Abstract

Objectives: This is a survey on employee engagement level in hospitals of a rural district of India to find out the influencing factors and propose a strategic model. Methods/Analysis: Among the 11 public and 80 private hospitals, stratified random and disproportionate convenience sampling techniques were used to select the 35 hospitals and the 506 respondents. All levels of employees were included unlike the earlier researches conducted. An existing standard Employee Engagement questionnaire combined with a customer perception questionnaire was administered. In analysis, Descriptive and Multiple Regression were used. Findings: The present levels of engagement are 82.51% and customers are the most influencing factor for engagement. From the available research reports it is found in India the fully engaged employees are in the region of 9 to 17% and the level of engagement is just above 70%. The high level of engagement is different from various reports. The study has provided insights and information about employee engagement in hospitals so that the administrators can develop and implement strategies to improve the same thereby increasing employee commitment, service quality and customer satisfaction. Novelty/Improvement: A strategic model to improve the engagement level is proposed and thus the ultimate social contribution to provide better healthcare service to the people will be achieved.

Keywords: Commitment, Customer Satisfaction, Employee Engagement, Health Care, Hospitals, Service Quality

1. Introduction

1.1 Health Care in India

In the Indian healthcare market, private sector is driving the growth and expansion of the most promising markets in the world. It consists of hospitals, medical equipments, health insurance, education, training and health services. A large number of hospitals including both public and private are in the urban areas. The 28% urban residents have access to 66% of hospital beds in India and the 72% rural population has only the remaining1 (Report by IMS Institute for Healthcare Informatics). Also, The Hindu, 2013 said “the distribution of healthcare workers, including doctors, nurses, and pharmacists, is highly concentrated in urban areas and the private sector”2.

In rural areas the public healthcare institutions like primary health centers and district hospitals are providing healthcare services. The National Family Health Survey (NFHS) III reports that the private medical sector is the primary source of health care for the majority of households in urban (70 per cent) as well as rural areas (63 percent). In the private sector Private Doctors or clinicians are catering to 46 per cent of the urban and 36 per cent of the rural households3 (NFHS. IIPS and Macro International, 2007: 436). The cost of inpatient treatment in the private sector is much higher compared to treatment in government hospitals4.

1.2 India’s Health Workforce

The health workers present in both the private and public sector are offering health services in several systems of...
Employee engagement is a positive, fulfilling work-related state of mind which is characterized by vigor, dedication and absorption, defined engagement as a state of being attracted, committed and fascinated. It is the highest form of commitment where each one wants to do whatever he can for the benefit of the organization. It is how employees feel, think and act with regard to the employer.

An employee putting forth extra discretionary effort and has the likelihood of being loyal and remaining with the organization over the long time can be called an engaged employee. Engagement is characterized as providing extra effort and of possessing an emotional commitment to the organization and the job.

In defined engagement as “an amalgamation of commitment, loyalty, productivity and ownership, and it is the illusive force that motivates employees to higher levels of performance”.

Engagement is the degree to which an individual is attentive and absorbed in the performance of his roles. It is an energetic state in which the employee is dedicated to excellent performance at work and is confident of his or her effectiveness. It is a barometer that determines the association of a person with the organization.

1.4 Employee Engagement in Health Care

Many industries, including healthcare have a strategic goal of attaining high level of engagement since engaged employees are committed, satisfied with their work and willing to give extra effort to achieve the organization’s goals. Though satisfaction levels were measured among health care employees very few studies applied the concept of engagement and are only evolving.

Researchers found strong correlations between employee engagement scores and customer experiences. The positive relationship between staff satisfaction and patient satisfaction has been identified. Evidences suggest that in healthcare managers can improve patient care experiences by improving employee satisfaction and retention. England’s National Health Service documents show the relationship between higher levels of staff engagement, higher-quality services and better financial performance.

Engagement is especially important in the health care setting where engagement can be a matter of health or illness to those dependent on receiving services.

In health care the factors like the job, training and development opportunities, team, supervisor, senior management and organizational support are important for employee engagement.

Significant relationships between engagement within the work role and job performance outcomes have been identified in several service disciplines.
Work engagement is crucial in the hospital setting. Nurses, for example, work directly and consistently with patients and need to be engaged in their work not just for themselves, but for they hold a lot of responsibility for other people’s lives\textsuperscript{34}. Gallup surveys have measured engagement in many health care work settings and consistently found nurses to be the least engaged of healthcare workers\textsuperscript{35} showed that workers in the health care fields have the lowest scores of vigor and absorption\textsuperscript{13}. These outcomes are particularly problematic for health care professionals, where absence and decreased job performance can harm patient health as well\textsuperscript{36}. Health care professionals are expected to provide good customer service to patients in addition to accurate diagnoses, safe and efficient treatment\textsuperscript{37} and often requiring emotional labor\textsuperscript{38}. Engaged employees are involved in process improvement and to look for innovative ways to reduce costs and increase efficiencies than employees who are not engaged or who are actively disengaged. Few Indian hospitals, though, are actively measuring and managing staff engagement\textsuperscript{39}. Interventions aimed at developing employee engagement will likely result in increased commitment and reduced turnover in healthcare contexts\textsuperscript{40}.

2. Research Methodology

The research is basically a survey on employee engagement in hospitals of Nagapattinam district in Tamil Nadu. All the available hospitals (11 public and 80 private) were selected as the population and stratified random sampling was used to select the sample hospitals. The stratification was based on Taluks, type of towns (big and small) and also type of hospitals. More than 38% hospitals were covered. While selecting the respondents from each hospital, disproportionate convenience sampling technique was used and the sample size is 506. The sample size across hospitals is shown in Table 1.

The standard questionnaire developed by IES (Institute for Employment Studies, UK) with 48 statements and Customer Impact (08 items) from UTRECHT Work Engagement Scale as under\textsuperscript{41} are used with prior permission. These statements solicit the perception of employees on various factors influencing employee engagement.

- My Job (15 items)
- My Superior (10 items)
- My Coworkers (09 items)
- My Organisation (14 items)
- My Customer (08 items)

The final questionnaire is a combination of two standard questionnaires. The reliability was tested for all five constructs and the same is shown in Table 2.

Table 1. Sample size across the region and the type of hospitals

| Taluks         | No. of Hospitals | No. of Respondents | Total  | %  |
|----------------|------------------|--------------------|--------|----|
|                | Public | Private | Public | Private |       |
| Nagapattinam   | 1      | 7       | 48     | 92     | 140   | 27.67 |
| Keelvelur      | 1      | 3       | 11     | 32     | 43    | 8.498 |
| Vedaranyam     | 1      | 3       | 14     | 38     | 52    | 10.28 |
| Vailankanni    | 1      | 3       | 9      | 27     | 36    | 7.115 |
| Tharangambadi  | 1      | 2       | 8      | 20     | 28    | 5.534 |
| Sirkazhi       | 1      | 3       | 13     | 43     | 56    | 11.07 |
| Mayiladuthurai | 1      | 7       | 39     | 112    | 151   | 29.84 |
| Total          | 7      | 28      | 142    | 364    | 506   | 100   |

Source: Primary Data computed in SPSS 20.0

Table 2. Reliability statistics

| Construct         | Cronbach's Alpha | No. of Items |
|-------------------|------------------|--------------|
| My Job            | .883             | 15           |
| My Supervisor/Manager | .886         | 10           |
| My Team/My Coworkers | .835         | 9            |
| My Organisation   | .889             | 14           |
| My Customer       | .884             | 8            |

Source: Primary Data computed in SPSS 20.0
The Structured questionnaire used to collect primary data, consisting of 56 statements with 5 point scale response. Five response options from 5=strongly agree to 1= strongly disagree were given to rate the statements. The first part of the questionnaire solicited demographic information of respondents.

3. Data Analysis

3.1 Procedure

Entire sample and the data were analyzed with Statistical Package for Social Sciences (SPSS 20.0) by using techniques like Descriptive statistics, Correlation analysis and Multiple Regression. The mean of the questionnaire items is used to arrive at the average engagement of the employee\(^2\). The same is detailed in Table 3.

3.2 Frequencies

The frequencies are grouped into low, medium and high categories\(^3\), based on the distribution of composite score\(^4\). The total composite score is used as an indicator of the overall level of engagement. The high engagement group are individuals who obtained 4.5 and above in the composite score. Moderately engaged are those scoring between

| S. No | Demographic factors                  | N = 506 | Min | Max | Mean | Median | SD   |
|-------|--------------------------------------|---------|-----|-----|------|--------|------|
| 1     | Type of Hospitals                    |         |     |     |      |        |      |
|       | Public                               | 142     | 3   | 5   | 3.926| 3.86   | .493 |
|       | Private                              | 364     | 1.68| 4.86| 3.971| 3.94   | .482 |
| 2     | Gender                               |         |     |     |      |        |      |
|       | Male                                 | 204     | 1.3 | 4.86| 3.982| 4.1    | .550 |
|       | Female                               | 302     | 1.68| 5   | 3.959| 4      | .444 |
| 3     | Age in Years                         |         |     |     |      |        |      |
|       | 20-25                                | 77      | 3.29| 4.77| 4.037| 4.02   | .386 |
|       | 26-30                                | 99      | 2.64| 4.73| 3.997| 4.07   | .457 |
|       | 31-35                                | 88      | 2.95| 4.79| 3.834| 3.87   | .472 |
|       | 36-40                                | 68      | 2.91| 4.64| 3.863| 3.87   | .438 |
|       | 41-45                                | 83      | 1.3 | 5   | 3.902| 4      | .680 |
|       | 46-50                                | 46      | 3.39| 5   | 4.033| 3.98   | .336 |
|       | Above 51                             | 45      | 3.23| 4.77| 4.156| 4.27   | .397 |
| 4     | Designation                          |         |     |     |      |        |      |
|       | Doctor                               | 35      | 3.29| 4.68| 3.991| 4.02   | .492 |
|       | Nurse/Nursing Assts                 | 247     | 1.3 | 5   | 3.948| 4      | .486 |
|       | Technical                            | 57      | 1.73| 5   | 3.988| 4.13   | .559 |
|       | Pharmacists                          | 55      | 3   | 4.7 | 3.938| 3.98   | .444 |
|       | Admin/Sup/ Mgrs                      | 62      | 3.11| 5   | 4.016| 3.99   | .471 |
|       | Others                               | 50      | 2.98| 4.73| 3.901| 3.87   | .460 |
| 5     | Marital Status                       |         |     |     |      |        |      |
|       | Married                              | 411     | 1.3 | 5   | 3.957| 4      | .506 |
|       | Single                               | 95      | 2.98| 5   | 3.962| 3.98   | .381 |
|       | < 5 K                                | 83      | 2.64| 4.63| 4.040| 4      | .363 |
|       | 5 - 10 K                             | 72      | 3   | 4.68| 4.148| 4.29   | .357 |
|       | 10 - 15 K                            | 44      | 3.09| 4.77| 4.043| 4.18   | .466 |
|       | 15 - 20 K                            | 65      | 1.3 | 4.73| 3.683| 3.68   | .724 |
|       | 20 - 25 K                            | 46      | 3.25| 4.71| 3.985| 3.98   | .394 |
|       | 25 - 50 K                            | 171     | 2.91| 5   | 3.888| 3.88   | .489 |
|       | Above 50 K                           | 25      | 3.63| 4.59| 4.142| 4.25   | .379 |
| 6     | Salary                               |         |     |     |      |        |      |
|       | HSC/SSLC                             | 86      | 2.64| 4.77| 4.184| 4.30   | .379 |
|       | Diploma                              | 269     | 3   | 5   | 3.902| 3.91   | .406 |
|       | Degree                               | 72      | 2.95| 5   | 3.964| 3.99   | .552 |
|       | PG                                   | 40      | 1.3 | 4.61| 3.642| 3.86   | .789 |
|       | Professional                         | 39      | 3.45| 4.77| 4.160| 4.28   | .387 |
| 7     | Qualification                        |         |     |     |      |        |      |
|       | < 2 yrs                              | 84      | 3.29| 4.77| 4.028| 4.01   | .379 |
|       | 2-5 yrs                              | 81      | 3   | 4.68| 4.076| 4.13   | .399 |
|       | 6-10 yrs                             | 143     | 1.3 | 4.79| 3.858| 3.91   | .592 |
|       | 11-15 yrs                            | 95      | 2.91| 5   | 3.862| 3.86   | .473 |
|       | 16-20yrs                             | 33      | 2.96| 4.57| 3.959| 3.96   | .408 |
|       | 21-25 yrs                            | 34      | 3.39| 4.7 | 3.997| 3.95   | .386 |
|       | Above 26                             | 36      | 3.23| 5   | 4.144| 4.18   | .475 |

Average composite score 3.975

Source: SPSS 20.0 output
3.5 and 4.499 and low engagement or disengagement as those scoring less than 2.49. The employees who are neither engaged nor disengaged can be called as neutral with a score between 2.5 and 3.49. The public hospitals have an engagement level of 71.13% of their employees (both high and medium combined) whereas the private hospitals have an engagement level of 85.71% of their employees. Though the highly engaged were only 11.27% and 10.71% respectively, the moderately engaged group is more (75%) in private hospitals. The .82% of disengagement is also present in private hospitals. The 28.87% and 13.46% neutral employees are present in GHs and PHs respectively. The details are shown in Table 4.

### 3.3 Managerial Implications

The Employee Engagement Score based on various demographic groups has given a clear idea about the status of employee engagement among the employees of GHs and PHs. The details are shown in Table 4.

#### Table 4. Demographic factors, engaged employees and the engagement level

| Demographics | Frequency range | Disengaged | Neutral | Moderately Engaged | Highly/Fully Engaged | Engaged Employees |
|--------------|----------------|------------|---------|--------------------|---------------------|------------------|
| Demographics | < 2.49 | 2.5-3.49 | 3.5-4.49 | 4.5+ | Total | % |
| GH Type    |         |          |          |          |          | |
| Private    | 0.00    | 41       | 28.87    | 85      | 59.86   | 16   | 11.27  | 142 | 71.13 |
| Male       | 0.00    | 49       | 13.46    | 273     | 75.00   | 39   | 10.71  | 364 | 85.71 |
| Female     | 0.00    | 49       | 16.23    | 221     | 73.18   | 31   | 10.26  | 302 | 83.44 |
| Gender     |         |          |          |          |          | |
| Age in years | 20-25 | 0.00    | 9        | 11.69   | 58      | 75.32 | 10   | 12.99 | 77  | 88.31 |
|            | 26-30   | 0.00    | 16       | 16.16   | 69      | 69.70 | 14   | 14.14 | 99  | 83.84 |
|            | 31-35   | 0.00    | 25       | 28.41   | 58      | 65.91 | 5    | 5.68  | 88  | 71.59 |
|            | 36-40   | 0.00    | 16       | 23.53   | 47      | 69.12 | 5    | 7.35  | 68  | 76.47 |
|            | 41-45   | 3.61    | 17       | 20.48   | 48      | 57.83 | 15   | 18.07 | 83  | 75.90 |
|            | 46-50   | 0.00    | 1        | 2.17    | 44      | 95.65 | 1    | 2.17  | 46  | 97.83 |
| Status     |         |          |          |          |          | |
| Single     | 0.00    | 14       | 14.74    | 71      | 74.74   | 10   | 10.53 | 95  | 85.26 |
| Married    | 0.00    | 76       | 18.49    | 287     | 69.83   | 45   | 10.95 | 411 | 80.78 |
| Designation | Nursing Asst | 2       | 0.81    | 44       | 17.81   | 177   | 71.66 | 24  | 9.72  | 247 | 81.38 |
|            | Technical | 1       | 1.75    | 9        | 15.79   | 40    | 70.18 | 7   | 12.28 | 57  | 82.46 |
|            | Doctor   | 0.00    | 6       | 17.14   | 48      | 68.57 | 5    | 14.29 | 35  | 82.86 |
|            | Pharmacists | 0.00  | 20    | 10.00   | 39      | 70.91 | 5    | 9.09  | 55  | 80.00 |
|            | Admin/Sup/Mgr | 0.00 | 0.00   | 10      | 16.13   | 43    | 69.35 | 9   | 14.52 | 62  | 83.87 |
|            | Others   | 0.00    | 10      | 20.00   | 35      | 70.00 | 5    | 10.00 | 50  | 80.00 |
| Salary     |         |          |          |          |          | |
| Below Rs 5 K | 0.00  | 6       | 7.23    | 71      | 85.54   | 6    | 7.23  | 83  | 92.77 |
| Rs 5-10 K  | 0.00    | 4.17    | 60      | 83.33   | 9       | 12.50 | 72   | 95.83 |
| 10-15 K    | 0.00    | 25.00   | 26      | 59.09   | 7       | 15.91 | 44   | 75.00 |
| 15-20 K    | 3.62    | 24      | 36.92   | 31      | 47.69   | 7    | 10.77 | 65  | 58.46 |
| 20-25 K    | 0.00    | 13.04   | 37      | 80.43   | 3       | 6.52  | 46   | 86.96 |
| 25 K -50 k | 0.00    | 23.39   | 111     | 64.91   | 20      | 11.70 | 171  | 76.61 |
| 50 K and above | 0.00  | 0.00    | 22      | 88.00   | 3       | 12.00 | 25   | 100.0 |
| Qualification | 10/+2 | 0.00    | 7       | 8.14    | 66      | 76.74 | 13   | 15.12 | 86  | 91.86 |
|            | Diploma | 0.00    | 51      | 18.96   | 199     | 73.98 | 19   | 7.06  | 269 | 81.04 |
|            | Degree  | 0.00    | 18      | 25.00   | 41      | 56.94 | 13   | 18.06 | 72  | 75.00 |
|            | PG Degree | 3      | 7.50    | 12      | 30.00   | 20    | 50.00 | 5   | 12.50 | 40  | 62.50 |
|            | Prof Degree | 2      | 5.13    | 32      | 82.05   | 5    | 12.82 | 39  | 94.87 |

(continued)
hospitals in Nagapattinam district. Though the current level of engagement is higher than the global industrial average, the moderately engaged employees are more. These employees can be made engaged by addressing their concerns which will considerably increase employee engagement. Further there is no actively disengaged person among these hospitals which may have to be addressed cautiously. Simply this cannot be taken as a positive sign because it may be due to hiding of certain opinions by respondents. However the other information brought out by the descriptive will help in understanding their concerns.

The overall mean employee engagement scores is 3.975 and shows very less significant differences among various mean EE scores based on the demographics. So, it may be concluded that the demographic characteristics do not differentiate the employee engagement scores of the hospital employees.

As per Gallup report 2014 the highly engaged employees across India is only 9% (with 1% variation)\(^4\). This study has shown the highly/fully engaged as 11.22%, which is corresponding (Slightly higher) to the previous result. Also in public health facilities as per a study 74% employees are positively engaged with their work in spite of various problems in public health care in India and nurses (75%) are more engaged than physicians (69%)\(^4\). But this study shows better results with nurses (81.38%) and physicians (82.86%) having better engagement levels. Also among the hospital managers of the same area, a previous study reported an engagement level of 72%\(^4\) where as this study reports 83.87% engagement level which is also better. It may be concluded that up to this basic analysis carried out the employee engagement level of hospitals in Nagapattinam district is good.

All employee engagement constructs have positive relationship with employee engagement scores. By improving the perception of employees of the hospitals related to any of the constructs there is a possibility of increasing the employee engagement level. Also among the three demographic variables considered age has no relationship with the constructs and the employee engagement score. Even the mild relationship of salary and experience may not influence the outcome score. But age has a relationship with salary and experience. Age having a strong relationship is obvious because as the age increases the experience also increases. As far as salary is concerned the relationship may say that as the experience increases, the salary may also increase. The proportion of increase in salary based on experience may vary between hospitals and it may be the reason for the moderately strong relationship.

### 3.4 Multiple Regressions

Multiple regressions are used to predict the single dependent variable with the independent variables whose values are known.

The regression outputs table 5, 6 and 7 shows that all five independent variables My Customer, My Team, My Job, My Supervisor and My Organisation are entered simultaneously for the analysis in enter method. It is also seen that the R square value is 0.729 which shows that the five independent variables in this model account for 72.9% variance in the dependant variable employee engagement. Clearly this is a good model. From the coefficients table the values under column B, the regression coefficients can be used to construct an Ordinary Least Squares equation with the constant to predict employee engagement. Also with the help of \(t\) values it can be predicted that the construct My Customer has the highest influence on employee engagement among the five independent variables. The hypothesis Employee Engagement Score is positively related to My Customer, My Team,
hospital the customers (patients and their relatives) are not easily satisfied and this reflects on their perceptions about the hospital and service offered. Also these feedback and opinions affect the employees and their engagement. The team members can help each other in satisfying the customers. The nature of the job and the attachment with the organization also help in increasing employee engagement. Finally the superiors play a major role in improving engagement. So providing means to increase customer satisfaction has two benefits. It increases the engagement of employees and also the image of the hospital and the services offered. The aim to achieve highest customer satisfaction will better the functioning of hospital and employees in many areas, which is the ultimate aim of any management.

4. Implications

From the analysis it is clear that the observed constructs predict employee engagement of hospital employees. It is worth to note that the perceptions about the customers and team members have the most influence on employee engagement. Because of the typical work conditions in a hospital the customers (patients and their relatives) are not easily satisfied and this reflects on their perceptions about the hospital and service offered. Also these feedback and opinions affect the employees and their engagement. The team members can help each other in satisfying the customers. The nature of the job and the attachment with the organization also help in increasing employee engagement. Finally the superiors play a major role in improving engagement. So providing means to increase customer satisfaction has two benefits. It increases the engagement of employees and also the image of the hospital and the services offered. The aim to achieve highest customer satisfaction will better the functioning of hospital and employees in many areas, which is the ultimate aim of any management.

4.1 Proposed Model

A proposed strategic model is shown in Figure 1.

5. Conclusion

The model in Figure 1 based on the regression results show the influence of the independent variables on the dependent variable employee engagement. By fine tuning any of the variables the employee engagement can be increased. The most significant predictor of employee engagement is the Customer, followed by the Team where the employee is a member. The various managerial implications discuss many ways to increase employee engagement in order to develop rural health care. The top-performing organizations know that an Employee Engagement strategy which is linked to bottom-line out-comes will help them. To increase engagement the management should ensure that the hospital environment concentrates on fair and prompt service to their customers first and then the team mem-

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Table 5. Variables Entered/Removed (b)

| Model | Variables Entered | Variables Removed | Method |
|-------|-------------------|-------------------|--------|
| 1     | MY Customer , My Team, My Job, My Supervisor, My Organisation(a) | | Enter |

a All requested variables entered.
b Dependent Variable: EE Score

Table 6. Model summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---|----------|-------------------|---------------------------|
| 1     | .854(a) | .729 | .726 | .28423 |

a Predictors: (Constant), Customer Impact, My Team, My Job, My Supervisor, My Organisation

Table 7. Coefficients(a)

| Model | Unstandardized Coefficients | Standardized Coefficients | T | Sig. |
|-------|-----------------------------|---------------------------|---|------|
|       | B | Std. Error | Beta |       |       |
| 1     | (Constant) | .287 | .103 | 2.773 | .006 |
| My Job | .192 | .028 | .219 | 6.900 | .000 |
| My Supervisor | .143 | .025 | .182 | 5.652 | .000 |
| My Team | .212 | .027 | .231 | 7.840 | .000 |
| My Organisation | .161 | .028 | .200 | 5.712 | .000 |
| My Customer | .207 | .022 | .270 | 9.470 | .000 |

a Dependent Variable: EE Score

For the analysis it is clear that the observed constructs predict employee engagement of hospital employees. It is worth to note that the perceptions about the customers and team members have the most influence on employee engagement. Because of the typical work conditions in a
bers so that an employee can mingle with and deliver best services. It becomes essential to implement strategies that will have a positive effect on creating an engaged workforce. This is a long term goal which needs continuous measuring of employee engagement and modifying the existing factors continuously to achieve the highest level of engaged employees which will also increase the bottom line profits of an organization.

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