APVVP - Patient Satisfaction Survey 1999

Institute of Health Systems[1]

I. Introduction:

Measurement of patient's satisfaction with services provided by the concerned hospital is important from two angles. Firstly, patients constitute the hospital's direct clientele. Thus overall satisfaction of the patient is an important aspect of the service itself, apart from other dimensions like technical quality of medical care, effectiveness of treatment etc. Secondly, patient's satisfaction provides an indirect measure of the other dimensions as well. There is increasing evidence to suggest that patient's satisfaction is usually correlated with effectiveness of treatment (Wilkin,1992). Recognising the need for operations research to continuously improve quality of service, hospitals and health care organisations are increasingly turning to measurement of patient's satisfaction (Nelson and Batalden, 1993).

The Andhra Pradesh Vaidya Vidhana Parishad (APVVP) is the largest provider of first referral hospital services in Andhra Pradesh. APVVP manages a large and widely dispersed network of public hospitals in the state (Table-1). APVVP

Table - 1: APVVP health care institutions and coverage by this study

Type of health care institution	All institutions		Covered by this study	
	Numbers	Beds	Numbers	Beds
District hospitals	19	4,889	19	4,889
Area hospitals	25	2,500	6	600
Community hospitals	107	4,537	0	0
Dispensaries	25	0	0	0
All	176	11,926	25	5,489

II. Methodology

A. Choice of study set and sampling of patients:

1. Choice of hospitals: All District and Areas hospitals managed by APVVP, except the ones under major renovation, were taken up for the study. This included all the District hospitals and six of the area hospitals. Other area hospitals (19) were not running with full capacity and hence not included in the study.
2. The study was limited to area and district hospitals on account of time and cost considerations. We wanted to generate statistically accurate estimate of patient's feed back for each hospital, so that inter hospital comparison is possible. For this purpose we require a large enough sample size of say 35 to 50 respondents from each hospital. We fixed a optimum length of stay of four days, so that the respondent has had an opportunity to experience the hospital's services, before (s)he is called upon to make an assessment. We relaxed this norm upto a minimum of two days stay. To gather a sample of 50 patients from a small hospital would require a very long stay on the part of the data collection team. The requirement of longer stay and the geographical

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distribution of the community hospitals would have increased the cost of the study and the time to completion. We could not afford this for the present study.

3. The following procedure was followed to sample patients within each hospital:
   i. First count the number of inpatients whose length of stay in the hospital is 4 days or longer. If this works out to more than 50 then use this as sampling frame. If the above number is a less than 50 then include patients with stay of 3 days, recount and check if the resultant number is 50. If it is not yet 50, then include patients with stay of two days or longer. Stop here even if the total list does not exceed 50. Table-1 shows the actual distribution of sampled patients by length of stay category. Most of the sampled patients had stayed in the hospital between 3 to 30 days.

Table-2 Distribution of respondents by length of stay in the hospital (n=1179)

Length of stay	%
1 day	0.17
2 days	0.51
3 days	2.80
4 to 10 days	58.86
11 to 20 days	23.41
21 to 30 days	7.46
31 to 100 days	6.53
101 + days	0.25

   ii. If the total list was within 50, no further sampling was needed. Every one in the list was taken up for the survey.
   iii. If the total number of persons in the resultant sampling frame (persons with stays of more than 4, 3 or 2 days as the case may be) exceeded 50, then only 50 persons were chosen randomly. The list was stratified by major wards and random samples were drawn from each ward, proportionate to its bed strength. Table-3 shows the actual distribution of sampled patients by the hospital ward from which they were chosen. The distribution appears to be balanced among different services and wards.

Table-3: Distribution of patients by the hospital ward in which the patient was resident (n=1179)

Ward	%
Male Surgical	20.46
Male Medical	18.00
Female Surgical	13.16
Maternity	11.89
Female Medical	11.38
Orthopaedics	7.64
Gynaecology	4.16
Tuberculosis	3.90
Family Planning	2.21
Isolation	0.34
Paying Block	0.25
Trauma	0.17
Children's Ward	6.45

B. Patient satisfaction questionnaire:

1. The Patient Satisfaction Questionnaire - III (PSQ-III) developed by Ware and others (Hays, Davies and Ware; 1987) forms the core part of the questionnaire used in this study. The PSQ-III questionnaire reproduced in Wilkin and others (1992) was used. PSQ-III serial numbers mentioned below refer to the questionnaire from this publication.
2. About 10 questions from the PSQ-III were dropped since pilot testing for this study showed that people had difficulty in either grasping the meaning of the question or did not feel comfortable to give an answer.
3. We added eight questions to factor in the quality of nursing services and general cleanliness dimensions. Seven of these are structured questions similar to the PSQIII items. The eighth item is an open ended question to enable the respondent give a more spontaneous and qualitative assessment about hospital services.
4. The resultant questionnaire is shown in annex-1. Note the question identification scheme, since it would help in interpretation of graphs and charts. Each question has been given an Id. Questions borrowed from the PSQ-III start with the alphabet M and

those added by IHS start with I. Thus MPSQxx means the question is originally from the PSQIII and IPSQxx means it was added by us for this study. xx represents the serial number of the questions. For questions added by IHS serial number starts from 52.

5. To minimise framing effect, PSQ uses both negative and positively framed questions for the same issue. The same approach was retained for this study. The order of presentation of questions was randomised to avoid, any bias due to sequencing of items. Annex-1 shows the serial numbers actually assigned to each item, in the survey instrument. Table-4 shows an example of a pair of negative and positively framed questions, and the system of scoring for data analysis.

Table-4: Examples of negative and positively framed questions and corresponding system of scoring of items in the patient satisfaction questionnaire.

Negatively framed question:

You are usually kept waiting for a long time when you need doctor's attention / consultation (MPSQ7).

Choice ->	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Score ->	1	2	3	4	5

Positively framed question:

You have easy access to the medical specialists in the hospital (MPSQ25)

Choice ->	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Score ->	5	4	3	2	1

Note that the scoring system is reversed for the positively framed questions, so that a higher score represents more satisfaction with the hospital's services. Thus a score of 1 or 2 would mean poor performance. Score of 3 means the respondent was uncertain. Scores 4 and 5 means good performance, by the hospital.

6. Response to each item in the PSQ is obtained with the help of a rating scale, consisting of five categories ranging from strong disagreement to strong agreement. On theoretical grounds it is difficult to predict the properties of a statistic, derived by adding scores across, more than one item. The strategy of balancing negatively framed questions with positively framed questions on the same issue, would, to some extent work to cancel out framing biases, if any, when scores for a pair of items on the same issue but with different frames of presentation are added. Even then, we can not be sure of the validity reliability of a composite score obtained by adding up multiple items. Ware and others tested the validity and reliability of the composite scores for each sub scale and the single composite of scale of overall satisfaction, with the help of other intuitively appealing and commonsense measures of consistency with level of satisfaction. The PSQ sub scale and composite scores were found to have high validity and reliability. The individual items, however, did not show the same degree of validity and reliability. The key point, being made here is that, summation of scores to arrive at single and sub scale composite scores of patient satisfaction, has empirical support about its validity and reliability.
7. The items in the questionnaire, used in this study are grouped into the following seven sub scales, as in case of PSQ-III. Annex-1 gives sub scale assignement of each item.
   i. Access - Availability - Convenience (AAC)
   ii. Communication (COM)

iii. Financial Aspects (FIN)
iv. General Satisfaction (GS)
v. Interpersonal Aspects (IPA)
vi. Technical Quality (TQ)
vii. Time spent With Doctor (TWD)

Table-5: Admission and Patient Interview dates for the APVVP Patient Satisfaction Survey, 1999

Month	Admissions	Interviews
February	1	0
March	7	0
April	20	0
May 1999	127	12
June 1999	600	579
July 1999	423	585
Aug.- Sep. 1999	1	3
Total	1,179	1,179

C. Translation to Telugu:

1. Translation retranslation procedure (Leplege and Verdier,1995) was used. The questionnaire in English was first translated to Telugu by a team of IHS faculty who are conversant with both the languages. The translated questionnaire was then given to two independent persons (school teachers in English) for retranslation into English. The retranslated questionnaire was compared with the original questionnaire. The retranslated questionnaire used for this study closely matched the original one.

D. Time period:

1. The survey started in the second fortnight of May, 1999. However, most of the interviews were held during June - July , 1999 (Table-5). A few interviews spilled over to August - September, 1999. Patients covered by this study were admitted, mostly, between May to July, 1999. Thus the findings of this study would relate to the period May to July, 1999.

E. Interview method and data collection:

1. Interviewers consisted of IHS faculty and research assistants well versed in interviewing and administration of questionnaires in the health sector. A team of at least two surveyors visited the hospital. Prior notice was given to the hospital about arrival of the study team. However, programme of visit by survey teams to each hospital was fixed by IHS faculty independently, without any reference to the hospital authorities concerned. Surveyors stayed overnight for two or more days as required. Detailed briefing and familiarisation with the questionnaire was arranged at IHS before dispatching of teams to the hospitals.
2. The surveyor would meet the nurse on duty, explain to her the purpose of his / her visit. The staff were reassured that purpose of the study is to constructively estimate the quality of services and to understand how they can be improved. The surveyor would then start interviewing the patients and / or their attendants. If the patient was unable to participate, the surveyor would look for the attendant who has been with the patient regularly (Table-6). In case of minors like children, the mother or such other attendant who has been with the patient most of the time were sought for.

Table-6: Relationship of attendants to patients (237)

Relation to patient	Percent
Mother	46.35
Wife	11.59
Daughter	8.15
Son	7.3
Father	5.15
Sister	3.86
Husband	2.58
Grand mother	2.44
Brother	2.15
Grand son	2.15
Aunt	1.29
Neighbour	1.29
Mother in law	0.86
Sister in law	0.86
Son in law	0.86
Uncle	0.86
Father in law	0.43
Friend	0.43
Guardian	0.43

Interviewers explained to the patient about the purpose of the visit. Each respondent was reassured that the study is designed to improve the quality of services in hospitals and that only statistical information will be used. They were assured that privacy and confidentiality will be maintained as far as the individual is concerned. Thereafter, the interviewer would start asking questions following the structured questionnaire.

3. The last question has both closed and an open ended component to record special remarks made by the respondent. While filling in the open ended component, surveyors were advised to write down the respondents expression as completely as possible, using respondents own words.

F. Data entry:

1. Data entry was done using EpiInfo. Data was entered twice. Both sets were checked for consistency, using EpiInfo check facility. Discrepancies were rectified by referring to the original interview forms. The data entry program was designed to accept the responses, as it is, i.e. in terms of graded agreement. Scoring was automatic. The program scored the agreement - disagreement categories, as 1 to 5 for the negatively framed questions and 5 to 1 for the positively framed questions.

III.Description and profile of the sample:

Altogether 1179 patients were surveyed. Of these 942 patients were able to take the interview. For the rest 237 patients a relative (table-6) was interviewed. Patients in the sample are from all age groups (Table-7). The sample fairly balanced between females and males. There were more females in the reproductive age group of 15-44. Attendants had to be interviewed mostly for children and the elderly.

Table-7: Age distribution of patients, in respect of which satisfaction data was collected

Age group	By gender		By respondent status		All (1179)
	Females (597)	Males (582)	Patient (942)	Attendant (237)	
0-14	10.72	11.34	4.03	38.82	11.03
15-44	69.18	45.88	64.12	32.07	57.68
45-59	11.06	23.02	19	8.86	16.96
60	9.05	19.76	12.85	20.25	14.33
	100.01	100	100	100	100

Note: Figures in parentheses show the number of patients in respective category.

Most of the patients are from poor socioeconomic background (Table-8). 77% of the patients were from households having white ration card. White ration cards are issued to household whose annual income is less than a cut off level of Rs 11000 per anum. 64% were illiterate, and 28% were daily wage earning labourers.

Table-8: Distribution of respondents by socioeconomic status of the household (1179)

Ration card		Occupation		Educational status (1179)	
Card type	%	Occupation	%	Literacy / Education	%
White* (Poor)	77.27	Labourer	27.91	Illiterate	64.21
Pink	9.92	House wife	18.15	Primary	23.41
Not available	12.81	Agriculture	10.43	Secondary	9.67
* Households income less		Others	35.96	College	2.71
than Rs12000 / annum		Service	7.55		

IV.Results and analysis for all 25 APVVP hospitals:

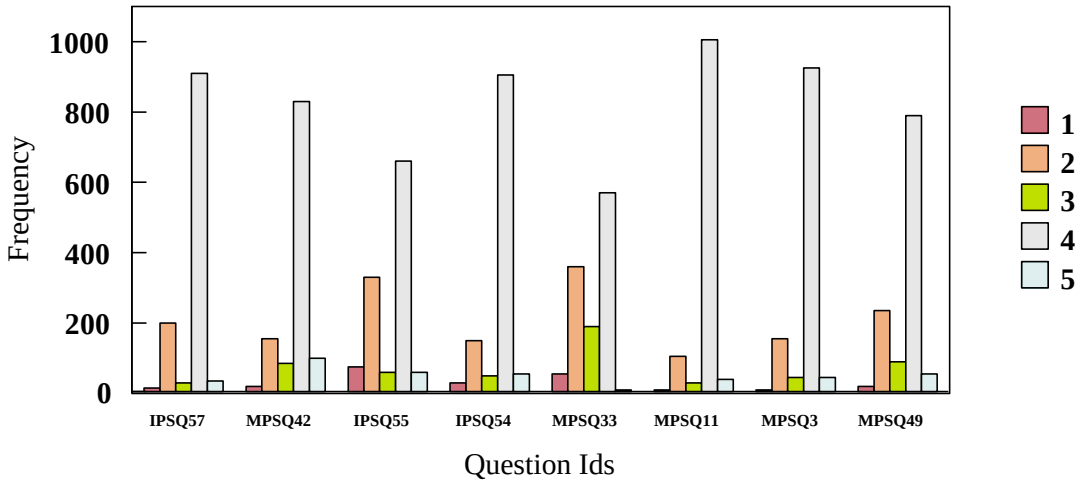
Overall level of satisfaction with services stood at 65%. The average composite satisfaction score was 153 against a maximum possible score of 235. Sub scale wise scores (table-9) shows lowest level of satisfaction in the General satisfaction sub scale. This sub scale includes items about general cleanliness, toilets facilities, and overall satisfaction with medical care. Next to the lowest level of satisfaction scores is obtained by the time spent with doctor and technical quality sub scales. Both sub scales have items designed to measure patients assessment of doctor's work. Level of satisfaction with communications, access, availability and convenience, and interpersonal aspects was comparatively better. However, none of the highest level of satisfaction obtained by any scale was 76%. Considering that this kind of surveys usually tend to generate positive assessment from patients, the level of satisfaction scores for APVVP hospitals appears to be low.

Table-9 Patient satisfaction scores for all 25 APVVP hospitals (1179 patient responses).

Service component	Number of items	Maximum possible score	Actual score	Level of Satisfaction
Composite score	**47**	**235**	**153**	**65%**
Access availability and convenience	9	45	33	73%
Communications	5	25	19	76%
Financial aspects	6	30	20	67%
General satisfaction	8	40	18	45%
Interpersonal aspects	10	50	36	72%
Technical quality	7	35	22	63%
Time spent with doctor	2	10	6	60%

Another way of looking at the data is to do a frequency analysis of the responses to each item and eyeball the results for a group of items. Advantage of considering frequency of a responses is that no aggregation of categorical responses is done. Thus statistical properties of the data is retained. Figure-1 shows the frequency of response scores to 8 items in the general satisfaction sub scale.

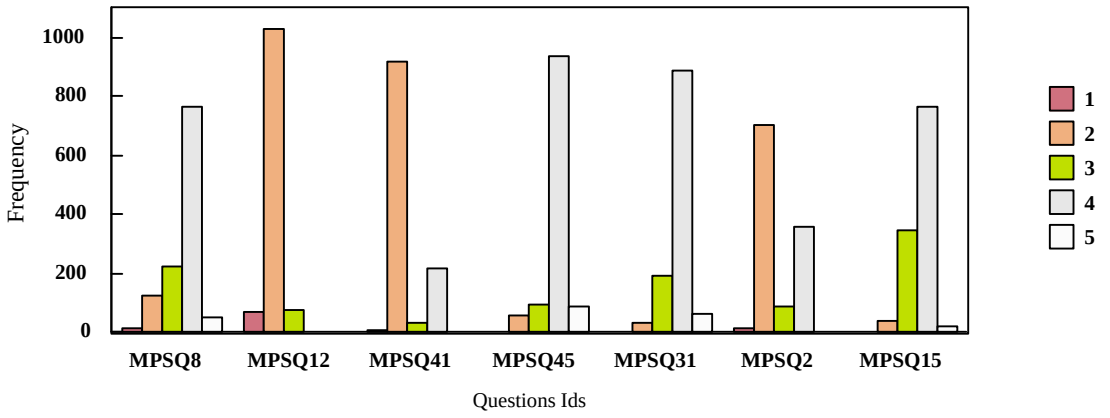
Fig-1: Response to general satisfaction questions



1-2 => Poor assessment, 3 => Uncertain response, 4- 5 => Good

The item MPSQ33 stated that "There are some things about medical care you receive that could be better." Patients' response to this item yielded a higher frequency of poor scores. But its positively framed complement item (MPSQ11) received positive scores much more frequently. Taken together, some of the poor assessment through MPSQ33 and better assessment through MPSQ11 can be attributed to framing effect. IPSQ57 was about patients bed and surroundings. There are quite many poor assessment scores for this question. MPSQ42 proposed that the medical care received by the patient was excellent. This was a positively framed item, without a balancing negatively framed item. Since, this item was positively worded, one would expect higher satisfaction scores for this item. But only 78% of respondents gave a good feedback.

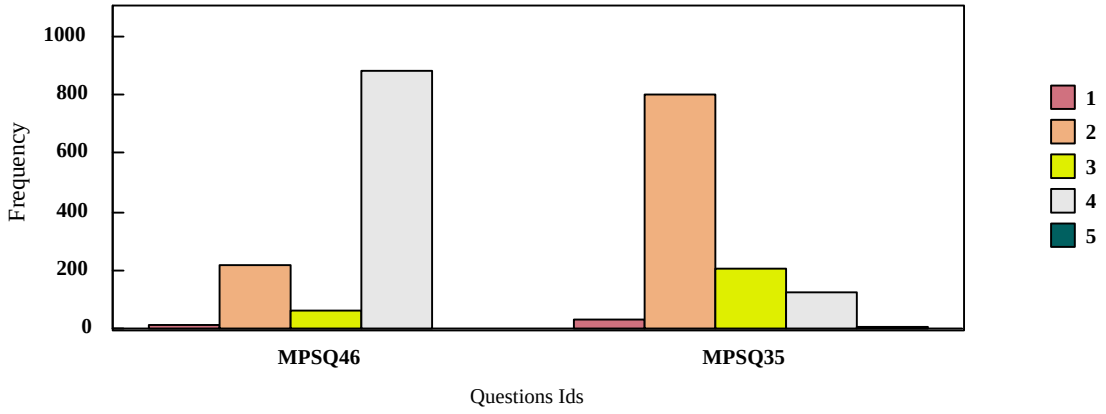
Fig-2: Response to questions on Technical quality



1-2 => Poor assessment, 3 => Uncertain response, 4- 5 => Good

Figure-2 shows items wise response to questions on technical quality. Note the very high level of dissatisfaction expressed through items MPSQ12, MPSQ41 and MPSQ2. All three questions are about patients perceptions regarding the technical quality of doctor's work. Now look at figure-3 that shows feedback about time spent by doctors with patients. Here again patients' assessment of care by doctor's was poor.

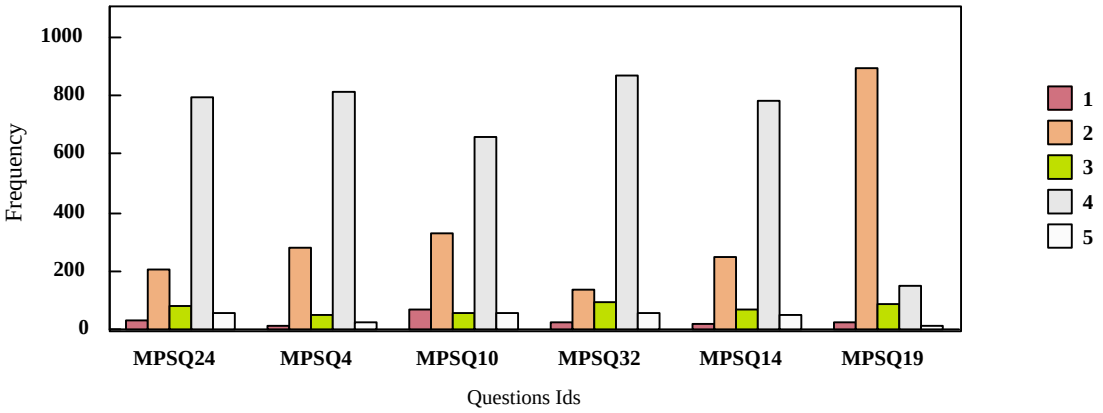
Fig-3: Response to questions on Time spent with doctor



1-2 => Poor assessment, 3 => Uncertain response, 4- 5 => Good

Figure-4 shows the responses to items on financial aspects. These questions asks patients about the financial burden of hospital care. So effect of things like money spent on buying medicines, paying fees and bribes to various hospital staff would show up through these items. Apart from the generally high level of dissatisfaction expressed through almost all items in this sub scale, the response to item MPSQ19 is of interest. This item asked if the patient, some times, goes without medical care, because it is too expensive. The response to this item shows a very high frequency of poor assessment.

Fig-4: Response to questions on Financial aspects



1-2 => Poor assessment, 3 => Uncertain response, 4- 5 => Good

The above figures have retained the five category rating as in the questionnaire. For analytical purposes, however, we are simply looking at the good assessment versus not good assessment. We can give a quantitative basis to this type of analysis, by simply transforming the responses to a binary variable representing good response or not. To do this, we recoded the responses as a true false variable to represent Good feed back. Scores 4 and 5 were transformed as Good feed back = True and all other scores (i.e. 1 to 3) were coded as Good feedback = False. The proportion of respondents giving Good feed back is then an indicator of patient satisfaction. Annex-1 shows the proportion of Good feedback for each item included in the questionnaire. Table-10 shows the range of good feedback to items different sub scales. Since the table shows the range of responses to a set of questions, only if the lowest end of the range would be informative about performance of APVVP hospitals regarding corresponding aspects.

Table-10 Range of good feedback to items in various sub scales.

Service component	Number of items	% respondents giving a good feed back	
		Lowest	Highest
Access availability and convenience	9	42.3	94.2
Communications	5	61.2	88.2
Financial aspects	6	14.8	77.7
General satisfaction	8	48.7	87.4
Interpersonal aspects	10	16.5	92
Technical quality	7	0	80.5
Time spent with doctor	2	11.9	74.6

The questionnaire included an open ended question (IPSQ59) linked to MPSQ33. This later item stated that "There are some things about medical care, that could be better."

As a corollary to this items, respondents were requested give there suggestions through the open ended item (IPSQ59). In practice, it turns out, many patients used this question to vent their feelings and experiences with the hospital. Except for one or two appreciative remarks, almost all remarks were deprecatory. Surveyors got an impression, that patients and respondents, who felt strongly about the unsatisfactory experience with the hospital, made a special remark through the open ended item IPSQ59. Altogether 432 (37%) of the 1179 respondents made a special remark. These remarks included about 683 pieces of clearly identifiable statements or comments. Almost all (92%) of these comments were adverse. This gives a clear indication of the very high proportion of dissatisfied and frustrated clientele. These remarks meant that the respondent had to spend more time on the interview, since the surveyors would take this up only after completing all other items. Choosing to make adverse remarks, despite the added transaction cost of a prolonged interview, would suggest, that the respondent felt very strongly about it. We made a content analysis of these remarks and classified the comments into a categories representing various concerns expressed by the patients. Some of the top concerns of most patients ordered according to the frequency of remarks on the respective theme, are given below (table-11).

Table-11 Top concerns and adverse remarks expressed by patients in 25 APVVP hospitals.

Area of concerns	Frequency	Percentage
Corruption by hospital staff (Corrptn)	126	20%
Utilities like water supply, fan, light, etc. (Utlts)	109	17%
Toilet and cleanliness (Toilets)	108	17%
Communication and interpersonal skills (ComIP)	73	12%
Supply of drugs (Drugs)	55	9%
Food supply (Food)	51	8%
Linen availability and cleanliness (Linen)	34	5%
Staff shortage (Staff)	11	2%
Diagnostic and General facilities (D&GF)	9	2%
Miscellaneous (Misc)	53	8%
All adverse remarks (All)	629	100%

Corruption by all levels of hospital staff including doctors, nurses, and other supporting staff, Lack of utilities like water supply, fans, lights etc., poor maintenance of toilets and very poor general cleanliness, very poor communication, interpersonal skills and lack of respect for feelings of the patient were evidently top concerns in the minds of patients.

V. Hospital wise analysis of results:

Table - 12 shows the composite level of satisfaction and sub scale wise levels of patient satisfaction of each of the 25 hospitals included in the study. The hospitals have been arranged in highest level of composite satisfaction at the top and the those registering lowest patient satisfaction levels at the bottom. Note however, that the highest level of composite satisfaction is only 69%. Table - 13 shows the hospital wise count and percentage of respondents who made a specific remark about the quality of hospital service. As explained earlier, the percentage of respondents choosing to make specific and adverse remarks about functioning of the hospital, can be used as a proxy indicator of the level of dissatisfaction. Table-14 shows the frequency of adverse comments classified according the area of patient concerns. This table should be of help to superintendents and managers of the respective hospital to focus remedial action in areas where their patients expressed maximum dissatisfaction.

Hospitals which came out with distinctly higher levels of patient satisfaction (Table-12) include the District hospitals at King Koti Hyderabad, Rajahmundry, Srikakulam and Area hospitals at Chirala and Hindupur.

The District Hospital at King Koti is definitely, one of the best managed hospitals in APVVP. The level of patient satisfaction was high. There was not even a single adverse remark (table-13) by any of the patients. When we look at the sub scale wise scores, the hospital is evidently falling short of patients expectations in certain areas. In particular, patients felt that doctors were not spending enough time with them. The general satisfaction score was also comparatively low, which could be due to poor maintenance of toilets and cleanliness. Top management is showing lot of interest on patients. Hospital is maintained very cleanly. Compared to Osmania and Gandhi patients feel this hospital is like heaven. Drugs are supplied regularly. Nursing care is good. Doctors make rounds regularly. All doctors are having good reputation.

Table-12 Level of patient satisfaction in different areas of hospital service, for each hospital

Hospital Name	GS	TQ	IPA	COM	FIN	TWD	AAC	Composite
Items->	8	7	10	5	6	2	9	47
Max Score->	40	35	50	25	30	10	45	235
DH Kingkoti	48%	71%	77%	81%	68%	55%	76%	69%
DH Rajahmundry	52%	68%	74%	79%	71%	60%	73%	69%
DH Srikakulam	49%	67%	77%	80%	69%	62%	72%	68%
AH Chirala	47%	64%	75%	77%	71%	60%	75%	67%
AH Hindupur	46%	66%	76%	75%	66%	64%	74%	67%
DH Ongole	49%	63%	73%	75%	69%	60%	74%	67%
DH Nellore	47%	63%	73%	77%	70%	59%	74%	67%
DH Anantapur	46%	65%	73%	75%	64%	64%	75%	66%
AH Nampalli	47%	65%	73%	75%	67%	58%	73%	66%
AH Jagityal	48%	59%	71%	75%	66%	63%	79%	66%
AH Nandyal	47%	63%	73%	79%	67%	60%	72%	66%
DH Vizianagaram	46%	67%	74%	76%	67%	66%	69%	66%
DH Sangareddy	45%	65%	77%	78%	63%	58%	71%	66%
DH Mahboobnagar	47%	59%	72%	75%	66%	65%	77%	66%
DH Nalgonda	45%	61%	72%	77%	63%	62%	77%	66%
AH Tenali	46%	67%	70%	77%	67%	61%	72%	66%
DH Adilabad	47%	60%	70%	71%	69%	60%	77%	66%
DH Nizamabad	44%	59%	71%	73%	65%	62%	77%	65%
DH Cuddapah	43%	60%	69%	74%	66%	60%	76%	64%
DH Machillipatnam	40%	70%	75%	74%	59%	46%	67%	63%
DH Chittoor	40%	64%	70%	69%	62%	63%	70%	63%
DH Eluru	41%	64%	69%	69%	62%	58%	65%	61%
DH Khammam	41%	58%	68%	71%	55%	59%	74%	61%
DH Karimnagar	42%	58%	65%	66%	62%	56%	74%	61%
AH Gudivada	28%	61%	64%	59%	58%	56%	59%	55%

GS = General satisfaction; TQ = Technical Quality, Interpersonal aspects; Communication; FIN = Financial aspects; TWD = Time spent with doctor; AAC = Access, availability and convenience

The District Hospital Rajahmundry, is another of the best managed hospitals sharing the same level of patient satisfaction. Our surveyors observed that the Medical Superintendent was extremely participative. He was particular about the cleanliness of the hospital. He is very much accessible to the patients and reacts quickly to their complaints.

However, there were a few specific remarks by patients in this hospital. Some of those remarks reflected patients expectation for additional services, for example, telephone booth near the hospital, etc. Other remarks include; expectation of money by sanitary workers, and less than satisfactory behaviour by the nurses. The hospital, could pay attention to these areas to further improve the level of patient satisfaction.

District Hospital at Srikakulam received a patient satisfaction level of 67%. Our surveyors gathered that the Medical Superintend is very particular about the patient care. He makes regular rounds even in the night. Hospital is maintained cleanly compared to other hospitals. Staff is reactive to the patients. However, there were specific remarks pointing to staff asking money for every thing. It would appear that supporting staff are asking for money for every little thing. Some patients expressed unhappiness about state of toilets and cleanliness. This appears to contradict observation of IHS surveyors that cleanliness was better. This discrepancy could be due to lack of consistency and reliability in cleanliness of the hospital and maintenance of toilets.

Area hospital Chirala received good feed back from its patients. The level of satisfaction was 67%. This was one hospital where patients offered additional positive feed back about the staff. Doctors were reported to be very much careful. If necessary nurses phone to doctor. Doctors make three rounds everyday and show empathy. There was mixed feedback about cleanliness. Patients commented about inadequacy of fans and lights, and drinking water.

The Area Hospital at Hindupur also received fairly high level of patient satisfaction score. The pediatric ward was perceived to be well maintained. However, about 35% volunteered additional remarks, most of which were adverse. These included every one in the hospital demanding money, lack of interest among nurses, and inadequacy of drinking water facility.

Table- 13: Hospital wise count of respondents who offered detailed remarks, and percentage of this count to total respondents from the hospital.

Hospital Name	#	%	Hospital Name	#	%
District Hospital Karimnagar	43	86			
District Hospital Khammam	33	66	District Hospital Eluru	17	35
District Hospital Nizamabad	28	54	Area Hospital Hindupur	17	35
District Hospital Mahboobnagar	23	50	District Hospital Chittoor	16	32
District Hospital Nalgonda	23	46	District Hospital Srikakulam	15	30
District Hospital Cuddapah	22	45	Area Hospital Chirala	10	28
District Hospital Sangareddy	16	44	District Hospital Nellore	13	26
District Hospital Nandyal	20	43	District Hospital Vizianagaram	11	21
District Hospital Adilabad	22	43	Area Hospital Gudivada	6	21
District Hospital Machilipatnam	21	42	Area Hospital Tenali	8	21
District Hospital Anantapur	22	42	District Hospital Ongole	8	15
Area Hospital Nampalli	19	37	District Hospital Rajahmundry	5	10
Area Hospital Jagityal	14	37	District Hospital Kingkoti	0	0

The Area Hospital at Gudivada happened to be the worst managed one with the lowest level of patient satisfaction. Level of general satisfaction at this hospital was only 28% of what could have been achieved. 21% of patients surveyed had an adverse remark to offer. The frequency of adverse remarks was comparatively less than what it was for other hospitals (21% against the average of 37%). Part of it can be attributed to a deliberate attempt by the hospital staff to suppress feedback. Our surveyors noticed at least one instance of attempted

suppression of patient feedback. On the day of survey, a senior officer from APVVP was visiting the hospital. One female patient's attendant was preparing to tell the senior officers about the state of mismanagement of the hospital. Nurses, coming to know of the attendant's intention, kept her in a room and did not physically allow her to meet the senior officer. Later the attendant shared her frustrations with our surveyor, who made an effort to arrange a meeting with the senior officer. But, by then, the senior officer had left the place. Our surveyors also noticed that the hospital was badly maintained. Quality of milk supplied was visibly very poor and diluted. Cleanliness was poor. Corruption appeared to be rampant.

Table-14 Frequency of adverse comments and patient concerns in APVVP hospitals.

Hospital	Corrptn	Utlts	Toilets	ComIP	Drugs	Food	Linen	Staff	D&GF	Misc.	All
DH Karimnagar	12	5	5	13	6	3	2	1	0	4	51
DH Nizambad	2	17	12	3	3	1	1		0	12	51
DH Khammam	16		11	4	10	4		1	0	3	49
DH Cuddapah	9	14	3	4	1	5	1	1	0	3	41
DH Nandyal	1	8	11	4	2	1	4	1	1	3	36
AH Nampalli	5	2	5	7	1	1	4	2	0	4	31
DH Mahboobnagar	9	1	1	0	4	3	4	1	2	6	31
DH Anantapur	13	4	2	5	3	1	1		0	1	30
DH Nalgonda	2	10	3	0	5	7			0	1	28
DH Sangareddy	2	2	5	2	6	5			0	5	27
DH Eluru	5	3	7	7	1		1		0	3	27
DH Machilipatnam	6		7	4	5	2	1		1	1	27
DH Chittoor	11	2	2	6	1	2	2		0	1	27
DH Adilabad	6	6	10	2		2			0		26
DH Srikakulam	5	6	5	2		2	4		1		25
AH Hindupur	3	7	5	1		1			0	3	20
DH Vizianagaram	2	3	4	2	2	1		1	1	1	17
DH Nellore		4	3	1	1	3	3		0	1	16
AH Tenali	2	4	3	1	1	1	1	1	1		15
AH Jagityal	11			0	1	1	1	1	0		15
DH Ongole		6	3	0			3		0		12
AH Gudivada	3			4		3	1		0	1	12
AH Chirala		4	1	0	2	2		1	1		11
DH Rajahmundry	1	1		1					1		4
All	126	109	108	73	55	51	34	11	9	53	629

The District Hospitals at Karimnagar, Khammam and Eluru all appear to be poorly managed. The level of patient satisfaction was only 61% of what could be achieved.

At Karimangar, 86% of respondents felt like giving special remarks about the poor quality of hospital services. Corruption appeared to be rampant and prevalent among all levels of staff. Interpersonal and communication skills of doctors and nurses appear to be quite poor. Our surveyors for DH Karimnagar got an impression, that there is a lot of interpersonal problems between different sections of the staff. It was found that ward boys were going around in civilian dresses making sure to be there at the time of interview trying to convey through body language, not to give any adverse feed back to the IHS surveyors. We had to chose evenings and late evenings for interview with patients, to avoid undue influence and pressure on the patients.

At District Hospital Khammam, 66% of patients surveyed gave felt like making additional adverse comments and remarks on various aspects of the hospital. Our surveyors noted that patients were complaining a lot about all aspects of service. The hospital's cleanliness was found to be very poor. Utilities like lights, water facility, cleanliness of linen were found to be lacking. In Eluru, the main problem appeared to be with the male medical ward. Many patients from this ward were unhappy. There is problem of corruption in all wards also. In Chittoor the problems appears to be of overcrowding, poor maintenance of hospital compound leading to high levels of mosquitoes, and rampant corruption. Staff at all levels right upto the superintendent appear to be corrupt.

Based on a content analysis of patients remarks and the frequency of such remarks as given in table-14, we have listed the top three or four of their concerns in the box here. Each hospital's management could use this feed back to prioritise their efforts to improve the level of patient satisfaction.

DH Srikakulam
Water supply is not good.
They ask money for every thing.
Toilet and cleanliness.

DH Vizianagaram
Toilet and cleanliness
Severe water problem is there.
Sanitary workers are corrupted.

DH Rajahmundry
Nurses behaviour is not proper.
Cleaning people ask money.
Expectation of more facilities.

DH Eluru
Doctors do not communicate well and nurses behaviour is very bad.
Water supply is not good.
Corruption at all levels.

DH Machilipatnam
Bathrooms are dirty.
Some staff ask money.
Supply of drugs is bad.

AH Gudivada
They will not tell anything.
Corruption at all levels.
Food supplied is of low quality.

AH Tenali
No lights in the toilets.
Toilet and cleanliness is poor.
Some staff and doctors ask for money.

DH Ongole
Drinking water-not easily available.
Toilet are badly maintained.
Food supplied is inadequate.

AH Chirala
Drinking water-not easily available.
Improper supply of drugs.
Food supplied is inadequate.

DH Nellore
Drinking water not available.
Toilet and cleanliness is poor.
Food is not proper.

DH Chittoor
Money is demanded for everything.
Doctors are not showing any interest to see patients.
Toilet and cleanliness is very poor.

DH Cuddapah
Inadequate water supply.
They ask money for every thing.
Quality of food is bad.

DH Anantapur
Toilet and cleanliness is poor.
Non availability of fans.
Corruption at all levels.

AH Hindupur
Drinking water is not available.
Lockers are not cleaned.
Bathrooms are very dirty.
Every one demand's money.
Nurses should show more interest.

DH Nandyal
Toilet and cleanliness is poor.
No drinking water near by.
Some doctors do not care.

DH Mahaboobnagar
The staff are forcing to pay money.
Supply of drugs should improve.
Bed sheets are very bad.

AH Nampalli
Nurses do not give proper.
response, they will be very angry.
All are asking money.
Bathrooms are not clean.

DH Sangareddy
Supply of drugs should improve.
Food supplied is inadequate and of poor quality.
Toilet and cleanliness is poor.

DH Nizambad
No drinking water.
Inadequate fans and lights.
Toilet and cleanliness is poor.
No proper communication with the patients.

DH Adilabad
Toilet and cleanliness is poor.
No drinking water.
Inadequate fans and lights.
Doctors treat well only upon prior consultation in private clinic.

DH Karimnagar
Patients are afraid of doctors.
Doctors are non communicative.
For every thing we should give money.
Improper supply of medicines.

AH Jagityal
Some staff ask and some demand money.
Food is not supplied properly.
Few medicine are to be brought from outside.

DH Khammam
Everybody demands money.
Toilet and cleanliness is poor.
Supply of drugs is not proper.

DH Nalgonda
Drinking water is not supplied.
Food supply is not good.
Improper supply of medicines.

VI.Summary and conclusion:

A patient satisfaction survey was conducted in 25 District or Area Hospitals managed by the Andhra Pradesh Vaidya Vidhana Parishad (APVVP). The study obtained feedback from patients and, in case the patient could not be interviewed, the attendant, using a modified version of the Patient Satisfaction Questionnaire-III originally developed by Ware and others (Hays, Davies and Ware; 1987). The study refers to the period May - July, 1999. Altogether 1179 persons were interviewed, including attendants 237 patients, at the rate of about 40-50 patients per hospitals. In each hospital, patients were identified by stratified random sampling. Stratification was on the basis of sex and wards. Most patients had already stayed for more than three days in the hospital and were drawn from all areas of hospital service including surgical, medical, maternity wards. Females and males and patients of different ages are equitably represented in the sample. Majority of patients were poor and illiterate.

Overall the level of patient satisfaction in APVVP was about 65% of what could be achieved. Corruption appears to be very highly prevalent and was the top cause of dissatisfaction among patients. Other important areas of hospital service contributing to patient dissatisfaction were poor utilities like water supply, fans, lights, etc., poor maintenance of toilets and lack of cleanliness, and poor interpersonal or communication skills. Hospital wise analysis of the level of satisfaction and patient concerns is presented to facilitate respective hospital managers initiate remedial actions. APVVP wide information and analysis has been presented to facilitate state wide measures by top management.

This patient satisfaction survey is the first of its kind for public hospitals in India. While the survey revealed depressing feedback, the motivation of APVVP top management to identify areas of concern and measure patient satisfaction is a step in the right direction. There would not be any scope to improve the services, unless such bold steps at measuring client satisfaction is pursued. We feel, repeating such studies at regular interval of say six months will be useful guide for managerial intervention.

VII.References

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Annex-1: Percentage distribution of responses by patient's assessment of hospital service.

Sub Scale, Question Id, and item followed by pair identification in parenthesis		% Good
Access-availability-convenience		
MPSQ40	If you have a medical question, you can reach a doctor for help without any problem.	78.4
MPSQ1	You could get admitted to this hospital without any trouble.	94.2
MPSQ37	This hospital is conveniently located	69.3
MPSQ16	It's hard for you to get medical care on short notice. (11)	69.0
MPSQ51	You are able to get medical aid whenever you need it. (11)	87.1
MPSQ25	You have easy access to the medical specialists in the hospital. (12)	42.3
MPSQ7	You are usually kept waiting for a long time when you need doctor's attention / consultation (12)	79.2
MPSQ28	In this hospital people have to wait too long for emergency treatment. (13)	78.0
MPSQ5	It is easy for you to get medical aid in an emergency. (13)	82.0
Communication		
MPSQ13	During your medical visits your are always allowed to say everything you think is important.	88.2
MPSQ6	Doctors are good about explaining the reason for medical test. (14)	77.1
MPSQ18	Some times doctors use medical terms without explaining what they mean. (14)	61.2
MPSQ38	Doctors sometimes ignore what you tell them. (15)	79.0
MPSQ43	Doctors listen carefully to what you to say. (15)	87.6
Financial aspects		
MPSQ24	You had to pay more than you could afford for medical investigations and other expenses.	71.8
MPSQ4	You are worried sometimes about having to pay large amounts of money for medicines from outside	70.9
MPSQ32	The amount you have to spend for medical needs is reasonable. (16)	77.7
MPSQ10	Some times it is a problem to cover your share of the cost for a medical visit. (16)	45.3
MPSQ14	You feel confident that you get the medical care you need without being set back financially (17)	70.1
MPSQ19	Sometimes you go without the medical care you need because it is too expensive. (17)	14.8
General satisfaction		
MPSQ42	All things considered the medical care you received is excellent.	78.1
IPSQ57	You feel comfortable with your bed and surroundings.	79.4
IPSQ54	General cleanliness in the hospital is adequate (1)	81.1
IPSQ55	Toilets are not maintained well in the hospital (1)	61.1
MPSQ33	There are some things about medical care you receive that could be better. (2)	48.7
MPSQ11	The medical care you have been receiving is just about perfect. (2)	87.4
MPSQ49	You are dissatisfied with something's about the medical care you receive. (3)	71.1
MPSQ3	You are very satisfied with the medical care you are receiving. (3)	81.8
Interpersonal Aspects		
MPSQ9	The doctors who treat you have a genuine interest in you as person.	90.7
MPSQ39	When you are receiving medical care they should pay more attention to your privacy.	16.5
MPSQ34	Your doctors treat you in a very friendly and courteous manner (4)	87.4
MPSQ17	The doctors who treat you should give you more respect. (4)	49.1
IPSQ56	Nursing care you are receving in the hospital is adequate. (5)	81.3
IPSQ53	Nurses act too businesslike and impersonal (5)	77.2
IPSQ52	Nursing care you are receiving is excellent. (6)	82.2
IPSQ58	Nurses are aloof and discourteous. (6)	82.2
MPSQ47	Doctors always do their best to keep you from worrying. (7)	88.3
MPSQ29	Doctors act too businesslike and impersonal towards you (7)	92.0
Technical quality		

MPSQ8	You think the hospital has everything needed to provide complete medical care.	68.5
MPSQ41	Doctors rarely give you advice about ways to avoid illness and stay healthy.	19.0
MPSQ12	Sometimes doctors make you wonder if their diagnosis is correct.	0
MPSQ45	You have some doubts about the ability of the doctors who treat you. (8)	86.3
MPSQ31	Doctors never expose you to unnecessary risk. (8)	80.5
MPSQ15	They are careful to check everything when treating and examining you. (9)	66.5
MPSQ2	Doctors need to be more thorough in treating and examining you. (9)	31.7
Time spent with doctor		
MPSQ46	Doctors usually spend plenty of time with you. (10)	74.6
MPSQ35	Those who provide you medical care sometimes hurry to much when they treat you. (10)	11.9