

# Factors affecting beneficiary attendance in a community youth mental health promotion program in Karnataka, India.

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## Research article

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# Abstract

Context: Yuva Spandana is a unique community based Youth Mental Health Promotion program implemented across Karnataka. This program provides mental health promotion services like guidance and referral services for any issues related to youth. These services are provided through Youth Guidance centres established within every district stadium across Karnataka. We assessed factors affecting beneficiary attendance to these guidance centres across Karnataka. Methodology: A conceptual framework was developed to understand the factors affecting beneficiary attendance through stakeholder consultation. First time beneficiaries attending guidance centres between 1st January 2017 and 31st December 2018 across 30 districts of Karnataka were considered study subjects. Requisite data were drawn from the computerized management information system (CMIS) specifically developed for the program. Multivariate Linear Regression was performed with factors affecting beneficiary attendance as outcome and a host of hypothesized variables within the conceptual framework as potential exposures that contribute towards beneficiary attendance. All variables significantly associated with outcome ( $p < 0.10$ ) in univariate and which changed the  $\beta$ -coefficient of at least one preceding variable by 10% was retained in the multivariate model. Results: For every sensitization program where more than one issue was addressed, the beneficiary attendance increased by 84% ( $\beta = 0.84$ ; 95% CI=0.53-1.15). Reaching out to parent beneficiaries through sensitisation programs, increased beneficiary attendance at YSK by 79% ( $\beta = 0.79$ ; 95% CI=0.20-1.37). Referring clients to resource mapped organisations, significantly increased beneficiary attendance by 81% ( $\beta = 0.81$ ; 95% CI=0.34-1.28). For every percentage increase in reminder calls made to probable beneficiaries who sought support following a sensitization programme, beneficiary attendance increased by 2.18 times ( $\beta = 2.18$ ; 95% CI=0.52-3.83). Availability of internet connectivity at these guidance centres in 2017, increased beneficiary attendance by 18 times ( $\beta = 18.00$ ; 95% CI=5.86-30.13). Conclusion: This study provides important inputs towards increasing beneficiary attendance towards large scale youth mental health promotion programs. Addressing more than one issue during sensitisation programs among beneficiaries; conducting sensitization programs among parent groups; making reminder calls to beneficiaries who requested support through feedback forms to fix appointment at guidance centres; providing referrals to beneficiaries to seek services at resource mapped individuals/organizations and ensuring availability of internet in guidance centres increases beneficiary attendance.

## Background

India has the largest youth population in the world. Nearly 70% of the population is under the age of 35 years.<sup>1</sup> They are presumed to be healthy but, about 2.6 million young people between 10-24 years die each year.<sup>2</sup> Transition in traditional family systems, influenced by the rapid changes in economic, social and political scenarios globally, pose social, psychosocial, behavioural and mental health challenges amongst youth. Significant numbers of youth have issues related to alcohol, tobacco, lack of physical activity, unsafe sex and exposure to violence.<sup>2</sup> Considering these, youth and families need support to deal effectively with these challenges.

As a consequence, the Department of Youth Empowerment and Sports, Government of Karnataka, along with Centre for Public Health, Department of Epidemiology, NIMHANS, implemented a youth mental health promotion program called Yuva Spandana. Yuva Spandana is a program to bridge the gap between youth, their families and the ever-changing society in order to enable smooth transition of youth from childhood to adulthood. This is a Youth policy of Karnataka 2014 initiative that was drafted with a vision to reach, engage and empower youth of Karnataka to facilitate the all-round development of the society.<sup>3</sup>

Under the program Yuva Spandana, youth guidance centres named Yuva Spandana Kendras (YSKs) (meaning youth response centres) are established at all district stadiums across Karnataka. Trained youth named Yuva Samalochakas (YSs) (meaning youth counsellors) and Yuva Parivarthakas (YPs) (meaning youth change agents) provide services in YSKs free of cost. YSKs provide guidance/counselling services to youth with any issue. Broadly, youth issues such as education and academic issues, relationship issues, personality development issues, safety issues, gender sex and sexuality issues and health and lifestyle issues are addressed in the program. Various activities conducted under the program are intended to bring beneficiaries to YSKs. Sensitization programs, resource mapping and guidance services are the core activities performed under the program Yuva Spandana.

Sensitization program is the first point of contact between probable beneficiary to YSK and the program service providers (YP/YSs).<sup>4</sup> After the sensitization program participants fill a feedback form to evaluate the program and seek support at YSKs. The YPs segregate collected feedback forms into 'support required' and 'support not required' forms. All the feedback forms would be deposited to the YSKs within 2 days of sensitization program. Yuva Samalochakas at YSK make phone calls to all the beneficiaries who request support in feedback forms and fix appointment at YSKs. Yuva Samalochakas provide guidance to beneficiaries after s/he comes to YSK. These steps are part of the standard operating procedures (SOPs) inbuilt into the program in-order to ensure beneficiary access services at YSKs. Process following a sensitization program has been presented here (Figure I).

The program Yuva Spandana is in its sixth year of implementation. There has been a gradual and essential shift in the focus of the program. Initially, it was to establish Yuva Spandana Kendras across all the 30 districts within Karnataka. Now, with YSKs established in all the districts, the focus is on expanding coverage and ensuring quality of services for beneficiaries seeking guidance at YSKs. With this shift in focus, an understanding of factors associated with beneficiaries attending YSK is important to undertake focused approach towards program activities that bring in beneficiaries to YSK. Thus, we aim to assess the factors affecting beneficiary attendance at YSKs in Karnataka.

## Methods

Preparatory phase involved development of a conceptual framework to understand the factors affecting beneficiary attendance. A draft conceptual framework on factors affecting beneficiary attendance was

developed by the investigators, keeping in mind the various program activities of Yuva Spandana that may contribute towards beneficiary attendance. Two stakeholder consultations namely one core team and one field team consultation workshops were held to finalize the conceptual framework, methodology of data collection and to list out potential exposure variables affecting beneficiary attendance (Figure II).

All the first-time beneficiaries attending YSKs between 1<sup>st</sup> January 2017 and 31<sup>st</sup> December 2018 across 30 districts of Karnataka were considered as study subjects for the study. All the required data were drawn from the computerized management information system (CMIS) specifically developed for the program Yuva Spandana. Registration and visit details of all beneficiaries were considered. Further, the data related to all sensitization programs, resource mapping, and phone call forms were also utilized. All the data from monthly reports and training reports were also obtained. Detailed information about the data used for the current study is depicted in table I & II.

### **Statistical analysis**

Data from different sources were organized by district in the same order, assigning the same serial number across all databases. They were merged using the serial number for district as unique identifier. Descriptives and frequencies along with multivariate linear regression analysis were performed. Linear regression analysis was performed with number of beneficiaries registered in YSK during the study period as outcome. Number of beneficiary registered/attending YSK was considered as outcome. Factors within the conceptual framework for client attendance to YSK (Fig II and Table I & II) were hypothesized as exposure variables. All exposure/confounding variables significantly associated with outcome at 10% level ( $p < 0.10$ ) in univariate analysis were eligible to be considered for multivariate analysis.

In multivariate linear regression analysis, each of all the exposure/confounding variables eligible to be included into the multivariate model was included one after the other using a forward stepping process. All exposure/confounding variables that were significantly associated with the outcome at 5% levels ( $p < 0.05$ ) and changed the  $\beta$  co-efficient of at-least one preceding variable by 10% was retained in the final model. Each model was compared with the preceding model using likelihood ratio-test with appropriate degrees of freedom. All statistical analyses were performed using Stata 12.1 software.

## **Results**

Univariate Simple Linear Regression analysis showed that there were 31 variables found eligible to be included into the final multivariate model (table V).

More than one issue addressed during a sensitisation program, reaching parent beneficiaries through sensitization programs, referrals to resource mapped services, proportion of reminder calls made to clients who sought support following sensitization programs and internet connection in YSK were associated with increased beneficiaries in YSK between 1<sup>st</sup> January 2017 to 31<sup>st</sup> December 2018 in Karnataka (table VI). For every sensitization program where more than one issue was addressed, the beneficiary attendance increased by 84% ( $\beta = 0.84$ ; 95% CI=0.53-1.15). Reaching out to parent

beneficiaries through sensitisation programs, increased beneficiary attendance at YSK by 79% ( $\beta = 0.79$ ; 95% CI=0.20-1.37). Referring clients to resource mapped organisations, significantly increased beneficiary attendance by 81% ( $\beta = 0.81$ ; 95% CI=0.34-1.28). For every percentage increase in reminder calls made to probable beneficiaries who sought support following a sensitization programme, beneficiary attendance increased by 2.18 times ( $\beta = 2.18$ ; 95% CI=0.52-3.83). Availability of internet connectivity at YSKs in 2017, increased beneficiary attendance by 18 times ( $\beta = 18.00$ ; 95% CI=5.86-30.13).

## Discussion

The programme Yuva Spandana is the first ever state-level mental health promotion program in India, developed in-line with the National Youth Policy- 2012. The current paper aimed at understanding factors which contribute to increase clientele to Yuva Spandana Kendras. As a result, we identified factors that enable service utilization by the beneficiaries in the community. Our study revealed that it is essential to

- *address more than one issue for which the services are available within the program while sensitizing beneficiaries;*
- *conduct more sensitization programs to parents groups;*
- *make reminder calls to beneficiaries who requested support through feedback forms, to fix appointment at YSK;*
- *provide referral letter to beneficiaries to seek services at resource mapped individual/organizations and*
- *ensure internet availability in YSK in order to increase beneficiary attendance at*

In this study, a systematic, objective assessment of factors affecting client attendance was done by developing a conceptual framework through stakeholder consultations. Our study utilized program data collected utilizing a specifically developed computerized management information system (CMIS) that captures data in real time. This study utilized program data from multiple sources. Data quality is ensured within the program by stringent methodology incorporated right from the stage of training of YSs and YPs to routine monitoring of data (both during data collection and entry). YSs and YPs who enter data on CMIS are rigorously trained in both capturing and entering data in CMIS. Data related training is an important part of both basic and refresher training schedules of the program. Besides in-house trainings, program staff provides support for field level data management during their field visits. Monitoring and Evaluation Officer of the program along with Field Coordinator and Field Liaison Officers closely monitor all data entered in CMIS on a day-to-day basis. Program Coordinator and Principal Investigator of the program supervise this process of data monitoring regularly. All these ensure real-time data collection with minimal errors in data entry.

Activities conducted to develop the conceptual framework were scientific and comprehensive thus; the results of the study can be generalized to all Yuva Spandana Kendras across Karnataka. In addition, stakeholder involvement in designing the study is likely to ensure stakeholder participation. It is likely to

facilitate the field team to utilize these results and own future interventions based on these results. Intervening on these factors could improve client attendance for the program in future.

One of the factors affecting beneficiary attendance in YSKs in Karnataka was addressing multiple issues during a sensitisation program. Addressing multiple issues ensures that there is something for every beneficiary at YSK. During these sensitization programs, YPs broadly address 6 issues covering the entire gamut of youth issues.<sup>4</sup> Hence, when YPs address multiple issues as part of sensitization programs, youth with any issue/s are sensitized about their issue and encouraged to visit YSK thereby increasing beneficiary attendance.

YPs conduct sensitization program at field level for different groups such as youth clubs, students, parents, teachers etc.<sup>4</sup> It was observed that, conducting sensitization programs for parents increase beneficiaries to YSKs. In the Indian context, parents are the key decision makers in the family. Although it seems that the youth are independent, when it is the question of seeking support or care, the youth are under the control of their parents or caretakers in India. Hence, focusing on sensitising parents would bring their children to YSKs.<sup>5</sup>

YPs collect feedback forms from participants after the sensitization program. Our study found that making reminder calls to schedule appointments to YSK following sensitization program increases beneficiary attendance. This helps in rapport and confidence building among potential beneficiaries. For the beneficiary, receiving a reminder call post sensitization program is likely to reinforce the fact that “there is somebody who is willing to listen to me and help me with my problems” –a message that is shared as part of the sensitization program. Usage of technology for increasing service utilization of programs is the need of the hour.<sup>6,7</sup>

Yuva Samalochakas provide guidance to beneficiaries who come to YSKs and refer them to an appropriate referral institution for further help. Our results reveal that referrals to resource mapped services bring beneficiaries to YSKs. This process provides an opportunity to showcase services available at YSK through beneficiaries themselves and thereby promoting cross referrals. It also provides evidence to resource mapped organisations about an ongoing successful program.

It was observed that having internet connection during 2017 is a significant factor affecting client attendance. Having internet connection in YSK ensures that district teams at YSK are well supported by core team at NIMHANS enabling the district teams to confidently handle clients at YSK.

Univariate Simple Linear Regression analysis showed 27 variables to be significant. However, only 5 factors were found to be statistically significant in multivariate analysis. The variables which were significant in univariate analysis might seem to be less important compared to the five factors significant in multivariate analysis in increasing clients. However, this might not be true. Logically, given the robust monitoring and supervision in-built into the program, an analysis done as part of the routine monitoring and evaluation in July 2017<sup>8</sup> revealed that availability of YSs in YSK; potential beneficiaries agreeing to

visit YSK during phone call following sensitisation programs; focusing on teachers and youth in sensitisation programs; and sensitisation programs and friends as source of referral increased beneficiary attendance.<sup>8</sup> Other sources of information and challenges and difficulties faced during sensitisation programs decreased client attendance. Learning from this previous evaluation, helped us intervene (Eg- focussing on teachers through sensitization program) on these factors. These might have made these program components/ exposure variables insignificant at this stage of the program. This is known to happen as part of evolution of the program. However, these would still be relevant as activities of the program and needs to be part of the routine monitoring and supervision along with a special focus on the five factors identified in this study.

This study is not without limitations. Other relevant factors affecting beneficiary attendance such as quality aspects of sensitization programs, guidance and client satisfaction levels are not considered in the current study. Since, majority of programs are focussed on student population, it is obvious that majority of the beneficiaries attending YSKs are students. Hence the generalisability of the results to other beneficiaries is questionable.

## **Conclusion**

This study provides important inputs on what brings beneficiaries into such large community-based youth mental health promotion programs. Utilising this evidence; the program team can plan for evidence-based implementation of the program. Henceforth, YPs would be strengthened to address all the 6 issues in the sensitization programs conducted for any group<sup>4</sup>. This would be monitored to conduct more programs for parent groups. Referring of beneficiaries to referral institution/individuals would be continued and further efforts would be made to strengthen the networking between those organizations/individuals. Emphasizing the importance of making reminder phone calls to those who had sought support through feedback forms is another factor to be vigorously monitored by the program. Finally, ensuring availability of functional internet in the centre in order to monitor and supervise on daily basis.

We believe that the findings and the conduct of this study provides important insight for program managers, implementers, policy makers and funders on factors that need to be looked into while developing and implementing large community-based youth mental health promotion models such as Yuva Spandana.

## **List Of Abbreviations**

**YSP-** Yuva Spandana Program

**YP-** Yuva Parivarthaka

**YS-** Yuva Samalochaka

**YSK-** Yuva Spandana Kendra

**CMIS-** Computerized Monitoring Information System

**SOPs-** Standard Operating Procedures

## Declarations

### **Ethics and Consent to Participate:**

Appropriate ethical approvals for this study was obtained from the Institutional Ethics Committee at NIMHANS, Bengaluru vide letter number No.EPID/2-DEC/2018/4 Dated 16.10.2018

### **Consent for Publication:**

Written consent was obtained from each participant before collecting data from them

### **Availability of data and materials:**

The datasets during and/or analyzed during the current study available from the corresponding author on reasonable request.

**Competing interests:** None

**Funding:** None

### **Authors' contributions:**

PBS conceptualized the study and involved in every step in preparing the manuscript. LG, MA, and JMK reviewed the manuscript, collected data and analyzed. GG, SL, BH, MSR and SK guided the entire work.

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## Tables

Table I: Secondary source of data for finalized list of factors and potential exposure variables to be assessed for assessing factors affecting client attendance in program Yuva Spandana

SI No	Data required	Source	How the data was pooled and utilized
<b><u>1.Sensitization Program</u></b>	<b><u>1.1 Sensitization Program (SP)</u></b>  A. Number of Sensitization programs  B. Issues Addressed  C. Challenges faced  D. Groups / Type of beneficiaries addressed	Sensitization Program (SP) format	A. District wise total number of sensitization programs conducted in 24 months  B. District wise number of sensitization programs with number of issues addressed (all issues/only one issue/>1 issues/ no issues addressed)  C. District wise number SPs with different challenges faced during the sensitization program conducted/ issues  D. District wise number of SPs with different beneficiaries reached
	<b><u>1.2 Post Sensitization Program</u></b>  A. Collecting feedback forms  B. Phone calls to clients and reminder calls to clients	Sensitization Program format and phone call format	A. District wise total number of feedback forms collected post sensitization program in 24 months  B. District wise 24 months average of phone calls /reminder calls to clients post sensitization program
<b><u>2.Resource Mapping</u></b>	<b><u>2.1 Resource Mapping</u></b>  <ul style="list-style-type: none"> <li>• Type of Organization</li> <li>• Number of resources mapped</li> <li>• Issue wise service provision</li> <li>• Issue wise costing service</li> </ul>	Resource mapping format	<ul style="list-style-type: none"> <li>• District wise number of organizations mapped overall and by type (government/ non-government (for-profit and not-for-profit)</li> <li>• District wise number of mapped organizations providing services for each issue addressed under the program</li> <li>• District wise number of mapped organizations providing services free-of-cost/subsidized cost/full cost</li> </ul>
<b><u>3.Facilities available at YSK</u></b>	<b><u>3.1 Facilities available at YSK</u></b>  <ul style="list-style-type: none"> <li>• Colour code charts on</li> </ul>	Yuva Spandana monthly report	<ul style="list-style-type: none"> <li>• District wise 24 months average of 12-different facilities (coded as yes/no) at YSK</li> </ul>

	<p>facilities at YSK</p> <ul style="list-style-type: none"> <li>• Availability of s</li> <li>• Availability of YPs</li> </ul>		<ul style="list-style-type: none"> <li>• District wise number of months when YS was available during the 24-month assessment\period</li> <li>• District wise number of months when all five YPs were available during the 24-month assessment period</li> </ul>
<b><u>4.Trainings</u></b>	<p><b><u>4.1 Trainings</u></b></p> <ul style="list-style-type: none"> <li>• Number of YS and YP trained</li> <li>• Socio demographic profile of Yuva Samalochakas and YPs</li> </ul>	Training Registration data	<ul style="list-style-type: none"> <li>• District wise total number of YSs and YPs trained from the start of the programme</li> <li>• Socio demographic profile of Yuva Samalochakas and YPs who were working during the study period</li> </ul>
<b><u>5.Monitoring and Evaluation</u></b>	<p><b><u>5.1 Monitoring systems</u></b></p> <ul style="list-style-type: none"> <li>• Advisory Committee meetings</li> <li>• Karnataka Development Program (KDP) meetings</li> </ul>	Yuva Spandana monthly report	<ul style="list-style-type: none"> <li>• District wise number of months when advisory committee meetings</li> <li>• KDP meetings were conducted during the 24-month assessment period</li> </ul>
<b><u>6.Publicity drives</u></b> -	<p><b><u>6.1 Publicity drives during Sensitization Programs</u></b></p> <ul style="list-style-type: none"> <li>• Banner display</li> <li>• Brochure distribution</li> <li>• Pamphlets distribution</li> </ul>	Sensitization Program format	District wise number of SPs where banner was displayed/ brochure / pamphlets distributed during the 24-month assessment period
	<p><b><u>6.2 Publicity drives</u></b></p> <ul style="list-style-type: none"> <li>• Name board at YSK</li> </ul>	Yuva Spandana monthly report	<ul style="list-style-type: none"> <li>• District wise number of months where name board was displayed for the YSK during the 24-month assessment period</li> </ul>

	<ul style="list-style-type: none"> <li>News articles of activities of Yuva Spandana</li> </ul>		<ul style="list-style-type: none"> <li>District wise number of months where news articles of activities about Yuva Spandana were published/ aired/ broadcasted during the 24-month assessment period</li> </ul>
<b>7. Quality of guidance</b> -	<b>7.1 Quality of guidance</b> <ul style="list-style-type: none"> <li>Reminder calls</li> <li>Follow up</li> <li>Referrals</li> </ul>	Yuva Spandana monthly report	District wise number of reminder calls/ follow up/ referrals made during the 24-month assessment period
<b>8. OTHERS</b>	<b>8.1 Socio demographic profile of clients</b>	Client Registration data	Socio demographic profile of clients under program Yuva Spandana as collected using registration form during the assessment period

Table II: Primary source of data for finalized list of factors and potential exposure variables to be assessed for assessing factors affecting client attendance in program Yuva Spandana

Data required	Source	How the data was pooled and utilized
1.1 Monitoring systems <ul style="list-style-type: none"> <li>Deputy Director/ Assistant Director support in conduct of overall activities of Yuva Spandana in the district</li> </ul>	Subjective information as perceived by YS/ YP	District wise support categorized as very poor (1), poor (2), satisfactory (3), good (4) and excellent (5) as perceived by YS/YP

Table III: Socio-demographic profile of beneficiaries visiting YSK from 1<sup>st</sup> January 2017 to 31<sup>st</sup> December 2018

Socio - demographic profile of clients	Male		Female		Total	
	N	%	N	%	N	%
<b>Total number of beneficiaries</b>	3774	54.74	3121	45.26	6895	100
<b>Mean Age of clients in years</b>	21.62*	8.33 <sup>§</sup>	20.69*	7.19 <sup>§</sup>	21.2*	7.85 <sup>§</sup>
≤15 years	474	12.56	379	12.14	853	12.37
16-20 years	1,805	47.83	1,648	52.8	3,453	50.08
21-25 years	707	18.73	599	19.19	1,306	18.94
26-30 years	356	9.43	215	6.89	571	8.28
31-35 years	177	4.69	134	4.29	311	4.51
≥35 years	255	6.76	146	4.68	401	5.82
<b>Education</b>						
Illiterate	100	2.65	80	2.56	180	2.61
Middle school	287	7.61	167	5.35	454	6.58
High school	611	16.19	563	18.04	1,174	17.03
Above high school	2,777	73.58	2,310	74.01	5,087	73.78
<b>Present marital status</b>						
Currently married	426	11.29	393	12.59	819	11.88
Others	11	0.30	52	1.67	63	0.91
Unmarried	3,337	88.42	2,676	85.74	6,013	87.21
<b>Occupation</b>						
Agriculture	151	4	43	1.37	194	2.46
Business	110	2.91	15	0.48	125	1.81
Salaried employee	122	3.23	55	1.76	177	2.57
Student	2,601	68.92	2,228	71.39	4,829	70
Unemployed	647	17.14	499	15.99	1,146	16.62
Others (Non agriculture laborer, coolie, house work etc)	143	4.26	281	9.28	424	6.36

\*-Depicts Mean <sup>§</sup>-Depicts standard deviation

Table IV: Univariate analysis of exposure variables related to sensitization program and training affecting beneficiary attendance (n=30 districts)

\*Significant at or below 10% ( $p \leq 0.10$ ), eligible to be included into the multivariate model.  $\beta$ = Regression co-efficient for univariate simple linear regression. Only statistically significant variables are shown in the table.

Table V: Univariate analysis of exposure variables related to resource mapping and human resource at YSK affecting beneficiary attendance (n=30 districts)

Characteristics related to Sensitization program and Training	$\beta$ -coefficient	p-value	95% Confidence Interval	
			Lower	Upper
<b>Number of sensitization programs conducted</b>	0.65	<0.001*	0.29	1.02
<b>Number of issues addressed during sensitization programs</b>				
More than one issue addressed	1.1	<0.001*	0.58	1.61
<b>Challenges faced during sensitization programs</b>				
Programs where audio systems were not functional	3.84	0.08*	-0.56	8.25
<b>Publicity materials used during sensitization programs</b>				
IEC-banners	0.67	<0.001*	0.28	1.06
IEC-brochures	0.67	<0.001*	0.29	1.05
Articles published in newspapers	28.39	0.01*	7.07	49.71
<b>Type of beneficiaries reached through sensitization programs</b>				
Students	0.75	<0.001*	0.33	1.18
Teachers	5.41	0.10*	-1.08	11.89
Parents	1.21	0.04*	0.08	2.35
Beneficiaries in community	1.69	<0.001*	0.59	2.78
Other beneficiaries	1.38	0.02*	0.21	2.55
<b>Post sensitization activities</b>				
Number of phone calls made to those with issues in feedback forms	0.09	<0.001*	0.04	0.15
Number of follow up beneficiaries at YSK	1.51	<0.001*	0.7	2.31
Number of beneficiaries referred to resource mapped services	1.53	<0.001*	0.82	2.24
<b>Training related characteristics of YPs and YSs</b>				
Number of YPs	-22.16	0.029*	-41.92	-2.39

Characteristics related to Resource mapping	$\beta$ - coefficient	p- value	95% Confidence Interval	
			Lower	Upper
<b>Resource mapped organizations characteristics</b>				
Total number of resources mapped organizations	1.69	<0.001*	0.65	2.73
Total number of organizations resources mapped for health and lifestyle issues	2.16	0.01*	0.53	3.8
Total number of organizations resources mapped for education and academic issues	1.92	0.03*	0.16	3.68
Total number organizations resources mapped for safety issues	1.73	0.05*	0	3.47
<b>Type of resource mapped organizations</b>				
Government organization	2.49	0.02*	0.37	4.61
<b>Resource mapped organizations for health &amp; lifestyle issues by costing of services</b>				
Subsidized cost	4.6	<0.001*	1.74	7.46
<b>Resource mapped organizations for education and academic issues by costing of services</b>				
Subsidized cost	5.64	<0.001*	2.44	8.83
<b>Resource mapped organizations for personality development issues by costing of services</b>				
Subsidized cost	5.57	<0.001*	2.05	9.1
<b>Resource mapped organizations for safety issues by costing of services</b>				
Subsidized cost	4.4	0.01*	1.36	7.45
<b>YPs and YSs under Yuva Spandana Program</b>				
Number of Male YPs selected in 2018	-42.45	0.04	-83.71	-1.19
Number of Female YPs selected in 2018	-56.86	0.01	-101.24	-12.48
Total number of Male YPs selected from 1 <sup>st</sup> Jan 2017 to 31 <sup>st</sup> Dec 2018	-45.23	<0.001	-73.34	-17.12
Total number of Female YPs selected from 1 <sup>st</sup> Jan 2017 to 31 <sup>st</sup> Dec 2018	-49.81	0.01	-83.3	-16.31
Total Number of YSs working in YSKs in 2018	21.45	0.01	7.15	35.75
Total Number of YPs working in YSKs in 2017	27.42	0.02	5.04	49.8
Total Number of YPs working in YSKs in 2018	23.65	0.02	4.45	42.84

\*Significant at or below 10% ( $p \leq 0.10$ ), eligible to be included into the multivariate model.  
 $\beta$  = Regression co-efficient for univariate simple linear regression. Only statistically significant variables are shown in the table.

Table VI: Multivariate linear regression analysis of factors affecting beneficiary attendance at YSK

	Adjusted $\beta$ -coefficient	p-value	95% Confidence Interval
Number of sensitization programs where more than one issue was addressed	0.84	<0.001	0.53-1.15
Number of parent beneficiaries reached through sensitization programs	0.79	0.01	0.20-1.37
Number of beneficiaries referred to resource mapped services	0.81	<0.001	0.34-1.28
Percentage of reminder calls made to clients	2.18	0.01	0.52-3.83
Number of YSK having internet connection in 2017	18.00	0.01	5.86-30.13

Note: Only statistically significant variables are shown in the table. B-coefficient adjusted for all other significant variables in the model.

## Figures

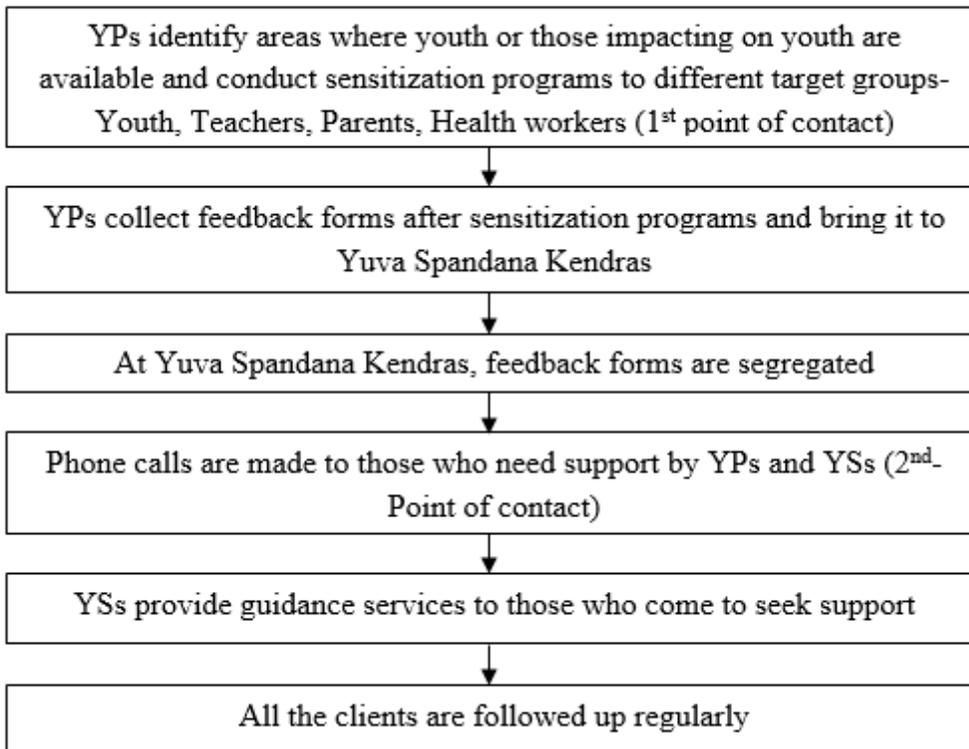
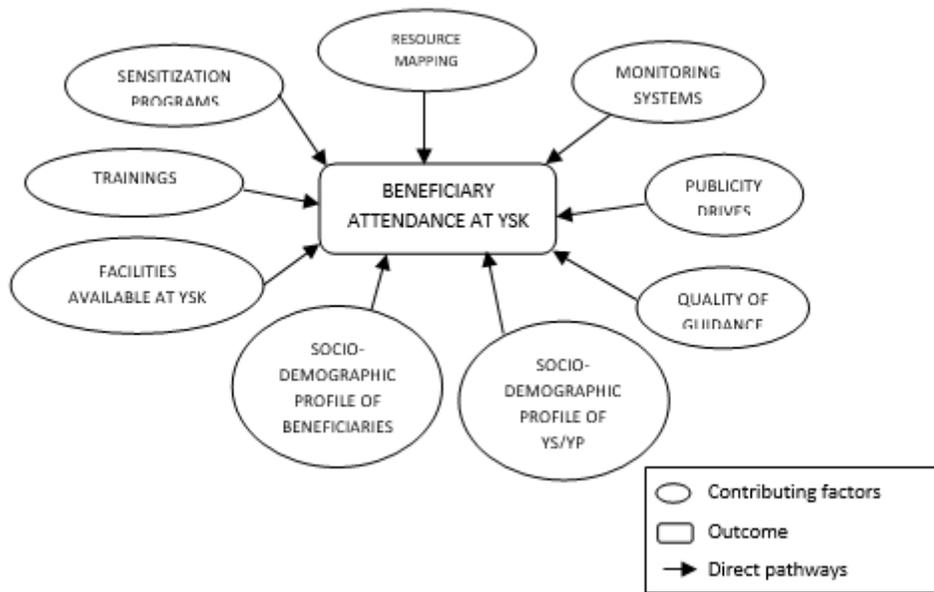


Figure 1

Process following a sensitization program



**Figure 2**

Final version of conceptual framework to assess factors affecting client attendance