Consumers' satisfaction with primary health services in the city of Jeddah, Saudi Arabia

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ABSTRACT

Objectives: To study consumers' satisfaction and socio-demographic correlates of satisfaction with services provided by Primary Health Care Centres in the city of Jeddah.

Methods: Study subjects included the consumers visiting the Primary Health Care Centres during the study period. Four Primary Health Care Centres were randomly selected from Jeddah according to the geographical location. Seventy five subjects were selected systematically where every tenth Saudi aged 15 years or above was chosen. Data was collected via a self administered pilot tested questionnaire which included socio-demographic characteristics, as well as the overall and differential satisfaction with the different services and facilities in the selected Primary Health Care Centres rated on a scale of 1 - 5 points, the higher the score the higher the satisfaction.

Results: Male subjects constituted 60% of the visitors. More than half of the subjects were young 15-29 years of age, about 58% were married, 50% completed intermediate/secondary school, more than two fifths of the subjects were employees and more than three quarters have a monthly income of 6000 Saudi Riyals or less. The summary satisfaction score was 3.76 points and the overall satisfaction with the services provided was 2.45 points out of a maximum of 5 points. The highest satisfaction was for dental clinic (3.44 points) and the lowest for co-operation of the receptionist (1.95 point). Unskilled laborers showed the highest summary and overall satisfaction (4.31 and 2.71 points) and students showed the lowest satisfaction scores (3.54 and 1.89 points). Other socio-demographic variables were not significantly related to summary and overall satisfaction scores.

Conclusion: Measuring satisfaction by asking one summary question tends to give a significantly higher satisfaction score compared to satisfaction score taking in consideration of all services offered. Certain service components need corrective intervention measures to make them more satisfactory to consumers.

Keywords: Primary health care, socio-demographic characteristics, satisfaction, Jeddah.

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Primary Health Care (PHC) as a concept and strategy for providing community health services has been accepted and adopted by many countries particularly developing countries. Rich Gulf countries such as Saudi Arabia have in general reoriented their health systems according to the Alma Ata approach where first contact comprehensive services are offered to all eligible individuals through Primary Health Care Centres (PHCCs) serving defined catchment areas according to residence. This system has been in operation for several years. Assessing how this system is functioning and identifying strengths and weaknesses is an evaluation process which needs to be undertaken for corrective measures and for proper expansion of the service. Satisfaction studies is one

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attempt in that pursuit. Consumers' satisfaction is generally considered as the extent to which the consumers feel that their needs and expectations are being met by the services provided. Satisfaction studies started to appear in the literature about half a century ago with the growing awareness of the patient (consumer) as an evaluator of health care and with time became more sophisticated and specialized and multidimensional scales for measurement of satisfaction were suggested.[1-4] In general most of the studies addressed one or more of the following parameters of health services: accessibility, continuity, humaneness, thoroughness, informativeness and effectiveness.

In Saudi Arabia such studies were scarce and rather of general nature.[5] During the last few years, researchers reported findings of specialized studies on patients' attitudes and satisfaction with the utilization of Primary Health Services mostly in Riyadh city, the capital of the country.[6-9] Similar studies need to be conducted in other cities and locations particularly the concerned authorities are inviting that.[10] The present study attempts to determine and study socio-demographic correlates of satisfaction with primary health services in Jeddah, the second largest city and main port of the country. To the best of our knowledge this is the first study of its nature and scope for Jeddah city.

Methods. This study is a facility based study in the Primary Health Care centres (PHCCs) in Jeddah city, the second largest city and main sea port. The study population consisted of all the consumers visiting the selected PHCCs during a one month period whose ages were 15 years and above. The study was conducted during September 1998. On geographical basis, 4 PHCCs were selected, one PHCC from each geographical zone by simple random sampling. The study sample consisted of 75 subjects from each PHCC, where every tenth subject visiting the selected PHCCs was chosen to participate in the study which was totally voluntary. Selected subjects were requested to fill in a pilot tested patient satisfaction questionnaire based on standardized Likert scale of 1 - 5 points, the higher the score the higher the satisfaction with the service offered. Trained Health Service Administration students from the College of Applied Medical Sciences were available to answer subjects' queries and help in filling in questionnaires for illiterate subjects. The questionnaire included, in addition to the socio-demographic characteristics of subjects, their attitudes towards the services and facilities in the PHCCs studied, as well as their specific and overall satisfaction level with the services and facilities in the PHCCs.

Subjects were informed about the study objectives and procedures and that data collected would be used only for the stated research purposes. The data collected was manually checked for completeness, then were entered into an IMB compatible personal computer and was statistically analyzed using SPSS program. One way analysis of variance (ANOVA) was used to compare the mean scores of each service item, summary satisfaction scores and overall satisfaction of all services according to the socio-demographic variables studied. Linear Regression was performed to study the contribution of the socio-demographic variables on summary and overall satisfaction scores. Results were considered significant if calculated P value was less than 0.05.

Results. Table 1 profiles the socio-demographics of the studied sample (300 subjects) and their summary satisfaction scores as assessed by

Table 1 - Socio-demographic characteristics of study sample and their summary and overall satisfation scores with services provided.

		Satisfaction	
Characteristics	**Percentage**	**Summary**	**Overall**
Age (years)			
15-20	52	3.74	2.47
30-49	42	3.85	2.44
50-80	4	3.67	2.47
Sex			
Male	50	3.76	2.46
Female	50	3.80	2.46
Marital Status			
Married	70	3.82	2.42
Single	21	3.75	2.50
Previously married	9	3.52	2.64
Education			
Illiterate	4	3.62	2.51
Elementary	20	3.84	2.40
Intermediate/Secondary	59.5	3.79	2.45
University+	16	3.72	2.56
Occupation			
Employee	63	3.80*	2.60**
Private	11	3.79	2.31
Labourer	4	4.31	2.71
Student	12	3.54	1.89
Unemployed	9	3.69	2.38
Monthly income			
<4500 SR	34	3.80	2.45
<6000 SR	42.5	3.76	2.24
<9000 SR	19	3.79	2.60
>9000 SR	4	3.85	2.40

*P<0.05; **P<0.01

the subjects in response to one question, as well as the overall satisfaction scores taking in consideration the satisfaction scores for out all the services offered on individual basis. The great majority of the subjects were young, married with intermediate/ secondary school education working as employees in government agencies, with a monthly income of 6000 Saudi Riyals or less (1 US$ = 3.75 Saudi Riyals). There were no significant differences in summary and overall satisfaction scores according to the socio-demographic variables studied except for occupation, where unskilled laborers showed the highest scores and students the lowest scores. Mean summary satisfaction score with the services was 3.76 points out of 5 points (75.2%), while mean overall satisfaction score was 2.45 points (49%). Summary scores were significantly higher than overall scores for all the socio-demographic variables studied. There were no significant differences in the overall and summary satisfaction scores among the 4 PHCCs studied.

Table 2 shows the satisfaction scores for each service item as assessed by subjects for laboratory, pharmacy, dental and x-ray services. The mean score for all these services was 2.6 points. The highest satisfaction score was for dental clinic and the lowest was for laboratory services. Satisfaction scores were significantly related to occupation for timely laboratory results, and pharmacy services where unskilled laborers scored the highest scores and students the lowest scores. Married subjects also showed significantly higher satisfaction with range of laboratory services and x-ray services than single subjects. Other socio-demographic variables were not significantly related to satisfaction.

Table 3 shows satisfaction with physician services with the highest score being for discussing psychological aspects of health problems and the lowest for offering referral to hospital and listening with patience. Unskilled laborers scored the highest scores compared to students who scored the lowest satisfaction scores and these differences were statistically significant for laboratory test requests, physical examination, explaining problem dimensions and treatment and for follow-up appointments. All other socio-demographic characteristics showed no significant association with satisfaction scores.

Table 4 shows satisfaction with the physical and human aspects of the reception area. Satisfaction

Table 2 - Satisfaction with laboratory, pharmacy, dental and radiology services according to subjects' demographics.

Socio-demographic characteristics		Laboratory tests	Laboratory results	Issued drugs	Drug side effects	Drug quantity	Pharmacy site	Dental appt.	Dental clinic	Dental emergency	X-ray
Age (years)	15-19	2.36	2.50	2.51	2.71	3.16	2.35	3.00	3.43	2.74	2.78
	30-49	2.26	2.26	2.55	2.79	3.15	2.26	3.09	3.49	2.92	2.66
	50-80	3.25	2.50	2.75	2.42	3.50	2.58	2.75	3.00	2.67	3.42
Gender	Male	2.25	2.35	2.55	2.69	3.09	2.30	3.03	3.28	2.82	2.68
	Female	2.46	2.45	2.52	2.77	3.26	2.34	3.03	3.59	2.81	2.83
Marital Status	Married	2.33**	2.36	2.50	2.70	3.18	2.33	3.00	3.39	2.76	2.66*
	Single	2.20	2.47	2.48	2.77	2.98	2.20	3.02	3.53	2.88	2.73
	Prev. Married	2.90	2.52	3.00	2.96	3.60	2.56	3.31	3.60	3.08	3.56
Education	Illiterat	2.54	2.31	3.08	2.54	3.62	2.39	2.93	3.92	3.15	2.69
	Element	2.36	2.31	2.48	2.49	3.12	2.33	3.06	3.20	2.62	2.62
	Inter/Secondary	2.34	2.46	2.56	2.76	3.19	2.28	2.98	3.49	2.98	2.80
	University	2.34	2.32	2.32	3.00	3.06	2.45	2.78	3.40	2.68	2.78
Occupation	Employed	2.38	2.46**	2.61*	2.82**	3.29*	2.34	3.11	3.42	2.79	2.75
	Private	2.06	2.50	2.18	2.41	2.78	2.21	2.79	3.47	2.88	2.56
	Unskilled	2.49	2.68	2.76	3.16	3.30	2.57	3.35	3.78	3.16	2.73
	Student	1.92	1.23	1.77	1.69	2.46	1.77	2.35	2.85	2.31	2.15
	Unemployed	2.58	2.50	2.54	2.46	3.00	2.23	2.77	3.27	2.62	3.39
Monthly Income SR	<4500	2.37	2.28	2.49	2.64	3.11	2.25	2.83	3.51	2.96	2.96
	<6000	2.30	2.43	2.56	2.75	3.17	2.35	3.17	3.27	2.80	2.43
	<9000	2.45	2.52	2.66	2.81	3.36	2.34	3.02	3.63	2.70	2.96
	>9000	2.30	2.54	2.15	2.62	2.52	2.39	3.31	3.69	2.23	3.39

Approx.-approximately, Appt.-appointment, Inter.-intermediate, Prev.-previously *P<0.05, **P<0.01

was generally highest for air conditioning and lowest for co-operation of the receptionists. Unskilled laborers showed significant highest satisfaction compared to students who showed the lowest satisfaction scores for site and size of reception area, and receptionists co-operation. Married subjects showed significantly higher satisfaction compared to single subjects for air conditioning, but lowest satisfaction with interpersonal communication of receptionist. All other socio-demographic variables studied showed no significant association with satisfaction scores.

Table 5 shows mean satisfaction scores with reception area and reception services, medical services and physicians' services according to the socio-demographic variables studied. Only occupation showed significant consistent association with the services provided where laborers scored the highest satisfaction and students the lowest satisfaction. Married subjects showed significantly higher satisfaction than single subjects for medical services only. All other socio-demographic did not show a significant consistent pattern of satisfaction with services provided. Linear regression analysis was applied on summary and overall satisfaction scores (dependent variables) and the socio-demographic variables (independent variables) to determine their differential contribution in satisfaction scores. The results were not significant except for occupation.

Discussion. Patient satisfaction studies have provided important information on several aspects of health services such as determining how and to what extent satisfaction influences, whether a person seeks health advice and complies with the professional measures prescribed, in addition to giving some indication about the quality of the health care provided. Such studies help providers better understand the patients' views and making use of them in planning, controlling and delivering the services particularly Primary Health Services. We are aware that some patients' opinions, beliefs and suggestions may be wrong themselves or that some patients may not be telling the truth as has been reported in some studies.[11] However, the successful health administrator and planner should also deal with the consumers' prejudices and not only with the providers' views.[12]

Table 3 - Satisfaction with physician's services according to the socio-demographic characteristics of the subjects.

Socio-demographic characteristics		Listen with patience	Visit reason	Lab. tests	Physical exam.	Explain patient problem	Explain treatment	Explain pyshological aspects	Answer questions	Follow-up appt.	Previous medicine	Hospital reference
Age (years)	15-19	2.20	2.20	2.38	2.40	2.42	2.33	2.54	2.32	2.36	2.35	2.18
	30-49	2.11	2.11	2.22	2.36	2.38	2.26	2.55	2.27	2.64	2.42	2.09
	50-80	1.83	2.17	2.50	2.08	2.00	2.25	2.75	2.25	2.17	2.08	1.92
Gender	Male	2.15	2.21	2.40	2.44	2.44	2.35	2.60	2.29	2.51	2.48	2.17
	Female	2.14	2.11	2.24	2.30	2.34	2.14	2.50	2.31	2.28	2.56	2.07
Marital Status	Married	2.10	2.14	2.23	2.31	2.31	2.27	2.50	2.25	2.37	2.35	2.08
	Single	2.23	2.23	2.58	2.61	2.64	2.34	2.66	2.38	2.45	3.38	2.25
	Prev. Married	2.20	2.12	2.36	2.80	2.44	2.42	2.76	2.52	2.52	2.48	2.20
Education	Illiterat	1.92	1.92	2.54	2.08	2.31	2.15	2.69	2.31	2.39	2.31	2.08
	Element	2.15	2.30	2.31	2.30	2.31	2.20	2.54	2.25	2.43	2.31	2.18
	Inter/Sec.	2.15	2.11	2.26	2.37	2.35	2.28	2.44	2.28	2.33	2.32	2.06
	University	2.21	2.26	2.47	2.57	2.64	2.51	2.94	2.43	2.62	2.67	2.30
Occupation	Employed	2.16	2.15	2.31	2.37	2.37	2.30	2.56	2.29	2.47	2.41	2.11
	Private	2.00	2.12	2.38	2.00	2.21	2.24	2.56	2.21	2.21	2.35	2.15
	Unskilled	2.57	2.54	2.65*	2.87*	2.97**	2.62*	2.70	2.70	2.62**	2.49	204.00
	Student	1.46	1.54	1.46	1.77	1.54	1.46	2.00	1.77	1.46	1.85	1.62
	Unemployed	2.00	2.04	2.27	2.46	2.39	2.27	2.54	2.19	2.41	2.15	2.04
Monthly	<4500	2.23	2.22	2.35	2.37	2.39	2.36	2.60	2.44	2.29	2.37	2.10
Income	<6000	2.08	2.10	2.24	2.30	2.29	2.21	2.41	2.17	2.43	2.31	2.13
SR	<9000	2.21	2.32	2.45	2.59	2.66	2.43	2.79	2.43	2.57	257.00	2.23
	>9000	1.85	1.92	2.23	2.15	2.15	2.00	2.54	1.92	2.15	2.08	1.85

Prev.-previously, Approx.-approximately, Lab.-laboratory, Exam.-examination, Appt.-appointment *P<0.05, **P<0.01

The overall consumers' satisfaction with provided services in this study as assessed by one summary question is 75% (mean score of 3.76 points out of 5). Previous studies in Riyadh city in the Kingdom reported satisfaction rates varying from moderate to high ranging from 60-90%.[6,7,9] In other gulf countries such as the United Arab Emirates and Qatar overall satisfaction rates were estimated to be 81% and less than 60%.[13,14] In developed countries such as the USA some studies reported satisfaction rates ranging from 75%-97%.[15-16] The variations in the satisfaction rates in these studies may be genuine or may be due to differences in populations studied, methodologies or sampling procedures used. We have to note here that overall summary satisfaction may be very high but detailed questioning of subjects often revealed substantial dissatisfaction with certain aspects of the services as has been reported in several studies,[9,13,14] and is clearly supported by the findings of our present study. The overall satisfaction as reported by subjects in response to one summary question in our study was about 3.76 points, but when subjects were asked about satisfaction for each service item individually the mean overall satisfaction dropped to 2.45 points only. The message here is clear. We should not depend only on summary assessment for satisfaction. Each service needs to be assessed individually using the different service items and components involved.

It is rather surprising that dental services scored high satisfaction rates contrary to the usual belief that clients are not satisfied with dental services particularly their long waiting lists and the difficulties in making convenient appointments. Laboratory services and some aspects of pharmacy services scored low satisfaction scores. Previous studies reported that problems faced by patients attending PHCCs in Riyadh city included insufficient drug supply, inadequate and delayed laboratory and radiological services.[9] The poor satisfaction with laboratory services in our study may be due to genuine problems concerning these service items and corrective measures may need to be implemented. However, subjects sometimes are not aware of the objectives and limits of Primary Health Services which are not identical to secondary (hospitals) health services. There are policies governing the type of medications and laboratory services to be offered in PHCCs. Visitors for one PHCC were not satisfied with laboratory and pharmacy services

Table 4 - Satisfaction with reception area and receptionist according to socio-demographic characteristics of the subjects.

Socio-demographic characteristics		Sitting chair	Reception site	Reception area	Health education material	Air ventilation	Air conditioning	Female reception area	Receptionist cooperation	Receptionist communication
Age (years)	15-19	2.49	2.54	2.64	2.44	2.74	2.98	2.17	1.90	2.38
	30-49	2.35	2.39	2.54	2.35	2.90	3.10	2.14	2.01	2.35
	50-80	2.58	2.33	2.58	2.83	2.75	3.17	2.42	2.08	2.33
Gender	Male	2.39	2.44	2.55	2.42	2.71	**2.84	2.15	2.04	2.41
	Female	2.48	2.50	2.63	2.42	2.91	3.24	2.18	1.87	2.33
Marital Status	Married	2.41	2.47	2.53	2.35	**2.91	**3.20	2.09	1.93	*2.26
	Single	2.52	2.52	2.77	2.55	2.41	2.48	2.25	2.00	2.63
	Prev. Married	2.48	2.36	2.64	2.68	2.96	3.12	2.60	2.04	2.60
Education	Illiterat	2.69	2.31	2.77	2.62	3.31	3.46	2.23	1.69	2.15
	Element	2.26	2.33	2.41	2.39	2.85	3.20	2.30	1.85	2.20
	Inter/Sec.	2.43	2.47	2.63	2.40	2.78	2.98	2.11	1.96	2.37
	University	2.62	2.70	2.64	2.45	2.72	2.94	2.19	2.13	2.66
Occupation	Employed	2.49	**2.56	**2.66	2.40	2.85	3.09	2.17	*203	2.42
	Private	2.36	2.21	2.53	2.21	2.62	2.97	2.03	1.56	2.12
	Unskilled	2.73	2.76	2.84	2.70	2.73	2.92	2.35	2.11	2.68
	Student	1.85	2.00	2.00	1.92	2.46	2.69	2.08	1.54	1.92
	Unemployed	2.15	2.04	2.12	2.65	3.04	3.08	2.12	1.89	2.12
Monthly Income SR	<4500	2.39	2.41	2.60	2.41	2.68	*2.81	2.32	1.84	2.37
	<6000	2.35	2.39	2.49	2.43	2.84	3.15	2.00	2.04	2.35
	<9000	2.77	2.84	2.90	2.52	2.04	3.34	2.32	1.96	2.39
	>9000	2.23	2.23	2.23	2.00	2.46	2.46	1.92	2.00	2.46

Prev.-previously, Approx.-approximately, Lab.-laboratory, Exam.-examination, Appt.-appointment*P<0.05, **P<0.01

despite the expanded services exceptionally offered in that particular PHCC and the authors stressed the importance of educating clients about the objectives of PHCCs services and what consumers should expect from them.[8] The subjects were also concerned with many aspects of pharmacy and pharmacist services. Insufficient information about drugs side effects and precautions from the pharmacist was a reason for poor satisfaction in our study. Pharmacists should play an active role in providing information about drug interactions and side effects and should be ready to answer patients queries. Low satisfaction was scored for some physicians' services particularly the failure of physicians to listen with patience to consumers complaints and reluctance to refer consumers to hospital. Physicians need to listen patiently and carefully to their clients. This is of paramount importance in securing their co-operation and compliance. Physicians need to be reminded about this and measures should be taken to give them time to do that and if necessary proper training. Referral to hospital is a professional decision and usually granted if justified. Consumers occasionally request an unjustified referral to hospitals where they think that better quality of services are offered. This practice should be strongly discouraged and primary care is more appropriate than secondary care in many occasions. Receptionists co-operation with clients need to be improved with better training and supervision. Receptionists are the first team members to meet consumers and this initial encounter should be highly satisfactory to consumers.

The results of this study appear to reveal no consistent pattern of association of overall satisfaction with the socio-demographic variables studied except occupation. The highest satisfaction mean score was for laborers and the lowest score was for students. Students are of young age and are generally more demanding. In addition, students may visit PHCCs for sick leaves or medical reports to skip classes or exams and these documents are usually issued by school health services. Hence it is not unexpected for students who were seeking these excuses to be less satisfied if they could not obtain them. The other findings in general did not show a defined pattern for the summary and individualized satisfaction scores according to the socio-demographic characteristics apart from marital status for some services. A literature review confirms these inconsistencies. Males were more satisfied in previous studies in neighboring United Arab Emirates and Qatar States,[13,14] while in others,

Table 5 - Socio-demographic characteristics of study sample and their satisfaction scores with services provided.

Socio-demographic characteristics		Reception area	Medical services	Physician services
Age (years)	15-19	2.47	2.59	2.33
	30-49	2.44	2.55	2.29
	50-80	2.47	2.66	2.18
Gender	Male	2.44	2.55	2.37
	Female	2.50	2.61	2.25
Marital Status	Single	2.46	2.60	2.43
	Prev. Married	2.61	2.90	2.39
				2.24
Education	Illiterat	2.58	2.69	2.29
	Elementary	2.42	2.47	2.27
	Inter/Secondary	2.46	2.60	2.31
	University	2.56	2.60	
Occupation	Employed	2.52*	2.61**	2.31**
	Private	2.27	2.42	2.22
	Unskilled	2.65	2.81	2.65
	Student	2.05	1.99	1.63
	Unemployed	2.45	2.53	2.24
Monthly Income SR	<4500	2.42	2.57	2.34
	<6000	2.45	2.55	2.24
	<9000	2.67	2.66	2.49
	>9000	2.22	2.57	2.18
	Mean score	2.47	2.58	2.31

*P<0.05, **P<0.01

females were more satisfied than males.[17] However most studies have found that satisfaction was not significantly related to gender[18-25] as in our study. We found in the present study that age was not consistently related to satisfaction which is not congruent with the findings of many studies nationally, regionally and internationally,[9,14,26-31] which showed that older subjects were more satisfied than younger subjects. Older subjects are generally more conservative and less demanding than younger subjects. As for education level of subjects and their overall and individualized satisfaction scores, our results did not support findings of some studies which showed that less educated consumers were much more satisfied than the more educated,[14] but is in accordance with other studies which did not find any significant consistent association between education and satisfaction.[9,32] Similar inconsistencies were also reported concerning occupation and satisfaction. Consumers who work in semiskilled or unskilled jobs were significantly more satisfied in the present study while a previous study in Riyadh[9] found that teachers showed the highest satisfaction score (96%). Marital status was related to satisfaction. Married consumers were more satisfied than single consumers in a previous study in the Riyadh city.[9] Our findings did appear to agree with that for only a few services. Single subjects tended to have higher satisfaction with most services in our study.

As can be seen patients' socio-demographic variables have been studied in several communities but their relation to opinions and attitudes and their association with satisfaction have been rather inconsistent. Several factors are associated with the positive attitudes and satisfaction of patients with the health services. These include manpower characteristics, resources and service organization, travel distance, travel and waiting times, work hours, as well as the attitudes of the patient towards life itself. Also methodology of the study and whether self administered or interviews were used to collect data, the types, number and sequence of questions asked, the timing and setting may all have affected the level of satisfaction. However, consumers' opinions about provided services, whatever methods used, can lead to many changes and benefits to the consumers themselves, the health team and the whole health system although such studies may at times be costly.[33]

In conclusion, the present study found that laboratory and some pharmacy services and communication skills of physicians, pharmacists and receptionists need to be improved to enhance satisfaction and utilization of services. Significant associations between satisfaction and occupation was found but other socio-demographic characteristics were not consistently associated with satisfaction. In addition to the quality of the services, other factors may have affected the satisfaction of the clients. Overall summary satisfaction tends to be much higher than satisfaction which takes in consideration all the service items individually and this needs to be always remembered and allowed for, before drawing conclusions and recommendations.

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