

**A STUDY ON IDENTIFYING
REASONS FOR THE HIGH
ATTRITION RATE OF NURSES AT
NARAYAN MEMORIAL HOSPITAL,
KOLKATA**

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Introduction



- Nurses play a critical role in every hospital as they are the primary care giver to patients on a day-to-day basis.
- They account for almost one third of total HR costs. A happy and productive nursing workforce results in higher turnover for any hospital.
- Retaining employees is one of the biggest challenges for the Human Resources Department as well for the employers who are at a higher position.
- It is a common disbelief that only monetary factors are directly linked to the attrition rate in any organisation. Retention factors can be environment, work life balance, recognition, appreciation, relationship with the head of the department etc.
- The main objective of this study is to identify factors affecting attrition and figure out ways of retention.



Statistics

The concerned hospital is a 200 bedded hospital, with 172 functional beds

The current number of nursing staff is 200, including the Nursing Director

According to hospital manpower planning, at 100% occupancy, the number of nurses required is 258

At 80 % occupancy, the required number of nurses is 232 and at 70% occupancy, it is 220

Number of nurses who had resigned in the last one year is 149

Among the nurses resigned, 2 were Nursing Directors, who had resigned at 6 months and 8 months of their respective tenure

Attrition

- Attrition is the departure of employees from an organization for any reason (voluntary or involuntary) including resignation, termination, death or retirement.
- Employees leave faster than they are hired which results in gradual diminishing in the size of the workforce.
- It isn't always bad and can often be inevitable due to retirement, layoffs, and resignations.
- A robust company can withstand minor reductions to its headcount and probably won't seek immediate staff replacement.
- However, in our study, we focus on attrition majorly due to resignation and considerable reduction in size of the workforce.





Research question

What are the primary reasons for the higher attrition rate of nurses at Narayan Memorial Hospital, Kolkata?

Research objectives

- To calculate the yearly attrition rate at Narayan Memorial Hospital, Kolkata.
- To identify reasons for the higher attrition rate among nurses in the hospital.
- To understand the association between the chosen factors and attrition.
- To recommend ways to reduce attrition.

Hypothesis

A

H0A: There is no association between salary and higher rates of attrition.
H1A: There is association between salary and higher rates of attrition.

B

H0B: There is no association between work timings and higher rates of attrition.
H1B: There is association between work timings and higher rates of attrition.

C

H0C: There is no association between recognition and higher rates of attrition.
H1C: There is association between recognition and higher rates of attrition.

D

H0D: There is no association between superior-subordinate relationship and higher rates of attrition.
H1D: There is association between superior-subordinate relationship and higher rates of attrition.

E

H0E: There is no association between hospital policies and procedures and higher rates of attrition.
H1E: There is association between hospital policies and procedures and higher rates of attrition.

Methodology

Study setting:

- Narayan Memorial Hospital, Kolkata

Study type:

- Observational Cross-sectional study

Sample size:

- A total of 149 nurses had resigned from the hospital from 6.03.2022 till date, out of which 136 gave consent to participate in the study. Further out of these, 99 were considered suitable for the study.

Data type:

- Primary data was collected using Semi-structured questionnaire and telephonic interviews of nurses in the exit pipeline.

Study duration:

- 13.03.20 – 27.05.2023

Tools used:

- MS Excel

Inclusion Criteria:

- Nurses who have worked at the hospital for more than a year

Exclusion Criteria:

- Nurses who have worked at the hospital for less than a year.
- Nurses who have left because of retirement.

Questionnaire

Please take a few moments to complete this survey for my study on reasons for attrition of nurses at this hospital. Your identity will be kept completely confidential. Your answers shall help the organisation to improve retention of nurses.

Here's some information I would like to know from you.

Q1. What is your gender?

- ☐ Male
- ☐ Female

Q2. How many years of experience do you have?

- ☐ Less than 1 year
- ☐ 1-3 years
- ☐ 4-6 years
- ☐ More than 6 years

Q3. How would you describe the salary received by you?

- ☐ More than adequate
- ☐ Adequate
- ☐ Less than adequate



Q4. Your salary compared to other Hospitals is?

- ☐ High
- ☐ At par
- ☐ Low

Q5. The standard of increment in the organisation is:

- ☐ High
- ☐ Medium
- ☐ Low

Q6. How satisfied are you with your work timings?

- ☐ Very satisfied
- ☐ Not satisfied
- ☐ Medium satisfied

Q7. How many day offs do you get in a month?

- ☐ More than 4
- ☐ 4
- ☐ Less than 4

Q8. Do you feel overworked or burn out?

- ☐ Always
- ☐ Sometimes
- ☐ Never



Q9. Do you get recognition for the work done?

- ☐ Yes
- ☐ No

Q10. If yes, how?

- ☐ Verbal appreciation
- ☐ Promotion
- ☐ Increment
- ☐ Others

Q11. How would you describe the relation with your manager/seniors?

- ☐ Supportive and encouraging
- ☐ Indifferent
- ☐ Critical and demotivating

Q12. How would you describe your supervisor's efforts for your promotion?

- ☐ High
- ☐ Medium
- ☐ Low



Q13. What do you feel about the Hospital policies and procedures?

- Too rigid and restrictive
- I am neutral
- Flexible and employee friendly

Q14. How strongly did you feel the need to leave the organisation while working here?

- Very strongly
- Strongly
- It was a sudden decision

Q15. What were your reasons for leaving Narayan Memorial Hospital?

Q16. Any suggestions that you would like to give for improving retention of nurses?

Results

Calculation of attrition rate

Attrition rate (%) is given by:

$$\frac{\text{Number of employee departures}}{\text{Average number of employees}} \times 100$$

Current number of nurses in the hospital = 199

Number of nurses left in the last year = 149

Hence, yearly attrition percentage =

$$\begin{aligned} & (149/199) \times 100 \\ & = 75\% \end{aligned}$$

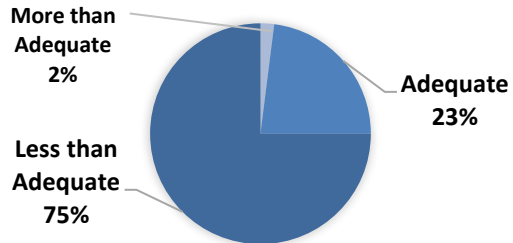
Narayan Memorial Hospital has a yearly attrition rate among nurses of about 75%

This is a really very high rate of attrition and hence provides the rationale for my research. In my project, I aim to find out the reasons behind this while also suggesting possible recommendations which might bring the rate down.

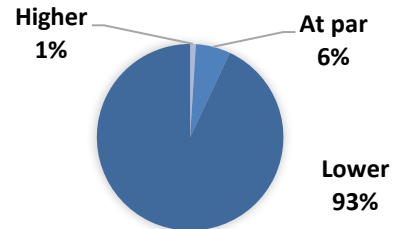
Salary

Data was analysed using MS Excel and the results are as below

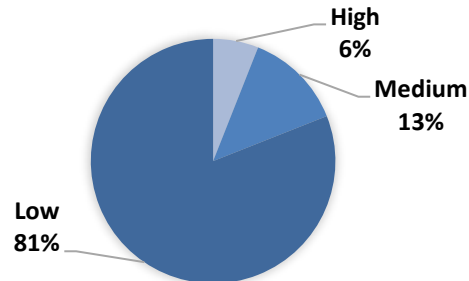
SALARY RECEIVED



SALARY COMPARED TO OTHER HOSPITALS



STANDARD OF INCREMENT



Testing hypothesis A

SALARY		INTENTION TO LEAVE			TOTAL
		Very strong	Strong	Sudden decision	
	More than Adequate	2	1	8	11
	Adequate	9	6	1	16
	Less than Adequate	11	8	3	22
	TOTAL	22	15	12	99

O	E	(O-E)	(O-E)^2	{(O-E)^2}/E
2	2.4	0.4	0.20	0.08
9	3.6	-5.4	29.16	8.10
11	4.9	-6.1	37.21	3.54
1	1.6	0.6	0.31	0.20
6	2.3	-3.7	13.69	1.95
7	3.1	-3.9	15.21	2.90
8	1.1	-6.9	48.30	4.97
2	0.1	-1.9	3.61	6.10
3	0.4	-2.6	6.79	7.26
CHI SQUARE CALCULATED VALUE				35.10

The degree of freedom (df) is 4 and level of significance is kept at 0.05.

Critical value = 9.49

Here, the calculated value of Chi square is 35.10

$35.10 > 9.49$, the null hypothesis stands rejected.

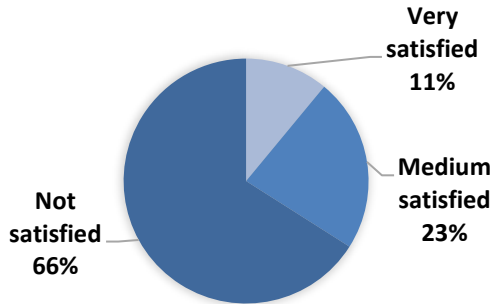
Hence, we accept the alternate hypothesis (H1A)

There is significant relationship between salary and intention to leave.

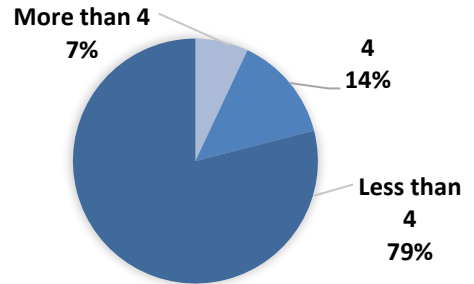
Work timings

Data was analysed using MS Excel and the results are as below

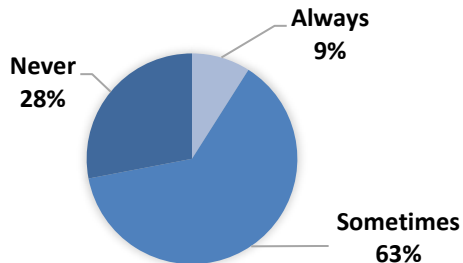
SATISFIED WITH WORK TIMINGS



NUMBER OF DAY-OFFS PER MONTH



FEELING OVERWORKED OR BURNTOUT



Testing hypothesis B

WORK TIMINGS		INTENTION TO LEAVE			
		Very strong	Strong	Sudden decision	TOTAL
	Very Satisfied	1	2	8	11
	Medium satisfied	3	8	3	14
	Not satisfied	18	5	1	24
	TOTAL	22	15	12	99

E	O	E-O	(E-O)^2	(E-O)^2/E
1	2.4	-1.4	1.96	1.96
3	3.1	-0.1	0.01	0.00
18	5.3	12.7	161.29	8.96
2	1.7	0.3	0.09	0.05
8	2.1	5.9	34.81	4.35
5	3.6	1.4	1.96	0.39
8	1.3	6.7	44.89	5.61
3	1.7	1.3	1.69	0.56
1	2.9	-1.9	3.61	3.61
CHI SQUARE CALCULATED				25.50

The degree of freedom (df) is 4 and level of significance is kept at 0.05.

Critical value = 9.49

Here, the calculated value of Chi square is 25.50

25.50 > 9.49, the null hypothesis stands rejected.

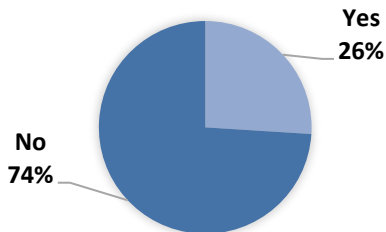
Hence, we accept the alternate hypothesis (H1B)

There is significant relationship between work timings and intention to leave.

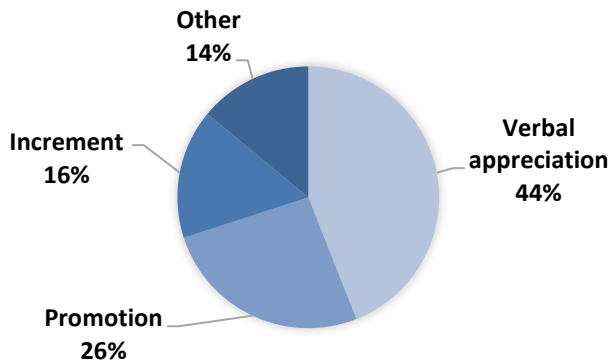
Recognition

Data was analysed using MS Excel and the results are as below

RECOGNITION



TYPE OF RECOGNITION



Testing hypothesis C

RECOGNITION		INTENTION TO LEAVE			
		Very strong	Strong	Sudden decision	TOTAL
	Yes	1	5	11	17
	No	20	14	2	36
	TOTAL	21	11	13	99

E	O	E-O	(E-O) ²	(E-O) ² /E
1	3.61	-2.61	6.81	6.81
20	7.64	12.36	152.77	7.64
5	1.89	3.11	9.67	1.93
14	4	10	100.00	7.14
11	2.23	8.77	76.91	6.99
2	4.73	-2.73	7.45	3.73
CHI SQUARE CALCULATED				34.25

The degree of freedom (df) is 3 and level of significance is kept at 0.05.

Critical value = 7.82

Here, the calculated value of Chi square is 34.25

$34.25 > 7.82$, the null hypothesis stands rejected.

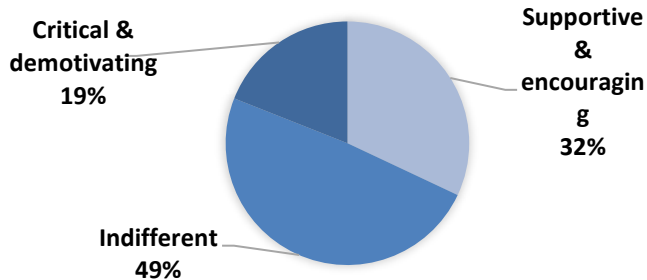
Hence, we accept the alternate hypothesis (H_{1C})

There is significant relationship between recognition and intention to leave.

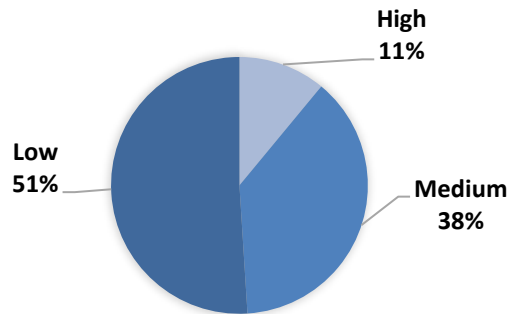
Superior-subordinate relationship

Data was analysed using MS Excel and the results are as below

RELATIONSHIP WITH SENIOR



SUPERVISORS' EFFORTS FOR PROMOTION



Testing hypothesis D

RELATION WITH MANAGER		INTENTION TO LEAVE			
		Very strong	Strong	Sudden decision	TOTAL
	Supportive	2	3	9	14
	Indifferent	1	5	2	8
	Critical	16	8	3	27
	TOTAL	19	16	14	99

E	O	E-O	(E-O)^2	(E-O)^2/E
2	2.69	-0.69	0.48	0.24
1	1.54	-0.54	0.29	0.29
16	5.18	10.82	117.07	7.32
3	2.26	0.74	0.55	0.18
5	1.29	3.71	13.76	2.75
8	4.36	3.64	13.25	1.66
9	1.98	7.02	49.28	5.48
2	1.13	0.87	0.76	0.38
3	3.82	-0.82	0.67	0.22
CHI-SQUARE CALCULATED				18.52

The degree of freedom (df) is 4 and level of significance is kept at 0.05.

Critical value = 9.49

Here, the calculated value of Chi square is 18.52

18.52 > 9.49, the null hypothesis stands rejected.

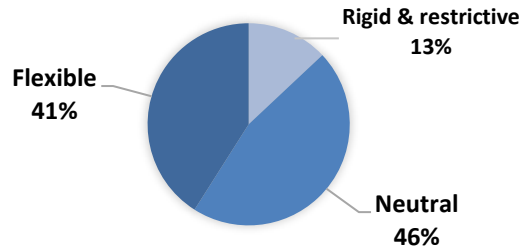
Hence, we accept the alternate hypothesis (H1D)

There is significant relationship between superior-subordinate relationship and intention to leave.

Hospital Policies and Procedures

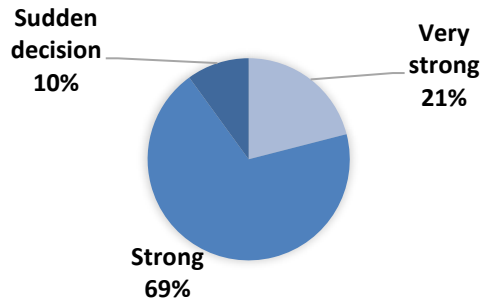
Data was analysed using MS Excel and the results are as below

POLICIES & PROCEDURES



Concludingly, we had asked a question of how strongly the nurses who had quit, had the intention to leave the organisation during their tenure. The results are as follows:

INTENTION TO LEAVE



Testing hypothesis E

HOSPITAL POLICIES		INTENTION TO LEAVE			
		Very strong	Strong	Sudden decision	TOTAL
	Rigid	4	6	5	15
	Neutral	5	6	6	17
	Flexible	6	8	8	22
	TOTAL	15	20	19	99

E	O	E-O	(E-O) ²	(E-O) ² /E
4	2.27	1.73	2.99	0.75
5	2.58	2.42	5.86	1.17
6	3.33	2.67	7.13	0.19
6	3.03	2.97	8.82	1.47
6	3.43	2.57	6.60	1.10
8	4.44	3.56	12.67	1.09
5	2.88	2.12	4.49	0.90
6	3.26	2.74	7.51	0.26
8	4.22	3.78	14.29	1.79
CHI SQUARE CALCULATED				8.71

The degree of freedom (df) is 4 and level of significance is kept at 0.05.

Critical value = 9.49

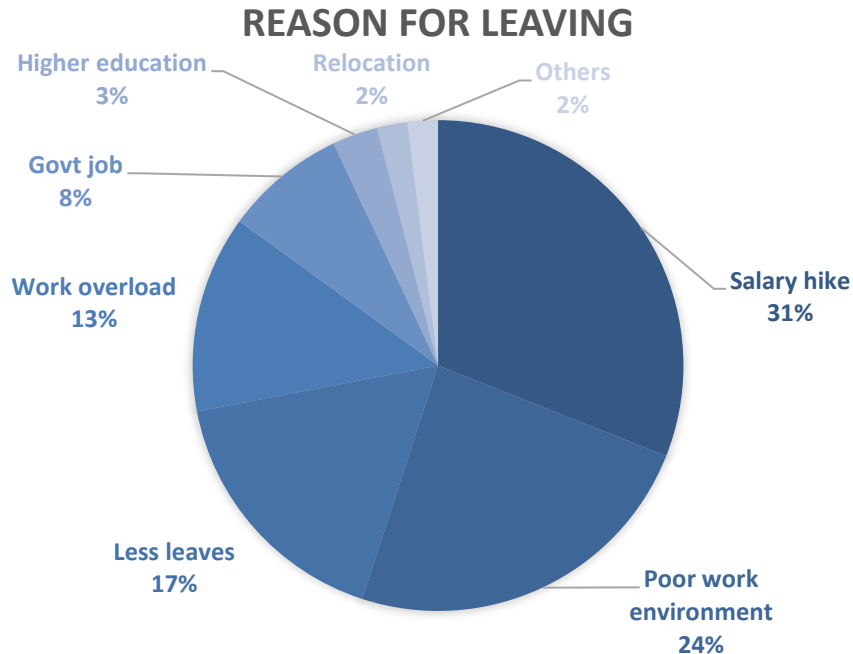
Here, the calculated value of Chi square is 8.71

$8.71 < 9.49$, the null hypothesis is accepted.

Hence, we accept the null hypothesis (H_0)

There is no significant relationship between hospital policies and procedures and intention to leave.

To get a clear understanding of the exact reason so as to why the employees had left the organisation, we had kept an open-ended question at the end of the questionnaire asking the same (Q15.). The result is as follows:



Summary



	Factors	Null Hypothesis
Intention to leave the organization	Salary	Rejected
	Work timing	Rejected
	Recognition	Rejected
	Relationship with seniors/managers	Rejected
	Hospital policies and procedures	Accepted

Our results show that salary, work timing, recognition and relationship with superiors are factors that have a significant association with the intention to leave. This also is supported by the answers we have received for Q15.

Limitations

Since the interview will be conducted by the HR Department, respondents might not be completely truthful about how they feel.

The developed questionnaire is easier to apply on smaller sample sizes. As the sample size will increase, the rate of non-response will also increase.

A research on a smaller sample size may not represent the true perception of the entire community we are trying to study.

Other important factors influencing attrition might have been overlooked due to subjectivity.

Recommendations

- Pay scale of the Hospital for the nursing staff should be revised to match the market salary rates.
- Nurses should be encouraged to utilize all their leaves.
- Interviews and surveys should be conducted among the nurses at regular intervals of time and influencing factors of attrition must be probed.
- While the HR by default works as a grievance addressing body for all the employees, a concerned person should be maintained for the same while maintaining employee anonymity
- Nurses staying in the hostel should be questioned regarding living conditions which should culminate in taking required actions.
- Senior staff should be trained regarding management and training of the juniors. This should be monitored.
- Since a lot of departments are experiencing staff shortage, it is the responsibility of the HR Department to promptly recruit the most competent staff. During job interview, apart from the top officials, a concerned person from the department into which hiring is being done, should also be present in order to evaluate the candidate.
- Transportation facilities can be provided to employees up to some common point so that distance from home or excessive travel expenses don't affect employee retention in any way.
- Annual health check-ups should be conducted by the hospital for all staffs to ensure their complete physical and mental well-being. A counsellor should also be present at such check-ups.
- Employee engagement programmes should be conducted once in a while to break the monotony at work.



Conclusion

Several studies conducted across the globe have claimed that the major reason for attrition of nurses is because of government jobs. This is an unmodifiable factor and cannot be attributed to the organisation. However, the rest of the causes for attrition majorly are lower pays, increased work pressure, lack of support from seniors, restrictive work environment, toxic work culture etc. These factors can and should always be monitored by any organization. Nurses make up the core of the workforce in a hospital and should be preserved at all costs.

The Human Resource department, along with the heads of other departments have the prime responsibility of making the hospital a peaceful place to work in. A happy workforce is the glory of any organisation. While on one hand it increases the turnover of a hospital, on the other hand it increases the market value of the hospital as well.

A positive work culture coupled with good remuneration and good scope of growth will automatically attract the most competent staff to be a part of the organisation.

As it is rightly said, “If you have a good army of men, there is no looking back”!



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Thank you