family and community medicine. Subsequently, two meetings were held to finalize the survey items. These meetings were attended by 3 experts from the department of family and community medicine who had initially created the 31 items and 4 experts from the department of medical education. These

experts discussed and agreed to delete 4 items as they were duplicated or challenging to understand. The final questionnaire consisted of 27 items. All items (related to the models) have a five-point Likert (1-5) scale, where 1 stands for strongly disagree, 2 disagree, 3 neutral, 4 Agree, and 5 strongly agree. We combined the answers 1 and 2 as Disagree, 3 remained neutral, and 4 and 5 were combined as Agree. We calculated the mean score of each model. The participants scoring 3.5 or above were considered a user for that model.

Ethical Consideration

The institutional Review Board of the College of Medicine, King Saud University, approved the study (IRB # E-20-4535). All participants were informed of the study purpose, and advantages and disadvantages were explained before starting data collection. Verbal and written consents were obtained, and the personal information of participants was kept confidential.

Analysis

Data entry was carried out using Excel Microsoft and analysis by SPSS software, version 23 (SPSS Inc., Chicago, Illinois, USA). The chi-square test was used to compare all variables. All analyses were carried out at a significance level of 0.05. Physicians with the high or low mean across 4 different models were labelled as adopting the 'blended approach'. Physicians with a high mean in one particular model and low in the other models were labelled as advocates and users of that particular model.

Results

The collected responses were N=263, among 184 (69.96%) were males, and 79 (30.03%) were females. The highest response rate was from King Khalid University Hospital (n=151, 57.4%). Regarding the nationality of the clinicians, Saudi candidates were 139 (52.85), and non-Saudis were 124 (47.14%). Most of the responses were from clinicians of internal medicine and surgery in all four hospitals (Table 1). The candidates, n=87 (56.61%), had greater than 3 years but less than five years of working experience. There were 62 respondents (22.4%) having experience between 5 to 10 years and (n=73, 60.83%) were the clinicians who had more than 15 years of experience (Table 2).

From Table 2, it is apparent that of the consultation models being practiced by respondents, the blended approach was the most popular model (n=121, 46%). The second most commonly used model was the deliberative model (n=109, 41.4%). The Interpretive and informative models were the least adopted models by clinicians (n=4, 1.93%). The deliberative model (DM) was the second most commonly adopted model by clinicians (Table 2).

Paternalistic model approach

The overall acceptance rate of PM = 2.28 by the different specialty doctors. Participants n=190 (72.2%) agreed that 'The doctor is the expert and should make the decision in most conditions.' Most participants, n=184 (70%), agreed with the statement, 'The doctor should share the information with the patient in a way that they agree to follow the advice given' (mean 2.59 (0.67)). In the paternalistic model, most doctors (65.0%) disagree about

the "patient should not be involved in decision making." Most of the doctors (73.8%) believe that 'all information should be shared with the patient' and difference of opinion found in the doctors about "the doctor should not criticize the patient's beliefs, even if these might harm the patient" (P=0.008) (Table 3a).

Informative model approach

The overall acceptance rate of the Informative model (IM) was mean = 2.75 by the different specialty doctors. Most of the physicians from various age groups agreed with the statements, 'doctor should explain to the patient all the advantages and disadvantages of the treatment options' (91.3%, mean (SD) 2.87(0.41)). More than 80% of doctors agree that "the patient should be involved in making the decision." Similarly, 80.2% of doctors agreed on an informative approach to "the doctor should respect the choice of the treatment that the patient prefers". Moreover, most doctors agreed (mean 2.85) that the "doctor and patient should together weigh all the different treatment options available thoroughly" (Table 3a).

Interpretive model approach

The overall acceptance rate of IntM = 2.50 by the different specialty doctors. Statistically significant (P=0.02) responses were reported in the interpretive model, about the "doctor provides all information to the patient about his health status and or disease". Most of the doctors (59.3%) agreed that the "Doctor helps the patient choose the treatment option that best achieves their value". About "Doctor helps the patient choose the treatment option that best achieves their value", significant responses were reported (P=0.02). Moreover, 84.4% of doctors reported, "doctor doesn't disapprove patients' values" (Table 3b).

Deliberative model approach

The overall acceptance rate of DM = 2.46 by the different specialty doctors. Significant response (P=0.01) was found when "Patients will appreciate it later on when physicians stick to their clinical opinion, even though they disagreed initially". We received not very clear responses from the doctor's side (agree-47.95; neutral-30.4; disagree-21.7) about "Patients, when given total autonomy, may harm themselves because of their limited knowledge" and almost similar responses received from the doctor's side (agree-44.5; neutral-33.5; disagree-22.1), about "The patient is entitled to complete control of the medical decision, given the actual situational limits." Most of the doctors (88.6%) reported about "Informed consent has a crucial role in medical treatment" (Table 3b).

Consultation models utilized by faculty with different specialties

The most accepted paternalistic model by the different specialties is internal medicine, where the mean score was 17.68, with F=1.18; P=0.31. Similarly, family medicine doctors recognize it most as an informative model with a mean score of 21.92 followed by internal medicine (mean score 21.63), Interns (mean score 21.25), Surgery doctor (mean score 21.19), and psychiatry doctor (mean score 20.71). Moreover, most Intern doctors like (mean score 19.20) the deliberative model approach with F=1.55; P=0.18. Surgery doctors like the interpretive model most (mean score 19.27) (Table 4).

Table 1. Demographic characteristics of participants from four tertiary care hospitals in Riyadh (N= 263)

		The second secon								
	Ger	Gender	Nationality	nality	Work Exp.	Exp.		Speciality	iality*	
Hospital N	Ξ	L.	Saudi	Non- Saudi	₽	징	Ξ	v	F	۵
(%)	u (%)	n (%)	u (%)	n (%)	u (%)	u (%)	u (%)	n (%)	n (%)	u (%)
King Khalid University Hospital	113	38	79	72	87	64	19	39	41	10
151	(74.83)	(25.16)	(52.31)	(47.68)	(57.61)	(42.38)	(40.39)	(25.82)	(27.15)	(6.62)
(57.4)										
King Saud Medical City	28	19	56	21	31	16	18	13	14	2
47	(59.57)	(40.42)	(55.31)	(44.68)	(65.95)	(34.04)	(27.65)	(27.65)	(29.78)	(4.25)
(17.9)										
King Fahad Medical City	24	6	19	14	11	22	13	6	œ	m
33	(72.72)	(27.27)	(57.57)	(42.42)	(33.33)	(99.99)	(39.39)	(27.27)	(24.24)	(60.6)
(12.5)	9	5 5 5				9			9	
Prince Sultan Military Medical	19	13	15	17	14	18	11	10	7	4
City	(59.37)	(40.62)	(46.87)	(53.12)	(43.75)	(56.25)	(34.37)	(31.25)	(21.87)	(12.5)
32										
(12.2)										
Total	184	79	139	124	143	120	103	7.1	70	19
z	(96.69)	(30.03)	(52.85)	(47.14)	(54.37)	(45.62)	(39.16)	(26.99)	(26.61)	(7.22)
(%)										

*Specialty (IM = Internal Medicine, S= Surgery, FM = family Medicine, P= Psychiatry

Table 2: The models illustrated according to hospital, department, and working experience of clinicians

			Blended	Deliberative	Paternalid Model	Informative	Interpretive
		183					
Consultation models	models	z	Model	Model	n (%)	Model	Model
			n (%)	n (%)	8	n (%)	n (%)
Total Response	ponse	(n=263)	121 (46.0)	109 (41.4)	25 (9.50)	4 (1.93)	4 (1.93)
				Hospitals			
King Khalid University Hospital	University tal	(n=151)	(56.19)	67 (61.46)	12 (48.0)	2 (50.0)	2 (50.0)
King Saud Medical City	dical City	(n=47)	24 (19.83)	16 (14.67)	4 (16.0)	1 (25.0)	2 (50.0)
King Fahad Medical City	edical City	(n=33)	14 (11.57)	12 (11.0)	6 (24.0)	1 (25.0)	0.0) 0
Prince Sultan Military Medical City	Military	(n=32)	15 (12.4)	14 (12.84)	3 (12.0)	0.0) 0	0.0) 0
	i i			Departments			
Internal medicine	edicine	(n=93)	46 (49.46)	36 (38.70)	6 (9.67)	0.0) 0	2 (2.15)
	Surgery	(89=u)	27(39.70)	23(33.82)	11(16.17)	3(4.41)	4(5.8)
Family	Family medicine	(n=25)	13 (52.0)	11 (44.0)	1 (4.0)	0 (0.0)	0.0) 0
Psi	Psychiatry	(n=07)	3(42.85)	3(42.85)	0.0) 0	0(0:0)	1 (14.28)
	Female	(6 / = u)	35 (44.30)	36 (45.56)	7 (8.8)	1 (1.26)	0 (0)
Gender	Male	(n=184)	85 (46.19)	72 (39.13)	18 (9.78)	3 (1.63)	6 (3.26)
	3 > 2	(n=81)	34 (57.02)	27 (59.6)	12 (48.0)	3 (75.0)	2 (50)
Work	5 to 10	(n=62)	23 (37.09)	26 (41.93)	8(12.90)	3 (4.83)	2(3.22)
experience	11 to 14	(n=47)	17 (5.78)	8 (9.17)	11 (12.0)	7 (25.0)	4(0.0)
	≥15	(n=73)	21 (28.76)	16 (21.91)	13 (17.80)	15 (20.54)	8 (10.95)

Table 3a: Model analysis by Likert scale

Model	Items	Mean (SD)	Categories	N (%)	X2 (P-value)
			Agree	190(72.2)	
	The doctor being the expert should decide most conditions	2.60(0.69)	Neutral	42(16.0)	15.87(0.04)
			Disagree	31(11.8)	
			Agree	184(70.0)	
	The doctor should share the information with the patient in a	2.59(0.67)	Neutral	51(19.4)	8.75(0.36)
,	way that they agree to Tollow the advice given		Disagree	28(10.6)	
Paternalistic			Agree	39(14.8)	
	If the doctor involves the patient in decision-making, it creates	1.49(0.74)	Neutral	53(20.2)	14.92(0.06)
	difficulties for the patient		Disagree	171(65.0)	
	The doctor should consider the patients as "consumers" and all		Agree	194(73.8)	
	the available information about the treatment should be shared	2.61(0.70)	Neutral	36(13.7)	6.00(0.64)
	with them		Disagree	33(12.5)	
			Agree	111(42.2)	
	The doctor should not criticize the patient's beliefs, even if these	2.12(0.83)	Neutral	74(28.1)	20.8(0.008)
	mignt harm the patient		Disagree	78(29.7)	
			Agree	240(91.3)	
	The doctor should explain to the patient all the advantages and	2.87(0.41)	Neutral	14(5.3)	8.41(0.39)
	disadvantagesor the different treatment options available	30	Disagree	9(3.4)	
	The doctor should find exactly how the patient wants to be		Agree	212(80.6)	1
	involved in making the decision	2.73(0.59)	Neutral	31(13.3)	0.52(0.23)
			Disagree	17(6.5)	
	The doctor should respect the choice of the treatment that the		Agree	211(80.2)	
Informative	patient prefers	2.73(0.56)	Neutral	35(13.3)	11.57(0.17)
			Disagree	17(6.5)	
	The doctor and patient should to gether, weigh thoroughly all	8	Agree	236(89.7)	
	the different treatment options available	2.85(0.45)	Neutral	16(6.1)	12.25(0.14)
			Disagree	11(4.2)	
	The doctor should provide proper information to the patient and		Agree	193(73.4)	
	give freedom to choose the treatment that better fits patients'	2.60(0.70)	Neutral	37(14.1)	7.58(0.47)
	medical beliefs		Disagree	33(12.5)	

Overall mean of Paternalistic model=2.28; Informative model=2.75; interpretive model=2.50; and deliberative model=2.46

Table 3b. Model analysis by Likert scale (Interpretive, Deliberative)

			Agree	132(50.2)	
	Ine doctor provides all information to the	2.25(0.83)	Neutral	65(24.7)	17.20(0.02)
	patrent about his health status and of disease	•	Disagree	66(25.1)	
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	×	Agree	131(49.8)	
	In a doctor brings conerence between the	2.27(0.80)	Neutral	73(27.8)	11.03(0.20)
	patient syaldesand profittes		Disagree	59(22.4)	
	The doctor helps the patient choose the		Agree	156(59.3)	
Interpretive	treatment option that best achieves their	2.45(0.72)	Neutral	71(27.0)	17.33(0.02)
	values	100	Disagree	36(13.7)	
			Agree	222(84.4)	
	Ine doctor doesn't disapprove of pagents	2.76(0.58)	Neutral	20(7.6)	6.27(0.61)
	values		Disagree	21(8.0)	
		88	Agree	226(85.9)	
	while coloring the essential to be considered	2.78(0.55)	Neutral	18(6.8)	8.33(0.40)
	Willieseleculigue adillent opdoris		Disagree	19(7.2)	
	Patients will appredate it later on when	×	Agree	120(45.6)	
	physicians stick to their clinical opinion, even	2.19(0.82)	Neutral	74(28.1)	19.74(0.01)
	though they disagreed at the beginning	70	Disagree	69(26.2)	
	Patients, when given total autonomy, may		Agree	126(47.9)	
	harm themselves because of their limited	2.26(0.79)	Neutral	80(30.4)	11.28(0.18)
	knowledge		Disagree	57(21.7)	
	The patient is entitled to complete control of		Agree	117 (44.5)	
Deliberative	the medical decision, given the actual	2.22(0.78)	Neutral	88 (33.5)	11.56(0.17)
	situationallimits		Disagree	58(22.1)	
	Informed consent has a crucial role in medical	88	Agree	233(88.6)	
	treatment	2.83(0.49)	Neutral	16(6.1)	7.31(0.50)
			Disagree	14(5.3)	

Table 4: Preference of consultation model by specialities

Model	Speciality	N	Mean (SD)	F	P-value
	InternalMedicine	93	17.68 (3.17)		
	Surgery	68	17.30 (2.82)		
Paternalistic Model	Family medicine	25	17.2 (4.01)	1.18	0.31
	Psychiatry	7	16.14 (4.63)]	
	InternalMedicine	93	21.63 (2.90)		8
	Surgery	68	21.19 (3.75)]	
Informative Model	Family Medicine	25	21.92 (4.10)	0.37	0.82
	Psychiatry	7	20.71 (4.53)		
	InternalMedicine	93	18.96 (2.38)		9
	Surgery	68	19.27 (2.62)	1	
Interpretive Model	Family Medicine	25	18.42 (2.14)	1.24	0.29
	Psychiatry	7	18.08 (3.13)		
	InternalMedicine	93	18.97 (2.32)		
260750780 NO 1007 7608	Surgery	68	18.98 (2.51)	x210,100	NO. 2225-2230
Deliberative Model	Family Medicine	25	17.84 (3.27)	1.55	0.18
	Psychiatry	7	18.57 (2.07)		

Internal Medicine, Surgery, Family Medicine, Psychiatry

Discussion

This study was about health care needs through a partnership between the doctor and patient because expectations from both sides play a vital role in the patients' physical and mental health. Our study found that most doctors practice the blended model. This is consistent with a previous study, in which (36.7%) of their respondents preferred a similar approach [7]. A possible explanation for this finding is that most doctors do not practice the same approach with all their patients. Results of another study showed that the intermingling in terms of individual aptitude and physicians' standpoint was also found to enhance the patient-centred approach [14]. Another finding was that 3 out of 10 physicians aged above 55 years old practiced PM; in a similar study performed in 2001, it was found that 38.42% of physicians aged above 51 years old practised paternalism as well [15]. Age might be the factor affecting choosing the PM. This model is about decision power, and the experienced clinicians attempt to overrule patients' expectations because of their experience. The majority of the respondents agreed with the statement 'the doctor is the expert and should make the decision in most conditions', which measures paternalism.

Additionally, many physicians (73.7%) agreed that 'the doctors should consider the patients' as consumers' - as in the Informative model" and all the available information about the treatment should be shared with them', which measures consumerism. Determining how physicians perceive the relationship between them and their patients is challenging, rendering this relationship complicated. Many factors intervene in producing the final encounter, and what is measured by observation is rarely what

happens inside clinics. A study found that the most common single model practiced by physicians in Saudi Arabia was the DM. In contrast, a previous study found that the single most model practiced by the physician was the Inf M [16]; that difference might be due to the cultural and religious differences between the Middle Eastern and Western countries. In a cultural context, physicians from the United States of America (USA) and other European countries support a more consumerist style. It is highly advocated, and it is expected from the physicians to give complete and total control of the decision to the patient (7). Therefore, being a religious and conservative country Saudi Arabia will influence physicians to limit consumerism [17-19]. Additionally, a study on patients in Riyadh, Saudi Arabia, found that 57% of patients prefer a deliberative doctor [20]. This is also consistent with the global trend.

Besides, the DM was the model recommended by Emanuel and Emanuel as the ideal physician-patient relationship arguing that the other models are also needed as aforementioned for the PM and Inf M [3]. A study in the Saudi community reported that the patients overall prefer an approach in which the patient decides with the help of the physician (DM) with shared decision-making, followed by the directive approach (PM). Finally, the physician (Inf M) providing detailed information and letting the patient select what he assumes is best [21]. This relationship, or perhaps the agreement between the doctor and patient on how it should occur, is also essential to achieve patient-centred care, the most advocated approach in modern practice [22].

Effective consultation is equally important for doctors of both genders. Adopting a consultation approach that facilitates addressing the patients' agenda or sickness does lead to

higher levels of patient' satisfaction. The study found that female physicians practiced a less directive approach than their male counterparts did, which is consistent with the findings of another study[16,17]. Cultural context could be the primary cause of this discrepancy in the ratio between male and female doctors working in the Arab world. This trend would be reduced in the future as females are taking more and more opportunities in the Saudi community activities. This study also found no association whatsoever between age or specialty with the consultation model being used. This might be because a global trend which is leaning towards Deliberation has also reached Saudi Arabia.

Limitations

This study didn't include the qualitative aspect of the data. The participants could have been interviewed to seek the depth of their views to choose a particular consultation model. Furthermore, they could have informed the pros and cons of different models. To further deepen the impact of the study, patients could also be included. Therefore, it is suggested that future studies could focus on the qualitative aspect of these consultation models.

Conclusion

The most accepted paternalistic model by the different specialties is internal medicine. Concerning the consultation models being practiced by respondents, the blended approach was the most popular model. The second most commonly used model was the deliberative model. The Interpretive model was the least practiced by clinicians. The novice clinicians preferred the Informative model, whereas the experienced doctors had adopted the blended model. In summary, preferably, a physician should adopt different consultation models according to the varying needs of their patients. This ensures an attitude that is flexible and empathetic, fulfilling patients' expectations and needs.

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