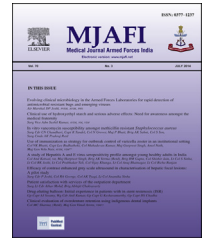


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## Original Article

# Patient satisfaction with services of the outpatient department

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## ABSTRACT

**Background:** Patients' satisfaction is a useful measure to provide an indicator of quality in healthcare and thus needs to be measured frequently. The aim of the study was to analyse and compare the level of satisfaction of patients attending the Outpatient Department of a Hospital.

**Methods:** Study was conducted by using a pre-structured questionnaire with 120 samples. Samples were further stratified into sub-populations of Officers, Junior Commissioned Officers (JCOs) and Other Ranks (ORs) including dependents as study population.

**Results:** JCOs predominantly expressed lower satisfaction judgement with several attributes. Overall satisfaction judgement with Outpatient Department services were rated lower by JCOs (2.56) when compared with Officers and ORs (3.10), the difference being statistically significant.

**Conclusion:** Statistically significant differences have been identified by this study against various study attributes as well as overall impression towards OPD services among the study groups, which need to be addressed by the hospital leadership to achieve consumer delight.

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## Introduction

Measuring the quality of intangible service products has become a great challenge for managers and administrators in the health services industry.<sup>1</sup> Patient satisfaction or dissatisfaction is a complicated phenomenon that is linked to patient expectations, health status, personal characteristics as well as health system characteristics.<sup>2</sup> However, patient satisfaction as an indicator of quality of healthcare has evolved as an

outcome measure and patient satisfaction surveys are being increasingly identified to be established yardsticks to measure success of the service delivery system functional at hospitals.<sup>3</sup> In general, patient satisfaction has been defined as an evaluation that reflects the perceived differences between expectations of the patient to what is actually received during the process of care.

Outpatient department (OPD) is the first point of contact of the hospital with patients and serves as the shop window to

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any healthcare service provided to the community. The care in the OPD is believed to indicate the quality of services of a hospital and is reflected by patients' satisfaction with the services being provided.<sup>4</sup>

Indian Armed Forces consist of a diverse population of young healthy Indian soldiers and their dependents availing medical facilities in service hospitals. The population has diverse socio-economic status based on their social, cultural and educational background as well as the prevailing rank structure. Routine satisfaction surveys are being carried out by various service hospitals without trying to understand difference in levels of satisfaction among diverse patient groups utilising hospital services. The present study was conceived to undertake a satisfaction survey of personnel of the Indian Armed Forces and their dependents visiting the OPD of a tertiary care service hospital. This study analyses and compares the level of satisfaction among three different groups, namely Officers (Oftrs), Junior Commissioned Officers (JCOs) and Other Ranks (ORs) based on service hierarchy and socio-economic status, with a view to identify the Hospital OPD service attributes perceived to be sub-optimal in scope. Recognition of sub-optimal OPD service attributes is expected to provide the basis of a diagnostic impression of hospital operations in respect of OPD services as well as supply important information to the hospital management for improvement of such services.

## Material and methods

The study was conducted at a tertiary care service hospital affiliated to a medical teaching institution in a big metropolitan city to elicit the satisfaction level of patients utilising the OPD Services of the hospital. The study was carried out over a period of four months and the study population consisted of personnel of the Indian Armed Forces including their dependents.

A pre-structured bi-lingual questionnaire was developed as study instrument based on patient expectations, guidance being taken from questionnaires adopted in earlier studies in India and abroad. A pilot study was conducted and sample size was estimated as 120 with 95% confidence interval of mean satisfaction level and 10% error of margin. The sample size was further stratified into sub-populations of Officers (Oftrs), Junior Commissioned Officers (JCOs) and Other Ranks (ORs) including dependents based on percentage of past OPD attendance in the last one year. The questionnaire was further validated by estimating Cronbach's Alpha co-efficient for internal consistency, which was found to be 0.96, thus indicating high reliability of the study instrument.<sup>5</sup>

The questionnaire was divided into two parts; Part-I contained details of socio-demographic profile of patients and Part-II was further subdivided into various constructs related to patient care provided in the OPD and support services. Each of the study constructs was further elucidated by a set of specific questions based on various attributes related to satisfaction or dissatisfaction of patients. Each question has multiple options on a continuum and rated on a scale signifying lower to higher degree of satisfaction. A number was allotted to each option in increasing order for calculation and

estimation of level of satisfaction. Mean score of each question was calculated and converted into percentage of the highest score for that question. Kruskal-Wallis test was utilised to understand the statistical significance of difference of satisfaction level of various groups of patients being studied.

Data for the study was collected over a period of four months, every third patient reporting to the Main Dispensary after OPD consultation being selected for the study. Every day one Officer, one JCO and one OR or their dependents were selected for exercising the study instrument to maintain the continuity and avoiding any bias during sample selection. All respondents, who consented to participate in the study, were assured of complete anonymity and confidentiality. Only serving personnel and their dependents attending various service OPDs were included for the study, whereas Ex-servicemen and in-patients were excluded. Moreover, it was ensured that all respondents answering the questionnaire have utilised service OPD of the hospital at least twice in last one year. Statistical analysis of data was carried out using Minitab version 16.0 software and logical conclusions drawn from such analysis.

## Results

Majority of patients (40%) belonged to the age category of 30–45 years and only seven patients (6%) were more than 60 years of age. Patients were predominantly male (56%), 92% of respondents being married and 47% being graduates and above, indicating higher educational status. Being a tertiary care service hospital of the Armed Forces Medical Services, maximum attending population consisted of Army personnel (66%) followed by AirForce (30%) and Naval personnel (4%). 50% of respondents have utilised the hospital OPD services for more than 8 times in the last one year, showing high utilisation of OPD services (Table 1).

All respondents expressed high degree of satisfaction for accessibility of the OPD and its location (81–86%); however, Officers rated lower satisfaction judgement with the signage system (67%) and parking areas (66%) when compared to JCOs and ORs (73–74%). The level of satisfaction of all respondents in respect of Cafeteria facility was observed to be moderate (60–65%), identifying a probable focus area for improvement (Table 2).

Substantial perceptual difference existed among the respondents in respect of certain attributes like Information received at the Registration counter (95–100% Officers and ORs against 88% JCOs) and the Queue system (61–64% of Officers and JCOs against 75% satisfaction among ORs), the difference being statistically significant. Moreover, Officers (91%) were highly satisfied with Registration time when compared to JCOs and ORs (71–75%). All respondents expressed lower satisfaction judgement against certain structural attributes like waiting area (60–70%), seating facility (60–71%), toilet facilities (45–60%) and availability of TV and magazines (47–61%). However, one redeeming feature was the high level of satisfaction of all respondents (75–77%) in respect of courteousness of staff at the Registration counter (Table 2).

**Table 1 – Socio-demographic detail of patients.**

Variable	Offrs n = 22 (%)	JCOs n = 25 (%)	ORs n = 73 (%)	Total N = 120 (%)
<b>Age</b>				
12–30 yr	5 (23)	10 (40)	31 (42)	46 (38)
30–45 yr	7 (31)	7 (28)	34 (46)	48 (40)
45–60 yr	5 (23)	7 (28)	7 (10)	19 (16)
≥60 yr	5 (23)	1 (4)	1 (2)	7 (6)
<b>Sex</b>				
Male	10 (45)	12 (48)	45 (62)	67 (56)
Female	12 (55)	13 (52)	28 (38)	53 (44)
<b>Marital status</b>				
Unmarried/widow	1 (5)	7 (28)	2 (3)	10 (8)
Married	21 (95)	18 (72)	71 (97)	110 (92)
<b>Educational status</b>				
Primary (upto 5th)	1 (5)	1 (4)	6 (8)	8 (7)
Secondary (upto 10th)	1 (5)	5 (20)	14 (19)	20 (17)
Senior secondary (upto 12th)	1 (5)	9 (36)	25 (34)	35 (29)
Graduate and above	19 (85)	10 (40)	28 (39)	57 (47)
<b>Service</b>				
Army	16 (72)	12 (48)	51 (70)	79 (66)
Navy	3 (14)	0 (0)	2 (3)	5 (4)
AirForce	3 (14)	13 (52)	20 (27)	36 (30)
<b>Visit detail</b>				
2–4 times	6 (27)	10 (40)	23 (32)	39 (33)
5–7 times	2 (9)	7 (28)	12 (16)	21 (17)
≥8 times	14 (64)	8 (32)	38 (52)	60 (50)

Officers and ORs were highly satisfied (82–91%) with the number of doctors available, when compared to the JCOs (68%). Officers also may have received preferential treatment, being highly satisfied with waiting time for consultation (75%) as against JCOs and ORs (53–58%). Officers and ORs are also highly satisfied with the consultation room environment (77–79%) when compared to the JCOs (70%), the difference being found to be statistically significant. Similarly, 86% of Officers and ORs are highly satisfied with the consultation time, while only 73% JCOs expressed similar sentiments, the difference again being statistically significant. What is most reassuring is the high level of satisfaction of all respondents (72–91%) against the care attributes of communication about the disease process and respect of dignity and privacy of patients during consultation (Table 2).

Satisfaction levels varied widely across certain attributes of the Dispensary. While Officers and ORs (66–86%) expressed moderate to high satisfaction judgement for the Dispensary counter and waiting area, JCOs (44–57%) were not so happy about the same attribute, the difference being statistically significant. Similarly statistically significant difference was also observed about waiting time for collection of medicines, with 86% Officers being highly satisfied against moderate satisfaction among JCOs and ORs (67–69%). However, majority of respondents (70–82%) have been highly satisfied with courteousness of staff, availability of drugs and explanation given to patients for dosages of prescribed medicines and other necessary instructions (Table 2).

Most of the respondents rated overall feeling about visit to hospital OPD services towards higher side of satisfaction level (Fig. 1). Mean satisfaction level of 2.56 (64%) was lower among JCOs followed by 3.10 (77%), the level being almost equal among Officers and ORs. The difference in mean satisfaction level among the three study groups was found to be

statistically significant, revealing difference of perception in respect of OPD services among the study groups (Table 2).

## Discussion

Consumer satisfaction is recognised as an important parameter for assessing the quality of patient care services being delivered by healthcare organisations. Satisfaction regarding the attitude of providers toward these services is expected to affect treatment outcome and prognosis.<sup>6</sup> Patient satisfaction is thus, a multidimensional concept and a subjective phenomenon that is linked to perceived needs, expectations and experience of care.<sup>7</sup>

McNealy emphasizes the importance of “perception gap” or the gap between patients’ perceptions of care and their needs and expectations (Fig. 2). If this gap is non-existent and performance level is already at satisfaction or at the “delight” levels, patients will be happy and satisfied.<sup>8</sup> Measuring patients’ satisfaction has many purposes, with such interviews helping to evaluate healthcare services from the patient’s point of view, facilitate the identification of problem areas and help generate ideas towards resolving those problems.<sup>9</sup>

The result of any service encounter in a hospital generates a consumer judgement – either of satisfaction or dissatisfaction. When the perceived performance of the hospital meets or exceeds the expectations of consumers, the outcome is a satisfaction judgement and a dissatisfaction judgement follows when perceived performance is below expectations.

Easy accessibility and a good signage system for the OPD services provide a good image for the hospital.<sup>10</sup> Satisfaction was found to be high among all study groups in respect of accessibility and location of OPD Services, but found to be lower for certain structural variables like signage system,

**Table 2 – Satisfaction level score in terms of Mean, S.D. and % of Mean Scores.**

Question	Offr			JCO			OR		
	Median	S.D.	(%)	Median	S.D.	(%)	Median	S.D.	(%)
<b>General</b>									
Q1 Accessibility/location	3.00	0.72	(83)	3.00	0.72	(81)	4.00	0.78	(86)
Q2 Signage system	2.00	0.95	(67)	3.00	0.68	(74)	3.00	0.86	(74)
Q3 Parking facilities	3.00	0.79	(66)	3.00	0.64	(73)	3.00	0.68	(74)
Q4 Cafeteria facility*	2.00	0.91	(60)	2.00	0.82	(61)	3.00	0.76	(65)
<b>Reception/registration</b>									
Q5 Information received*	3.00	0.21	(95)	1.00	0.33	(88)	1.00	0.00	(100)
Q6 Queue system*	3.00	0.80	(61)	2.00	0.87	(64)	2.00	0.63	(75)
Q7 Courteousness of staff	3.00	0.69	(75)	3.00	0.54	(74)	3.00	0.55	(77)
Q8 Registration time	3.00	0.66	(91)	3.00	0.91	(75)	3.00	1.08	(71)
Q9 Waiting area*	4.00	0.73	(65)	3.00	0.58	(60)	3.00	0.66	(70)
Q10 Seating facility	3.00	0.91	(65)	3.00	0.71	(60)	3.00	0.67	(71)
Q11 Drinking water	3.00	0.96	(64)	2.00	0.88	(53)	3.00	0.86	(59)
Q12 Toilets facility	3.00	1.05	(60)	2.00	0.76	(45)	3.00	0.94	(54)
Q13 Magazines/TV etc	2.00	0.92	(56)	2.00	0.88	(47)	3.00	0.93	(61)
Q14 Cleanliness	3.00	0.85	(66)	2.00	0.76	(66)	2.88	0.74	(72)
<b>Doctor-patient relationship</b>									
Q15 Number of doctors	3.00	0.29	(91)	3.00	0.48	(68)	3.00	0.39	(82)
Q16 Waiting time*	3.00	1.02	(75)	2.00	1.13	(53)	3.00	1.10	(58)
Q17 Satisfaction level with waiting time	2.00	0.69	(74)	2.00	0.64	(64)	2.00	0.54	(74)
Q18 Doctors' room environment	3.00	0.87	(77)	3.00	0.71	(70)	3.00	0.67	(79)
Q19 Consultation time	3.00	1.09	(66)	2.00	0.82	(61)	2.00	0.91	(65)
Q20 Satisfaction level with consultation time*	3.00	0.50	(86)	2.00	0.58	(73)	3.00	0.52	(86)
Q21 Explanation about sickness by doctor	4.00	0.73	(91)	3.00	0.84	(82)	4.00	0.73	(89)
Q22 Sense of concern	3.00	0.69	(81)	3.00	0.67	(72)	3.00	0.49	(77)
Q23 Dignity/privacy	3.00	0.46	(91)	3.00	0.65	(81)	3.00	0.56	(84)
<b>Dispensary</b>									
Q24 Dispensing counters*	2.00	0.35	(86)	1.00	0.51	(44)	1.00	0.47	(67)
Q25 Waiting area*	3.00	0.85	(66)	2.00	0.84	(57)	3.00	0.69	(72)
Q26 Queue system	3.00	0.89	(67)	2.00	0.82	(60)	3.00	0.73	(72)
Q27 Courteousness of staff	3.00	0.79	(74)	3.00	0.80	(71)	3.00	0.59	(78)
Q28 Waiting time*	4.00	0.86	(86)	3.00	0.78	(69)	3.00	0.94	(67)
Q29 Availability of drugs	3.00	0.50	(80)	3.00	0.65	(70)	3.00	0.68	(72)
Q30 Explanation about medicines and dosages	3.00	0.81	(77)	3.00	0.79	(76)	3.00	0.56	(82)
<b>Overall response</b>									
Q31 Overall feeling about visit to hospital*	3.09	0.68	(77)	2.56	0.65	(64)	3.10	0.56	(77)

\*P value < 0.05 considered statistically significant.

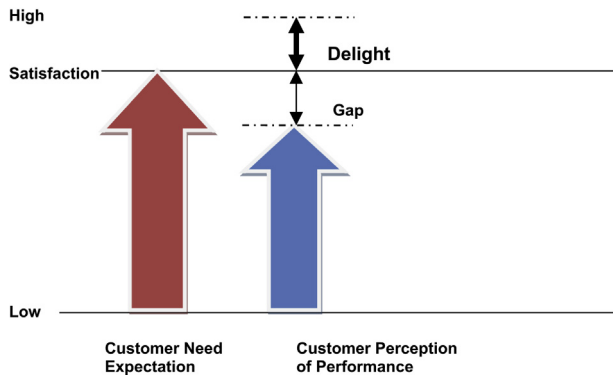


**Fig. 1 – Distribution of satisfaction judgement about hospital OPD services.**

parking and cafeteria facilities. However, the old vintage of the hospital building and the horizontal spread may have contributed towards dissatisfaction in respect of such structural attributes of the OPD.

The patients intending to utilize the OPD Services will have his or her first interface with the hospital at the OPD Registration counter. It is vital for patients to receive adequate information at the Registration counter, as many of them may be utilising the OPD services for the first time. 95–100% of Officers and ORs expressed satisfaction with the information received with only 88% of JCOs being satisfied, the difference being observed to be statistically significant.

Staff behaviour, particularly polite and courteous behaviour has been accepted as a necessity for hospital OPD services and there is unanimity among all respondents in respect of satisfaction judgement for this variable. Training of OPD staff in soft skills might have started yielding positive results towards higher satisfaction with staff behaviour in the study hospital. Pawar found 90% patients remarked that OPD staff was courteous and friendly, indicating politeness of



**Fig. 2 – The making of patient satisfaction happen.**

paramedical staff in service hospitals, the finding being similar to this study.<sup>11</sup> 61% Officers and 64% JCOs are satisfied with the Queue system at the Registration counter with 75% ORs expressing satisfaction judgement, the difference being statistically significant. Non-availability of separate queue for Officers and JCOs in certain OPDs may be responsible for lower satisfaction score among these study sub-groups.

Waiting time, regardless of the length of the actual wait is an important area to address for enhancing overall satisfaction ratings. It was observed that Officers are generally satisfied with the waiting time at various interfaces with the hospital services, with 91% expressing satisfaction with Registration time, 75% with waiting time for consultation and 86% for collection of medicines at the Dispensary. However, such high satisfaction is not replicated among other groups, with 71–75% of JCOs and ORs satisfied with Registration time, 53–58% with waiting time for consultation and 67–69% for collection of medicines, the difference in satisfaction level being observed to be statistically significant across certain parameters. While majority of Officers have received service within 30 min (91% for Registration, 68% for consultation and 86% for collecting medicines), time for receiving services by JCOs and ORs have often exceeded 1 h (8–15% for Registration, 30–40% for consultation and 4–11% for collecting medicines). This obvious bias towards Officers for receiving service at various interfaces may be explained by the official hierarchy of the Indian Armed Forces with emphasis on earlier service to this particular group of patients (Table 3). Increased waiting time could be addressed by application of Queuing model at the Registration area, Consultation rooms and Dispensary counter to appreciate need for additional service stations. Separate counter for JCOs at various bottlenecks may be a long term solution to address their concern at various interfaces. However, certain miscellaneous measures like strict adherence of queue discipline, no queue jumping and First In First Out (FIFO) policy may be considered to reduce the waiting time and associated dissatisfaction with this attribute among JCOs.

When waiting time becomes inevitable, waiting rooms need to be supplied with television sets, newspapers, magazines and adequate sanitary facilities to reduce the monotony of waiting. All the three groups involved with the study were unanimous about their lower degree of satisfaction for these

**Table 3 – Time spent by patients at relevant places.**

Attribute	Officer n = 22 (%)	JCO n = 25 (%)	OR n = 73 (%)
<b>Q. 8: Registration time</b>			
≥1 h	0 (0)	2 (8)	11 (15)
30 min–1 h	2 (9)	4 (16)	15 (21)
15–30 min	4 (18)	11 (44)	21 (29)
≤15 min	16 (73)	8 (32)	26 (35)
<b>Q. 16: Waiting time for consultation</b>			
≥1 h	2 (9)	10 (40)	22 (30)
30 min–1 h	5 (23)	6 (24)	21 (29)
15–30 min	6 (27)	5 (20)	16 (22)
≤15 min	9 (41)	4 (16)	14 (19)
<b>Q. 19: Consultation time with doctor</b>			
≤5 min	4 (19)	3 (12)	7 (10)
5–10 min	6 (27)	10 (40)	30 (41)
10–15 min	6 (27)	10 (40)	22 (30)
≥15 min	6 (27)	2 (8)	14 (19)
<b>Q. 28: Waiting time to get medicines</b>			
≥1 h	1 (5)	1 (4)	8 (11)
30 min–1 h	2 (9)	8 (32)	23 (31)
15–30 min	5 (23)	12 (48)	26 (36)
≤15 min	14 (63)	4 (16)	16 (22)

structural attributes. Only 65% Officers were satisfied with the waiting area or seating and drinking facilities. Similarly, 45% of JCOs expressed satisfaction with sanitary facilities and 61% ORs recorded similar sentiments about availability of Magazines and Television in the waiting rooms. Provisions of these amenities are well within the reach of hospital management and need to be addressed with certain amount of urgency to remove sources of dissatisfaction among its consumers.

Satisfaction level with doctors' room environment was found to be high among Officers and ORs with lower satisfaction among JCOs, the difference being statistically significant. Pawar in his study also found that 96% of patients to have observed the examination room to be clean and orderly, findings that are similar to our study findings.<sup>11</sup>

Consultation time spent with doctor is an important attribute to determine satisfaction level among patients. Studies indicated that longer contact time have been significantly associated with better recognition and handling of physical problems and patient empowerment.<sup>12</sup> Short contact time with healthcare personnel is a common source of patient dissatisfaction with the consultation process.<sup>13</sup> In this study, maximum respondents across all three groups have spent consultation time between 5 and 15 min, which is an encouraging indicator towards patient satisfaction (Table 3). However, level of satisfaction in respect of JCOs was found to be lower than that of Officers and ORs, the difference being statistically significant. Our study findings was similar to that of Ranjeeta et al, who observed the consultation time to be (6.6 ± 3.7 min) with 85.2% patients satisfied with such consultation.<sup>14</sup>

Attributes that hold steady for good doctor–patient relationship are sympathy and kindness, good communication between patients and doctors and patience and shared responsibility in managing illness of the patient. Privacy and confidentiality are not only basic rights of patients but also



serve towards a trustful, frank and open relationship with the doctor, thus improving patient care.<sup>15</sup> In this study, satisfaction level was high regarding explanation about sickness to patients and maintaining respect, privacy and dignity during the consultation process among all the study groups.

Main Dispensary is the usual exit point, where patients arrive after OPD consultation, collect medicines and depart. It is also one of the bottlenecks in the process flow of the hospital, congestion expected due to convergence of patients from various OPDs during peak time. JCOs expressed strong dissatisfaction judgement about Dispensary Counters followed by higher rating by Officers and ORs, the difference in rating being statistically significant. The difference in satisfaction level is possibly because of non-availability of separate dispensing counters for JCOs and their dependents. Then again, JCOs were dissatisfied with the waiting area, when compared to the Officers and ORs, the difference being statistically significant. Source of dissatisfaction with this attribute may be addressed by increased waiting space for different category of patients with improved ambience and patient amenities. Availability of prescribed medicines alongwith courteousness and communication skills of dispensary staff have been key attributes towards patients satisfaction in this area and all three study groups have rated these attributes of the study hospital towards high satisfaction judgement, reflecting concern of the hospital management towards prescription compliance and consumer relations management.

The overall global response towards OPD services being provided by the hospital was represented by a single question, where both Officers and ORs expressed satisfaction judgement. However, a lower percentage of JCOs expressed similar opinion, the difference in judgement being statistically significant. A singular feature of our study is the consistently lower satisfaction expressed by the JCOs across various attributes, when compared with Officers and ORs, which may probably be explained by the expectations for faster and preferential services by this group not being addressed by the hospital.

Patient satisfaction surveys have evolved into a powerful management and marketing tool, being widely used by various hospitals to capture the "Voice of the Consumer" and understand the views of the patients in respect of services being provided. Despite certain structural constraints, 64–77% of all patients have expressed overall satisfaction judgement with OPD Services, thus bearing testimony to the efforts of the hospital management towards improvement of services being provided at the hospital OPD. Moreover, the hospital authority may derive actionable inputs from similar surveys to identify improvement opportunities followed by continuous monitoring to assess the degree of sustainable improvement achieved, such monitoring being co-ordinated by use of checklists and protocols.

The study suffers from certain limitations, namely non-utilisation of case-mix adjustment methodologies and failure to explore patient satisfaction with individual OPD and Diagnostic services. It is recommended that a future study with a larger scope and more attention towards specific

departments or services with case-mix and risk adjustment techniques be conducted to improve the quality and outcome of such studies.<sup>5</sup>

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### Conflicts of interest

All authors have none to declare.

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