

8.0 APPRAISAL

8.1 SUMMARY OF FINDINGS

8.1.1 REVIEW OF ANCIENT LITERATURE

The *Vedāntic* view of reality argues that no observable phenomenon can be the cause of creation since they violate the criteria of *Atmabhāva*, a logical construct to distinguish creation from the creator. These are: (i) if a factor is part of the world, it cannot be the cause of the world, (ii) if a factor itself undergoes mutation then it is a creation and not the creator and (iii) if another factor supersedes the factor, then it is not the ultimate and, hence, it too is created.

Through meditation, it is realized that the locus standi of all creation is *Brahman* with its inscrutable creative power of *māyā*. The latter is a reflection of *Brahman* and the cause of all creation. Realization that our real nature is *Brahman* is what is called liberation. *Sāmkhya* philosophy on which *Yoga* is based differs from *Vedānta* in the sense that it confers the status of infiniteness to both creation (*prakṛti*) and consciousness (*purusa*). Liberation, according to them, is to realize the separateness of *prakṛti* and *purusa*. *Yoga* operationalizes the ideas contained in *Sāmkhya* and suggests a step by step process to liberate the being. It stabilizes the body with *āsanā*, increases vital energy with *prānāyama*, calms the senses with *pratyahāra* and with meditation attains spiritual absorption.

The understanding of the reality of existence gives rise to the goal of spiritual absorption. This forms one of the foundations of integrating *yoga* with education. The *yogic* vision of education, therefore, is formation of character, development of personality, preparation for social efficacy and gaining of knowledge of the reality of existence. It may be pointed out that it is not necessary to accept the spiritual nature of *yoga* practice. A majority of practitioners do so for its therapeutic, cognitive and psycho-emotional benefits.

8.1.2 REVIEW OF SCIENTIFIC LITERATURE

The prevalence of Child and Adolescent Mental Health (CAHM) issues is considered alarming. It is estimated that 10-20% of the world's youth has a mental health problem (Keiling et al, 2011). Further, educationists are concerned with the trend of deteriorating youth character. These observations have led to the advocacy for including social emotional learning (SEL) and

character education in the school curricula (CASEL, 2014) and *yoga* is seen as an efficacious intervention to promote both SEL and development of character (Hyde, 2012).

The growing body of scientific research on school-based *yoga* shows that it is effective in promoting physiological health (Galantini, Galbavy and Quinn, 2008), cognitive performance (Servacki and Cook-Cottone, 2012) and emotional well-being (Khalsa et al, 2012). *Yoga* is hypothesized to deliver these benefits by improving concentration, fostering self-regulation and promoting physical fitness and health.

8.1.3 THE SHORT DURATION ICYM INTERVENTION STUDY

The present study had three components. The first was to develop a theoretical model of *yoga* in education. The second was to develop a validated short duration ICYM. The third was to conduct a randomized controlled trial with the validated module in a school setting.

Development of a Theoretical Model of Yoga in Education:

The uniqueness of the model lay in the fact that it is the first school-based *yoga* model based on the juxtaposition of ancient literature and scientific research. From ancient literature, the understanding of the mind complete, the sheaths of human personality, the five mental planes, the balancing of left and right brain energies and *Pātanjali's* eight limbed *yoga* were considered important for developing the model. From scientific research, the evidence of the benefits of *yoga* was the other component that went into constructing the theoretical model.

Development and Validation of ICYM:

The obstacles to incorporating *yoga* in the daily school curriculum were lack of time, resources and space. The hypothesis of the present study was that a short duration classroom *yoga* module, if shown to be efficacious, would overcome these problems. The module was developed based on the review of ancient and contemporary texts of *yoga*. The shortlisted practices were validated by subject matter experts. The module, thus, developed was subjected to a pilot study which proved its feasibility and efficacy in delivering physical fitness, cognitive performance and emotional well-being benefits.

Randomized Controlled Trial:

The validated module formed the intervention in a randomized controlled trial with a large sample size. The study showed that *yoga* intervention significantly improved physical fitness, cognitive performance and emotional well-being.

8.2 CONCLUSION

Schools can potentially play a major role in reversing the growing trend of child and adolescent mental health problems. *Yoga*, with its effect in the psychosocial domain, can equip the child to deal with stressors to remain mentally healthy. The effect of *yoga* on emotional control and personality characteristics makes it a suitable aid in imparting character education. The enhancement of cognitive efficacy could satisfy thinkers who suggest that the education should lay more weightage on developing the power of concentration than dissemination of information. It can be argued that a mentally healthy, prosocial child with good character traits, can potentially help in changing society positively.

The uniqueness of the theoretical model of *yoga* in education is unique because it is based on the juxtaposition of ancient knowledge and modern research. The underlying principles, sequence of practices and their interconnectedness are derived from ancient texts. The benefit outcomes are derived from modern research. This makes the need to hypothesize the underlying mechanisms from the outcomes redundant. Ancient literature itself points out the causes of problems in the physical, mental and emotional domains and explains why *yoga* is efficacious in addressing those problems. Modern research corroborates many of the claims made in ancient literature.

Based on this theoretical model the school-based short duration ICYM was developed and validated. It addressed the obstacles for incorporating *yoga* in the daily school schedule namely, time, resources and space. The validated module was the intervention in a randomized controlled study. This study showed that the school-based short duration ICYM had equivalent effect on physical fitness compared to the longer duration module. On cognitive performance and emotional well-being, the ICYM was effective, albeit, with small effect sizes compared to longer duration interventions. It may be concluded that the school-based short duration ICYM can be considered for inclusion in the daily school schedule when it was not feasible for the longer duration module to be included. The study is important since it paves the way for

inclusion of *yoga* in the daily school schedule by addressing the problems of time and resources. However, implementation will require a coordinated and systematic effort by all stakeholders namely, educators, *yoga* experts, *yoga* researchers and parents. Given that the evidence of the benefits of *yoga* cuts across physical, cognitive, emotional and personality domains, there is a compelling case for its inclusion in the school curricula on a large scale.

Nowhere is Indian thought more manifest than in the sphere of learning and education. Learning in India through the ages had been prized and pursued not for its own sake but as a means of self-realization.

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