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Original Research Article

Factors affecting utilization of noncommunicable diseases clinics: effectiveness and role-efficacy

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ABSTRACT

Background: The growing burden of noncommunicable diseases has been seen as one of the most significant developmental and health systems challenges of the 21st century. Most of these deaths have been caused by the four main NCDs, namely: cardiovascular disease accounts for 44% of all deaths from NCDs, cancer accounts for 22%, chronic respiratory disease accounts for 9%, and diabetes accounts for 4%. India is also experiencing a rapid transition. To comprehend the beneficiaries on factors affecting the utilization of healthcare services and service provisioning at the NCDs clinics. To explore perceptions of multiple stakeholders on the role efficacy and effectiveness of NCD clinics

Methods: The current study uses a concurrent mix-methodological approach, which provides equal weightage to qualitative and quantitative methods. The study has adopted explorative concurrent mixed methods research design,

Results: The majority of the diseases identifies are cardiovascular diseases which accounts for 30.9%, chronic respiratory diseases are the second-highest among the populations, which accounts for 26.9%, and diabetes is the next with a slight difference of 25.3%, cancer cases also seem to be high 3.9%. The chi-square test for independence was conducted to assess the association or relation between the beneficiary's level of satisfaction and service utilization. Cramer's V was computed as the measure of the strength of association for the observed significant associations.

Conclusions: The NCD clinics effectively deal with the emerging NCDs, but certain limitations exist in the forms of barriers. The service utilization is also very high right now.

Keywords: NCD clinics, Utilization, Effectiveness, Role-efficacy, Beneficiaries

INTRODUCTION

The growing burden of noncommunicable diseases (NCDs) has been seen as one of the most significant developmental and health systems challenges of the 21st century.[1] In 2016, nearly 41 million deaths occurred due to NCDs, equivalent to 71% of the 57 million deaths.[2] Most of these deaths have been caused by the four main NCDs, namely: cardiovascular disease accounts for 44% of all deaths from NCDs, cancer accounts for 22%, chronic respiratory disease accounts for 9%, and diabetes accounts for 4%.[2] India is also experiencing a rapid transition like epidemiological, demographic, health, and nutritional shifts with a rising burden of NCDs.[3] The magnitude and rising tide of NCDs are very high in India. NCDs are the emergent and foremost cause of deaths in India, accounting for over 60%.[4] The NCDs cause significant diseases and mortality in the urban and rural population, with considerable loss in potentially productive years of life. The leading cause of NCDs mortality in India is cardiovascular diseases (26%), chronic respiratory disorders (13%), diabetes (2%), cancer (7%), and other NCDs (12%).[5] According to the latest figures, NCDs are accountable for 63% of all deaths in India.[6] To prevent and control the growing NCDs in

India. The government of India has supported the states in the prevention and control of NCDs through several vertical programs since the 1980s. NCDs represent new priorities and additional health burdens in developing countries-rapid fluctuations in globalization and urbanization, and lifestyle changes.[7] Females are more affected than males concerning cardiovascular diseases like high blood pressure. Nevertheless, the foremost common risk factors persist in all other age groups. The more affected age groups are people above 30 years of age with a minimum of two risk factors for developing noncommunicable diseases.[8] Many risk factors are associated with the urban way of living, such as high blood pressure, unhealthy diet practices, lack of time for physical activity, and other major significant consequences present on the populations.[9] Major risk factors like alcohol, high blood pressure, tobacco consumption, and lack of physical activity are the major in all the classes of NCDs.[10] The rapid increase in NCDs has been expected to hinder poverty removal programs and other initiatives in developing countries.[11] As the population grows and lives longer, annual deaths from NCDs will continue to increase. Deaths from cardiovascular disease (CVD) and cancer are likely to rise by 2030.[12]

Objectives

Objectives of current study were to comprehend the beneficiaries on factors affecting the utilization of healthcare services and service provisioning at the NCDs clinics and to explore perceptions of multiple stakeholders on the role efficacy and effectiveness of NCD clinics.

METHODS

The current study uses a concurrent mix-methodological approach, which provides equal weightage to qualitative and quantitative methods.

Research design, study setting and duration

The study has adopted explorative concurrent mixed methods research design, i.e., qualitative and quantitative approaches. The study has been conducted in the State of Andhra Pradesh, India. The study duration was from April 2019 to January 2020.

Inclusion criteria

Inclusion criteria for current study were; district program officers and DMHOs were working under NCD Cell and were willing to provide written consent. District program coordinators who are working under NPCDCS and willing to participate and provide the written consent. Data entry operators and finance cum logistic officers wish to participate in the study. District officers working in NCD cell and NCD clinics for at least three months. Healthcare professionals working at the CHCs with NCD clinics include a doctor, staff nurse, counsellors, ANM, MPHWs, health supervisors. Those who are present at the time of data collection and willing to provide consent. Data entry operators and finance cum logistic officers willing to participate in the study. District officers working in NCD cell and NCD clinics for at least three months. Healthcare professionals working at the CHCs with NCD clinics include a doctor, staff nurse, counsellors, ANM, MPHWs, health supervisors. Those who are available at the time collecting data and wish to provide consent. Beneficiaries of NCD clinics are ready to provide consent and participate in the study. Beneficiaries availing the services for at least one month (outpatient) from the NCD clinics at the CHCs. Inpatient beneficiaries of NCD clinics, at least from the last 15 days.

Exclusion criteria

Exclusion criteria for current study were; district program officers/DMHOs working under NPCDCS and NCD CELL are unavailable and challenging to reach. District program coordinators who do not wish to participate and provide written consent. District DEO, logistic officers, and healthcare professionals working with NPCDCS for less than three months will be excluded from the study. Healthcare professional who is not working with NPCDCS and NCD clinics at the CHCs. District officers and healthcare professionals who are not working with NCD clinics. Beneficiaries who are not utilizing the services of NCD clinics at the CHCs. Beneficiaries who are availing of the services for less than one month will be excluded from the study. Inpatient beneficiaries of NCD clinics less than 15 days of service utilization will be omitted from the study.

Sampling process and sample size

The sample for the present study is drawn from the entire state of Andhra Pradesh, and it has two major regions, Rayalaseema and Coastal Andhra. The Andhra Pradesh state has 13 districts, 9 in the coastal region and 4 in the Rayalaseema area. In the present study, the researcher uses multi-stage sampling to classify the state's geographical regions and select the districts of the stage. Firstly, the geographical region of the state has been divided based on cluster sampling into three significant zones the east, central, and west zones. Each cluster has a minimum of 5 NCD clinics. A random sample is used to select the NCD clinics from the district level into the study. A total of 126 beneficiaries were taken into the study, and 68 in-depth interviews from the leadership and implementation were included.

Study instruments

As the research involves qualitative and quantitative methodology, the qualitative approach will be made through purposive sampling using in-depth interviews at different levels like leadership and implementation level

for the quantitative part of the study. The data is collected from the beneficiaries of the NCD Clinics through semi-structured interviews.

Data analysis process

The study used thematic analysis for the qualitative approach. The interviews were coded using a deductive approach. The quantitative part of the study uses the quantitative content analysis for the beneficiaries, careful examinations of the concepts arrived from the transcripts, and the frequency and percent of the variables chosen about the factors affecting utilization, barriers, and facilitators of NCDs clinics their service delivery. the content analysis was helped by SPSS version 23 and excel. Descriptive statistics and percentages were used to comprehend the service availability and utilization of NCD clinics and role efficacy. Triangulation was used.

RESULTS

The study results are presented based on the thematic categories developed from the concepts, and quantitative content analysis was presented with triangulation.

Role-efficacy of NCD clinics

All districts have functional NCD clinics to prevent, control, and manage noncommunicable diseases. The secondary care services are provided for the people. The majority of the services are curative. Other health systems are being treated for curative care, even the referral cases from the primary health centres and sub centres. The role efficacy of health systems or the NCD clinics is far better when compared with the past. There is development and improvement in service delivery for noncommunicable diseases. Even the majority of the respondents have said they have felt the same. "What I believe is that the NCD clinics are very useful in the prevention and control of noncommunicable diseases. Especially in the secondary care setting, most services are centered around maternal and child health care services. Having an NCD clinic in this setting itself is a great idea to bring the NCDs under control. Providing separate services and treating separately provides a great opportunity to understand the burden of the disease in the community and helps to plan according to that. NCD clinics are very useful and effective in preventing and controlling the diseases" (leadership level respondent 01). "The services provided at the NCD clinics are beneficial and effective in preventing and controlling NCDs. One example is that many patients are coming for treatment very regularly. If the services are not effective, they might have chosen different options such as private care and other hospitals. Our OPD is always rushed. Overcrowded this proves the effectiveness of the clinics" (medical officer 06).

The primary functions include early diagnosis through laboratory and clinical examinations at the clinics, like testing the blood sugar levels, assessing lipid profiles, and managing and treating the common NCDs like cardiovascular diseases, cancer, respiratory diseases like COPD, asthma, and diabetes, both outpatients and inpatients. They are providing immediate referrals for the people who require comprehensive and higher services. "The NCD clinics are providing all the basic curative services for all the NCD patients, and the NCD clinics are providing the basic screening services daily for all the people above 30 years, we are providing the screening programs for all the people for both males and females, all the medications and tests are available within the community health centres. Only urgent cases are referred to as the higher level of health facilities. All services are available within the NCD clinics" (medical officer 08). The district NCD cells are responsible for the overall planning, monitoring, evaluation, and planning and maintaining all the activities and achieving targets and objectives.

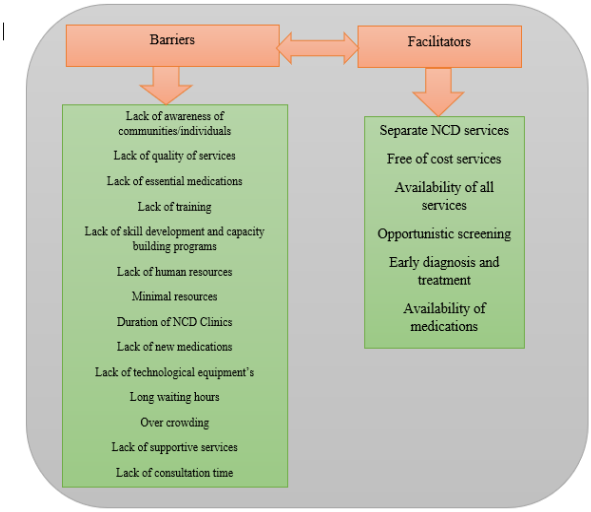

Figure 1: Barriers and facilitators of NCD clinics.

Service delivery and effectiveness of NCD clinics

The NCD clinics are located at community health centres, working on NCDs. They are providing services for the patients daily. The mean average census at the NCD clinics is 90 plus per day. Most of the NCD clinics are functional and practical in-service delivery. "The NCD clinics are providing the basic curative services for all the common NCDs separately, and I feel all the services provided at the NCD clinics are effective, as we can see a lot of patients are turning up to the NCD clinics daily. The minimum census at each clinic is above 80 plus NCD cases. All the services are being provided for NCDs, though we have some staff deficiencies we can manage with the available" (leadership level respondent 03).

The health outcomes are also significant when considering effectiveness. From the leadership level and implementation level respondents, it has been observed that the NCD clinics are running very well; they are doing an excellent job at the community levels in the control

and prevention of chronic NCDs. At least they can control the burden by identifying the new cases in the early stages and providing better services for the management of disability and burden of the NCDs in the communities. "We are providing the services within the availability of resources, and if provided sufficient, we can also improve the service quality. We don't have sufficient staff for providing the services. Only one medical officer and staff nurse are available at the NCD clinics. It is challenging to provide treatments and services for 90 plus patients daily. There is staff scarcity. As of now, the services are far better when compared with the past" (medical officer 05).

Table 1: NCDs distribution among the populations.

Type of NCD	N	%
Diabetes	32	25.3
Cardiovascular (HTN, stroke)	39	30.9
Cancer	5	3.9
Chronic respiratory diseases (asthma, COPD)	34	26.9
Multimorbidity	16	12.6

The services provisions and service delivery are better when compared with the past. There are improved levels of service delivery. The secondary care services are readily available for people. All the patients are regularly screened for NCDs irrespective of their gender. If the patients are above 30 years, both males and females are screened.

Table 2: Showing level of satisfaction and role efficacy of healthcare professionals.

Level of satisfaction	Role efficacy of healthcare professionals			
	Satisfactory	Not satisfactory	Good	Total
Satisfied	26	9	18	53
Not satisfied	22	9	14	45
Neutral	15	6	7	28
Total	63	24	39	126

The outcomes of the NCD clinic are significant in terms of the effectiveness of the services. Most of the services are well utilized, and the facilities reach the needy and poor people. People are availing of the services well; they are coming from long distances for availing the services. The NCD clinics are effective in terms of prevention control measures for NCDs. "At present, the NCD clinics are providing the better services, and the services are effective, many people are coming to avail the services. Patients are coming from long distances to avail themselves of the services, and the census is also more. We have daily 70 plus patients at the NCD clinics. We don't have sufficient staff to provide the services. If all the resources are available, services' service quality and effectiveness can be improved" (leadership level respondent 08).

The effectiveness of the health services is significant to measure for identifying the barriers and facilitators of any programs, including the cost-benefit analysis. Understanding the efficacy of any program is the first step to evaluating the programs based on their performance and outcomes.[13] Effectiveness relates to mostly the outcomes of the programs; therefore, it is an evaluation issue; hence the methodology concerned it retrospective evaluation finding how well the program is working.[14] Most of the programs are started to provide benefits to the populations, and often they are assumed to be working well. However, there is always a need to assess the programs and find the effectiveness and efficiency of the programs for better understanding.[14]

Barriers and facilitators of NCD services

The health systems generally have many barriers and facilitators for providing services. The clinics have both general and specific barriers and facilitators. The general barriers are related to overall health systems, particularly the NCD clinics. "The NCD clinics have some barriers, because of which we are unable to provide full pledged services, some of them like, lack sufficient staff at the NCD clinics became a double burden of work for all of us, lack of sufficient supply of glucometer strips, lack resources like latest technology like ultra-scan, and other machinery required, we have only basic facilities, we don't have sufficient staff for lab facilities also. They are currently on a contract basis, and when they are on leave, we don't have the backup staff to provide the services" (medical officer 03).

The general barriers like the health systems are being paid low attention recently because of the limited resources. The knowledge of the communities is limited because of low-level awareness.[15] The quality of the services is compromised due to the deficiency of the staff and significant resources.[16] Most health systems do not have sufficient staff, sufficient resources, and quality of services are some of the essential issues to deal with.[17] In the wake of the NCDs, essential medications became a mirage for most patients in rural settings.[18] "Though we were providing the services better within the availability of the resources we have many barriers at the NCD clinics like lack of manpower, there is the double burden of work, screening and providing the treatment for 100 plus people is not possible with one medical officer, the same is the case with the staff nurse, lack of new drugs or medications, we have many complaints from people that the drugs are not effective for some cases, lack of supply of glucometer strips is also a problem, they are asking us to screen all the patients, but we don't have enough supply, infrastructure is also an issue" (medical officer, 12). The knowledge of healthcare professionals is equally essential for providing efficient service delivery. The NCD clinics are limited to general physicians and staff

nurses only. The public health facilities like NCD clinics have a limited opening hour or short durations of the OPD services from 8 AM to 2 PM. The resources are currently minimal, and many of the promises or actions mentioned in the NPCDCS manuals have not been in place. The training and capacity-building programs have become a mirage for healthcare professionals. There are no regular programs to staff to upgrade their skills and knowledge. Medical officers wish to have these training and skill development programs every six months or annually.

Table 3: Level of satisfaction and type of ailments.

Level of satisfaction	Type of ailments					
	Diabetes	CVDs	Respiratory	Cancer	Multimorbidity	Total
Satisfied	9	15	18	3	5	50
Not satisfied	11	13	14	3	4	45
Neutral	12	6	7	0	6	31
Total	32	34	39	6	15	126

Table 4: Level of satisfaction and barriers.

Level of satisfaction	Barriers				
	Limited services/ lack of staff	Lack of new medications	Long waiting hours	Poor consultation	Total
Satisfied	3	32	12	6	53
Not satisfied	4	25	7	9	45
Neutral	4	13	6	5	28
Total	11	70	25	20	126

Regarding the medicines, the NCD clinics have large numbers of stock. Still, they lack effective or newer medications as the medical officers often receive complaints that the given medicine is not helpful and less effective in controlling chronic NCDs. Only the screening will be done for the suspected cases and referred to the higher levels of the health systems for better treatments and prognosis. The essential equipment like automatic BP machines and glucometer strips are always nonfunctional and not available. Most of the medical officers recommended these facilities. The health data on NCD suffers from a lack of completeness. Poor data maintenance. The specific barriers like infrastructures are also a barrier as the NCD clinic provides the services in a small room. There were no provisions for waiting. The rooms were congested, and no place for proper delivery in some of the Community Health Centres. The other significant facilitators for NCDs include providing different services for NCD patients. This is a significant asset for the NCD clinics. There are large numbers of people availing of the services, NCD clinics are very crowded, and the census shows maximum utilization. The (Table 1) presents the details of the NCDs distribution among the populations. Cardiac diseases remain the top cause of mortality and morbidity among people. The big four NCDs are the top. In the communities, the majority of the diseases identifies are cardiovascular diseases which accounts for 30.9%, chronic respiratory diseases are the second-highest among the populations, which accounts for 26.9%, and diabetes is the next with a slight difference of 25.3%, cancer cases also seem to be in rising in the populations which account for 3.9%. The NCDs are identified as comorbid conditions with other NCDs, and even the comorbidities are also increasing, which accounts for 12.6% of the population. The table gives a clear picture of the disease's distribution among the communities, cardiovascular, diabetes. The variables, the level of study, and healthcare professionals' role efficacy were analyzed to identify satisfaction levels. The level of satisfaction concerning the role efficacy of healthcare professionals was reported to be 53% (126). The level of not satisfied with the variable role efficacy was 45% (n=126). Those neutral or who felt normal about the healthcare professionals' services and efficacy were found to be 28% (n=126). The level of satisfaction with the variable satisfactory was reported to be 26% (n=63). Health education is a vital component in the control and prevention of NCDs. It seems to be ignored by healthcare professionals or the government due to a lack of staff. There is a need for health educators and counsellors to provide services for people, change the behavioral modifications and lifestyle changes can be done with the help of health educators. Providing psychological counselling is also very important for chronic disease patients and patients newly diagnosed with diabetes and other NCDs.

It was observed that there was a variance in the level of satisfaction of health services received through NCD clinics concerning the type of ailments the beneficiary is suffering. It was reported that the level of satisfaction for all the diseases was 50% for all the NCDs at the NCD clinics. The level of dissatisfaction or not satisfaction was above 45% for all the services and NCDs at the NCD clinics. The level of neutral or normal with the services provided are reported to be 31 percent for all the diseases. Among all the diseases, the level of satisfaction was higher for respiratory illnesses, and it was about 18%

(n=39). The level of satisfaction was higher for cardiovascular diseases. It was reported to be 15% (n=34), then followed by diabetes 9% (n=32) followed by multimorbidity cases 5% (n=15) and then at last for cancer services 3% (n=6).

Table 5: Level of satisfaction and facilitators.

Level of satisfaction	Facilitators			
	Availability of services	High private care costs	Separate NCD services	Total
Satisfied	31	8	14	53
Not satisfied	30	9	6	45
Neutral	16	5	7	28
Total	77	22	27	126

Table 6: Predictor variables and role efficacy of NCD clinics.

Role efficacy of NCD clinics			
Predicator variables	**Chi-square**	**Df**	**P value**
Medical and lab facilities	1.440184	4	>0.05
Infrastructure and supportive services	1.123205	4	>0.05
Health work force	3.836488	2	>0.05

The level of dissatisfaction or not being satisfied with the services was also higher. It was about 45%. It was observed that, there is a need to improve the service delivery at the NCD clinics concerning each type of ailment. The level of satisfaction is a fundamental concept in health systems. The level of satisfaction of the beneficiaries shows the performance of the healthcare services at the public healthcare facilities. It shows the strength of the health systems in providing the services or dealing with the diseases among the populations.

The variable level of satisfaction and barriers was analyzed to identify satisfaction, dissatisfaction, and neutrals among the study respondents. It was observed that the level of satisfaction was reported to be 53% (n=126). The level of not satisfied is also high; it was found to be 45% (n=126). Those average or neutral respondents are also found to be 28% (n=126). The long waiting hours and level of satisfaction were 12% (n=25). The variable poor consultation and satisfaction were 6% (n=20). The level of dissatisfaction or not satisfied with the study variable was said to be 25% for lack of new medications, and where the sample is said to be n=70. The literature on barriers of the health systems displays many barriers and facilitators in public health systems. The referral services seem to be deficient in countries. As per the literature and study, the most critical barrier emerged as the poor staffing pattern, long waiting hours, lack of effective medications. Adequate human resources, infrastructure, and supportive services are another barrier to understanding the situation. In cases of NCDs, another barrier is the lack of insurance facilities for all chronic NCDs. There is a need to relook into the insurance schemes for NCDs. The countries need to improve the financing to the health systems.[19]

The health systems need to identify the barriers to reduce them and provide better services for people.[20] There should be intersectoral collaboration in delivering the services for NCDs so that the barriers can be focused on and the burden can be shared and reduced a lot.[21] Even the current study shows the same similar barriers in the health systems in NCD clinics. There is a need to upgrade the facilities at the NCD clinics. The concept of health education is also a mirage at the NCD clinics as the health educator and counsellor posts are vacant. The people have to stand for long hours, a minimum of 1 hr or 2 hrs. The lack of chairs for sitting and a waiting place is a significant concern at the community health centre levels. The respondents reported the variable level of satisfaction and facilitators was reported to 53% (n=126). The variable level of satisfaction and facilitator was reported not satisfied by the respondents was said to be 45% (n=126). The respondents reported the variable level of satisfaction and facilitator variable to be 28% (n=126). The variable level of satisfaction and facilitators was reported satisfied with the availability of the services was said to be 31% (n=77). We also have facilitators for health services at the NCD clinics and health systems, apart from the barriers. According to the beneficiaries, the significant facilitators have been identified as the availability of all the facilities for NCDs, primary curative necessary treatments, lab services, and medications are available at all the NCD clinics. Chronic NCDs are provided with the essential treatments. The screenings tests are primarily available at the NCDs clinics for cancers for both males and females. The cancer patients are referred to the area hospitals or district hospitals for further confirmation and treatments. As per the beneficiaries, the second facilitators are free of cost services. All the NCDs provide free-of-cost treatments and services at the health systems, all the medications and lab services free of cost for all the people at all the public health systems. The beneficiaries need not pay anything for the service delivery or even for the OPD services. The other facilitators like separate NCD services through NCD clinics, most of the people are happy with the

services provided at the NCD clinics. Beneficiaries felt delighted as all the NCD services are provided separately. The other facilitator identified in the study was higher private care costs for NCDs. As NCDs are chronic, most people require treatment for life long. There are other facilitators as well, as the availability of the medical officers during the OPD services; people staying near the clinics can regularly avail of the services.

The Chi-square test for independence was conducted to assess the association or relation between the beneficiary's level of satisfaction and service utilization with NCD clinics and the predictor variables.

$$X^2 = \Sigma \frac{(O-E)^2}{E}$$

Specifically, the predictors of aliment, type of services utilized, barriers faced, role efficacy of health professionals, role efficacy of NCD clinics, and facilitators were assessed. The calculated Chi-square was 53.56522. Chi-square statistic was computed as the measure of association, degrees of freedom were calculated, and the significance of the association was tested at an α set at 0.05. The calculated chi-square values were compared against the chi-square critical values to identify the significance. Two variables were significant with the beneficiary's level of satisfaction with NCD clinics. Specifically, the type or variety of services utilized by the beneficiaries (n=126, χ^2=53.56, df=4; p≤0.05) and the barriers (n=126, χ^2=324.0069, df=6; p≤0.05) faced by them were significantly related or associated with their level of satisfaction.

Cramer's V was computed as the measure of the strength of association for the observed significant associations. The formula used is given below.

$$V = \sqrt{\frac{\chi^2}{N.\min(r-1,c-1)}}$$

The predictor variable type of services utilized had a moderate association with beneficiary satisfaction with NCD clinics (V=0.425, p≤0.05). The barriers faced by the beneficiaries had a very strong association with their level of satisfaction with NCD clinics (V=1.13, p≤0.05).

The critical value table used in the study is shown below. The chi-square test of independence was conducted to assess the association between the beneficiaries with NCD clinics and the predictor variables.

$$X^2 = \Sigma \frac{(O-E)^2}{E}$$

Specifically, the predictors of aliment, type of services utilized, barriers faced, role efficacy of health professionals, role efficacy of NCD clinics, and facilitators were assessed. Chi-square statistic was computed as the measure of association, degrees of freedom were calculated, and the significance of the association was tested at an α set at 0.05. The calculated chi-square values were compared against the chi-square critical values to identify the significance. All the variables are not significant with predictor variables like medical and lab facilities, infrastructure and supportive service, and the health workforce with NCD clinics. All the Chi-square values are more than 0.5 significance when calculated with the degrees of the freedom of the respective variables.

DISCUSSION

From the study, it was understood that the NCD clinics are functional in the Andhra Pradesh state. The NCD clinics have located within the designated community health centres to provide separate NCDs services. The NCD clinics provide essential curative treatment services for most NCDs. Most of the care provided in the NCD clinics has merely centered around curative treatment. There is little or very little importance to the preventive and promotive service due to lack of sufficient staff for providing the services and lack of other resources for providing the services for NCDs. The significant factors affecting the utilization of NCD clinics have been highlighted in the findings. The effectiveness and role efficacy of NCD clinics have been discussed in detail.

Limitations

The study's main limitation was limited to the sampled NCD clinics only. Other remaining NCD clinics out of the sampling frame were omitted. Due to the sampling size and sampling procedure, and time constraints. Due to this, those NCD clinics are not included, and other districts in the state were left out. The additional restriction or limitations of the study were in the inclusion and exclusion of the study beneficiaries as the research was strict with the criteria of legibility.

CONCLUSION

The NCD clinics provide essential curative care services for people who are suffering from NCDs. Most of the respondents know that the NCD clinics are functioning very well. The role efficacy of NCD clinics is very high in terms of service delivery for common NCDs. Many people are coming daily and availing of the services from the NCD clinics. Healthcare professionals are aware that the benefits reach the needy at the leadership level as the census increases every month. The NCD clinics effectively deal with the emerging NCDs, but certain limitations exist in the forms of barriers. The service utilization is also very high right now. The significant barriers of the study have been described, and facilitators have also been highlighted in the utilization of NCD clinics. The domain barriers and facilitators of NCD clinics are significant to understand, and then only we can improve the health system's performance. Better strengthening should focus on equitable access and better

coverage of the health services, having better intersectoral coordination, ensuring better efficacy.

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