Original Research Article

EFFECT OF STRUCTURED TEACHING PROGRAMME ON REDUCTION OF LEVEL OF STRESS AMONG AGRICULTURAL WORKERS IN SELECTED AREA AT PUDUCHERRY

ABSTRACT

INTRODUCTION: India has a total geographical area of 328.73 million hectares, with 306.04 million hectares reported for land usage. According to the Registrar General of India, the overall number of agricultural workers has increased from 234.1 million. Most agricultural workers have been linked to poor mental health outcomes in adult farmers and ranchers. Stress, anxiety, and insomnia are the most commonly reported mental health issues, affecting 55% of farmers. Somatic issues are the second most prevalent type of symptom. So, the planned instruction approach will assist farm workers in reducing and managing stress levels.

AIM: To evaluate the effectiveness of structured teaching programme on reduction of level of stress among agricultural workers in selected area at Puducherry.

MATERIALS AND METHODS: A Quantitative research approach, ~~Pre-experimental~~pre-experimental (one group Pre-test and Post-test) was adopted in the study. Totally 40 Agricultural workers were selected by Convenient sampling technique at Senthanatham, Puducherry. Pretest and post-test ~~was~~were done by Cohen Perceived Stress Scale. Structured teaching programme was given to the agricultural workers in reduction of level of stress.

RESULT: The study result shows that the pretest and posttest mean values of stress was 6.6 and 17.9 respectively and the standard deviation value ~~was~~ were 3.02 and 0.96 respectively. The obtained p-value of stress is highly statistically significant with the value of $p<0.0001$. So, this study concluded that structured teaching programme was most effective in reducing the level of stress among the agricultural workers.

KEY WORDS: Agricultural workers, stress, Mental health problems.

INTRODUCTION

India has a total geographical area of 328.73 million hectares, with 306.04 million hectares reported for land usage. The net cultivated area is approximately 142.60 million hectares, which accounts for 46.6% of the total reported area. Agriculture is derived from the Latin word agricultura, which is made up of the words ager "field" and cultura "cultivation" or "growing". Agriculture is another name for farming.

Agriculture and farming shall encompass soil cultivation, dairying, forestry, and the harvesting of any agricultural or horticultural common areas. Agricultural workers have historically been the most overlooked and exploited group of workers. The farm worker who spends the day between slush and muck, who works now with a half-satisfied appetite, and who knows no rest in storms or sunshine.

Work-related stressors commonly encountered by agricultural labourers have been linked to poor mental health outcomes among adult farmers. Stress, anxiety, and insomnia are the most commonly reported mental health problems, with 55% of agricultural workers experiencing these conditions. These stressors, including as unemployment, poor socioeconomic situations, and a lack of cooperation among agricultural workers, can all increase the chance of developing mental health issues like depression.

Anxiety, mood changes, sadness, insomnia, restlessness, fatigue, irritability, lack of concentration, and weight loss are some of the stress symptoms that may affect agricultural workers. As a result, stress management techniques are extremely crucial in reducing stress levels among agricultural workers.

Comment [MOU1]: Why is the "STRUCTURED TEACHING PROGRAMME" in this study so important for dealing with stress? Please explain

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MATERIALS AND METHODS

Study setting: The study was conducted in a area of Senthanatham, at Puducherry.

Study design: A quantitative research approach of randomized controlled trail - one group pretest-posttest was adopted in the study.

Sample size and Method: A total of 40 Agricultural workers ~~was~~ were recruited using a convenient sampling technique randomly. The sample size was calculated with the reference of previous study using the preliminary data, and by power analysis with the confidence of 99%. The researcher ~~have~~ has confined the sample size to~~as~~ 40 through universal sampling.

Inclusion criteria:

Agricultural workers those who are,

- Age in 20 years and above
- Willing to participate in the study
- Having Mild and Moderate stress

Exclusion criteria:

Agricultural workers those who are,

- Chronic physical illness and Mental illness
- Visual and Auditory problem
- Severe stress
- Not available during data collection period

Ethical approval: Anonymity and confidentiality was maintained throughout the study. Institutional Ethical Committee approval was taken before conducting the study. Informed verbal consent was obtained from each ~~participants~~participant prior to interview.

Data Collection: After obtaining informed consent from the study participants, the data were collected using socio-demographic variables and by perceived Cohen stress scale to check the level of stress among the agricultural workers. The score interpretation for the level of stress was categorized as low level of stress (0-13), Moderate level of stress (14-26) and High level of stress (27-40). Structured teaching programme was effectively implemented among agricultural workers in order to assess the level of stress before administering the intervention to the study participants over a period of 14 days for 30 minutes and the post test was conducted to assess the progress made by the agricultural workers in reduction of level of stress. The data were collected in a area of Senthanatham village, Puducherry for over the period of 6 weeks.

Statistical Analysis: Data were analyzed using descriptive and inferential statistics by using SPSS version 21. The independent 't' value on comparison of pretest and posttest level of stress was carried out and the Mann-whitney was used to find out the association between the variable in the study.

DATA ANALYSIS AND INTERPRETATION

TABLE 1: Frequency and percentage distribution of socio demographic variables among Agricultural workers

(N = 40)

S.No.	Demographic Variables	Frequency (N)	Percentage (%)
1	**Age in years**		
	a) 20 – 29 years	21	52.5%
	b) 30 - 39 years	8	20%

	c) 40 - 49 years	4	10%
	d) 50 years and above	7	17.5%
2	**Gender**		
	a) Male	11	27.5%
	b) Female	29	72.5%
3	**Religion**		
	a) Hindu	37	92.5%
	b) Muslim	2	5%
	c) Christian	1	2.5%
	d) Others	0	0%
4	**Marital Status**		
	a) Married	22	55%
	b) Unmarried	13	32.5%
	c) Divorced/ Separated	5	12.5%
	d) Widower/ Remarried	0	0%
5	**Educational qualification**		
	a) Illiterate	6	15%
	b) Primary Education	12	30%
	c) High Secondary Education	13	32.5%
	d) Graduate	9	22.5%

6	**Monthly income of the family**		
	a) Below Rs.7000	21	52.5%
	b) Rs.7001- Rs.8000	10	25%
	c) Rs.8001- Rs.10,000	4	10%
	d) Above Rs.10,001	5	12.5%
7	**Type of family**		
	a) Nuclear family	23	57.5%
	b) Joint family	23	57.5%
	c) Extended family	4	10%
8	**Number of family members**		
	a) 3 or less	29	72.5%
	b) More than 4	11	27.5%
9	**Housing status**		
	a) Own house	9	22.5%
	b) Rental House	31	77.5%
10	**Dietary Pattern**		
	a) Vegetarian	23	57.5%
	b) Non-Vegetarian	17	42.5%
11	**History of any chronic illness**		
	a) Yes	34	85%
	b) No	6	15%

12	**Previous Knowledge about stress management**		
	a) Yes	0	0%
	b) No	40	100%

Among 40 study participants interviewed 21(52.5%) of them are between the age group of 20-29 years, regarding gender 29(72.5%) are female, 11(27.5%) are male, with respect to religion 37(92.5%) of them are Hindu, regarding Marital status 22(55%) of the agricultural workers are married, 3(32.5%) of them are completed their Higher secondary education, regarding income 21(52.5%) of the agricultural workers are having the income of below Rs.7000, 23(57.5%) of the agricultural workers are belongs to nuclear and joint family, no of family members are 29(72.5%) are 3 or less, regarding their Housing status 31(77.5%) are living in rental house, 23(57.5%) of the agricultural workers are maintaining their dietary pattern as vegetarian, 34(85%) of them are having chronic illness and regarding previous knowledge about stress management 40 (100%) are not having adequate knowledge about the stress management.

Table 2: Frequency and Percentage Distribution of Pre-Test and Post-Test Level of Stress among Agricultural workers

(N=40)

LEVEL OF STRESS	**PRE-TEST**		**POST-TEST**	
	Frequency (N)	**Percentage (%)**	**Frequency (N)**	**Percentage (%)**
Mild Stress (0 -13)	4	10%	32	80%
Moderate (14 - 26)	36	90%	8	20%

In pretest, 36 (90%) of Agricultural workers had moderate stress, 4 (10 %) of them had mild stress. In post-test, out of 40 Agricultural workers 32 (80%) had mild stress and 8 (20%) had Moderate stress.

Table 3: Pretest and Post Test Mean, Standard Deviation and p Value of stress among Agricultural workers

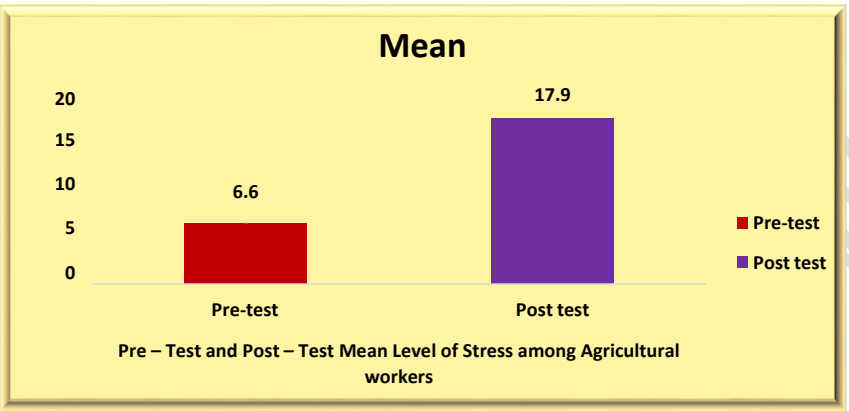

Table 3 indicates the pretest and post-test mean and standarddeviation of level of stress among Agricultural workers. The pretest and post-test mean value of level of stress among Agricultural workers was 6.6 and 17.9 respectively and p value was < 0.0001. It was highly statistically significant at $p < 0.0001$ level. There is a significant difference between pre-test and post-test values of stress among Agricultural workers. The result shows that structured teaching programme was effective in reducing the stress level of Agricultural workers. **Hence the stated hypothesis H_1 was accepted.**

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Comment [MOU6]: How can this program reduce stress levels? The average post-test stress score is higher than the pre-test? even though in the "data collection" section it has been explained that the higher the stress score, the heavier the stress level

Table ~~4:Association~~4: Association between the Pre-Test Level of Stress among Agriculturalworkers with their Selected Socio Demographic Variables.

Demographic Variables	Frequency (N)	Pre – Test Level of Stress			KW/MW	p value
		Mean	Median	Standard Deviation		
1. Age in years						
a) 20 – 29 years	21	10.64	11	1.93	1.2919	0.7311 NS
b) 30 - 39 years	8	11.3	11	2.04		
c) 40 - 49 years	4	11.08	12	3.55		
d) 50 years and above	7	11.2	10	2.68		
2. Gender						
a) Male	11	10.92	10	2.43	0.0445	0.8329 NS
b) Female	29	11.05	11	2.35		
3. Religion						
a) Hindu	37	11.07	11	2.38	0.6244	0.7318 NS
b) Muslim	2	10.33	11	2.08		
c) Christian	1	10	10	-		
d) Others	0	0	0	0		
4. Marital Status						
a) Married	22	10.87	11	2.47	1.8484	0.3968 NS
b) Unmarried	13	11.35	12	2.03		
c) Divorced/ Separated	5	11.5	11.5	2.07		
d) Widower/ Remarried	0	0	0	0		

5. Educational Qualification						
a) Illiterate	6	10.5	11	3.21	2.1635	0.5392 NS
b) Primary Education	12	11.33	12	2.1		
c) High Secondary Education	13	11.71	12	1.77		
d) Graduate	9	11.6	11.5	1.58		
6. Monthly income of the family						
a) Below Rs.7000	21	11.55	12	2.46	3.8021	0.2836 NS
b) Rs.7001- Rs.8000	10	11.6	11.5	1.58		
c) Rs.8001- Rs.10,000	4	10.5	11	3.21		
d) Above Rs.10,000	5	11.43	12	2.3		
7. Type of family						
a) Nuclear family	13	11.07	11	2.1	0.1200	0.9418 NS
b) Joint family	13	10.93	12	3.28		
c) Extended family	4	10.75	11.5	1.89		
8. Number of family members						
a) 3 or less	29	11.03	12	2.46	0.0095	0.9999 NS
b) More than 4	11	10	10.5	1.76		
9. Housing status						
a) Own house	9	9.92	10	2.84	2.6781	0.1017 NS
b) Rental House	31	11.27	11	2.18		
10. Dietary Pattern						

a) Vegetarian	23	12.88	13	1.46	6.4906	**0.0108 S***
b) Non-Vegetarian	17	10.8	11	2.34		
11. History of any chronic illness						
a) Yes	34	10.96	11	2.33	0.4863	0.7842 NS
b) No	6	11.5	12.5	2.88		

p < 0.05 significant , NS-Non significant

Among all the socio-demographic variables, Dietary pattern of Agricultural workers was got associated with the p value of 0.0108 which shows significantly associated.

DISCUSSION

In this randomized controlled trial study, a total of 40 Agricultural workers are recruited in a study who are fullfilling the inclusion criteria. Samples were recruited through convenient sampling technique and the Structured teaching programme was carried out for a period of 6 weeks. This study results shows that, Structured teaching programme is very effective in reduction of stress among Agricultural workers.

The current study reveals that after administration of structured teaching programme among 40 agricultural workers there was an reduction of level of stress in the mean score 6.6 and 17.9 respectively and it was highly statistically significant at $p < 0.0001$ level. **Hence the stated hypothesis H_1 was accepted.** The author concludes that the structured teaching programme was effective in reducing the stress level of Agricultural workers.

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LIMITATION

This study however, had certain limitations such as the study is limited to only one group and used by non-probability sampling and there is a difficulty in gathering the samples in a calm and composed area.

CONCLUSION

The main study was to assess the effect of structure teaching programme on Level of Stress among agricultural workers in Selected area at Puducherry. This study revealed that most of the agricultural workers had moderate levels of stress during the pretest. After the administration of structured teaching programme regarding stress management there was significant reduction in the stress level and this was proved by the post test conducted after 14 days. Thus, this study concludes that structured teaching

programme was effective in reducing the stress among agricultural workers residing in community area.

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