

## ORIGINAL RESEARCH ARTICLE

# Impact of Mind Sound Resonance Technique on Work-Related Flow Inventory and Sleep Quality among Enthusiast Kathak Dancers from Different Professional Backgrounds

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### ABSTRACT

**Background:** Kathak is one of the most popular Indian classical dance forms. Working professionals out of passion enjoy Kathak dance but due to work engagements and reduced sleep quality, discontinue the practice of Kathak. Mind Sound Resonance Technique (MSRT) has been proven to improve sleep quality. Investigation among practitioners of Kathak is low and the literature survey supports the basis for this study. The present research aims to explore the influence of MSRT on the work-life inventory and sleep quality among Kathak dancers who are working professionals.

**Objectives:** The objective of the study is to assess the potential benefits of enhancing work enjoyment and sleep quality of Kathak dancers from different professional backgrounds through applications of MSRTs.

**Methods:** A single group pre-post study on ( $n = 29$ ) working professionals trained in Kathak were conveniently selected for the study. MSRT was imparted to all the participants for 20 min, 2 times for 12 weeks. The pre and post-assessments were done on work-life inventory, job satisfaction, absorption, work enjoyment, and intrinsic work motivation using the Work-Related Flow Inventory (WOLF) and sleep quality using the Pittsburgh Sleep Quality Index.

**Results:** Cronbach alpha measuring the reliability score of WOLF was  $\alpha = 0.8$ . Within-group analysis, the total score of work-life balance and sleep quality was found to be statistically significant from pre to post ( $P < 0.001$ ).

**Conclusion:** The results indicate improvement in various domains of WOLF and sleep quality. Thus, rejecting the null hypothesis. We conclude that the Yogic relaxation technique employed in this study attunes the body-mind system to be relaxed and practitioners can bring a balance in their work-life and pursue their interests and passion to lead a fulfilled life.

## 1. INTRODUCTION

One of the most well-liked classical dance styles in India is Kathak. The majority of girls who practice Kathak dance in urban areas are employed professionals. They all have demanding work schedules and are employed in a variety of fields. Many working professionals love Kathak dance out of passion, but they are unable to engage in or continue with Kathak for an extended period because of poor

workflow inventory and sleep quality. Kathak dancers struggle with time management and self-motivation to maintain a work-life balance. Professionals can rekindle their passion for dancing by making time in their busy lives to enjoy dance.

Remarkably, a well-known sloka from Natya Sastra that is frequently recited by Indian classical dance instructors, students, and practitioners in general means, “Where the hand goes the eyes follow, where the eyes go the mind follows, where the mind goes there is feeling, where there is feeling there is emotion”.<sup>[1]</sup> The said sloka is stated as follows:

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- *Yatohastostatodrishtiryato, Drishtitatomana*
- *Yatomanatatobhava, Yatobhavatato rasa*
- *Tatradwabhnayaseba, Pradhaanmitikathyake*

The Kathak, a prominent emblem of the classical legacy, emerged as a standard dance performance.<sup>[2]</sup> Kathak dancers are passionate and currently, and there are a lot of girls engaged in Kathak dance. Kathak dancers need a fit body and healthy mind to continue. Dance movement therapy was first developed in the 1940s and focused on using movement as a therapeutic tool to help people integrate their emotional, social, cognitive, and physical lives to enhance their overall health and well-being.<sup>[3]</sup> The American Dance Therapy Association institutionalized dance movement therapy in 1966.<sup>[3]</sup>

Across the globe, there are some quarters which were engaged in mixing yoga and meditation with Indian dance forms to yield more positive results for overall health apart from dance enjoyment.

Combining yoga and meditation with Kathak dance can have incredible health and fitness advantages.<sup>[4]</sup> Historically, the ancient texts of Patanjali Yogasutra and Natyashastra, respectively, are the Vedic origins of both yoga and Indian classical dance traditions and their relationships span from mokshya to mudra.<sup>[4]</sup> All eight stages comprising Yoga, Niyama, Asana, Pranayama, Pratyahara, Dharna, Dhyana, and Samadhi-are covered in the daily practice of Kathak. Nearly, the whole range of asanas is practiced in Kathak and an asana or dance is considered as a form of prayer and the body is a temple.<sup>[4]</sup>

Workflow inventory is important to understand the working professional's engagement in any activity. Work-related flow inventory (WOLF) is an entire tool for measuring flow at work which has three dimensions of flow consisting of five items of intrinsic work motivation, four items of work enjoyment, and four items of absorption.<sup>[5]</sup>

When someone is in a state of flow, they are fully engaged in what they are doing and deeply enjoying it.<sup>[5]</sup> Whereas intrinsic motivation is defined as the incentive for subjects who have to finish a task just because they find it interesting or enjoyable.<sup>[6]</sup> Similarly, subjects who accomplish a task to receive an outside reward can experience extrinsic motivation.<sup>[6]</sup>

Intrinsic motivation enables subjects to give their best work.<sup>[6]</sup> Hence, it is considered in WOLF tools. Deci and Ryan and Vallerand said that drive to work and enjoyment of work was seen as existing somewhere between stable, personality traits, and transitory states as unique to the work domain.<sup>[7]</sup> Studies suggest that managers are most effective and well-being when they are driven by high levels of enjoyment, although the nature of the relationship between driving to work and enjoyment of work is complex.<sup>[7]</sup>

Being motivated to work may improve output but also increase strain when work is not enjoyable.<sup>[7]</sup> The definition of optimal experience is absorption.<sup>[8]</sup> Absorption helps us to understand that our fundamental psychological needs are satisfied when our abilities meet a challenge at the moment because we feel like we have mastered the situation, we lose self-consciousness, and we have a clear focus and a sense of competence and autonomy.<sup>[8]</sup>

This research will explore how Mind Sound Resonance Technique (MSRT) influences the WOLF inventory and sleep quality index of Kathak dancers from different professional backgrounds.

To answer the said research question following hypotheses have been formulated accordingly.

Null Hypothesis - There is no influence of MSRT on WOLF inventory as well as on the Quality of Sleep of Kathak dancers among working professionals.

Alternative Hypothesis - There is an influence of MSRT on WOLF inventory as well as on the Quality of Sleep of Kathak dancers among working professionals.

Testing hypotheses through statistical resources would suffice to determine the impact of MSRT on WOLF and sleep quality index.

## 2. MATERIALS AND METHODS

The research methodology employed in this paper is as follows:

- Type - qualitative and quantitative
- Design - exploratory research design
- Population - Kathak dancers (female) among working professionals in Bangalore
- Sampling technique - purposive
- Sampling size - approx thirty
- Data types - questionnaire and semi-structured interviews
- Statistical tools - excel, SPSS

As per the design, 29 Kathak dancers among working professionals in Bangalore were selected through the initial screening of 35 Kathak dancers. All the Kathak dancers were girls aged above 23 years and practicing Kathak for more than 3 years. All are medically fit and working in different industries with a maximum from IT sectors in Bangalore.

All the 29 Kathak dancers with informed consent agreed to go through the study for 90 days which they would be instructed with MSRT, 20 min twice a week over 3 months (Frequency- 2 × 12 weeks).

The design was made by collecting data on the pre-and post-basis of the test period. Before the start of the study, each participant was given instructions on how to fill out the survey questionnaires on WOLF and Pittsburgh Sleep Quality Index (PSQI) through online meetings.

Detailing of MSRT was also explained to each participant and monitoring was done during the MSRT for each participant. MSRT was imparted twice per week as per the agreed schedule and convenience to participants.

MSRT steps are explained in seven steps.<sup>[9]</sup> The steps of MSRT were followed meticulously and monitored by experienced instructors.

- Each participant hears the Mahamrutyunjaya mantra, or peace chant, once. Next, each participant makes a positive affirmation (Sankalpa), such as "I'm free of anger," "I'm full of forgiveness," or something similar.
- Participants recite the words "A," "U," "M," and "AUM" aloud 4 times (Ahata).
- Rather than chanting aloud, participants chant the syllables in their minds (Anahata).
- The Mahamrutyunjaya mantra, or peace chant, is heard 3 times by the participants.
- After that, participants are asked to meditate in silence for a while recalling the sound "om" 9 times (anahata).
- Participants are advised to remain silent after thinking the word "om" 9 times.
- Participants recall their positive affirmation (Sankalpa) 9 times during this period of silence.

WOLF consists of three major factors: Absorption (WOLF factor 1), work enjoyment (WOLF factor 2), and intrinsic work motivation

(WOLF factor 3). WOLF questionnaires were categorized under the above three factors. The first two factors contain 4 items each, and the third one has 5 items, totaling 13 altogether. Each item was responded to with a score of 1–7 for pre and post-test.

PSQI questionnaires are also shared where participants responded for pre and post-tests.

Both the WOLF and PSQI questionnaires were discussed in detail with participants on how to fill and they were informed for filling the questionnaires again after completion of 12 weeks of MSRT intervention.

### 3. RESULTS

For statistical analysis, Excel and SPSS were used in the study. Cronbach alpha checked for a pilot study on the WOLF inventories and found above 0.8 which signifies the reliability of the scale to a higher extent. All the 29 participants responded in pre- and post-assessment within timelines, and statistical analysis was performed on the same.

The said result is categorized under two categories as follows:

#### 3.1. WOLF

Pre-and post-values of three WOLF factors were collected and analyzed. Graphical presentation of the said three WOLF factors for 29 participants shows a positive trend for each participant as cited in Figures 1 and 2.

A paired t-test was performed for the WOLF inventories for each variable and cited in Table 1. With a 95% confidence level, in each case of the inventories, the *P*-value is highly significant to reject the null hypothesis.

Hence, it is evident that MSRT influences the WOLF inventories.

#### 3.2. PSQI

PSQI results in pre and post-tests show a positive inclination toward improved sleep quality [Figure 4].

The global PSQI score is inspiring as in each subject PSQI score improved and there is an increment of 101.7% in the average global PSQI score in the post-test compared to the pre-test. The standard deviation in the post-test sample ( $SD = 0.99$ ) if compared to pre-test samples ( $SD = 1.88$ ) shows more agreement among participants' responses to the PSQI index.

Analyzing the global PSQI index,  $P = 1.07 \text{ E-}11$  was noted.

Thus, with a 95% confidence level, the above obtained *P*-value is highly significant to reject the null hypothesis. Statistical analysis effectively proved that the null hypothesis can be rejected as in both cases  $P < 0.05$ . *P* value is significant to reject the null hypothesis and we can accept the alternative hypothesis. The alternative hypothesis says that there is an influence of MSRT on WOLF inventory as well as on the Quality of Sleep of Kathak dancers among working professionals which is already proved from the above study.

### 4. DISCUSSION

MSRT has a role in both the WOLF and PSQI. Kathak dancers who are also working professionals through their response in pre-and post-MSRT intervention establish the link between the variables with MSRT. MSRT establishes that it influences the sleep quality index and work-related flow inventories.

The results of this study highlight how well the mind resonance technique works for kathak dancers from various professional backgrounds when it comes to WOLF and sleep quality. The 90-day study done through proper monitoring reveals the significant role of MSRT in the improvement of WOLF and sleep quality scores. The results of the *P*-value put strong evidence in rejecting the null hypothesis and establishing the strong potentiality in influencing the WOLF and sleep quality index.

As a mode of action of the intervention, more emphasis can be drawn on how to engage kathak dancers among working professionals more gracefully, more enthusiastically, and in a more lively way. The pain points of dancers of the category studied leave kathak dance or rather tend to discontinue it for the onset of poor work-life inventories and worsening sleep conditions. The intervention of this study is a must help to improve the work-life balance of professionals and it will help them to ignite and pursue their passion including Kathak dance. This intervention helps influence the work-life equation as every person's life is different and our responsibilities change with time, work-life integration, and balance look different for each of us. The way we spend our time and where we spend it are always up for negotiation. We get to choose our priorities, whether we have to do with our personal or professional life when we strive for a better work-life balance. Thus, this intervention holds to support the kathak dancers under study to correct and strengthen their work-life balance so that they continue to dance as their passion. Not only dance working professionals through this intervention would be influenced to enhance the work-life quality and enjoy a more lively presence.

The intervention helped to understand how the WOLF factors such as absorption, work enjoyment, and intrinsic work motivation are conditioned poorly by a stressed work life. And combined with deprived sleep quality life becomes gloomy and strained. Factors due to compromised work-life balance, kathak dancers under study who are working professionals cannot manage and charge themselves properly, and hence, it puts them under stress and demotivation. This study opens up more opportunities to engage Kathak dancers with diverse professional backgrounds and MSRT can be proven beneficial for many such experiments in future. This research can be utilized to enhance workflow inventory and sleep quality index in various cases where professionals are struggling to manage busy work schedules and are willing to pursue certain recreational and cultural performances.

### 5. CONCLUSION

The results indicate improvement in various domains of work-related flow inventory and sleep quality. We conclude that the Yogic relaxation technique employed in this study attunes the body-mind system to be relaxed and practitioners can bring a balance in their work-life and pursue their interests and passion to lead a fulfilled life. Although these results provide compelling evidence for the effectiveness of the mind resonance technique, further research with a longer duration and a larger sample size is necessary to validate these results.

### 6. ACKNOWLEDGMENTS

None.

### 7. AUTHORS' CONTRIBUTIONS

All the authors contributed equally to the design and execution of the article.

## 8. FUNDING

Nil.

## 9. ETHICAL APPROVALS

This study does not require ethical clearance.

## 10. CONFLICTS OF INTEREST

Nil.

## 11. DATA AVAILABILITY

This is an original manuscript, and all data are available for only review purposes from the principal investigators

## 12. PUBLISHERS NOTE

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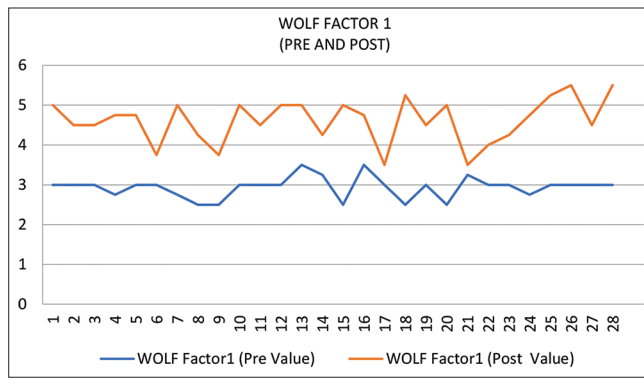


Figure 1: Participants' response to WOLF factor 1

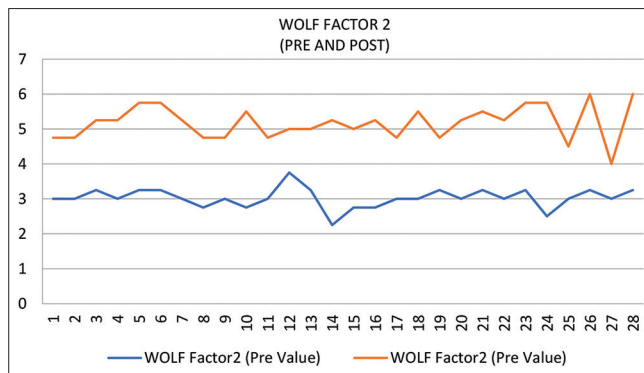


Figure 2: Participants' response to WOLF factor 2

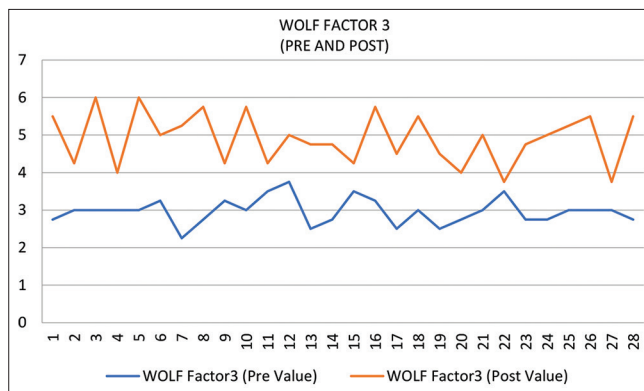


Figure 3: Participants' response to WOLF factor 3

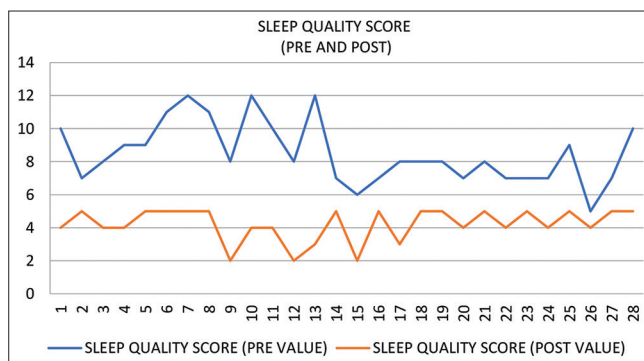


Figure 4: Participants' response to sleep quality index

**Table 1:** *P*-values of WOLF factors

	WOLF Factor			Combined WOLF Factors
	Absorption (1)	Work Enjoyment (2)	Intrinsic Work intervention (3)	
<i>P</i> -value	7.64939e-14	1.89E-18	8.08E-13	2.95E-13