Journal of Business Economics
ISSN 2682- 6933 | E-ISSN 2705-9944
2022 Volume 04 Issue 02:37-52

RELATIONSHIP BETWEEN THE EFFECTIVENESS OF THE COMMUNITY PARTICIPATION AND COVID 19 PREVENTION ACTIVITIES IN KALMUNAI REGIONAL DIRECTOR OF HEALTH SERVICES, SRI LANKA

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ABSTRACT

Various factors determine the effective community participation in preventing communicable diseases, especially controlling COVID 19 epidemic. The purpose of this study is to measure the relationship between effectiveness of the Community Participation and COVID 19 Prevention Activities in Kalmunai Regional Director of Health Services, Sri Lanka. This study uses the primary data collected via google forms from the community in Kalmunai Regional Director of Health Services based on convenient sampling method, to undertake the Correlation Analysis. The results from the correlation analysis confirm and suggest the strong positive correlations of the effectiveness of community participation with Prevention strategies such as Core Behaviors, MOH Level Platform, Supporting Vulnerable Groups, Behavioral Surveillance, Monitoring, and Evaluation. And regression results reveal that core behaviors, and behavioral surveillance are significantly impact the effectiveness of the community participation in this area. these study findings additional knowledge and enhancing the mechanisms increase the community participation in epidemics

Keywords: Community Participation, COVID 19, Correlation Analysis, Prevention strategies.

Introduction

SARS-CoV-2 virus causes Corona virus disease (COVID-19). The Year 2021 discovered four variant viruses that could lead to more COVID 19 cases, and 15 vaccines have already been licensed or approved for emergency use around the world. (World Health Organization, 2022)Sri Lanka has seen a sharp increase in positive cases and deaths since April 2021 because of the celebrations and shopping by the people during the traditional New Year festival. In Sri Lanka, three novel mutations of the COVID-19 virus's Delta form have been found. According to the “Our world Data Project” Sri Lanka's total confirmed positive cases has reached Six Hundred Thirty-One thousand and sixteen thousand Seven Hundred Fifty-Three confirmed deaths. (Global Change Data Lab, 2022)

The Global health community emphasizes community engagement, in which the public and healthcare professionals collaborate in health promotion, research, and service delivery. Community involvement has been shown to be useful in containing the HIV/AIDS and Ebola pandemics, particularly in tracking and dealing with miss information will not happen overnight. (Sathiadas, 2020) It is a meaningful relationship between communities, health care professionals, and the government must be fostered to maintain its long-term viability, particularly among low-income and disadvantaged populations where access to information may be limited.

It shows that risk communication, community engagement (RCCE) plays a vital role in the COVID-19 pandemic situations and emergencies. It appeared that the community is the primary influencer and contributor in epidemic prevention and control. Not only is this, RCCE plays a vital role in speaking about demand-side barriers to health service utilization and informing about the reduction of the socio-economic impact of COVID-19 control interference. Also, the report said, to find sustainable solutions and empower communities, there should be engagement with communities and civil organizations at the base level.

Moreover, community feedback will help to adopt new strategies over time. (Health Promotion Bureau, 2020)

Public health interventions are highly depending on community involvement which considered as a main focal point. Behavior change of the population will cause to the major change in the control of the Covid 19 pandemic. According to the finding of a study in 2020, As a minimum 80% of the population should practice the Covid 19 preventions and controls such as Social distancing, self-isolation, personal hygienic measures. (Wijesinghe & Karunapema, 2020)Preventive measures practiced by the community at large will reduce the spread of infection. The WHO recommends staying at home, avoiding crowded places, keeping a distance from others, washing hands with soap and water often and for at least 20 seconds, practicing good respiratory hygiene, and avoiding touching the eyes, nose, or mouth with an unwashed hand. The government enforced to control the pandemic a strict strategy of case detection, identification of contacts, quarantine, travel restrictions, and isolation of small villages as well. (World Health Organization , 2021)

The 1,250.47 square kilometer region from Periyaneelavanai to Ullai covers 475,796-person are under the control of the Kalmunai Regional Director of Health Services (RDHS), which is located along Sri Lanka's eastern coastal strip (Riswan, 2018). Thus, in Kalmunai RDHS, the primary health care institution in the region, according to the Public Health Inspector (PHI) of Kalmunai MOH, in the first wave there were two people identified; in the second wave, fourteen hundred people were identified; and in the third wave, a total of 3662 people were identified among a total of 59124 PCR and antigen test total deaths are counted in the Kalmunai region. 91.6% of the general public received their first dose of vaccination. COVID-19 beds are assigned to hospitals. (Public Health Inspector, 2021)

Research Problem

Since the government enforces the community to practice the COVID-19 prevention measures through different stakeholders in the community, most of the time the community is absent from following the prevention activities(Sathiadas, 2020). The government of Sri Lanka imposed state emergency laws to control the people. The COVID-19 is a contested health hazard nowadays, and several preventive measures have been implemented by the government to control it, but the expansion of the COVID-19 hazard is still obvious and the impacts are also severe and wider. Simultaneously, the Sri Lankan authorities-imposed travel restrictions and lockdowns in particular locations to regulate community meetings

Objective

This issue makes everyone wonder what is causing this absence. Whether the community should be more focused on this, and if so, what are the missing dimensions?

Therefore, this study is to identify the impact of COVID-19 prevention measures in effectiveness of community participation in Kalmunai Regional Director of Health Services, Sri Lanka.

Literature Review

Community Participation in Disease control

Community Participation in the Disease control is not a recent origin. (Brieger, 1996). There are several studies conducted to expertise and enhance the community involvement in prevention activities.(Wang, Yang, Xin, Wu, & Qi, 2022)There are several mechanisms followed specially focus on the community participation at prevention activities in case of communicable diseases (Questa, et al., 2020).

Sathiadas, (2020) looked at how community involvement and raised public awareness relate to COVID-19 prevention. This idea noted the exploratory research approach. This study discovered that while individual actions of hoarding and disaster-ready families exist, the collective good of voluntarism is now weak. A population must come to understand the importance of participating in the community on its own and be provided the opportunity to do so. The study proofs the importance of the community participation. The effectiveness should be identified to explore the importance of different prevention measures

The study by Al Siyabi, et al., (2021) intends to analyze and assess the participatory community approaches used in Oman during the epidemic response. The bottom-up strategy, well-planned media, and mass communication methods are among the techniques to ensure successful mobilization of resources within the community. Finally, based on the review's results, it is advised to expand community engagement mechanisms, develop novel strategies and alliances, and increase the capacity of regional stakeholders to assist communities in responding to a variety of health risks and challenges. Trustworthy monitoring and evaluation systems are crucial for the demonstration of change, respectively. This study based on the specific region and absence to discuss about measuring effectiveness of those measures

Pfeiffer, et al., (2021) presented the use of GPS methodologies and day-to-day participant surveys to assess the effects of COVID-19 on community mobility and involvement in a group of individuals with ASD and measure changes in exertional space usage. These experiments showed that all players' community participation and movement were made easier by both necessary and unnecessary effort. Additionally, the number of treks taken by participants decreased overall in the post-COVID-19 periods, as did the variety of means of transportation, which after the onset of the illness were reduced to walking and driving only. This study neglect to determine the measures which should be enhance the community involvement. Also focusing highly on means of transportation

According to the above research studies, it is clearer that community participation is very much important to the Disease prevention activities. (Liu, et al., 2021) Therefore, effectiveness of community participation is the main, Focal point of this research paper. this paper mainly highlights the association between the Effectiveness of community participation and other prevention activities. This variable is consisting of important COVID 19 Prevention Activities in the related area of the respondent and the involvement of the community to prevent the spread and the encouragement of MOH on people for the effective community Participation.

COVID 19 Prevention Activities

The majority of residents in the Kalmunai RDHS Region do adhere to the health protocol. The COVID-19 health regimen is not always followed by everyone. As a result, they do not accept the health guidelines that the health officer has advised them to follow, such as not wearing masks, practicing good cleanliness, keeping a distance from others, etc. The Kalmunai region's health care administrators and staff face a substantial burden as a result. According to a MOH official (Rameez, Rajab, & Farwin, 2020) There are several activities were underlined by the WHO risk communication and community engagement (World Health Organization , 2021) and HPB-Sarvodaya-ADT-CBO model for Community Engagement proposed by Health Promotion Bureau, Ministry of Health and Indigenous Medical Services (Wijesinghe & Karunapema, 2020).

Core Behaviors

The following key behaviors were identified to be practiced in the communities. Mentioned prevention activities like washing hands frequently, covering mouth while coughing and sneezing, maintaining social distancing also avoiding social gathering, and using a face mask for protection. (Ashworth, Dada, Buggy, & Lees, 2021); (Mousavi, et al., 2021)

MOH Level Platform

This variable explains the involvement of MOH in the encouragement of the community on preventing covid-19 and mobilizing community leaders on promoting identified behaviors and identifying barriers and the support to strengthen the community leadership. (Zikargae, 2020) (Liao, et al., 2020); (Rameez, Rajab, & Farwin, 2020)

Anti-Stigmatization

Stigmatization of the people affected by COVID-19 will lead to disastrous consequences such as the exclusion of aspects of community life, fear of divulging disease conditions to health care staff, and

ultimately leading to violence in some instances. Therefore, it is vital to address stigma in all forms during community engagement activities in COVID-19 prevention. (Zhang, Fang, Yao, & Ran, 2021); (Asante Antwi, Zhou, Xu, & Mustafa, 2021)

Supporting Vulnerable Groups

The vulnerable groups are the people who are at a higher risk of getting the COVID-19 infection. Most of them are already are at a higher risk of developing the severe form if they are affected by the diseases. Furthermore, they may already have poor access to optimum health care services. (Ekezie, et al., 2021); (Tambo, Djuikoue, Tazemda, Fotsing, & Zhou, 2021)

Behavioral Surveillance

During the COVID-19 epidemic, it was realized that it is important to understand and identify many attributes related to behaviors in the community. Therefore, behavior surveillance is the key to understanding why individuals and communities behave the way they are. By conducting proper behavior surveillance, we can identify communities who had not adopted protective behavior and act as a threat to the other's health by not maintaining social distancing, not revealing symptoms, and not practicing home isolation (Tambo, Djuikoue, Tazemda, Fotsing, & Zhou, 2021); (Gilmore, et al., 2020)

Monitoring and Evaluation

Monitoring and evaluation are an integral part of any community engagement plan. Tracking the effectiveness of the activities is an important aspect of the future planning process. We have considered many monitoring and evaluation platforms to measure the progress. The following framework is 6 suggested since it is simple and more result-oriented. This variable comprises the Importance of Monitoring Evaluation on encouragement of community participation and the respondent's support of Monitoring Evaluation surveys (Gilmore, et al., 2020) (Tambo, Djuikoue, Tazemda, Fotsing, & Zhou, 2021).

Research gap

These empirical studies show that not enough research is being done to determine how communities can participate in COVID-19 control efforts at the national and international levels.

A number of studies have been conducted to evaluate community involvement in the prevention of communicable diseases including the current COVID-19 pandemic and the HIV/AIDS and Ebola pandemics. Additionally, a number of researches were carried out to determine the types of community involvement that reduced sickness and enhanced useful participation. The many viewpoints from which COVID-19 preventative measures have been examined independently. The fundamental idea of this study as a model to assess the precision and viability of the notion to apply as a strategy for dealing with future pandemics is valid, but it is missing one essential element.

This research was undertaken by the researcher to fill the gap based on the community engagement goals in checklists for risk communication and community engagement (RCCE) readiness and initial responses to the COVID-19 outbreak prepared by the World Health Organization (World Health Organization , 2021)

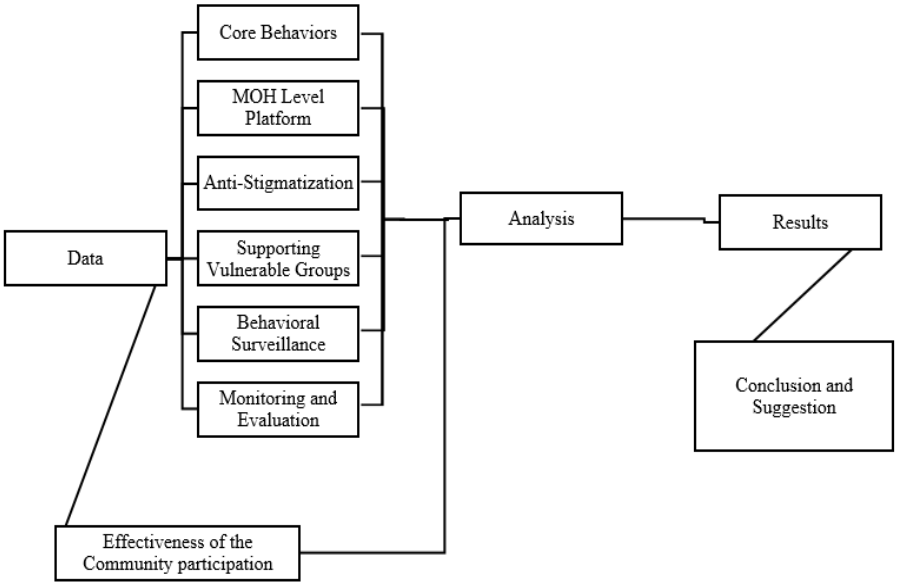
Methodology

Data Collection

This study mainly included primary data through structured questionnaires prepared by using Google Forms. All the questions in the questionnaire are structured ones with five alternatives and the responses are scaled using the five Likert scale. In this study, the target population is the People who are living in the research area. The sample elements identified for this research are under the assumptions of the non-probability convenience sampling technique.

Figure 1: Research Map
Source: Author Constructed, 2022

Conceptual Framework



The dependent Variable is Effectiveness of the Community participation is notated by EFCT and the other independent variables are Core Behaviors (CB), MOH Level Platform (MOH), and Anti-Stigmatization (ANSZ), Supporting Vulnerable Groups (SVU), Behavioral Surveillance (BS), Monitoring and Evaluation (MOEV) shown in Figure 2.

Hypothesis

H_{1a}: Core Behaviors positively impact the effectiveness of community participation
H_{1b}: MOH Level Platform positively impact the effectiveness of community participation
H_{1c}: Anti-Stigmatization positively impact the effectiveness of community participation
H_{1d}: Supporting Vulnerable Groups positively impact the effectiveness of community participation
H_{1e}: Behavioral Surveillance positively impact the effectiveness of community participation
H_{1f}: Monitoring and Evaluation positively impact the effectiveness of community participation

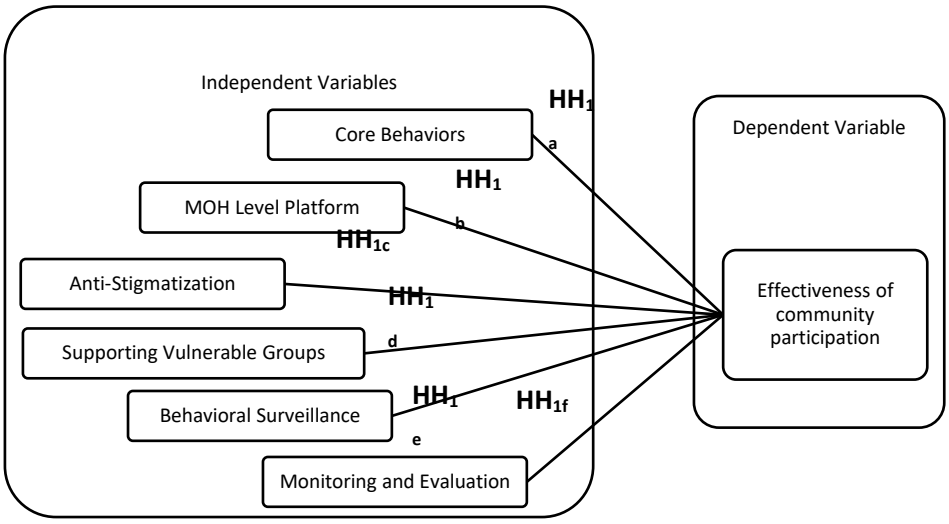


Figure 2: Conceptual Framework
Source: Author Constructed, 2022

Data Analysis

The purpose of this analysis is to determine the impact of community participation in Covid-19 prevention in the Kalmunai RDHS area. Therefore, the analysis starts with the socio-economic profile of the sample

Correlation Analysis

The specified indicators had been analyzed to see the association between the variables. In this Correlation Analysis, the effectiveness of community participation is considered as the main factor which should be associated with the procedures of community participation. Variables identifies from the WHO risk communication and community engagement (World Health Organization, 2021) and HPB-Sarvodaya-ADT-CBO model for Community Engagement proposed by Health Promotion Bureau, Ministry of Health and Indigenous Medical Services (Wijesinghe & Karunapema, 2020)

$$r = \frac{\sum(x - \bar{x}) - (y - \bar{y})}{\sqrt{[\sum(x - \bar{x})^2 - (y - \bar{y})^2]}}$$

r = Correlation Coefficient
x = Covid 19 Prevention Activities (Core Behaviors (CB), MOH Level Platform (MOH), and Anti-Stigmatization (ANSZ), Supporting Vulnerable Groups (SVU), Behavioral Surveillance (BS), Monitoring and Evaluation (MOEV).
y = Effective Community participation (EFCT)

Regression Analysis

To examine the impact of the purpose of this analysis is to determine the impact of community participation in Covid-19 prevention in the Kalmunai RDHS area, the specified indicators had been analyzed by using ordinary Least Squares (OLS). In this multiple regression model, the dependent Variable is Effectiveness of the Community participation is notated by EFCT and the other independent variables are Core Behaviors (CB), MOH Level Platform (MOH), and Anti-Stigmatization (ANSZ), Supporting Vulnerable Groups (SVU), Behavioral Surveillance (BS), Monitoring and Evaluation (MOEV).

$$EFCT_{ij} = \beta_0 + \beta_1 CB_{ij} + \beta_2 MOH_{ij} + \beta_3 ANSZ_{ij} + \beta_4 SVG_{ij} + \beta_5 BS_{ij} + \beta_5 MOEV_{ij} + u_i$$

β_0 - Constant

$\beta_{1,2,3,4,5,6}$	- Coefficients
EFCT	- Effectiveness of community participation
CB	- Core Behaviors
MOH	- MOH Level Platform
ANSZ	- Anti-Stigmatization
SVG	- Supporting Vulnerable Groups
BS	- Behavioral Surveillance
MOEV	- Monitoring and Evaluation
U	- Error Term

Results and Discussion

Socio-Economic Profile

The socio-economic profile of the respondents is vital to understanding the nature and background of the community and its characteristics. This part aims to explore the characteristics of the respondents the data collected through the questionnaire.

Table 1: Socio Economic Profile of the Respondents

Demographic information		Frequency	Percentage
Gender	Female	26	43.3
	Male	34	56.7
Age	0-20	6	10.0
	21-30	46	76.7
	31-40	8	13.3
Education	GCE A/L	8	13.3
	GCE O/L or Below	6	10.0
	Graduate	24	40.0
	Other	2	3.3
	Post Graduate	9	15.0
	Undergraduate	11	18.3
Civil Status	Married	21	35.0
	Single	39	65.0
Profession	Business	2	3.3
	Government Sector	23	38.3
	NGO Sector	1	1.7
	Other	1	1.7
	Private Sector	9	15.0
	Self-Employment	1	1.7
	Student	22	36.7
	Unemployed	1	1.7

Source: Author Constructed, 2021

The first demographic factor of the above table explains the gender of the respondents.43.3 % of the sample Female and 56.7% of the sample are males.it could be seen that most of the respondents are male. Next demographic information explores the age of the respondents of the study. Out of the 60 respondents, 46 or 76.7% of the sample falls the age between 21-30which obvious as the majority. Only 6 or 10% of respondents which is the least from the age category of 0-20. Next, the respondent asks primary to graduation level. The majority, 40% of the sample are graduated. Also, 18.3% of the sample had undergraduate 15% of the sample had postgraduate, and only 13.3% GCE A/L. Very few respondents had

GCE O/L or below it seems 10% or 6 of the sample. In conclusion, 2 respondents fall under the category of others, it could be seen 3.3% of the sample.

Also, in the table under demographic factor, we denote the civil status of the respondents.35% or 21 of the sample were married and 65% or 39 of the sample were single. It could be seen that most of the respondents are single. Information presented in the above table explicit the Profession of the respondents. Most of the respondents are 38.3 % or 23 Government sector and 36.7% or 22 of the sample are Students. 15% of the sample denote private sector and very few respondents 3.3 % or 2 of the sample Business. Also, NGO sector, Other, Self-employment and Unemployment denote the same percentage 1.7% of the sample respondents. It could be seen most of the respondents are from the Government sector.

Reliability and Validity

The internal consistency assessment shows in table 2. The purpose of this measurement model is to find the reliability and validity of the questions which are distributed among the community. In reliability analysis, Cronbach's Alpha was used to assess the reliability of each factor. The results show that Cronbach's alpha values 0.884, 0.849, 0.930, 0.842, and 0.869 for Core Behaviors, MOH Level Platform, Anti-Stigmatization, Supporting Vulnerable Groups, and Behavioral Surveillance respectively. It shows that the CA is greater than 0.7 which indicated the high internal consistency. Besides, The Cronbach's alpha values of Effectiveness of the Community participation and Monitoring and Evaluation are respectively 0.590 and 0.500. It indicates moderate internal consistency of the factors. Therefore, the model is reliable to conduct the analysis.

The effectiveness of the Community participation consists of four questions and the overall variance explained by this component was 55.5% and the reliability statistics show the internal consistency in a Cronbach alpha of 0.718which indicates satisfactory internal consistency. Five questions consisted of Core Behaviors. It shows 70.24% overall variance explained by the variable and represents excellent internal consistency. MOH Level Platform comprise four questions. The overall variance explained by this category was 68.89%. Anti-Stigmatization included four questions and shows 82.87 % of the overall variance and 0.930 Cronbach alpha showed excellent internal consistency. Supporting Vulnerable Groups contain of four questions with overall variance 68.81% and shows excellent internal consistency. Behavioral Surveillance include four questions with overall variance of 72.90 % indicate satisfactory internal consistency. Finally Monitoring and Evaluation contains two questions with overall variance of 78.02% shows satisfactory internal consistency.

Therefore, the model has the validity to conduct the analysis as shown in Table 2 below.

Correlation Analysis

According to the objective, the correlation analysis was conducted to examine the relationship between the variable. The results absorbed from this analysis will help to decide about the hypothesis whether accepting or rejecting the null hypothesis.

Table 03 explore the correlation coefficients and respective significant values across the variables. In this paper important focus is the effectiveness of community participation associated with the Prevention activities. Moreover, it also checked the Association between the prevention activities. According to table 03, it seems there are strong positive correlations of the effectiveness of community participation with Core Behaviors, MOH Level Platform, Supporting Vulnerable Groups, Behavioral Surveillance, Monitoring, and Evaluation. Besides Anti-Stigmatization is not significantly associated with the effectiveness of community participation.

Table 2: Reliability and Validity test

Reliability Statistics	**Validity of Statistics**

Criteria	Cronbach's Alpha	**N of Item**	**KMO Measure of Sampling Adequacy.**	**Bartlett's Test of Sphericity**	**Sig.**	**Extraction**	**Variance**
Effectiveness of the Community participation	0.718	4	0.590	69.518	0.000	EFCT_1=.730 EFCT_2=.380 EFCT_3=.669 EFCT_4=.442	55.539
Core Behaviors	0.884	5	0.817	179.915	0.000	CB_1=.852 CB_2=.605 CB_3=.674 CB_4=.627 CB_5=.754	70.242
MOH Level Platform	0.849	4	0.763	107.408	0.000	MOH_1=.541 MOH_2=.754 MOH_3=.696 MOH_4=.764	68.893
Anti-Stigmatization	0.930	4	0.838	191.505	0.000	ANSZ_1=.786 ANSZ_2=.851 ANSZ_3=.861 ANSZ_4=.816	82.871
Supporting Vulnerable Groups	0.842	4	0.727	109.826	0.000	SVU_1=.766 SVU_1=.719 SVU_1=.702 SVU_1=.566	68.815
Behavioral Surveillance	0.869	4	0.776	131.751	0.000	BS_1=.835 BS_1=.757 BS_1=.729 BS_1=.595	72.901
Monitoring and Evaluation	0.718	2	0.500	21.691	0.000	MOEV_1=.780 MOEV_2=.780	78.029

Source: Author Constructed, 2021

In the case of association between the prevention activities, there is a strong positive association between the Core behaviors and Supporting Vulnerable Groups. Interestingly there is a weak significant correlation between the core behavior and the MOH Level Platform. Also, Monitoring and Evaluation have significantly correlated with Core Behaviors besides there is a positive relationship exist. There was no significant correlation found in association in the case of Anti-Stigmatization, Behavioral Surveillance. Even though Behavioral Surveillance has a strong positive relationship with MOH Level Platform, Anti-Stigmatization and Supporting Vulnerable Groups and Monitoring and Evaluation. Meanwhile, the analysis did not show any significant difference between Monitoring and Evaluation and MOH Level Platform. The same case was found on Anti-Stigmatization. But the supporting vulnerable group displays a strong significant positive correlation between the Anti-Stigmatization.

Table 3: Correlation Coefficients

Correlations							
	EFCT	**CB**	**MOH**	**ANSZ**	**SVU**	**BS**	**MOEV**

EFCT	Pearson Correlation	1						
	Sig. (2-tailed)							
CB	Pearson Correlation	.635**	1					
	Sig. (2-tailed)	.000						
MOH	Pearson Correlation	.497**	.284*	1				
	Sig. (2-tailed)	.000	.028					
ANSZ	Pearson Correlation	.230	.086	.431**	1			
	Sig. (2-tailed)	.078	.512	.001				
SVU	Pearson Correlation	.498**	.345**	.690**	.527**	1		
	Sig. (2-tailed)	.000	.007	.000	.000			
BS	Pearson Correlation	.481**	.246	.644**	.482**	.788**	1	
	Sig. (2-tailed)	.000	.058	.000	.000	.000		
MOEV	Pearson Correlation	.451**	.495**	.241	.247	.448**	.399**	1
	Sig. (2-tailed)	.000	.000	.063	.057	.000	.002	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Author Constructed, 2021

According to the results, the Core Behaviors, MOH Level Platform, Supporting Vulnerable Groups, Behavioral Surveillance, Monitoring and Evaluation had positive significant correlation with effectiveness of community participation. At the same time, there is no correlation found between anti-stigmatization and the effectiveness of community participation in Kalmunai MOH. This result supports the previous studies of researchers that found community involvement plays an effective role when the community cooperates with the guidelines, protocols, and policies. MOH should also consider community participation and whether the protocols were communicated to the general public (Rameez, Rajab, & Farwin, 2020). At the same time, vulnerable people are the most susceptible to pandemics. So, the government should take a keen interest in instructing and guiding them toward participation to reduce the spread of COVID-19 (Ekezie et al., 2021). Behavioral surveillance, monitoring, and evaluation also play a vital role in encouraging community participation. (Gilmore et al., 2020). Even though the government is implementing the strategies, there is a lack of monitoring. According to the results, Zhang, Fang, Yao, & Ran (2021) stated that during COVID-19 preventive community engagement efforts, it is critical to confront stigma in all its forms, which were not monitored in the Kalmunai MOH.

Multiple Regression Analysis

According to the table 4, 60 sample units were taken to analyses in the study. Mean value of the dependent variable is 1.78 with 0.668 standard deviation. At the same time mean value of the independent variable is lay between 1.45-3.11.

Table 4: Summary statistics

	N	Mean	Std. Deviation
EFCT	60	1.78	.668
CB	60	1.45	.654
MOH	60	2.03	.776

ANSZ	60	3.11	1.273
SVU	60	2.16	.772
BS	60	2.02	.653
MOEV	60	1.82	.802

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.739[a]	.546	.494	.475	2.385
a. Predictors: (Constant), MOEV, MOH, ANSZ, CB, BS, SVU					
b. Dependent Variable: EFCT					

Source: Author Constructed, 2021

In the model, R-value is 0.739 which indicates the good relationship between effectiveness of community participation and Covid 19 Prevention activities. And the Adjusted R statistics show 0.546. The Covid 19 Prevention Procedures influence effectiveness of community participation by 73.9% which indicates the status model is good fitted to analyses.

According to the independent variables the k=6 so the d_L= 1.214 d_U= 1.639 . Durbin Watson statistics of the model is 2.38.5 which fall between 4-d_U and 4-d_L. This determines we cannot reach any decision about autocorrelation in the model.

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.369	6	2.395	10.606	.000[b]
	Residual	11.968	53	.226		
	Total	26.338	59			
a. Dependent Variable: EFCT						
b. Predictors: (Constant), MOEV, MOH, ANSZ, CB, BS, SVU						

According to table 6, it can be identified that 14.369 variances were explained by regression and only 11.968 variances explained by the residuals. The F value is 10.606 shows most of the variance explained by the model. P-value is 0.00 show the model is significant at 1% of the confidence interval.

Table 7 express the coefficients of the variables. According to the table core behaviors, and behavioral surveillance are significantly impact the effectiveness of the community participation in this area. Other variables are not significantly impact the community participation. Meanwhile there is positive relationship exist in between the core behaviors, behavioral surveillance and effectiveness of the community participation in this area. And for all variables, VIF falls between 1.427 to 3.553. This indicates there is no serious multicollinearity problem among the variables.

Table 7: Coefficients of the variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.228	.227		1.004	.320		
	CB	.495	.113	.484	4.379	.000	.701	1.427
	MOH	.194	.116	.225	1.673	.100	.474	2.112

	ANSZ	-.012	.058	-.022	-.201	.841	.691	1.448
	SVU	-.009	.151	-.010	-.059	.953	.281	3.553
	BS	.179	.139	.201	1.282	.040	.348	1.876
	MOEV	.073	.097	.087	.750	.456	.635	1.574
a. Dependent Variable: EFCT								

The coefficient value of core behavior is .495 and Probability value is 0.00. So, it is significant at a 1% confidence interval. And have a high influence on effective community participation. The model shows that with every 100 % upsurge of core behavior rises effective community participation by 49.5%. This assumes the other variable is held constant.

The coefficient value of behavioral surveillance is .179 and Probability value is 0.040. So, it is significant at a 5% confidence interval. And have a significant influence on effective community participation. The model shows that with every 100 % upsurge of behavioral surveillance rises effective community participation by 17.9%. This assumes the other variable is held constant

According to that the equation for the regression line is,

$$EFCT_{ij} = 0.228 + 0.495\ CB_{ij} + \beta_2 0.179\ BS_{ij} + + u_i$$

β_0 - Constant
$\beta_{1,2,3,4,5,6}$ - Coefficients
EFCT - Effectiveness of community participation
CB - Core Behaviors
BS - Behavioral Surveillance
U - Error Term

Table 8: Hypothesis summary

Hypothesis	Statements	Results
H_{1a}	Core Behaviors positively impact the effectiveness of community participation	Accepted
H_{1b}	MOH Level Platform positively impact the effectiveness of community participation	Rejected
H_{1c}	Anti-Stigmatization positively impact the effectiveness of community participation	Rejected
H_{1d}	Supporting Vulnerable Groups positively impact the effectiveness of community participation	Rejected
H_{1e}	Behavioral Surveillance positively impact the effectiveness of community participation	Accepted
H_{1f}	Monitoring and Evaluation positively impact the effectiveness of community participation	Rejected

Hypotheses are tested to examine whether dependent variable can be impact by the variables in independent. In this study, total six of hypotheses were developed and two of hypotheses have been supported by the test. Above table shows the summary of all developed hypotheses are being tested

Conclusion and Recommendation

Community Participation plays a vital role in overcoming the threads that emerged from the COVID 19 out Break. Since it has been nearly 2 years of the period, no one knows the amount of time which need to things get normal. On the other hand, people have changed their minds moved towards the pandemic, and practiced living in the pandemic. So, at this point, it is a timely need to find out sustainable solutions and

empower communities there should be engagement with communities and civil organizations at the base level. Moreover, community feedback will help to adopt new strategies to return to normal life.

This study set out to determine the association between the effectiveness of community participation and the COVID 19 Prevention activities in the Kalmunai RDHS Region. The results of this investigation show that there is a significant association exists between the effectiveness of community participation and Core Behaviors, MOH Level Platform, Supporting Vulnerable Groups, Behavioral Surveillance, Monitoring, and Evaluation. The evidence from this study suggests that core behaviors known as Pathways that the identified behavior to block the transmission of COVID-19 from an infected person were practiced by the community at the appreciated level. It helps to prevent the COVID 19 spread. Also, it reveals the MOH has played a vital role to encourage the community towards prevention activities. During the lockdown period, the MOH supported many activities initiated in the communities such as contact training, supporting health staff to supporting the provision of essential drugs to affected communities.

The most obvious finding to emerge from this study is that for people who are at a higher risk of getting the COVID-19 infection, the vulnerable groups want more focus on implementing prevention activities and information sharing. The community plays an important to identifying these groups of people and giving them moral support. In the case of Kalmunai RDHS Region Mapping of all potentially vulnerable groups at the MOH level in the communities and guiding those towards the COVID 19 Prevention activities especially identify the potential barriers to carrying out the needed functions.

Behavior surveillance is the key to understanding why individuals and communities behave the way they are. It is an important segment in community participation in COVID 19 prevention activities. The second major finding was that regular behaviors and the government's involvement in educating the community through online platforms are contributing to community participation in adopting prevention activities. To measure the performance of any activity they should be monitored and evaluated. Kalmunai RDHS Region has given a certain level of monitoring and evaluation to prevent from COVID 19 outbreak. It implies that there is a better performance in the community enrolment.

However, these results were not very encouraging the involvement of the community in Anti-Stigmatization which does not significantly associate with the effectiveness of community participation. Even though government asks to Report any issues related to stigma about COVID-19, People spread rumors towards social media and point out the different communities or different people from the different areas as spreaders of COVID 19. This study is failed in case of preventing people from the psychological threats and emotional challenges.

Even though according the results of the regression analysis it obvious that core behaviors, and behavioral surveillance are significantly impact the effectiveness of the community participation in this area. It seems there more strategies need to be added in the case of other variables in order improve the effectiveness of community participation

The above conclusions can be drawn from the present study. Here are also a few suggestions to enhance community engagement in COVID-19 prevention activities.

According to the research findings, several suggestions are identified. Government should encourage MOH more to support many activities initiated in the communities such as contact training, supporting health staff to supporting the provision of essential drugs to affected communities. Also, the government should take necessary actions to educate the community to eradicate the fear and anxiety regarding the vaccination and other essential prevention activities using online and other dissemination methods. Also, to enhance the knowledge on the importance of participation as a community to overcome this crisis as one nation.

Health and safety considerations should be collaboratively linked and addressed in the planning stages. These include the safe structuring of engagement conditioning, applicable distancing measures for face-to-face relations; Quarantine or isolation procedures of a community; resource procurement for engagement

actors, similar as particular defensive outfit; and protocols for suspected/ verified contact with COVID-19-positive persons.

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