Effect of yoga practices in reducing counterproductive work behavior and its predictors

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INTRODUCTION

Counterproductive work behavior (CWB) in a generic sense is any intentional behavior committed by any member of the organization that harms organization or its members. Personality traits of individuals also influence CWB because these individuals make conscious choices to decide whether to involve in these behaviors. Anger is the connection between both physical and verbal aggression and hostility. Interpersonal aggression has been linked with psychological outcome such as depression, anxiety, frustration, and stress. If these behaviors are not controlled, they can lead to social, physical, mental, and occupational damages. Aggression is also related to somatic issues and poor psychological empowerment of the employees as well.

ABSTRACT

Context: Aggression and negative affectivity (NA) are known for moderating relationship between job stressors and counterproductive work behavior. Yoga has been demonstrated earlier to reduce the parameters of aggression and negative emotions.

Aim: The present study examined the effectiveness of yoga practices in reducing counterproductive work behavior and its predictors such as aggression and NA.

Settings and Design: A pretest–posttest randomized controlled design.

Materials and Methods: The study sample included yoga group (n = 80) and control group (n = 80). Yoga module that included asanas, pranayama, meditation, and yogic theory were taught to the yoga group. Mild to moderate physical exercises and management theories were taught to the control group. Both groups received intervention for 10 weeks, covering 1 h daily, 5 days a week. Measurements of self-reported counterproductive work behaviors, aggression, and NA were taken as baseline and postintervention for assessment.

Results: Yoga group reported significant reductions in aggression, NA, and counterproductive work behavior in comparison with the control group after 10 weeks.

Conclusions: This study contributes by introducing a cost-effective way to prevent the heavy losses organizations are incurring due to counterproductive work behavior and its predictors. The findings support that yoga at workplace may result in positive psychological empowerment of the employees as well.

Key words: Aggression, counterproductive work behavior, negative affectivity, yoga
Yoga is known for its effect on body and psyche. Yoga sessions are known for their positive effects on the quality of life and psychosomatic disorders. Yoga sessions have proven to be beneficial in enhancing positive affectivity and decreasing NA. Yoga improved psychological well-being and mood among prisoners and resulted in positive effect on their impulsive behaviors. In comparison to the normal people, prisoners usually have higher rates of mental health problems and aggression, personal grief, drug and alcohol abuse, and antisocial behavior. These are common characteristics of psychological issues.

In short, yoga gives both physiological and psychological benefits including lowered mental distress, perceived stress and enhanced well-being; enhanced function on measures of attention; enhanced cognitive functions; enhanced quality of life; increased positive moods and decreased negative moods. In the present research, role of yoga in reducing aggression, NA, and CWB has been studied. This may play a key role that organizations can implement as a preventive measure to reduce CWB.

MATERIALS AND METHODS

Participants
Subjects were recruited from a private enterprise. Subjects were allowed to participate after they signed written informed consent form, providing adequate information about the nature of the study. In total, 160 employees (total males = 88, total females = 72) were randomly selected and allocated into two groups (yoga and control) having 80 participants per group using a random number generator for allocation of each group by an independent researcher who was not involved in the study assessments.

The inclusion criteria were (1) working professionals (male/female) involved intentionally in CWB, (2) <60 years of age and (3) mentally and physically normal.

Measures
Counterproductive work behavior
The CWB checklist (CWB-C) was used that contains 45 item CWB-C, covering CWBs of an individual. For this study, the internal consistency with the present sample was 0.868.

Aggression
Buss and Perry's Aggression questionnaire was used to measure trait aggressiveness. Sub-scales are physical and verbal aggression, anger, and hostility. Alpha for the aggression scale in this study was 0.866.

Negative affectivity
The 10-item Positive and Negative Affect Schedule (PANAS) from Watson et al. was used to measure NA. Positive and negative affect schedule was used to measure NA. High scores indicate high levels of NA. The internal consistency for the NA scale in this study was 0.951.

Procedure
Only individuals currently working and employed were permitted to take part in this intervention. The respondents were administered the questionnaires with the help of an investigator. Participants who fulfilled the inclusion and exclusion criteria and who willingly consented to participate in the study were allocated randomly into yoga group and control group. After the baseline assessments, subjects who were randomized to yoga group received the yogic theory lecture followed by yoga-based intervention [Appendix 1]. The control group participants received management lectures followed by mild to moderate physical exercises and normal breathing practices. Subjects received intervention by a trained instructor. Venue of practice was arranged within the organization’s campus so that maximum attendance can be ensured. Demonstration was given by the instructor to make sure that subjects understand the subtleties of the practices. Both groups practiced their sessions for 1 h daily, 5 days a week for 10 weeks. The confidentiality of the information found from the respondents was assured, and informed consents of the participants were obtained.

Statistical analysis
Data analysis was performed using the SPSS (Statistical Package for the Social Sciences) by IBM, version 21. Change score comparisons of aggression, NA, and CWB over the assessment sessions in the two groups were tested using repeated measure analysis of variance (RMANOVA). Statistical significance was fixed at $P < 0.05$.

RESULTS
Table 1 shows the sociodemographic profiles of yoga and control group. Yoga group subjects were more educated compared to the control group ($P = 0.045$).

Pre- to post-test comparisons in the current study revealed that there was no significant difference in the variable scores between the yoga and control groups at baseline. This showed that the sample in both the groups were comparable at the same variable score level at the start of the study. RMANOVA was conducted to assess variable
scores across the groups over the period of time. The results of the RMANOVA showed that there was a statistically significant ($P < 0.001$) reduction in aggression, NA, and CWB among the participants in the yoga group as compared with the control group following post evaluation [Table 2].

**DISCUSSION**

The present study evaluated the effect of yoga in reducing CWBs and its predictors among working professionals. The results showed that 10-week intervention of yoga resulted into significant reductions in aggression, NA, and counterproductive work behavior among a randomized group of working professionals.

In comparison to the control group, subjects in the yoga group showed a significant improvement from the baseline performance in aggression and results of the present study are consistent with earlier researches on yoga to reduce aggression.[10]

Narasimhan et al.[9] reported that integrated yoga practices can decrease the NA and increase the positive affectivity within 1 week of yoga intervention. The present study supported similar effect of yoga in the reduction of NA by yoga practice.

**Table 1: Sociodemographic data of the study subjects**

| Variables          | Yoga group ($n=80$) | Control group ($n=80$) | $P$  |
|--------------------|---------------------|------------------------|------|
| Mean age (SD) (years) | 28.29 (5.21)        | 27.20 (4.14)           | 0.309|
| Mean tenure (SD) (years) | 4.84 (4.23)        | 4.03 (3.69)           | 0.421|
| Education (SD) (years) | 16.18 (0.78)       | 15.94 (0.49)          | 0.045*|
| Job profile        |                     |                        |      |
| Managers           | 9                   | 5                      | 0.253|
| Team leads         | 16                  | 11                     |      |
| Team members       | 55                  | 64                     |      |
| Food habits        |                     |                        |      |
| Mixed              | 53                  | 43                     | 0.107|
| Vegetarian         | 27                  | 37                     |      |
| Male               | 46                  | 42                     | 0.525|
| Female             | 34                  | 38                     |      |

* $P<0.05$ Statistical significance. SD – Standard deviation

**Table 2: Comparisons of pre and posttest scores of aggression, negative affectivity, and counterproductive work behavior between the yoga and control group**

| Variables     | Time     | Mean (SD) | Significance |
|---------------|----------|-----------|--------------|
|                | Yoga     | Control   | $F$ df $P$   |
|                | ($n=80$) | ($n=80$)  |              |
| Aggression     | Baseline | 69.83 (14.36) | 68.45 (13.57) | 0.387 1.158 0.535 |
|                | 10 weeks | 60.16 (13.63) | 64.50 (13.76) | 82.177 1.158 <0.001* |
| NA            | Baseline | 28.29 (5.68) | 28.71 (6.14) | 0.207 1.158 0.650 |
|               | 10 weeks | 22.10 (4.28) | 26.55 (5.63) | 161.731 1.158 <0.001* |
| CWB           | Baseline | 73.91 (10.16) | 72.61 (8.81) | 0.747 1.158 0.389 |
|               | 10 weeks | 62.76 (10.12) | 67.20 (9.59) | 85.071 1.158 <0.001* |

* $P<0.001$ Statistical significance. NA – Negative affectivity; CWB – Counterproductive work behavior; SD – Standard deviation

Moreover, the present study also highlighted the effect of yoga in reducing CWB in working professionals which other empirical studies have never been reported before.

**Limitations and directions for future research**

The current study contained several notable limitations that may have affected the results. This study was limited in that data with self-reported dependent measures were used. Practice sessions were conducted in the office premises which may have caused psychological impact on the dedication of employees and also may have impacted in self-reported attention problem. Few people take longer time to respond to true benefits of yoga and these differences would likely have been reduced if the duration of entire intervention would have been longer. Despite these limitations, the present study findings suggest that yoga may offer a safe and beneficial intervention for employees toward psychological and physical health.

More research is needed to establish the true directionality of the relationships between the variables explored in this study. Future studies could implement longitudinal type of research to get detailed and refined conclusions on the benefits of yoga. It should be noted that most of the studies related to CWB have been undertaken by Western scholars. Only few studies on CWB were conducted by Asian researchers. Therefore, further investigations, especially in the Asian context are required for more empirical evidence on the effect of yoga on CWB.

**CONCLUSION**

Organizations can utilize the potential of yoga to create a foundation for larger cost-effective preventive measures in combating and controlling CWB and its predictors at the workplace assertively. Strength of yoga is that it can be used as a self-management technique where an individual can practice it anywhere. In summary, the present study has shown the effectiveness of yoga in reducing CWB and its predictors. Constant monitoring and mentoring in this direction shall lead to stronger synergy among working professionals which will lead to much higher productivity.

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**Conflicts of interest**

There are no conflicts of interest.

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| Yoga module | Control module |
|-------------|----------------|
| Asana: 35 min | Physical activity: 35 min |
| Surya namaskar (sun salutations) | Spot jogging |
| Trikonasana (triangle pose) | Stretching and loosening exercises |
| Virabhadrasana (warrior pose) | Strengthening exercise |
| Parsvakonasana (sides angle pose) | Wrist movement and rotation |
| Vrikshasana (tree pose) | Neck movement and rotation |
| Ardha Matsyendrasana (half-twist pose) | Head movements and rotations |
| Bhujangasana (cobra pose) | Breathing: 15 min |
| Pranayama: 15 min | Normal slow breathing |
| Bhastrika (bellows breathing) | |
| Kapalbhati (skull shining breathing) | |
| Anuloma-viloma (alternate nostril breathing) | Sitting quietly and taking rest: 10 min |
| Bhramari (bee breathing) | |
| Meditation and yoga nidra: 10 min | 10 min |