

Effects of Long term Intervention of Comprehensive Yoga on Level of Self-confidence in High School Students

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Abstract: *The aim of the present research was to investigate the long term effect of comprehensive yoga on self-confidence in school going male adolescents. Fifty students with ages ranged between 13 and 16 years (group mean age \pm S.D., 13.68 \pm 0.77 years) were selected as the participants; all of them were high school students from a north Indian school. Agnihotri's Self-confidence Inventory was administered to assess the level of self-confidence. The study was a before and after group design and this was a single group study. Signed informed consent was taken from all the participants before starting the actual study. Three months of yoga intervention was provided to the participants. Obtained data were analyzed using paired t-test. Significant difference was found in the level of self-confidence ($p < 0.01$) when the pre data was compared with the post. In conclusion, the long term practice of yoga can be an effective tool to enhance the level of self-confidence in the adolescence.*

Key words: *self-confidence, comprehensive yoga, adolescence*

Introduction

Self-confidence is a positive attitude of oneself towards one's self-concept. It is a belief in one's abilities and strength so it is our most important life skill. To achieve a goal, to achieve success in life or in carrier and to get through responsibilities of daily life, one should have some level of self-confidence. A self-confident person has a general sense of control, and they can do what they wish, plan and expect. It is essential to understand that our confidence should be in our control, not controlled by someone else. There are some people with low selfconfidence while some are over-confident. Low confidence sometimes creates hopelessness in an individual's life which gradually leads to depression. Overconfident people often take too much risk; stretch themselves beyond their

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capabilities while confident people have the ability to see their obstacles as opportunities (Self-confidence, 2015). So in this way the role of confidence in our life is really important.

The self is a composite of a person's thoughts and feelings, strivings and hopes, fears and fantasies, and his attitudes pertaining to his worth (Basavanna, 1975). According to Basavanna "self-confidence refers to an individual's perceived ability to act effectively in a situation to overcome obstacles and to get things go all right" (Singh & Kaur, 2008). Self-confidence is considered as one of the motivators and regulators of behavior in an individual's everyday life (Bandura, 1986). Motivation and proper guidance is very necessary in adolescence stage that occurs between the age of 13 and 19 years (Telles & Bhardwaj, 2015, May). This stage is like a bridge between childhood and adulthood. It is a time of rapid development of growing to maturity, discovering one's real self, defining personal values and finding one's vocational and social direction (Pastey & Aminbhavi, 2006). In this stage, many psycho-physiological changes occur and apart from these changes, they face different challenges (Bhardwaj, 2012). Level of emotional stress and aggression is also high at the early stage in adolescents but gradually the intensity decreases (Singh, 2006). Level of confidence also goes ups and down.

Today adolescent doesn't have a clear view-point towards the life and also there is an imbalance among his/her emotions, thoughts and behavior (Bhardwaj, Sao & Agrawal, 2009). During this period they acquire certain beliefs, values and social skills which determine their level of confidence and adjustment with friends. At this stage, there is a big need to provide proper guidance to them to overcome the challenges they face. Alternative and complementary therapies especially different aspects of yoga can be helpful at this stage.

Yoga plays a significant role in enhancing one's overall health. These days yoga is being used by a growing number of adolescents and adults as a means of improving holistic health and fitness. Most of the available studies with children and adolescents suggest benefits to using yoga as a therapeutic intervention (Kaley-Isley, Peterson, Fischer & Peterson, 2010). There are studies on the effects of yoga on mental health and well-being (Hadi & Hadi, 2007; Berger, Silver & Stein, 2009; Telles, 2012; Noggle, Steiner, Minami & Khalsa, 2012), self-esteem (Bhardwaj & Agrawal, 2013; Telles, Singh, Bhardwaj, Kumar & Balkrishna, 2013), self-adjustment (Bhardwaj, Mookherjee & Bhardwaj, 2015), quality of life (Rakhshani, Satyapriya, Nagarathna, Nagendra & Padmalatha, 2010; Ülger & Yağlı, 2010), anxiety (Gupta, Khera, Vempati, Sharma & Bijlani, 2006; Kuttner, Chambers, Hardial, Israel, Jacobsen & Evans, 2006; Javnbakht, Hejazi & Ghasemi, 2009), depression (Bhardwaj, Sao & Agrawal, 2009; Telles, Yadav, Bhardwaj & Singh, 2013), psycho-immunity (Bhardwaj, 2012), reaction time (Bhavanani, Mohan & Udupa, 2003; Telles, Yadav, Gupta & Balkrishna, 2013), selective and focused attention (Telles, Raghuraj, Maharana & Nagendra, 2007; Telles, Raghuraj, Arankalle & Naveen, 2008; Telles, Bhardwaj, Kumar, Kumar & Balkrishna, 2012), work performance (Gura, 2002), mental stress (Telles,

Narendran, Raghuraj, Nagarathna & Nagendra, 1997), spatial memory (Naveen, Nagarathna, Nagendra & Telles, 1997; Joshi & Telles, 2008) and so on, which suggest the role of yoga in improving mental health, cognitive functions and wellbeing. There are some evidences related to the effect of yoga on self-confidence which is mentioned below.

Twelve weeks of yoga was found beneficial in enhancing the level of self-confidence in players (Kumar & Balasubramanian, 2015). In this study, 30 male *Kho-Kho* players were randomly selected as subjects (ages ranged from 15 to 19 years) and divided into two groups; experimental and control. Psychological variables such as aggression, self-confidence and sports achievement motivation were measured before and after the intervention program. The experimental group practiced yoga for three months while the control group did not received anything.

Results revealed that there was a significant improvement in the experimental group on the level of self-confidence when compared to the control group. In a different study (Azamith & Kumar, 2014), 90 adolescent boys were randomly assigned to three equal groups of 30 each. The groups were assigned as experimental group I, II and control group respectively and all were assessed for motor fitness, and psychological variables such as flexibility, agility and muscular strength, anxiety, aggression and self-confidence. The experimental groups practiced simplified *kundalini yoga* and *suryanamaskar* respectively for a period of 12 weeks. Significant effects of *simplified kundalini yoga* and *suryanamaskar* on self-confidence among adolescent boys were noted.

Self-confidence was significantly improved and stress level was significantly reduced in middle aged men following six weeks of yoga when compared to the control group (Nityananthan & Kalpana, 2014). A study was designed to investigate the effect of psycho-spiritual counseling therapy (including *Gayatri japa*, *pranakarshan pranayama* and psychological counseling) on academic anxiety and self-confidence in students. After 45 days of intervention, they had decreased academic anxiety and increased self-confidence (Tiwari, 2011). A two months comprehensive yoga program which included *pragyayoga vyayama*, *nada yoga* and *svadhyaya* had positive impact on adolescents' mental health including self-confidence (Kashyap, 2009).

Practice of different types of meditation improved self-confidence. *Vipassana* meditation was found helpful in enhancement of self-confidence and emotional maturity in 30 participants (Chabra, 2007). *Shaktipat* meditation was found an effective practice to improve self-confidence of student-teachers (Singh & Kaur, 2007). 152 subjects (B.Ed. students, ages ranged between 20 and 32 years) participated in the study out of which 92 were in the experimental group and 60 in the control group. The experimental group practiced *Shaktipat* meditation for three months (105 sittings, one hour per sitting) under the supervision. Non-randomized control group pre-test post-test design was used. Both male and female; and both Hindu and Sikhs student-teachers had equally benefited from meditation. A study

results revealed that practice of *Preksha* meditation for 25 days increased ego strength, confidence and self assurance (Gaur & Sharma, 2003).

Bal Yoga Mitra Mandal (1999) reported efficiency of yoga practices on memory, creativity, self-esteem, self-discipline and self-confidence in 702 children. In a randomized controlled trial, two months of *Pragyayoga sadhana* was found very beneficial to enhance the level of self-confidence in adolescent students (Bhardwaj, 2012).

After reviewing the available literature and related studies, the present study was designed to see the long term effect of yoga on male adolescents especially on their self-confidence.

Research Methods

Participants and study design

50 male students with ages ranged between 13 and 16 years (group mean age \pm S.D., 13.68 ± 0.77 years) were selected as the participants. All of them were students from a government high school located in the north India. Male participants, ages between 13 and 18 years and those who were willing to follow the study conditions were included in the study. Participants with diagnosed illness or on medication and any experience of yoga practice were excluded from this study. Personal information including education, general health, daily schedule and experience of yoga of all the participants were collected using demographic data sheet. The study was a before and after group design and there was no control group. Before data collection, participants were explained about the psychometric test and the purpose of the study. All the participants gave their signed consent to participate in the study.

Assessment

Agnihotri's Self-confidence Inventory (ASCI) was used to assess the level of selfconfidence (Agnihotri, 1987). This inventory is reliable and valid and it has been designed in Hindi to assess the level of self-confidence among adolescents and adults. It consists of 56 items with two responses, 'Yes' or 'No'. Following instructions, the inventory was administered to the participants in group. There is no fixed time limit to complete the inventory. The participants had taken about 20 minutes for completion. After completion, the answer sheet was collected from the each participant carefully.

Yoga intervention

Intervention was given for three months and the participants practiced yoga for 30 minutes on each day except Sunday. Yoga practice included *Pragya yoga vyayama* (Acharya, 2007) [a series of 16 *asana* propounded by Pt. Shriram Sharma Acharya, Shantikunj, Haridwar], *Nadisodhana Pranayama*, *Soham Sadhana* and practice of

Yognidra. Yoga was introduced and taught by a trained yoga teacher in the school campus. Class attendance was also monitored by one of the class teachers. None of the participants reported any adverse event to the intervention and testing procedure as well. Details of yoga practice are given in Table 1.

Table 1. Details of yoga program

S. No.	Details of yoga	Duration each day (in minutes)
1.	Pragya yoga vyayama (physical postures) - 3 rounds [<i>Tadaasana, Padahastasana, Vajrasana, Ustrasana, Yognidra, Ardhatadasana, Shasankasana, Bhujangasana, Tirykabhujangasana</i> (left), <i>Tirykabhujangasana</i> (right), <i>Shasankasana, Ardhatadasana, Utkatasana, Padahastasana, Tadaasana, Balasana</i>]	10 minutes
2.	Nadisodhana pranayama (a breathing exercise)	5 minutes
3.	Soham sadhana -	5 minutes
4.	Yoganidra -	10 minutes
	Total time -	30 minutes

Pragya yoga vyayama included 16 step *asanas* mentioned above. Second practice was *Nadhi shodhan pranayama* which is the alternative breathing process from left and right nostrils with *purak* (inhalation), *rechak* (exhalation), and *kumbhak* (retention). Third practice was *Soham sadhana*. It is a natural mantra because it is already a part of our nature. *Sooooo...* is the sound of inhalation and *Hummmm...* is the sound of exhalation. Another practice was *yoganidra* (Saraswati, 1975). *Yoganidra* is an important method of relaxation, which was practiced in the flat lying position called *Shavasana*.

Scoring and analysis

Total raw scores for self-confidence were calculated with the help of manual. A score of 1 was assigned for a response indicative of lack of self-confidence, i.e. for making cross (X) to wrong response to item numbers 2, 7, 23, 31, 40, 41, 43, 44, 45, 53, 54, 55 and for making cross (X) to right response to the rest of the items. Thus each item has a maximum score of “1” and minimum of “0” and response

value of which extend from 0 to 56. Hence the lower the score, the higher would be the level of self-confidence and vice versa.

Baseline data of male adolescents were compared with the post data using student's paired *t*-test (with the help of Microsoft excels).

Results

The group mean values \pm S.D. are given in Table 2.

Table 2. Mean, S.D. and p value before and after the yoga intervention

Variable	Boys (n = 50)				
	Pre Mean \pm S.D.	Post Mean \pm S.D.	df	t- value	p- value
Self- Confidence	28.28 \pm 6.75	25.54 \pm 6.68	49	2.59	p<0.01**

**Significant at 0.01 level

Discussion and conclusion

Following three months of comprehensive yoga, significant difference in the level of self-confidence in male students ($p < 0.01$) was noted. There have been some studies which demonstrated improved self-confidence following the practice of yoga (Kumar & Balasubramanian, 2015; Azamith & Kumar, 2014; Nityananthan & Kalpana, 2014; Tiwari, 2011; Kashyap, 2009; Chabra, 2007; Singh & Kaur, 2007; Gaur & Sharma, 2003; Bal Yoga Mitra Mandal, 1999). In a study, 20 days practice of nadisodhan pranayama (30 minutes daily in two equal sessions) was found beneficial in enhancing self-confidence level among students from rural area having ages between 17 and 20 years (Vaishya, 2013). In a separate study on working woman aged between 25 and 39 years, 45 days of comprehensive yoga intervention (including pragyayog vyayama, yoganidra, nadi shodhana pranayama) was found effective on their blood pressure and alpha-EEG (Bharadwaj, Kulshrestha & Rawat, 2013). So in the above mentioned studies, participants were of different age groups but the outcomes were same.

There have been different speculations on the mechanisms by which yoga practice might improve self-confidence in adolescents. Through different physical postures (asanas), voluntary regulated breathing techniques (pranayamas), and meditation (dhyana), yoga makes the practitioner aware of his inner self (Berwal & Gahlawat, 2013). After knowing the self, after assessing strength and limitations, gradually

the level of self-confidence increases. In a deeper sense, yoga teaches us about self-evaluation (Self-Evaluation, 2015).

By yoga and meditation, one is able to pay attention to his inner world. Yoga also helps in developing self-concept and it is also associated with the self-adjustment. A study showed that higher self-concept scores corresponded to better psychological adjustment (Fuentes, García, Gracia & Lila, 2011). Yoga has the potential of playing a protective or preventive role in maintaining mental health (Khalsa, Hickey-Schultz, Cohen, Steiner & Cope, 2012).

In the present study, the components of intervention included not only asanas but also pranayama, soham sadhana (a meditative technique with breath) and yoganidra which help to move inwards and to be aware of inner self. This could be a reason of the present finding. Meditation also helps to remove negative emotions (Gaur & Sharma, 2003), anxiety, complexes (inferiority or superiority) as it makes the mind silent. These changes help to increase trust in the abilities and good qualities of the self that is self-confidence. A very early study showed that meditation could significantly increase in the level of intelligence and social self-confidence (Aron, 1981).

Physical activity is the common feature between yoga and physical exercise while yoga includes several mental techniques. Physical activity is positively associated with self-esteem and it is an important part in yoga practice. Many researchers reported that engaging in physical activity has a positive impact on mood and self-esteem (Gruber, 1986; Greenberg & Oglesby, 1996). Physical activity can improve self-image, self-confidence, relieve stress and tension, increase alertness, energy, reduce loneliness, shyness, hopelessness and ability to cope with stress (Page & Tucker, 1994).

In sum, the study result revealed that long term and regular practice of yoga with proper supervision is beneficial to enhance the level of self-confidence in male adolescents. Also yoga can be added in the school curriculum as yoga has evidence in improving self-esteem, self-confidence and adjustment, and also in behavior modification.

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