

ORIGINAL RESEARCH ARTICLE

EFFECT OF INTEGRATED YOGA MODULE ON PERCEIVED STRESS, VERBAL AGGRESSION AND SATISFACTION WITH LIFE IN HOME GUARDS IN BANGALORE – A WAIT LIST RANDOMIZED CONTROL TRIAL

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ABSTRACT

Introduction: Although the modern medical science and technology is helping us to cope up with the external injuries, the stress created in interaction with individuals and public events is taking toll on us. This is more prominent in Home Guards(HGs), who have to work in the field to maintain law and order in public events. This study is to observe the role of *Yoga* to reduce the stress, verbal aggression and increase the satisfaction in life. **Objective:** To study the efficacy of Integrated Yoga Module (IYM) on PSS, VAS and SWL in HGs. **Methods:** Five HGs who attended introductory lectures, 148 HGs of both sexes, who satisfied the inclusion and exclusion criteria were randomly allocated into two groups. The *Yoga* group(YG) practiced in an IYM that included *Asanas*, *Pranayama*, meditation and lectures. The control group(CG) was not given any *Yoga* practice but they were performing their routine work. The experimental group had supervised practice sessions for one hour daily, six days a week for eight weeks. Perceived Stress, Verbal Aggression and Satisfaction in Life was assessed before and after 8 weeks using the self-administered PSS, VAS and SWL Scale. **Results:** There was a significant decrease in PSS,VAS level in the YG and a significant increase in the CG. PSS, VAS was also found significant in between groups, similarly there was a significant increase in SWL level in YG with a significant decrease in the CG. SWL was also found significant in between groups. **Conclusions:** This study has showed that 8 week intervention of IYM reduced Perceived Stress Level, Verbal aggression in the YG and it increased in the CG. Also Satisfaction in Life level increased in YG and decreased in CG.

Keywords: Home Guards, Perceived Stress, Verbal Aggression & Satisfaction with Life, *Yoga*.

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INTRODUCTION:

Home Guard services now a days has become one of the most challenging and stressful services in India in general and Karnataka in particular. They have to deal with angry mobs, counter-insurgency operations, traffic control, VIP security, political rallies, religious festival crowd control, and various other law and order duties without losing their composure and sensitivity. They have to face potentially hazardous situations that can result in physical or mental trauma or even death in the line of duty. HGs work in Home Guards Organization (HGO). HGO is an independent disciplined and uniformed body of volunteers constituted under Karnataka HGs Act, 1962 under Karnataka Home Department.^[1] The HGs normally share their duty with the security and police personnel. The major problem for all the above is basically stress.

One of the best methodologies to combat stress and improve the satisfaction in life is *Yoga*. *Yoga* which encompasses several techniques including physical postures, breathing techniques (*Pranayama*) and meditation has become very popular for its applications in health starting from better physical fitness^[2] to a better quality of life in cancer patients.^[3] *Yoga* has been used effectively for stress reduction that has resulted in biochemical^[4] and physiological^[5]

changes. Several studies have highlighted the psychological benefits of integrated *Yoga* practices such as anxiety, neurosis^[6,7] and depressive illness^[8,9] The mood benefits of *Hatha Yoga* and swimming compared in college students showed that *Yoga* was as effective as swimming in decreasing anxiety, confusion, tension and depression, and that the acute decreases after *Yoga* were significantly greater than after swimming for men who were personally selected to participate.^[10] Similar results have also been noted in psychiatric patients with a reduction in negative emotions factor in Profile of mood states, including tension-anxiety, depression-dejection, anger-hostility, fatigue-inertia, and confusion-bewilderment after *Yoga*.^[11]

Although there are several studies on the efficacy of *Yoga* on different measures of emotional states in police, there are no studies on any measure of stress and the coping strategies in HGs. Hence, the aim of the current study was to investigate whether Integrated *Yoga* Module (IYM) can provide benefits to HG in reducing stress and increasing satisfaction in life.

OBJECTIVES

To study the efficacy of Integrated *Yoga* Module (IYM) on PSS, VAS and SWL in HGs.

METHODS

Subjects: Subjects were selected from 500 field working HGs from Bangalore Rural District who attended motivational lectures given by deputed instructors. 148 who volunteered to join the study were randomly divided into YG (n=75) and CG (n=73) using a Random number calculators [Internet], random number table was generated.^[12]

Inclusion criteria: (a) Men or woman, (b) normal healthy field working HGs and (c) age between 20-45 years.

Exclusion criteria: (a) Any ailment, (b) Consuming alcohol and smoking, and (c) Those already practicing *Yoga*.

Informed Consent: Informed consent was taken from all the subjects before enrolling them in the study. The institutional ethical committee of S-VYASA approved the study proposal.

Study Design: This was a prospective, randomized, single-blind, control study to measure and compare the personality (*Gunās*) of the HGs allotted to YG and CG. Gruha Rakshaka Bhavan (HG Administrative office at Bangalore, Karnataka was the venue for Yoga classes).

Both groups continued performing routine work such as maintaining law and order, managing traffic and the public in different government organization like RTO, Vidhana Soudha, etc.,. Both groups participated in

weekly mandatory parades as per HG schedules.

In addition to normal routine work the YG also did one hour of IYM practices, six days a week for eight weeks. Daily attendance was taken for all the subjects, *Yoga* trained experts taught *Yoga* to YG. The CG only did their normal routine work, but its participants were given the option to join *Yoga* classes after study completion.

Intervention: The YG HGs besides doing their normal routine work participated in IYM. The Integrated *Yoga* module was selected from the integrated set of *Yoga* practices used in earlier studies on effects of IYM on positive health.^[13] The basis of developing the integrated approach is ancient *Yoga* texts^[14] for total physical, mental, emotional, social and spiritual levels developments.^[15]

Techniques include physical practices (*Kriyas*, *Asanas*, a healthy *Yogic* diet), breathing practices with body movements and *Pranayama*, meditation, lectures on *Yoga*, stress management and life-style change through notional corrections for blissful awareness under all circumstances (action in relaxation). Qualified *Yoga* teachers taught IYM (appended in Table No. 1) for 2 months, 60 minutes of practice daily, 6 days per week.

Table 1 - Details of the practices

Sl no.	Duration	Names	Benefits
1	5 minutes	Breathing practices, Hands in and out breathing, Dog breathing, Tiger breathing, Straight legs raise breathing.	Brings into action all the lobes of the lungs for full utilization. Normalizes the breathing rate. Makes the breathing uniform, continuous and rhythmic.
2	5 minutes	Loosening Exercises Jogging, Forward and backward bending Side bending, Twisting <i>Pavanamuktasana kriya</i>	Prepares the joints for better flexibility to move on to postures
3	25 minutes	<i>Asanas :</i> Standing: <i>Ardha cakrasana,</i> <i>Pada hastasana.</i> Sitting: <i>Vajrasana, Supta vajrasana</i> <i>Halasana or Mayurasana.</i> Prone postures: <i>Dhanurasana</i> Supine postures: <i>Sarvaingasana,</i> <i>Matyasana, ArdhaSirsasana or</i> <i>Sirsasana</i>	Balance and harmony. Great speed in movement due to agility Makes body flexible, improves concentration, Relaxation in action and hence conservation of energy. Tranquility of mind and clarity of thought
4	5 minutes	Deep Relaxation Technique	Deep rest to cells, Stress reduction Rejuvenates the tissues, Unfolds the latent impressions buried within the subconscious mind.
5	10 minutes	<i>Pranayama:</i> <i>Vibhageya pranayama, Nadicuddhi</i> <i>Pranyama, Çitale, Setkari, Sadanta</i> <i>Pranayama, Bhramari Pranayama</i> <i>Nadanusandhana</i> OR	Brings mastery over <i>Prana</i>
6		Meditation – <i>Om</i> Meditation	Provides deep rest to the system, calms down the mind. Reduces metabolic rate, blissful awareness, freshness, lightness

			expansion at mental level, improves concentration, memory, and creativity.
7	10 minutes	Lectures	Cultures the emotions. Removes ignorance and wrong notions. Stable personality.
8		<i>Kapalabhati</i>	Cleanses the body removes the toxins. It desensitizes the possible hyper sensitivity.

Assessments: The Perceived Stress Scale was developed to measure the degree to which situations in one's life are appraised as stressful. Psychological stress has been defined as the extent to which persons perceive (appraise) that their demands exceed their ability to cope.

The Perceived Stress scale was developed by Sheldon Cohen and his colleagues.^[16] The PSS was published in 1983,^[16] and has become one of the most widely used psychological instruments for measuring nonspecific perceived stress.

Assessing the PSS score: The PSS score was determined by the following method: First, by reversing the scores for questions 4, 5, 7 and 8. On these 4 questions, the scores could change from: 0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0. Then, the scores were added up for each item to get the total. The total score was represented as the stress score: The individual scores on the PSS could range from 0 to 40, which were grouped into 3 groups. • Low

stress: Scores ranging from 0-13. • Moderate stress: Scores ranging from 14-19. • High perceived stress: Scores ranging from 20-40.

The Verbal Aggressiveness Scale (VAS) is an interpersonal model and measure. The VAS developed by Infante and Wigley contains 20 items scored on a 5-point linear rating format with reverse scoring on ten out of 20 items (questions: 1, 3, 5, 8, 10, 12, 14, 15, 17, 20).^[17] The scores can range from 20 to 100.

The VAS gives a single overall score that describes the disposition of an individual towards low, moderate, or high level verbal aggressiveness. Scores from 20-46 suggest low verbal aggressiveness, 47-73 suggest moderate verbal aggressiveness and 74-100 suggest high verbal aggressiveness.

Validity: This scale is stable across time. The reported test-retest reliability is 0.82 for a four week period. Further, cross-culture reliability has been supported in a number of studies [8].

The Satisfaction in Life Scale is a short 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life and it is developed by Ed Diener, Emmons, Larsen and Griffin, 1985.^[17]

The Satisfaction in Life Scale (SWLS) has been used heavily as a measure of the life satisfaction component of subjective well-being. Scores on the SWLS have been shown to correlate with measures of mental health, and be predictive of future behaviors such as suicide attempts. In the area of health psychology, the SWLS has been used to measure the subjective quality of life of people experiencing serious health concerns.

A 5-item scale designed to measure global cognitive judgments of one's life satisfaction. Participants indicate how much they agree or disagree with each of the 5 items using a 7-point scale that ranges from 7 strongly agree to 1 strongly disagree.

Satisfaction in life scale scores 5 to 9 are considered extremely dissatisfied, scores 10 to 14 are considered as moderately dissatisfied, score 20 are considered as neutral, scores 21 to 25 are considered as slightly satisfied, scores 26 to 30 are considered as satisfied and scores 31 to 35 are considered as extremely satisfied.^[18] The coefficient alpha for the

scale has ranged from .79 to .89, indicating that the scale has high internal consistency.

The scale was also found to have good test-retest correlations (.84, .80 over a month interval).^[19]

Evaluation: The tests were administered by examiners before and after eight weeks of IYM in a disturbance free quiet room.

Masking: The invigilators coded and saved the answered questionnaires response sheets (QRS) for scoring latter. A psychologist not involved in group formation or class supervision evaluated the coded QRSs. Another person blind to group membership decoded the QRSs only after noting the scores both before and after data was completed.

Data extraction: The data was extracted as per the instructions in the PSS, VAS and SWL manual.

Statistical analysis: Data was analyzed using R-Studio statistical software. Based on a previous study,^[20] the effect size was calculated using G power.^[21] Data at baseline was assessed for normal distribution using Shapiro-Wilk's test for both the groups. The data was normally distributed for PSS ($p \leq 0.05$), VAS ($p \leq 0.05$) and SWL ($p \leq 0.05$).

Independent sample t –tests were performed to assess significance of differences between the groups and paired samples t-tests for within group changes.

Data analysis: Data was analyzed using R-Statistical software. Data at baseline was

assessed for normal distribution using Shapiro-Wilk's test in both the groups. The independent sample t –test was performed to assess the significant difference between the groups and paired samples t-test for within the group.

RESULTS:

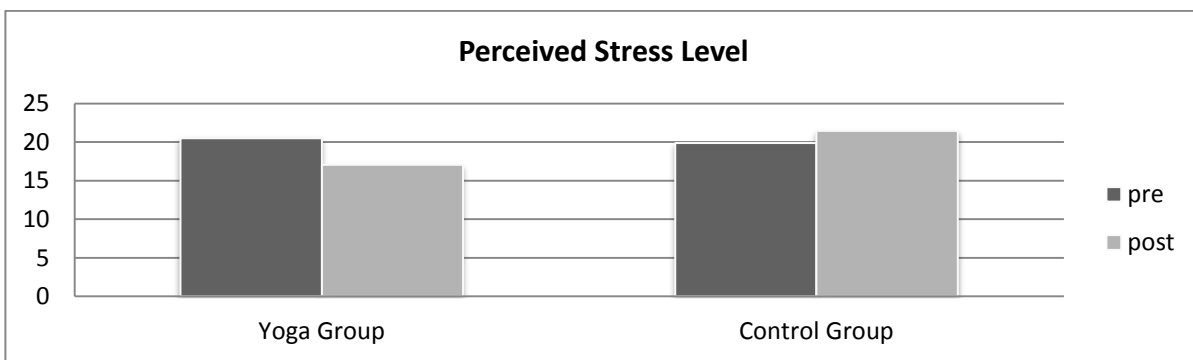
Demographic Data: The 75 participants in YG and 73 participants in CG had age ranges between 20 and 50 years. Between 20 to 30 years 36 in YG and 41 in CG, between 30 to 40

years 28 in YG and 20 in CG, above 40 years 11 in YG and 12 in CG. In gender, 36 in YG were female, and 31 in CG, 39 in YG, were male and 42 in CG. In marital status 49 were married in both YG and CG; 26 in YG were unmarried, and 24 in CG. Participants' educational qualifications were upto SSLC, SSLC to PUC and graduates. 49 in YG and 37 in CG are SSLC, 20 in YG and 24 in CG are PUC and 6 in YG and 12 in CG are Degree.

Table 2 Perceived Stress level

	Yoga Group			Controlled Group			Between Group	
	Pre	Post	p value	Pre	Post	p value	t	P value
PSS	20.52±4.57	17.04±5.04	0.001	19.87±4.73	21.45±5.37	0.044	5.14	0.001

Graph no. 1 Perceived Stress Level



In general the stress level in *Yoga* group has significantly ($p \leq 0.05$) decreased from 20.52±4.57 to 19.87±4.73 whereas it has increased significantly ($p \leq 0.05$) from 19.87±4.73 to 21.45±5.37 in control group. Between the group is also significant ($p \leq 0.05$).

(Appended in Table No. 2A,). Perceived Stress Level Scores around 13 are considered average, scores 14 to 19 are considered as moderate stress and Scores of 20 or higher are considered high stress.

Table no. 3 Perceived Stress Level

Scores	Yoga Group	Control Group
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		Before	After	Before	After
<13	Average	5	23	10	2
14to19	Moderately	24	28	24	27
>20	High	46	24	39	44

There were 5 people who were in average stress and increased to 23 in *Yoga* group where as it has decreased from 10 to 2 in control group. 24 people who were in the category of moderate stress have increased to 28 people in *Yoga* where as in control group it

has increased from 24 to 27 people (same trend). 46 people who were in the category of high stress have decreased to 24 in *Yoga* group whereas it has increased in control group from 39 to 44 persons.

Graph no. 2- Change in PSS

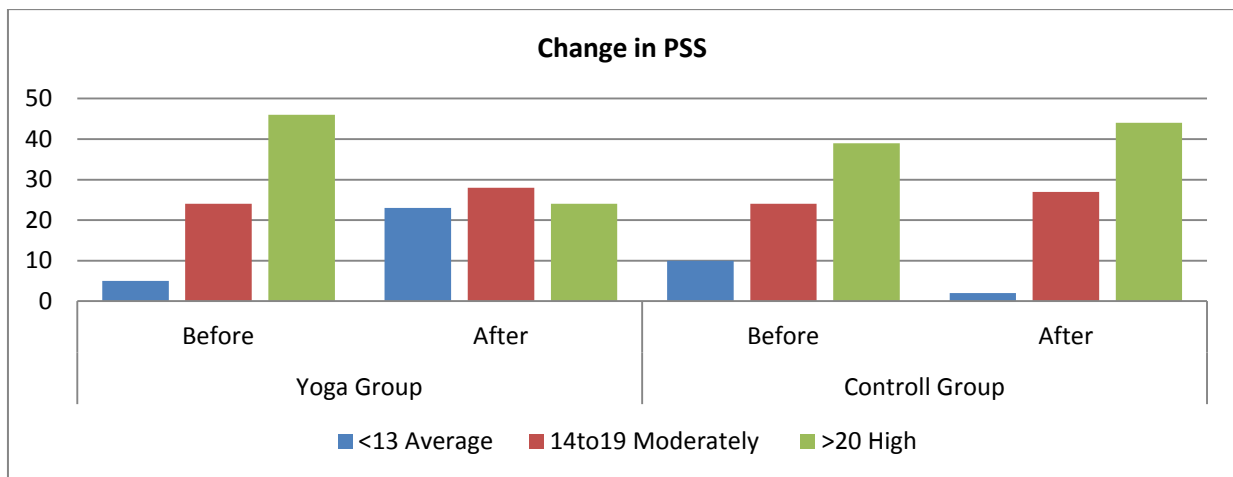


Table no. 4- Change in Perceived Stress Level:

Scores		Yoga Group			Control Group		
		Before yoga	Shifting of people to different stress group .	After yoga	Before	Shifting of people to different stress group .	After
<13	Average	5	3 to <13 2 to 14-19	23	10	1 to <13 5 to 14-19 4 to >20	2
14to19	Moderately	24	7 to <13 12 to 14-19 5 to >20	28	24	9 to 14-19 15 to >20	27
>20	High	46	13 to <13 14 to 14-19	24	39	1 to <13 13 to 14-19	44

			19 to >20			25 to >20	
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Average Stress: PSS≤13 is considered as average stress. There were 5 people who were in average stress, 3 people remain in average and 2 move to moderate stress level in *Yoga* group where as 10 people who were in average stress, 1 remain in average and 5 move to moderate stress level and 4 people move to high stress level in control group.

Moderate stress: PSS score 14 to 19 are considered as moderate stress level. There were 24 people who were in moderate stress, 7 people move to average and 12 move to moderate stress level and 5 move to high

stress level in *Yoga* group where as 24 people who were in moderate stress, 9 move to moderate stress level and 15 people move to high stress level in control group.

High stress: PSS≥20 is considered as high stress level. There were 46 people who were in high stress, 13 people move to average, 14 move to moderate stress level and 19 remain in high stress level in *Yoga* group where as out of 39 people who were in high stress, 1 person move to average stress level, 13 people to moderate stress and 25 people move to high stress level in control group.

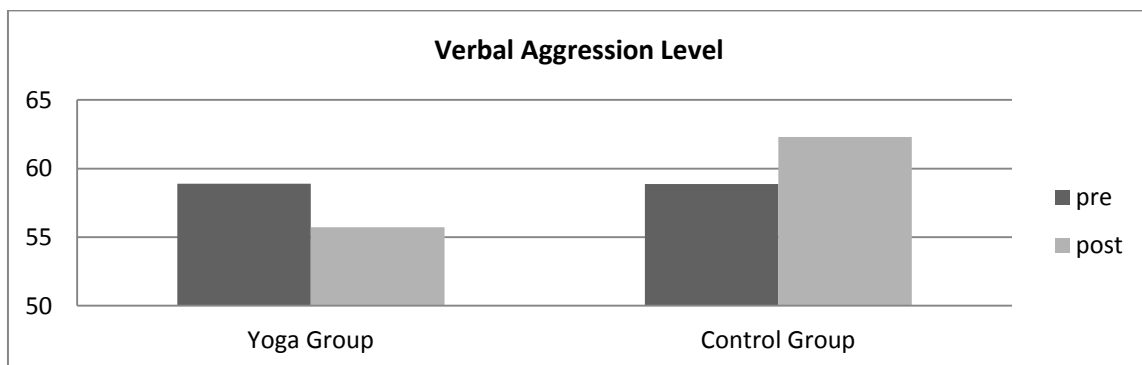
Table no. 5- Verbal Aggression

	Yoga Group			Controlled Group			Between Group	
	Pre	Post	p value	Pre	Post	p value	t	P value
VAS	58.89±8.05	55.73±7.87	0.01	58.87±6.83	62.31±6.93	0.004	5.39	0.001

In general the Verbal Aggression in *Yoga* group has significantly($p \leq 0.05$) decreased from 58.89±8.05 to 55.73±7.87 whereas it has increased significantly($p \leq 0.05$) from

58.87±6.83 to 62.31±6.93 in control group. Between the group is also significant($p \leq 0.05$). (Appended in Table No. 2B,).

Graph no. 3- Verbal Aggression Level



2. Gender:- Males and Females:-Both males (58.17±8.70 to 56.35±8.77) and females (59.66±7.33 to 55.05±6.83) have shown decrease

in verbal aggression in *yoga* group whereas it has increased in Males (59.16±6.639 to 64.50±7.02) and considerably increase in Females (58.22±7.14

to 60.03±9.01) in control group. (appended in Table No. 2B)

3. Marital status: Both married (60.06±8.19 to 55.60±7.63) and unmarried people (56.56±7.38 to 56.0±8.49) shown decrease in verbal aggression in *Yoga* group whereas it had increased in married (58.26±7.27 to 61.73±7.15) and unmarried people (60.12±5.77 to 63.50±6.44) in control group .(appended in Table No. 2B).

4. Education: - Further the groups were divided according to their educational qualification high school or below, Pre-University and Degree. The two groups SSLC or below (58.89±7.51 to 56.44±7.77) ,PUC (58.25±9.22 to 55.70±7.79) and degree (61.0±9.40 to 50.00±7.97 have shown

decrease in verbal aggression in *yoga* group. In controlled group Degree category shown increase in verbal aggression but other two categories slight decrease in verbal aggression level. (appended in Table No. 2B)

5. Age: - The data was analyzed based on the ages. The age groups between 20 to 29 years (59.50±7.26 to 56.02±9.00), 30 to 39 years (58.53±9.17 to 55.92±6.35) and above 40 years (57.81±8.06 to 54.27±7.97) have shown decrease in verbal aggression level whereas the HGs 30 to 39 have shown increase in verbal aggression (58.40±6.2 to 62.25±8.01) but slight decrease in other categories in the control group. (appended in Table No. 2B)

Table no. 6- Change in Verbal Aggression Level:

Scores		Yoga Group		Control Group	
		Before	After	Before	After
20-46	Low Verbal Aggression	5	14	3	1
47-73	Moderately Verbal Aggression	68	61	69	66
74-100	High Verbal Aggression	2	0	1	6

There were 5 people who were Low Verbal Aggression and increased to 14 in *Yoga* group where as it has decreased from 3 to 1 in control group. 68 people who were in the category of moderate verbal aggression have decreased to 61

people in *Yoga* where as in control group also it has increased from 69 to 66 people. 2 people who were in the category of high verbal aggression have become nil in *Yoga* group whereas it has increased in control group from 1 to 6 persons.

Graph no.4 –Change in Verbal Aggression Level

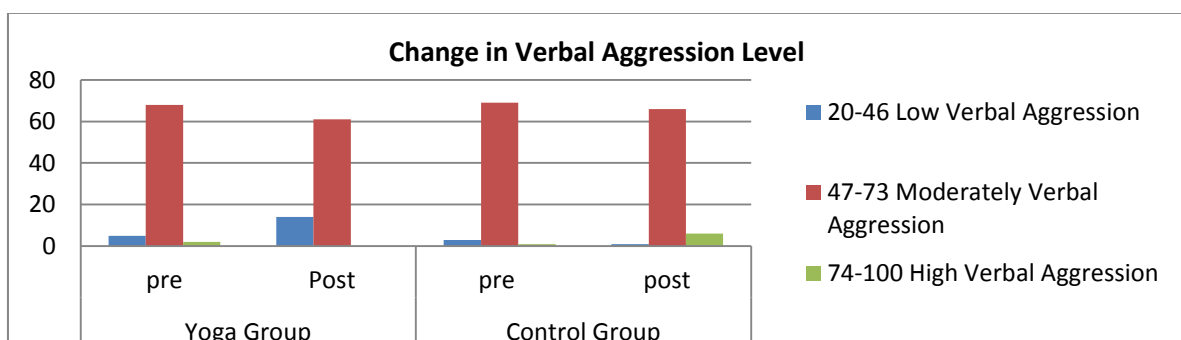


Table no.7- Satisfaction with Life Scale

	Yoga Group			Controlled Group			Between Group	
	Pre	Post	p value	Pre	Post	p value	t	P value
SWL	25.34±4.79	27.57±3.49	0.0001	25.01±5.03	19.80±6.88	0.0001	-8.61	0.0001

Graph no. 5- Satisfaction with life

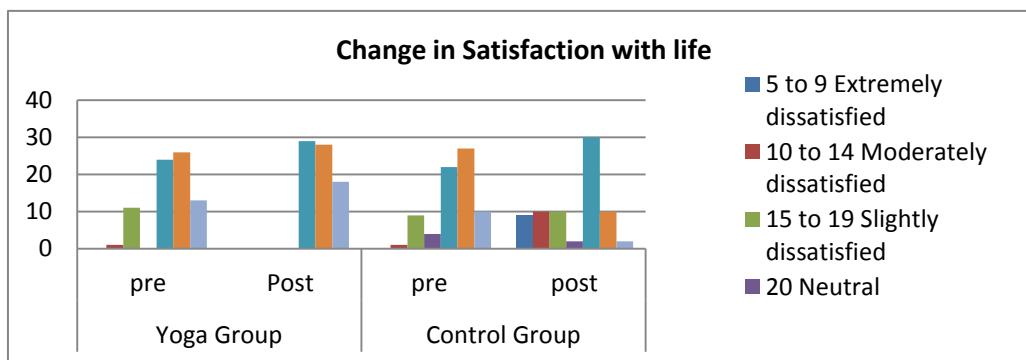


In general the Satisfaction in life in *Yoga* group has significantly($p \leq 0.05$) increased from 25.34±4.79 to 27.57±3.49 whereas it has decreased significantly($p \leq 0.05$) from 25.01±5.03 to 19.80±6.88 in control group. Between the group is also significant($p \leq 0.05$). (Appended in Table No. 2C,).

Table- Satisfaction with life scale scores 5 to 9 are considered extremely dissatisfied, scores 10 to 14 are considered as moderately dissatisfied, score 20 are considered as neutral, scores 21 to 25 are considered as slightly satisfied, scores 26 to 30 are considered as satisfied and scores 31 to 35 are considered as extremely satisfied.

Improvement in Satisfaction with Life Scale

Graph no.6- Change in Satisfaction with life



Improvement in Satisfaction with Life Scale shows Moderately and Slightly dissatisfied level in participants have reduced to completely nil in *Yoga* group where as it has increased in Control group. Slightly satisfied,

satisfied and extremely satisfied has increased in yoga group where as in control group except slightly satisfied both satisfied and extremely satisfied has decreased substantially.

Table no. 8- Change in Satisfaction with life level:

Scores		Yoga Group			Control Group		
		Before	Shifting of people to different satisfaction scale	After	Before	Shifting of people to different satisfaction scale	After
5-9	Extremely dissatisfied	-		-	-		9
10-14	Moderately dissatisfied	1	1 to 26-30	0	1	1 to 21-25	10
15-19	Slightly dissatisfied	11	5 to 21-25 3 to 26-30 3 to 31-35	0	9	1 to 5-9 6 to 21-25 2 to 31-35	10
20	Neutral	-			4	1 to 5-9 1 to 10-14 2 to 21-25	2
21-25	Slightly Satisfied	24	8 to 21-25 11 to 26-30 5 to 31-35	29	22	3 to 5-9 2 to 10-14 3 to 15-19 1 to 20 8 to 21-25 5 to 26-30	30
26-30	Satisfied	26	10 to 21-25 9 to 26-30 7 to 31-35	28	27	3 to 5-9 3 to 10-14 7 to 15-19 1 to 20 9 to 21-25 4 to 26-30	10
31-35	Extremely satisfied	13	6 to 21-25 4 to 26-30 3 to 31-35	18	10	1 to 5-9 4 to 10-14 4 to 21-25 1 to 26-30	2

There were 12 people who were in different dissatisfied and Neutral level, 5 people move to slightly satisfied level, 4 people move to satisfied and other 3 moved to extremely

satisfied level in *Yoga* group where as 12 people who were in different dissatisfied and neutral levels, 3 remain in dissatisfied level

and other 9 move to satisfied level in control group.

Similarly 63 people who were in different satisfied level, 24 people move to dissatisfied level and other 57 people move to satisfied and highly satisfied level in *Yoga* group where as out of 62 people who were in different satisfied levels, 28 people move to different dissatisfied level and only 34 people remain in satisfied level in control group

DISCUSSION:

This is a randomized control prospective study in HGs comparing the efficacy of *Yoga* on Perceived stress level, Verbal Aggression and Satisfaction in life. This study has demonstrated that an eight weeks intervention of an integrated *Yoga* module (IYM) has reduced stress level Verbal aggression level and increased the satisfaction in life in the *Yoga* group compared to control group.

In this study, average 70% of the Home Guards in the sample were found to be suffering from psychological stress, which is consistent with the stress reported by Rao *et al.* in 28.8% of CISF personnel.^[22] Other studies such as that done by Geetha *et al.* a Bengaluru police personnel found high stress levels in 60% of population,^[23] Deb *et al.* also found high stress in 79.4% of traffic constables in Kolkata. The higher levels of stress reported by these

studies as compared to the present study could be because of socio-demographic and methodological differences in the studies. Several international studies in police personnel have also reported stress levels ranging 40–50% of the sample, but contrary to the present study, these studies have found higher psychological stress in female police persons.^[24, 25, 26] The reason for this could be that the number of females in the current study sample was very less compared to males, with an M: F ratio of 9:1. As the ratio of females in Indian police is quite less as compared to males, a bigger sample size is required to get a true representation of their stress levels and other study parameters.

According to the most widely used scriptural reference on *Yoga*, the sage Patanjali^[27] defines *Yoga* as a technique for developing mastery over the modifications of the mind and goes on to highlight many techniques that help in achieving this mastery. They are classified under eight major streams including injunctions for social and personal behavior (*Yama, Niyama*), body postures (*Asanas*), breathing (*Pranayama*), and meditation (*Pratyahara, Dharana, Dhyana, and Samadhi*) techniques that lead to mastery over any of the modifications in the mind. Furthermore, the sage *Vasishta*^[28] in his famous work, *Yoga Vasishta*, defines *Yoga* as a technique to slow

down or calm the mind directly through deep internal awareness. Hence, it was hypothesized that stress level, one of the manifestations of an uncontrolled fast mind has decreased by the techniques of *Yoga*.

A study on the relationship between verbal aggressiveness and state of anxiety in sports by Alexandra *et al*^[29] showed that male basketball players were more affected by verbal aggressiveness of their coaches compared to female basketball players as assessed by VAS administered immediately after the game. In their study, they also observed a positive correlation between their anxiety and VAS scores in male players. It is known that *Yoga* with its holistic approach uses several techniques to calm down the mind and reduce the anxiety state. Our earlier studies have shown that in community home girls and congenitally blind children, sympathetic tone reduced after *Yoga* practices which resulted in significant decrease in resting heart rates and breath rates, thus reducing fear and anxiety.^[30] The sympathetic tone reduction could be a valuable treatment modality for reduction of anxiety. Another study on PT teachers also showed that *Yoga* reduced their sympathetic activity after three months of *Yoga* practices.^[31] A significant reduction in anxiety scores was observed in patients with anxiety neurosis^[32] after a *Yoga*

program. Based on these observations, we may suggest that the reduction in aggressiveness in the present study could be due to the reduction in their baseline anxiety and sympathetic reactivity.

In summary, this randomized, prospective, single-blind, comparative study has shown the efficacy of *Yoga* in decreasing verbal aggressiveness and stress and improving satisfaction with life level. Hence, *Yoga* may be recommended to Security forces to deal with the problem of violence among themselves and with others, which is still a live issue in all parts of the world

The strength of our design is the integrated *Yoga* module for HGs. It is first test of its kind in Home Guards where they have been exposed to IYM practice which has shown beneficial effect to home guards

CONCLUSION:

In summary, this randomized, prospective, single-blind, comparative study has shown the efficacy of *Yoga* in decreasing the stress level, verbal aggression level and increasing the satisfaction in life. Hence, *Yoga* may be recommended to Security forces to deal with the problem of violence among themselves and with others, which is still a live issue in all parts of the world. Further *Yoga* is very cost effective and recommended to home guards. Hence, this study is a solution to HGs to reduce the stress, verbal aggression and

improve their life satisfaction. By this service to public will improve and in turn the image of the Department will also go up.

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Table 2A - Pre and Post data of Perceived Stress Level status in all the categories:

Sl. No.		Yoga Group				Control Group				
		Pre	Post	t	p	Pre	Post	t	P	
1	Pss		20.52±4.57	17.04±5.04	-5.06	0.001	19.87±4.73	21.45±5.37	2.04	0.044
		Marital Status								
		Married	21.30±4.01	17.57±5.15	-4.08	0.001	19.63±5.13	19.95±4.38	0.37	0.710
	Unmarried	19.03±5.24	16.01±4.76	-3.01	0.005	20.37±3.95	24.50±5.98	2.92	0.007	

Gender								
Male	19.20±4.67	15.41±4.68	-4.55	0.001	19.80±4.89	22.28±5.89	2.35	0.023
Female	21.94±4.05	18.80±4.81	-2.80	0.008	19.96±4.66	20.32±4.51	0.32	0.750
Educational Qualification								
< SSLC	21.42±3.96	17.40±4.79	-4.48	0.001	19.18±4.99	20.51±5.43	1.23	0.224
PUC	19.15±5.39	17.50±5.28	-1.36	0.187	20.58±5.14	21.29±4.94	0.47	0.638
Degree	17.66±4.71	12.50±4.76	-3.27	0.022	20.58±2.87	24.66±5.17	2.79	0.017
Age								
Age 20-29	20.13±4.73	16.63±5.24	-3.57	0.001	20.82±4.20	22.63±5.74	1.72	0.091
Age 30- 39	20.82±4.83	17.78±4.82	-2.76	0.010	18.35±5.47	19.80±4.54	0.97	0.342
Age >40	21.01±3.49	16.45±5.12	-2.17	0.054	19.16±4.93	20.16±4.60	0.52	0.613

Table 2B - Pre and Post data of Verbal Aggression Level in all the categories:

Sl. No.		Yoga Group		t	p	Control Group		Between Group		
		Pre	Post			Pre	Post	t	P	
1	vas	58.89±8.05	55.73±7.87	-2.5	0.011	58.87±6.83	62.31±6.93	2.97	0.004	
		Marital status								
		Married	60.06±8.19	55.60±7.63	-2.96	0.004	58.26±7.27	61.73±7.15	2.31	0.02
		Unmarried	56.56±7.38	56.0±8.49	-0.277	0.783	60.12±5.77	63.50±6.44	1.88	0.07
		Gender								
		Male	58.17±8.70	56.35±8.77	-0.95	0.347	59.16±6.69	64.50±7.02	3.15	0.003
		Female	59.66±7.33	55.05±6.83	-3.16	0.003	58.43±7.09	59.35±5.67	0.63	0.53
		Educational Qualification								
		< SSLC	58.89±7.51	46.99±7.24	-1.93	0.058	58.51±5.55	62.72±6.80	3.20	0.002
		PUC	58.25±9.22	55.70±7.79	-0.87	0.391	60.45±7.82	60.45±6.34	0	1
		Degree	61.0±9.40	50.00±7.97	-2.05	0.095	56.83±8.04	64.75±8.02	2.07	0.06
		Age (Years)								
		Age 20-29	59.50±7.26	56.02±9.00	-1.91	0.063	59.63±6.29	63.36±6.94	2.47	0.01
		Age 30- 39	58.53±9.17	55.92±6.35	-1.32	0.195	57.55±6.56	61.25±6.14	1.96	0.06
Age >40	57.81±8.06	54.27±7.97	-1.07	0.306	58.50±9.02	60.50±8.01	0.53	0.61		

Table 2C - Pre and Post data of Satisfaction in Life status in all the categories

Sl.No.	Yoga Group				Control Group					
	Pre	Post	t	p	Pre	Post	t	p		
1	swl	25.34±4.79	27.57±3.47	3.20	0.001	25.01±5.03	19.80±6.88	-4.67	0.001	
		Marital Status								
		Married	25.32±5.09	28.14±3.66	3.06	0.003	24.19±5.15	21.79±6.00	-2.41	0.019
		Unmarried	25.38±4.26	26.50±2.94	1.12	0.270	25.20±4.88	15.75±6.89	-5.02	0.001
		Gender								
		Male	25.61±4.68	26.87±3.32	1.51	0.137	25.47±4.54	18.78±7.70	-4.27	0.001
		Female	25.05±4.95	28.33±3.56	2.92	0.005	24.38±5.64	21.19±5.40	-2.20	0.034
		Educational Qualification								
		< SSLC	25.01±4.98	27.48±3.19	2.69	0.009	24.04±5.56	21.94±5.95	-1.32	0.194
		PUC	25.50±4.17	27.00±3.89	1.21	0.231	25.41±4.50	18.54±7.05	-4.20	0.003
		Degree	27.66±5.20	30.16±4.35	1.61	0.166	27.16±3.71	15.75±7.37	-4.71	0.006
		Age								
		Age 20-29	25.33±4.48	26.66±3.15	1.31	0.198	25.17±4.79	18.46±7.09	-4.53	0.001
		Age 30- 39	25.39±5.05	28.67±3.60	2.62	0.010	25.10±6.23	22.10±5.46	-1.38	0.181
		Age >40	25.27±5.57	27.90±4.01	1.82	0.091	24.33±3.82	20.58±7.65	-1.39	0.191