# Social Marketing - Awareness and Satisfaction Levels of Government Aided Health Insurance Project in Rural Tamil Nadu

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## Abstract

**In developing countries, one of the contexts of social marketing is to foster the use of various health-related products and services independent of many non-governmental organizations (NGOs) and donors from developed countries, who have largely funded and devised social marketing activities in these countries. These activities have also been taken up by local organizations - state owned, state supported, and private. In India, there is a growing demand for quality medical care due to the poor quality of state owned hospitals, increase in lifestyle diseases, increasing private health care costs, and cost of medicines. This makes health insurance a necessity today more than a luxury. To mitigate the problem of quality health care at affordable costs, there are state interventions, the notable ones being Yeshasvini of Karnataka, Arogyasri of Andhra Pradesh, and Chief Minister's Comprehensive Health Insurance Scheme of Tamil Nadu. The Chief Minister's Comprehensive Health Insurance Scheme is one of the innovative health insurance schemes introduced by the Tamil Nadu Government for below poverty line (BPL) families, covering a population of 14 million with an annual income of INR 72000 (USD 1400 ; 1 USD = 50 INR in 2009 ) or less. The scheme has been implemented through 663 hospitals (20 public sector hospitals and 643 private hospitals). This scheme assures treatment and saves the lives of people from 51 types of diseases. This study aimed at studying the public-private partnership in health care with specific reference to the Chief Minister's Comprehensive Health Insurance Scheme of the Tamil Nadu government in terms of awareness, satisfaction, and impact through qualitative and quantitative research methodologies. The study indicated that the awareness of the respondents about this scheme was poor, but was significantly better amongst those who had availed this scheme. The satisfaction levels measured among the respondents, who had used this scheme at least once, clearly indicated that the people were satisfied with the overall implementation of the scheme, the services/facilities provided by the hospitals, and the treatment rendered by them.**

***Keywords:*** **social marketing, Chief Minister's Comprehensive Health Insurance Scheme, government aided health insurance, private public partnership (PPP) ,awareness, satisfaction**

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The past four decades have seen the field of social marketing developing on two independent tracks (Lefebvre, 2011). In the developing countries, the context of social marketing was to foster the use of various health-related products and services (Harvey, 1999 ; Manoff, 1985) ; whereas, in the developed world, the context was to reduce behavioral risk factors for diseases (Lefebvre & Flora, 1988; Walsh, Rudd, Moeykens, & Moloney, 1993 ). Independent of many non-governmental organizations (NGOs) and donors from developed countries, who have largely funded and devised social marketing activities in developing countries, these activities have also been taken up by local organizations that are state owned, state supported, and private.

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Kotler and Zaltman (1971) defined social marketing as using marketing principles to influence the acceptability of social ideas. Contemporary researchers such as Andreasen (1995), Donovan and Henley (2003), Kotler and Lee (2008) defined it as a method to influence the voluntary behavior of target audiences. Manoff (1985) included introduction of new products (e.g. oral rehydration salts), the modification of existing ones (e.g. iodized salt), and the promotion of structural change in existing institutions (e.g. food stamps, hospital practices) in the definition of social marketing. According to the United States Agency for International Development (n.d.) :

> Social marketing is the use of commercial marketing techniques to achieve a social objective. Social marketers combine product, price, place, and promotion to maximize product use by specific population groups. In the health arena, social marketing programs in the developing world traditionally have focused on increasing the availability and use of health products, such as contraceptives or insecticide-treated nets. Different models of social marketing have been used in developing countries with varying levels of donor funding. While some of the models rely heavily on donor support, others include built-in exit strategies that depend on the commercial sector to ensure sustained product supply.

Majority of the financial support for social marketing programs across the world comes from government and international aid organizations that define social marketing by whether or not they are tied to the development of more efficient and responsive promotion and distribution systems of socially beneficial products and services (Meadley, Pollard, & Wheeler , 2003; United Nations Population Fund, 2002; United States Agency for International Development, 2009). Walsh, Rudd, Moeykens, and Moloney (1993) noted that the earliest social marketing interventions emerged in the international development field, partly in response to the frustration of donors with the slow pace of diffusion of clinic-based family planning services. Harvey (1999) and Meadley et al. (2003) attributed the Nirodh Condom Project in India in 1967 as the first attempt to incorporate marketing practices of consumer research and segmentation, branding, advertising and promotion, pricing and product distribution strategies (including partnerships with private sector retailers such as pharmacies) to generate awareness, demand, and use of contraceptive products and services. Along with its expansion to other national family planning programs, social marketing was quickly adopted among practitioners in the child survival and maternal health fields, with oral rehydration products to combat the effects of diarrhoeal diseases becoming a major emphasis (Manoff, 1985).

In India, there is a growing demand for quality medical care due to poor quality of state owned hospitals, increase in lifestyle diseases, increasing private healthcare costs, and cost of medicines. This makes health insurance a necessity today more than a luxury. Health insurance policies need to address concerns such as benefits for families, ability to pay, type of care results from policies (Regnier, Andrews, & Gengler, 2010). Family coverage is an important aspect of choice of type of insurance schemes (Bansak & Raphael, 2008). Balancing quality health care with affordable health insurance being a difficult proposition, Gengler (2010) and Harrington (2010) recommended the need for regulating the health insurance sector. The health insurance market has expanded in India very rapidly (Bloom, Kanjilal, & Peters, 2008). Despite its tremendous potential, the level of health insurance coverage among the poor remains low (Cannon, 2009; Conover, 2009).

Available evidence shows that only about 3% to 5% of the Indians are covered under different health insurance schemes. Most health insurance schemes use TPA for claim processing. Sane and Niharika (2012) elaborated on TPA as :

> TPA stands for a Third Party Administrator. The TPA is an intermediary between an Insurer and the Customer. TPAs were introduced by the Insurance Regulatory and Development Authority of India (IRDA) in the year 2001. IRDA defines TPA as a, "Third Party Administrator who, for the time being, is licensed by the Authority, and

is engaged, for a fee or remuneration, in the agreement with an insurance company for the provision of health services. (p. 16)

However, TPAs not only increase the cost, but also sometimes result in delays in settlement of claims. Therefore, to mitigate the problem of quality health care at affordable costs, there are state interventions and generally, the health insurance schemes of governments target low-income groups.

## Health Care and the Government

The First Health Insurance Act was introduced in India in 1912 and was modified in 1938. In 1972, the insurance industry was nationalized and 107 private insurance companies were brought under the umbrella of the General Insurance Corporation (GIC). Insurance and Regulatory Development Act (IRDA) enacted in 1999 included the provision of permitting foreign companies. The Government of India introduced the Community Health Insurance (CHI) as part of its National Rural Health Mission to reduce the burden of out-of- pocket payments on households in India (Devadasan, Criel, Van Damme, Manoharan, Sarma, & Van der Stuyft, 2010). It was a smart card based health insurance system introduced for its poorest 300 million people as part of the National Health Insurance Program. The use of the smart card and the tie up with insurance companies and hospitals has been beneficial (Range, 2008).

On the lines of the Government of India, several state governments followed suit, and established government sponsored schemes, the notable ones being Yeshasvini of Karnataka, Arogyasri of Andhra Pradesh, and Chief Minister's Comprehensive Health Insurance Scheme of Tamil Nadu.

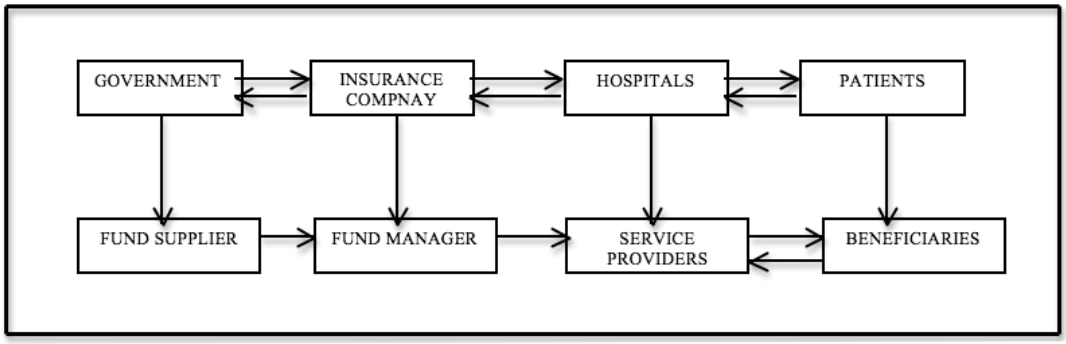
Yeshasvini Health Insurance Scheme of Karnataka state in India commenced in 2003 for rural farmers and peasants in the state and is considered as one of the largest health insurance schemes for the rural poor for providing health security. It was estimated that in 2004, about 2.2 million widely dispersed peasant farmers were covered for surgical and outpatient care for a low annual premium of approximately US$ 2 (Kuruvilla & Lui, 2007 ; Yeshaswini Co-operative Farmers Health Care Scheme, n.d ). Arogyasri Community Health Insurance Scheme is another health insurance scheme for the poor in the State of Andhra Pradesh, which was started in April 2007. The scheme covers a population of 65.4 million in the State. The scheme provides coverage for meeting expenses of hospitalization and surgical procedures for the beneficiary members up to ₹ 1,50,000 (USD 3000; 1 USD = 50 INR in 2009) per family per year in any of the network hospitals. The scheme ensures that the beneficiaries get 100% subsidized OPD (out patient) consultation, diagnostic tests, and medical treatment regardless of whether they ultimately require surgery or not (Joseph & Rajagopal, 2011; Rajiv Aarogyasri Community Health Insurance Scheme : Andhra Pradesh, n.d. ; Yelliah, 2013).

### Chief Minister's Comprehensive Health Insurance Scheme – Tamil Nadu

Chief Minister's Comprehensive Health Insurance Scheme (earlier called as Chief Minister Kalaignar Insurance Scheme for Life Saving Treatments) is one of the innovative health insurance schemes introduced by the Tamil Nadu Government in 2009 for people living below the poverty line (BPL), covering a population of 14 million people with an annual income of INR 72000 (USD 1400 ; 1 USD = 50 INR in 2009) or less. The scheme was implemented through 663 hospitals (20 public sector hospitals and 643 private hospitals). This scheme assures treatment and saves the lives of people from 51 types of diseases. The scheme was widely accepted by many international organizations, including the World Bank for its unique feature of safeguarding the health of the poor people without collecting any premium from them. The scheme is a classical example of the public - private partnership. The government, Star Health Insurance, and hospitals (both private and government) are the three stakeholders of this scheme (Joseph & Rajagopal , 2011; Tamil Nadu Health Systems Project, n.d.).

The scheme provides cashless insurance protection against a host of identified high-cost medical contingencies

**Figure 1. Chief Minister's Comprehensive Health Insurance Scheme for Life Saving Treatments : Supply Chain Model (KKT-SCM)**




Source : Reproduced from C.S. Joseph & N. Rajagopal (2011). Performance evaluation of 'Kalaignar Health Insurance Scheme' for life saving treatment: A study among the beneficiaries of Madurai district. *Journal of Contemporary Research in Management, 6* (4), 1-17.

that require surgical care and hospitalization. The scheme provides an insured amount of ₹ 1,00,000/- (USD 2000 ; 1 USD = 50 INR in 2009 ) for a period of 4 years per family and covers more than 100 critical life-saving treatments. The treatment is given only through the empanelled hospitals. A minimum of six hospitals in each district and 15 major hospitals were identified. The claim process includes pre-authorization by the medical teams of Star Insurance (private partner) based on field information available from the hospital, field visit by the doctor from Star Insurance, hospital's claims based on the actual provision of treatment, claim case processing by team of validators and medical approvers. The financial settlement is done mostly on the basis of electronic transfer. A team of doctors have been attached to this scheme exclusively for this purpose. Hospitalization of the patients is based on proving their identity as patients from the BPL category (Joseph & Rajagopal, 2011; Tamil Nadu Health Systems Project, n.d.).

Joseph and Rajagopal (2011) explained the supply chain process (KKT- SCM) of this scheme (refer to Figure 1). The government guarantees the financial part of the scheme. The amount for this scheme is budgeted every year and is transferred to Star Health Insurance. The company has a direct contact with the designated hospitals which act as major health care (service) providers.

## Research Gap

In as much as various governments and government bodies have entered into a PPP model to mitigate the problems of quality health care at affordable costs, the current literature does not seem to have adequately captured the following key issues :

- The awareness amongst the target groups (TG),
- Correlation between demographics & psychographics and awareness,
- Satisfaction with the services and processes amongst those who availed the scheme,
- The impact of the scheme.

This empirical research study was undertaken during the year 2011-2012, since apart from Joseph and Rajagopal (2011) , the literature survey does not seem to indicate any similar research conducted with reference to Chief Minister's insurance schemes that are being run by the State Governments. This study aims at focusing on the

Figure 2 . Focus Group Discussion in Progress

public - private partnership in health care with specific reference to the Tamil Nadu government's Chief Minister's Comprehensive Health Insurance Scheme in terms of awareness, impact, and satisfaction through qualitative and quantitative research methodologies. The outcome (namely whether is has been successful / unsuccessful) of this scheme was studied based on three parameters namely; awareness, satisfaction, and impact. The research tools that were used were qualitative and quantitative. Focus groups and in-depth interviews were used for the exploratory research and quantitative tools were used to test the hypotheses. The three parameters namely, awareness, satisfaction, and impact were identified based on qualitative research (Focus Group) . This paper covers only the awareness and satisfaction attributes of Chief Minister's Comprehensive Health Insurance Scheme. The impact factor of the same scheme will be covered in a subsequent research study.

## Methodology

↳ **Qualitative Research :** One of the methods of conducting exploratory research is through focus groups for the purpose of gaining information relevant to the research problem (Greenbaum, 1988). The information can be used to generate ideas, to learn about the respondent's vocabulary when relating to a certain type of product or service, or to gain insights into basic needs and attitudes (Stoltman & Gentry, 1992). Burns and Bush (2009) defined an in-depth interview as a set of probing questions posed one on one to a subject so as to gain an idea of what the subject thinks about something or the subject behaves in a certain way.

In this study, in all the focus group discussions, the moderator acted as an objective leader to the pre-screened audience and conducted the entire meeting in an unstructured and natural fashion. Interaction among the participants was ensured at the best possible level so that key insights could be sifted from all focus group interviews. Focus group and in-depth interviews were conducted in Thirukazhukundram Taluk, Chengleput District of Tamil Nadu to study the scheme as a whole and to understand the various communication methodologies used by the government to promote the scheme. The focus group was conducted in various villages, covering respondents of various demographics, to study their awareness levels (Figure 2).

The focus groups discussed health care, diseases, hospitalization and costs, government extension programs, and so forth. Various questions were asked to test their understanding about the project, their perceived value of the project, their perception on the usefulness of the project, and the overall impact which the project created in their lives. In-depth interviews were also conducted across various respondents - beneficiaries, doctors in the hospitals which were covered under this scheme, various hospital authorities, Star Health Insurance company, government officials, and so forth. From the focus group and personal in-depth interviews, it emerged that there were three parameters that needed to be considered while conducting a quantitative research. They were :

- Awareness level among the people,
- Satisfaction,
- Impact of the scheme.

**Quantitative Research :** Quantitative research, sometimes referred to as "survey research," is research involving structured questions where a large number of respondents are involved (Burns & Bush, 2009). In this study, as a sequel to the qualitative research that led to the identification of the above three parameters, quantitative research was done to test certain hypotheses that would have implications for the policymakers. A survey method was used with a set of prepared questionnaire instrument to measure the awareness, satisfaction levels, and impact of the scheme. Respondents from various demographics were administered the instrument on a Likert scale (1-5).

**How Awareness was Measured :** The survey was conducted amongst two sets of sample units comprising of 50 respondents who had not availed this insurance scheme facility, and 40 respondents who had availed this facility. The motive was to measure and compare the awareness level of the respondents in these two sets of sample population. Both telephonic and personal survey methodologies were employed in villages in Thitukazhukundram Taluk of Chenglepet District, Tamil Nadu . Telephonic calls were also made to the respondents who were from other parts of Tamil Nadu. This study was carried out during January 2011 to June 2012.

**How Satisfaction was Measured :** A sample of 40 respondents was used to measure the satisfaction levels of the respondents. Contact details like name, age, and phone number were obtained from the hospitals in Chennai who were offering this facility and telephone calls were made for the survey.

### Hypotheses Postulated

For this study, the following hypotheses were formulated :

➔ **H01:** The beneficiaries of the Chief Minister's Comprehensive Health Insurance Scheme were not aware of its full benefits.

➔ **H1:** The beneficiaries of the Chief Minister's Comprehensive Health Insurance Scheme were aware of its full benefits.

➔ **H02:** The beneficiaries of the Chief Minister's Comprehensive Health Insurance Scheme were not fully satisfied with the scheme.

➔ **H2:** The beneficiaries of the Chief Minister's Comprehensive Health Insurance Scheme were fully satisfied with the scheme.

## Parameters

**Dependent Variables :** Awareness, satisfaction, and effectiveness.

**Independent Variables :** Age, gender, marital status, education, family size, medium of awareness, awareness on how many diseases are covered, awareness on how many hospitals are covered, satisfaction with service, satisfaction with treatment, satisfaction with amenities, cost saved because of this scheme, and dependency on this scheme.

**Table 1. Reliability Statistics - Respondents who had Availed the Facility**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | *N* of Items |
|---|---|---|
| .649 | .612 | 10 |

**Table 2. Reliability Statistics - Respondents who had not Availed the Facility**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | *N* of Items |
|---|---|---|
| .686 | .735 | 16 |

## Analysis and Discussion

↳ **Reliability Analysis :** The survey was conducted among a total of 90 respondents. We segmented the respondent group into two - respondents who had used this scheme and respondents who had not used this scheme. The data obtained from both the groups was found to be reliable as shown in the Tables 1 and 2. The Tables 1 and 2 indicate that the Cronbach's alpha is greater than 0.6 in both the cases, indicating high reliability.

↳ **Awareness Levels :** The awareness levels of the scheme among both the groups of respondents - those who had availed the facility and those who had not - were measured separately. Though the respondents who had used the facility had some awareness about the scheme, we still attempted to measure their awareness levels in terms of their knowledge about the diseases which this scheme covers and the hospitals which give treatment under this scheme.

### Respondents who had not Availed the Facility

The following parameters were considered for measuring the awareness levels :

↳ **Dependent Variable:** Awareness

↳ **Independent Variables:** Age, gender, marital status, education, awareness media, awareness about disease, awareness about hospitals.

Regression analysis was done by regressing Awareness on the independent variables - Age, gender, marital status, education, awareness media, awareness about diseases, and awareness about hospitals. The output in terms of model summary giving *R* square, ANOVA testing linear relationship on an overall basis, and testing significance for individual coefficients of the linear model are delineated in the Tables 3 - 5.

From the Table 3 , it can seen that the adjusted *R* squared value is pretty high (0.911) , which means that 91.1 % of the changes in the awareness levels are explained by the independent variables.

From the Table 4 ANOVA results, it emerges that the results are significant. Hence, it can be concluded that the null hypothesis H01 stands rejected. Since the omnibus *F* is highly significant, validating the linear regression model on an overall basis, we now proceed to find out the effect of each independent variable that impacts the dependent variable (Awareness).

**Table 3. Model Summary**

| Model | *R* | *R* Square | Adjusted *R* Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .963[a] | .927 | .911 | .261 |

a. Predictors: (Constant), Awareness - Hospital, Marital Status, Gender, Media, Education, Age, Awareness - Disease

**Table 4. ANOVA[b]**

| Model | | Sum of Squares | *df* | Mean Square | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 27.596 | 7 | 3.942 | 57.885 | .000[a] |
| | Residual | 2.179 | 32 | .068 | | |
| | Total | 29.775 | 39 | | | |

a. Predictors: (Constant), Awareness - Hospital, Marital Status, Gender, Media, Education, Age, Awareness - Disease

b. Dependent Variable: Awareness

**Table 5. Coefficients[a] - Awareness**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | *t* | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -1.866 | .651 | | -2.867 | .007 |
| | Age | .069 | .096 | .075 | .719 | .477 |
| | Gender | .656 | .136 | .272 | 4.821 | .000 |
| | Marital Status | .073 | .256 | .032 | .285 | .778 |
| | Education | .907 | .092 | .940 | 9.808 | .000 |
| | Media | .401 | .061 | .435 | 6.551 | .000 |
| | Awareness - Disease | -.432 | .133 | -.350 | -3.246 | .003 |
| | Awareness - Hospital | 1.279 | .156 | .737 | 8.177 | .000 |

a. Dependent Variable: Awareness

**Table 6. Model Summary**

| Model | *R* | *R* Square | Adjusted *R* Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .857[a] | .735 | .683 | .399 |

a. Predictors: (Constant), Awareness - Hospital, Gender, Age, Education, Family Size, Media, Awareness - Disease, Marital Status

**Table 7. ANOVA[b]**

| Model | | Sum of Squares | *df* | Mean Square | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 18.068 | 8 | 2.258 | 14.219 | .000[a] |
| | Residual | 6.512 | 41 | .159 | | |
| | Total | 24.580 | 49 | | | |

a. Predictors: (Constant), Awareness - Hospital, Gender, Age, Education, Family Size, Media, Awareness - Disease, Marital Status

b. Dependent Variable: Awareness

The Table 5 shows whether the independent variables have a significant impact on the awareness levels. It is clear that all variables except age and the marital status of the respondents have a significant impact on the awareness levels (highly significant at the 5% levels).

## Respondents who had Availed the Facility

In an exactly similar fashion, regression analysis was carried out for the respondents who had availed the facility

of the insurance scheme, and the results are delineated in the Tables 6 - 8.

The Table 6 shows that the adjusted *R* squared value is high at 0.683, which means that 68.3 % of the changes in the awareness levels are explained by the above mentioned independent variable. From the Table 7 ANOVA results, it emerges that the results are significant. From the results, it can be concluded that the null hypothesis H01 stands rejected. Since the omnibus *F* is highly significant, validating the linear regression model on an overall basis, we now proceed to find out the effect of each independent variable that impacts the dependent variable (Awareness).

The Table 8 is helpful in finding out those factors which really have a significant impact on the awareness levels of the respondents. It is clear that all factors except the Awareness about the disease (*p* value = 0.002) and the Awareness about the hospital (*p* value = 0.005) are highly significant. The rest of the values do not impact the awareness levels because these people had already undergone treatment and so the demographic factor does not matter here.

It is significant to note that Awareness of the disease and Awareness of the hospital are statistically highly significant both for availers and non-availers of the scheme. Whereas, gender, media, and education as independent variables are highly significant in impacting the awareness level for non availers of this scheme, while these are not significant (independent variables ) for the availers of this scheme.

## Satisfaction

For measuring the satisfaction level among the sample who had availed this facility, the following parameters were considered :

- **Dependent Variable:** Satisfaction,
- **Independent Variable :** Age, gender, marital status, education, family size, satisfaction - service, satisfaction - treatment, satisfaction - amenities.

Regression analysis was done regressing Satisfaction on age, gender, marital status, education, family size, satisfaction - service, satisfaction - treatment, satisfaction - amenities. The insights from the output using model summary giving *R* square, ANOVA indicating the linear model is valid or not on an overall basis, and the impact individual regression coefficients make on satisfaction are delineated in the Tables 9 to 11.

From the Table 9, based on a high *R* square value (0.882), it can be inferred that 88.2% of the changes in satisfaction are explained by all the predictor variables. Hence, the linear model regressing satisfaction on these

**Table 8. Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | *t* | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .713 | 1.605 | | .444 | .659 |
| | Age | .091 | .203 | .110 | .451 | .654 |
| | Gender | -.312 | .211 | -.184 | -1.475 | .148 |
| | Marital Status | -.080 | .363 | -.049 | -.221 | .826 |
| | Education | -.199 | .170 | -.132 | -1.165 | .251 |
| | Family Size | .072 | .071 | .107 | 1.007 | .320 |
| | Media | -.010 | .189 | -.006 | -.051 | .960 |
| | Awareness - Disease | .838 | .246 | .459 | 3.401 | .002 |
| | Awareness - Hospital | .309 | .103 | .364 | 2.994 | .005 |

a. Dependent Variable: Awareness

**Table 9. Model Summary**

| Model | *R* | *R* Square | Adjusted *R* Square | Std. Error of the Estimate |
|---|---|---|---|---|
| dimension01 | .939[a] | .882 | .859 | .240 |

a. Predictors: (Constant), Sat- Amenities, Family Size, Marital Status, Education, Gender, Sat - Treatment, Sat - Service, Age

**Table 10. ANOVA[b]**

| Model | | Sum of Squares | *df* | Mean Square | *F* | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 17.645 | 8 | 2.206 | 38.407 | .000[a] |
| | Residual | 2.355 | 41 | .057 | | |
| | Total | 20.000 | 49 | | | |

a. Predictors: (Constant), Sat- Amenities, Family Size, Marital Status, Education, Gender, Sat - Treatment, Sat - Service, Age

b. Dependent Variable: Satisfaction

**Table 11. Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | *t* | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -2.028 | .661 | | -3.067 | .004 |
| | Age | .311 | .090 | .415 | 3.450 | .001 |
| | Gender | .345 | .139 | .226 | 2.474 | .018 |
| | Marital Status | .848 | .209 | .572 | 4.064 | .000 |
| | Education | .115 | .094 | .084 | 1.222 | .229 |
| | Family Size | .073 | .046 | .121 | 1.588 | .120 |
| | Sat -Service | .280 | .111 | .280 | 2.517 | .016 |
| | Sat - Treatment | .248 | .100 | .249 | 2.468 | .018 |
| | Sat - Amenities | .295 | .080 | .312 | 3.681 | .001 |

a. Dependent Variable: Satisfaction

independent variables seems robust.

The Table 10 confirms the statistical validity of the linear regression model enunciated in the Table 9. The overall *F* value (38.407) is highly significant as reflected by the *p* - value (0.000). From the ANOVA results, it emerges that the results are significant for the dependent variable : satisfaction (Omnibus *F* significant at *p* - value = 0.000 ). From this, it can be concluded that the null hypothesis H02 stands rejected.

We now proceed to find out whether the impact of each independent variable on the satisfaction level of the respondents is significant. The Table 11 shows whether the independent variables have a significant impact on the satisfaction levels. Except for education and family size, all other independent variables are highly significant in terms of predicting satisfaction.

## Summary and Discussion of Results

The results reveal that the awareness level of the people about this scheme was still poor at the time of the survey. This was considerably better for those who had already availed this scheme. It is significant to note that awareness of disease and awareness of hospital are statistically highly significant both for availers and non-availers of the

scheme. Whereas, gender, media, and education as independent variables are highly significant in impacting the awareness level for non availers of this scheme, while these are not significant (independent variables) for the availers. The satisfaction levels measured among the people who used this scheme at least once clearly indicates that the people were highly satisfied with the overall implementation of the Chief Minister's Comprehensive Health Insurance Scheme. They were also satisfied with the services/facilities provided by the hospitals, and the treatment rendered by them.

## Major Findings

### (1) Awareness Amongst the Respondents who had not Used the Chief Minister's Comprehensive Health Insurance Scheme

- The results revealed that the overall awareness levels of the scheme depended on three parameters - the educational levels of the people, their awareness levels about the diseases, and their awareness levels about the hospitals which offer this scheme.
- People were aware of the scheme irrespective of their age, sex, and marital status.
- Most of the people came to know about the scheme through the government officials and the government hospitals in their locality.
- The awareness levels of this scheme among the people who had not yet availed this scheme was poor.

### (2) Awareness Amongst the Respondents who had Used the Chief Minister's Comprehensive Health Insurance Scheme

- The overall awareness levels of the scheme depended on two parameters - the awareness levels of the availers about the diseases and their awareness levels about the hospitals which offer this scheme.
- People were aware of the scheme irrespective of their age, sex, and marital status.
- The awareness levels of this scheme among the people who had availed this scheme was above average. Their awareness levels of the diseases and hospitals covered under this scheme was restricted to the disease for which and the hospital where they underwent the treatment.

### (3) Satisfaction with the Scheme

- The overall satisfaction with this scheme depended on three parameters : namely, satisfaction derived from the services of the hospitals, treatment provided by the hospitals, and the basic amenities provided by the hospitals.
- Education and family size were not at all significant for satisfaction.
- The patients who availed this scheme and had been treated in the hospitals were very much satisfied .

## Implications for Policymakers

Though the general public's awareness about this scheme was lower, the impact that this scheme had created among the poor masses was significant. The people were highly satisfied with the overall functioning of this scheme, and the services provided by the hospitals. The cure for the diseases (which the poor cannot afford otherwise) was provided to them through a clearly defined network of hospitals, and an efficient operational

system adopted by the insurance provider. There is no doubt that this scheme, implemented through a public-private partnership, is set to bring about a health revolution in the state of Tamil Nadu and increase the average life expectancy of the people of Tamil Nadu.

## Limitations of the Study and Suggestions for Future Research

This study was undertaken only in certain parts of Tamil Nadu, and the entire state was not covered. The details of the patients were obtained from few hospitals in Chennai, though the sample population was from many parts of the state. Several speciality hospitals were not covered in this study. Only general surgery and cardiac speciality hospitals were considered for the study.

Researchers in the future can cover more hospitals varying in their specialty. They can also cover all districts of Tamil Nadu for the study. Survey and focus groups to be conducted in districts which are governed by both ruling and non-ruling parties so that biased error could be eliminated. Researchers can explore predicting whether a chosen respondent will fall into the category of availing/ not availing benefits, through predictive modeling using logistic regression, discriminant, and neural network.

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