

Perceived Control as Predictor of Yogic Practices and Effects of Yoga on Health and Well-Being

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ABSTRACT Yoga contains valuable and indispensable knowledge and practices for integrative human development. The present investigation was carried out to examine the role of perceived control in continuing the yogic practices by people attending a yoga camp. The participants were divided into regular yoga group, irregular yoga group, non-yoga group based on their attendance in a yoga camp for a week and continuation of the practice of yoga for following six months. Perceived control and primary control scale, PGI health questionnaire, WHO QOL, and life satisfaction (SWL) measures were administered before the commencement of the camp and six months after it. The repeated measure ANOVA was computed with group (that is, regular yoga, irregular and only camp groups) and condition (that is, pre camp assessment and six months follow-up) as two factors. Results showed that the effect of group, as well as, condition was found significant. The stepwise multiple regression analysis revealed that perceived and primary control had emerged as best predictors of SWL and Health in regular yoga group. Regular practice of yoga depends on the control on things perceived by the doer and then it enhances the vital capacity and has benefits in well-being of person.

INTRODUCTION

The basic nature of human being is that he wants peace and harmony. Disharmony and suffering agitate people and creates stress. The relaxation can be achieved through different techniques. One of which is yoga *asana* and *pranayams*. Yoga, a way of life, is characterized by balance, health, harmony, and bliss (Nagendra and Nagarathna 1977). There are innumerable references to yoga in the Vedas and Upanishads. Yoga promotes happiness and well-being through the practices of renunciation and rites. *Asanas* are a wide range of postures that improve flexibility of muscles and suppleness of joints. Yoga slows down the aging and premature aging by giving vitality and elasticity to the spine, removing tension from the body and depression from mind. All the eight limbs of yoga when practiced well can give physical, mental and spiritual health. Tension, depression, chronic anxiety and mental fatigue can be the cause of many psychosomatic diseases. Yoga frees the mind from mental disturbances, calms the spirit, and cures nervous irritability, confusion and depression.

Udupa et al. (1977) revealed that yoga has the potential to influence the stress disorder and it helps the sufferer to achieve physical and metabolic stability. Sahasi et al. (1989) studied the effectiveness of yogic techniques in the man-

agement of anxiety in anxiety neurotic outpatients and found that at least 7% of yoga subjects who completed the prescribed length (5 days/wk for 3 months) of yoga practices were reported to be completely asymptomatic as compared with none of the drug therapy.

Yoga is both a philosophy of life and a science of human personality (Bhushan 1998). The psychosomatic spiritual approach of yoga has been found effective in managing problems of psychosomatic origin like, coronary heart disease (Damodaran 2002), diabetes (Upadhyay et al. 2008), stress management (Kirkwood 2005). The yoga effects were evaluated on retardation of coronary atherosclerotic disease and in one year, the yoga group had fewer angina episodes per week, improved exercise capacity and decrease in body weight (Manchanda et al. 2000). Yoga has been shown to have immediate psychological effects including reduction in anxiety. After completing yoga course physical well-being in emotionally distressed females increased and those subjects suffering from headache or back pain reported marked pain relief (Michalsen et al. 2007; Gupta et al. 2005) and increased feeling of emotional, social and spiritual well-being (Lowenberg 2007). Yoga-based guided relaxation helped in the reduction of sympathetic activity with a reduction in heart rate, skin conductance, oxygen consumption, and increase in breath volume - the clinical signs of

neuro-hormonal activity, thus facilitating protection against ischemic heart disease and myocardial infarction (Vempati and Telles 2002). Meditation reduces problems related to maladaptive behaviors, frequency of thought, and substance abuse and increases emotional and physical health and psychological well-being, and generally improved the quality of life (Dua 1998). These and several other such researches have evidenced the significant and positive effect of yoga on health and well-being. However, the notable question is that what leads a person to start, continue and sustain the yoga practices, as the positive effects of yoga do not appear immediately in concrete form. Hence, it was thought pertinent to investigate the contribution of control beliefs to keep the doer in the yogic routine and its effects on health and well-being.

Perceived control refers to a person's self-assessment of control on various aspects of life, the ways and means to acquire expected outcomes and to avoid unexpected ones. Skinner (1996) reviewed control construct and defined it as the relationship between agent (self), means (effort, competence) and ends (success, goal attainment). Perceived control is viewed as a motivational resource that fuels one's self regulation to accomplish one's personal projects (McGregor and Little 1992), personal strivings (Emmons 1992) or life tasks (Cantor and Kihlstorm 1987). The present study focuses on how perception of control over goal attainment that is, by doing yoga practice correlates with health and well-being.

There are consistent evidences that persons with generalized control belief use more problem focused coping than persons with external control belief, presumably because individuals who have strong internal control belief are likely to believe that their own efforts will be effective in changing outcome of stressful situation (Lazarus and Folkman 1984). The perceived ability to change a situation influences behavior, and physical and mental well-being (Abeles 1991). Primary control, similar to problem-focused coping, involves the perception of altering the environment to equate with the self, whilst secondary control, similar to emotion-focused coping, involves altering the self to equate with the environment (Rothbaum et al. 1982). High perception of control was positively associated with different areas of life, like, academic achievement (Diener et al.1997), posi-

tive self-concept (Brandtstadter and Baltes-Gotz 1990), attenuation of job related stress (Steptoe et al.1997) and healthy psychological functioning (Menec and Chipfield 1997; Fontaine et al. 1997; Newsom et al. 1996; Wallhagen and Brod 1997). Perceived control has positive effects on adjustment and coping with varied physical health problems such as AIDS (Fontaine et al. 1997), cancer, and Parkinson disease.

Objectives

It is the contention of the researcher that regularity and consistency in doing yogic practices or any kinds of exercises are dependent on certain personality dispositions like, perceived control. Because it take quite some time for the doer of yogic practices to have results of the same in concrete forms, therefore, perception of control is very important. Hence, the aim of the study was to investigate whether perceived control contributes to being regular in practicing yoga.

Hypotheses of the Study

Hypothesis 1: Participants with high sense of control assessed prior to the participation in the yoga camp will regularly practice the yoga over extended period of time. The available literature had suggested that regular practice of yoga have significant positive effects on health and well-being. Therefore, the second aim of the study was to examine the effects of yogic practice on health and well-being of regularly practicing people and on people not involve in such practices.

Hypothesis 2: Participants with high sense of control and regular practice of yoga would have better health status and well- being in comparison to other participants.

MATERIAL AND METHODS

Sample

In this pre-post design investigation, initially at the pre- testing stage 145 adults (aged 22-60 years) participated. However, at the six months follow-up level only 97 participants remained in the study. Amongst these 111 participants only 93 had given their post test data. These participants were divided into three groups- (i) Regu-

lar yoga group (ii) Irregular yoga group (iii) Only yoga camp group. The regular yoga group of participants is those who practice yoga *asana* for more than six months. These participants had attended the Yoga *Shivir* of Swami Ramdev for one week and since then they were practicing yoga for approximately 30 minutes daily, such as *Hatha* yoga practices, like *asanas* (that is, postures), *pranayama* (that is, breathing practice intended to influence vital forces), *kriyas* (cleaning processes), *mudras* (that is, certain interval attitudes), and *bandhans* (that is, neuromuscular locks). The Irregular yoga group of participants is those who also had attended the same yoga camp but were not practicing it daily. They did yoga *asana* two or three times in a week. In the Only yoga camp group there were those participants who had practiced yoga during camp only and since then hardly ever practiced whatever they had learnt in the camp.

Interview Schedule

An interview schedule was developed. It had two open ended questions like-

- Why are you attending this yoga camp?
- Why do you continue the yogic practices?

Personal Control Scale

This questionnaire of personal control was developed by Agarwal et al. (1994). This scale consists of 8 items dealing with perception of personal control over different domains of life, like, family happiness and peace, occupational success, own health, mental peace, future events, financial security, fulfillment of goals, future peace and happiness. The items are rated on a five point scale ranging from (1) no control to (5) total control. The maximum score on this scale is 40 and the minimum is 8. The higher score denotes the greater degree of personal control. The coefficient alpha for this scale was found 0.78.

Primary Control Items

These 5 items were adapted from the Brandstadter and Renner's Tenacious Goal Pursuit and Flexible Goal Adjustment Scales, the Peng and Wrosch, Hechhausen and Lachman Scales. Participants rated their perception of the con-

trol item on a 7-point scale ranging from very bad (1) to very good (7). A mean score was computed with higher scores indicating higher perceptions of control. Internal consistency reliabilities on the control items were acceptable. Mean ranged from 3.86 to 4.24 with .91 standard deviation and coefficient alpha of .70 and .62 for selective primary control.

PGI Health Questionnaire N-I

This questionnaire was developed by Verma et al. (1985). This scale consists of a total of 38 items divided into two areas, A and B. Items in the area A were related to physical distress and items in the area B were related to psychological distress. There were 16 items in area A (Physical distress) and 22 items in area B (Psychological distress.) Reliability of the test using retest and split half methods was found to be significantly high (0.80 and 0.86 respectively). For the scores the respondents had to put a tick (?) against questions he/she agreed with. The number of ticks on section A and B indicate the respective scores, which can then be added up to give a total score.

WHO Quality of Life Scale (WHOQOL)

In order to assess the quality of life in health care settings in India, this questionnaire was developed by a team of researchers of World Health Organization (WHO), namely Saxena et al. (1998). The scale consists of 100 items related to four domains, namely, Physical Health, Psychological Health, Social Relationships and Environment. Each domain has a number of facets and in each facet there are four items. The Cronbach alpha for this scale was moderately high for most of the facets. All facets were significantly correlated with their respective domains. All items of WHOQOL-100 distinguished significantly between the "diseased" and "healthy". The scoring was done on a five point scale. Some of the items in the scale are positively worded and some are negatively. So the scoring for positively worded items was (5) for strongly satisfied to (1) for strongly dissatisfied and vice versa for negatively worded items. The retest reliability of Hindi version of this scale was 0.67 and split-half reliability was 0.71 by Dubey (2003).

Temporal Satisfaction with Life Scale (TSWLS)

To assess the respondent's past, present and future life satisfaction, the temporal satisfaction with life scale (TSWLS) was proposed by Pavot et al. (1998). This scale consists of fifteen items related to past, present and future satisfaction, five items each in each time zone. All the items of TSWLS were keyed in a positive direction. The items were scored on a seven-point scale ranged from (1) strongly disagree to (7) strongly agree. All the items were positively keyed; therefore, scoring the TSWLS involves a summation of the 15 items. Scores on the scale could range from 15 to 105. Each sub scale would have a response range of 5 to 35 and means on each of the sub scale would be statistically comparable. The alpha reliability of the test was found to be 0.92 and retest reliability (a 4-week interval) was 0.83 (Pavot et al. 1998). This Hindi version (Dubey 2003) of the scale was significantly and positively correlated ($r = 0.79$) with that of original English version. The retest reliability of Hindi version, after an interval of 8 weeks was 0.77.

Procedure

The data collection was started with contacting the participants registered to attend the camp before its commencement. The scales of personal control, health, temporal satisfaction with life and quality of life were given before the beginning of the camp and responses were sought. They were again given the same questionnaires after six months and their responses were sought. After the completion of data collection process, each protocol was rechecked and if there had been anything left or missing, the researcher personally contacted the participants again. To ascertain that regularity of yogic practices the researcher not only asked the participants but also the relatives and friends of the participants through phone calls, SMS and e-mails. Sometimes a person filled the protocol in the first session, but due to some reason or other was not available for the follow-up. Such protocols were dropped in the analysis. The measuring tools were scored in their respective ways according to manual instructions. In the final analysis only 90 data was included (30 in each group).

RESULTS

Statistical analyses were conducted to determine the optimal control strategies for regularly practicing yoga and to examine the influence of control on the symptoms reporting, quality of life and satisfaction with life. Multiple regression analysis was conducted to predict health and quality of life and satisfaction with life from personal control and primary control. An alpha level of 0.05 was used for all statistical tests.

Table 1 presents that in the regular yoga group, Health, *Quality of Life* (QOL) and SWL were increased from pre camp to six months follow-up as the significant t-test indicated the differences and mean values in the incremental pattern.

The 3x2 repeated measure ANOVA was computed, where three levels of yoga practice and two levels of condition, that is, pre camp and six months follow-up with the last factor was repeated.

The main effect of groups was significant ($F (df = 1, 87) = 8.05, P < .01$). Regular yoga groups have higher perceived control in comparison to the other two groups. However, the mean of Irregular yoga group was higher than the mean of only camp group on perceived control variable. Not only have the participants of three groups significantly differed in their perception of control in pre camp condition but also in six months follow-up as shown in significant between subject effects ($F (df = 170.18, P < .01)$). It revealed that participants who had higher perception of control before the participation in the yoga camp had continued the yogic practices learnt during the camp but the same was not true for the groups with poor perception of control (Table 2).

Similarly, the main effect of groups was significant ($F (df = 1, 87) = 29.06, P < .01$) for primary control. The mean of the regular yoga group was higher than the two other groups. The between subject effects ($F (df = 170.18, P < .01)$) was also found significant, as well as the interaction of group and treatment condition ($F (df = 1, 87) = 6.97, P < .01$) (Table 3).

Again, the main effect of groups was significant ($F (df = 1, 87) = 20.89, P < .01$) for symptoms reporting, where the regular yoga group have reported less illness related symptoms in comparison to two other groups. The between

Table 1: Mean and S.D. and t test of different variables in pre camp and six months follow-up in three groups

Variables	Groups	Pre camp		Six months follow-up		t-test
		Mean	S.D.	Mean	S.D.	
Physical Symptoms Reporting	1	2.30	.87	1.10	.95	5.06**
	2	2.83	.98	2.83	1.91	NS
	3	5.47	1.75	5.53	1.63	NS
Psychological Symptoms Reporting	1	2.23	.93	1.66	.95	2.98**
	2	3.43	1.19	3.30	1.23	NS
	3	5.83	1.83	5.50	2.01	1.97*
Satisfaction with Life	1	77.60	4.79	81.30	5.24	10.03**
	2	64.36	5.67	63.33	6.81	3.18**
	3	56.70	7.15	56.76	7.23	NS
Physical Quality of Life	1	29.60	4.73	32.60	5.74	7.94**
	2	23.26	3.87	23.70	4.66	1.49
	3	22.56	4.04	23.00	4.54	2.21**
Psychological Quality of Life	1	25.16	3.17	27.66	4.49	4.57**
	2	20.70	4.63	21.63	5.47	3.44**
	3	18.43	3.61	19.13	4.41	2.27**
Social Quality of Life	1	14.66	2.27	15.13	2.71	NS
	2	12.40	1.92	13.10	2.96	1.96*
	3	12.10	2.38	11.70	2.53	1.64
Environmental Quality of Life	1	14.50	2.43	15.46	3.46	2.57**
	2	13.80	2.42	14.56	3.19	2.18*
	3	15.03	3.49	15.56	2.01	NS

Note: Regular yoga group=1 Irregular yoga group=2 Only camp group=3

Table 2: Mean, S.D. and repeated measures ANOVA with perceived control as dependent variable Within subject effect

Groups	Pre camp assessment		6 months post camp assessment		F
	Mean	S.D.	Mean	S.D.	
Regular Yoga	27.86	1.85	27.23	1.85	8.05**
Irregular Yoga	18.80	3.66	18.50	3.48	
Only camp	14.80	2.69	15.00	2.44	

Between subject effect

Conditions	Mean	S.D.	F
Pre camp assessment	20.48	.29	170.18**
6 months post camp assessment	20.24	.28	

Table 3: Mean, S.D. and repeated measures ANOVA with primary control as dependent variable Within subject effect

Groups	Pre camp assessment		6 months Post camp assessment		F
	Mean	S.D.	Mean	S.D.	
Regular Yoga	30.40	1.95	31.00	2.00	29.06**
Irregular Yoga	21.26	4.89	24.43	3.40	Group x
Only Camp	13.76	1.92	14.83	3.09	condition=6.97**

Between subject effect

Conditions	Mean	S.D.	F
Pre camp assessment	23.42	.30	271.33**
6 months post camp assessment	21.81	.34	

subject effects (F (df 1,87) = 93.29, P<.01) was also significant (Table 4). The interaction of group and treatment condition (F (df = 1,87)= 12.14, P<.01) was also found significant.

The main effect of groups was significant (F (df =1, 87) = 89.33, P<.01) for quality of life. The regular yoga group has evaluated their life as more qualitative in comparison to two other

Table 4: Mean, S.D. and repeated measures ANOVA with total symptoms reporting as dependent variable
Within subject effect

Groups	Pre camp assessment		6 months post camp assessment		F
	Mean	S.D.	Mean	S.D.	
Regular Yoga	4.53	1.33	2.76	1.56	20.89**
Irregular Yoga	6.26	1.63	6.13	2.48	Group x
Only Camp	11.30	3.00	11.10	3.07	Condition=12.14**

Between subject effect

Conditions	Mean	S.D.	F
Pre camp assessment	7.36	.22	93.29**
6 months post camp assessment	6.66	.22	

Table 5: Mean, S.D. and repeated measures ANOVA with quality of life as dependent variable
Within subject effect

Groups	Pre camp assessment		6 months post camp assessment		F
	Mean	S.D.	Mean	S.D.	
Regular Yoga	83.93	7.52	90.86	9.90	89.33**
Irregular Yoga	70.16	7.31	72.90	9.41	Group x
Only Camp	68.73	5.55	69.46	6.64	Condition=18.81**

Between subject effect

Conditions	Mean	S.D.	F
Pre camp assessment	77.74	.92	51.60**
6 months post camp assessment	74.07	.72	

Table 6: Mean, S.D. and repeated measures ANOVA with satisfaction with life as dependent variable
Within subject effect

Groups	Pre camp assessment		6 months post camp assessment		F
	Mean	S.D.	Mean	S.D.	
Regular Yoga	77.60	4.79	81.30	5.24	80.07**
Irregular Yoga	64.36	5.67	66.33	6.81	
Only Camp	56.22	7.15	56.76	7.23	

Between subject effect

Conditions	Mean	S.D.	F
Pre camp assessment	77.74	.92	51.60**
6 months post camp assessment	74.07	.72	

groups. The between subject effects ($F (df 1,87) = 51.60, P < .01$) was also found significant (Table 5).

A glance at Table 6 revealed the main effect of groups was significant ($F (df = 1, 87) = 80.07, P < .01$). The regular yoga groups have reported more life satisfaction in comparison to two other groups. The between subject effects ($F (df 1,87) = 51.60, P < .01$) was also found significant.

One of the objectives of the study was to find out the role of sense of control in continuation of yoga after participation in the yoga training camp. Therefore, it was hypothesized that participants with high sense of control assessed

prior to the participation in the yoga camp will regularly practice the yoga *asana* over extended period. Hence, the stepwise regression analysis was computed, where primary control and perceived control were used as independent variables and health, quality of life and satisfaction with life as dependent variables. This regression analysis was made for only the six months follow-up condition for the three groups separately. Only the six months follow-up condition was taken for the regression analysis with the reason that the purpose was to find out the role played by control belief in the regular practice of yoga over an extended period.

Table 7: Total illness symptoms reporting as predicted by control beliefs

<i>Criterion Variable- Total Symptoms Reporting</i>						
<i>Regular Yoga Group Predictors</i>	<i>R</i>	<i>R2</i>	<i>R2 change</i>	<i>Beta</i>	<i>t</i>	<i>F</i>
Perceived control	.54	.29	.29	-.54	-3.44	11.84**
Only Camp Group Primary control	.38	.14	.14	-.38	-2.18	4.77**

Table 8: Well- being as predicted by control beliefs

<i>Criterion Variable- QOL</i>						
<i>Irregular Yoga Group Predictors</i>	<i>R</i>	<i>R2</i>	<i>R2 change</i>	<i>Beta</i>	<i>t</i>	<i>F</i>
Primary control	.50	.25	.259	.50	3.12**	9.76**
<i>Criterion Variable- SWL</i>						
<i>Regular Yoga Group Predictors</i>	<i>R</i>	<i>R2</i>	<i>R2 change</i>	<i>Beta</i>	<i>t</i>	<i>F</i>
Perceived control	.38	.14	.14	.38	2.17**	4.73**
Irregular Yoga Group Primary control	.43	.18	.18	.43	2.53**	6.43**

Total symptoms reporting was negatively but significantly predicted by perceived control (29% variance) in regular yoga group. Similarly, in the only camp group of participants also the primary control (14% variance) was found the best predictor (Table 7).

Table 8 showed that quality of life was significantly and positively predicted by primary control (Beta= 25.9% variance) in irregular yoga group. Perceived control was found to be the best predictor of SWL (14% variance) in regular yoga groups as well as in irregular yoga groups (18% variance).

Qualitative Analysis

In responses to the open ended question the participants of regular yoga group said that they are attending the camp to get mental peace, good physical health, to meet different people, because the neighbors and friends are attending and because yoga is our old tradition. In answer to the question why do you continue the Yogic practices? They said that Yoga *asana* need not any costly equipments and materials, one can practice throughout year, advantageous in preventing disorders and ailments, and enhance vital capacity.

DISCUSSION

Humankind has always tried to attain peace and happiness through all available means.

Regular practice of yoga helps to bring a natural and harmonious balance of body and mind. In yoga the internal stimuli is reduced to the minimum, by making the body healthy, so that the body systems are able to function in a harmonious fashion, and the whole body in fine-tuned and balanced. *Asana* and *pranayam* produce huge storage of energy in the solar plexus area. *Pranayams* and meditation also improves brain functions and increases the elimination of toxins from the body.

Control Beliefs and Yoga: Control as a coping process refers to the cognitive and behavioral strategies exerted to obtain control in a situation (Folkman 1984). Primary control strategies are attempted first and they yield outcomes, which complement the individual’s needs. Litt (1988) suggest that people who believe that they are able to meet the demands of the situation will rely on problem management strategies whereas people who have low level of self efficacy are likely to dwell on their lack of ability, using strategies that deal with the associated level of emotional distress. The findings also attest to the important and well established relationship of perceived control to subjective well-being (Newsom et al.1996; Kim et al. 1997; Grob 2000).

One of the objectives of the present piece of work was to find out the role of control beliefs that is, primary and perceived control in regularity and consistency in doing yogic practices. The significant t test results (Table 1) clearly

present that the participants of the regular group significantly differ to irregular yoga group as well as to only camp group in their scores on control beliefs. The high mean scores revealed it very well that those participants with significantly high in pre camp assessment of control beliefs had continued yogic practices and other life style changes learnt during the camp, after six months. The repeated measure ANOVA results also showed that the main effect of group was found significant for both primary and perceived control (Table 2 and 3). It meant that the three groups are significantly different in their control beliefs. The regression analysis also confirmed that both perceived and primary control had significant contribution in health and well-being of the participants who were regularly practicing yoga after attending the yoga camp. Both the quantitative measures and the qualitative interview data revealed that participants with high sense of control had practiced the yoga throughout the six months after attending camp, but the participants with less control beliefs had abandoned it after the camp. Although all the participants had attended the same camp, with same *Guru*, with teaching and preaching, however, only the participants high in control beliefs before the camp had continued it on regular basis.

Control belief is the self assessment of the person that he can do it, change the situation, and it is their efforts which can create a change in the situation and in turn in their life. These kinds of beliefs push them to make an effort. The positive effects of yoga on health and well-being have been known for centuries. However, they are difficult to practice and it takes time to see its benefits. The belief that I can do, and "me" and only "me" that can change my life, compels a person to practice yoga at the end.

Yoga, Control Beliefs and Health: During the yoga training camp all the participants had learnt all about maintaining good health through yoga *asanas*, *pranayams*, meditation, balanced diet, sleep and rest etc. The health status measured in the present investigation was through the physical and psychological symptoms mentioned by the participants. It appeared that the participants who had regularly practiced yoga had significantly reduced their physical as well as psychological problems because yoga nurtures both body and mind. Again, the sense of control had contributed in the maintenance of health

as perceived control was found the best predictor with 29% variance. Although yoga is historically a spiritual discipline, it has also been used clinically as a therapeutic intervention. A bibliometric analysis presented by Khalsa (2004) in a biomedical journal involving research on the clinical application of yoga has revealed an increase in publication frequency over the past 3 decades with a substantial and growing use of randomized controlled trials. Types of medical conditions have included psychopathological (for example, depression, anxiety), cardiovascular (for example, hypertension, heart disease), respiratory (for example, asthma), diabetes and a variety of others. A majority of this research has been conducted by Indian investigators and published in Indian journals, particularly yoga specialty journals. Yoga therapy is a relatively novel and emerging clinical discipline within the broad category of mind-body medicine, whose growth is consistent with the burgeoning popularity of yoga in the West and the increasing worldwide use of alternative medicine.

Well-being and Yoga: Well-being encompasses evaluation by the individual about his/her physical, psychological, social, emotional, environmental quality in life and satisfaction with different domains of his/her life. Satisfaction with life constitutes a major dimension of well-being. Yoga brings good physical and mental health to one who regularly practices it and this in turn makes the person evaluate life as satisfactory. Yoga through its different techniques of mediation, *asanas* and *pranayams* gives strength to overcome stress and enhances well-being. The pioneers in the study of well-being and life satisfaction Diener and colleagues (1985) stated that for judging the satisfaction with their lives people set certain criteria and these are based on their life circumstances. The person himself sets the standard. Life satisfaction depends on what is important at a particular moment. In the present work physical and mental harmony was important for participants who had practiced yoga throughout the follow-up period because they had set standard for themselves to be healthy. Therefore, they worked on it and, evaluated their life satisfactory and with quality. Yoga bears relevance to social context also. Yoga impresses upon discarding violence and corruption, which are the pollutions of life.

By practicing yoga, a person is supposed to reach a state of mental equanimity, where re-

sponses to favorable or unfavorable external events are well under the individual's control, and responses are moderate in intensity (Telles et al. 2000). The science of yoga is a powerful stream of knowledge, which enables the practitioners to achieve radiant physical health, serene mind, continues spiritual uplift, and creates the ability for harmonious social living (Kumar 2005). Yoga's numerous health benefits, its potential for personal and spiritual transformation, and its accessibility make it a practical choice for anyone seeking physical, psychological, and spiritual integration. As exponents of yoga believe that, other exercise systems only have a physically beneficial effect on the body whereas yoga results in the development of the physical, mental and social well-being.

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REFERENCES

- Abeles RP 1991. Sense of control, quality of life, and frail older people. In: JE Birren, DE Deutchman, J Lubben, J Rowe (Eds.): *The Concept and Measurement of Quality of Life in the Later Years*. New York: Academic Press, pp. 297-314.
- Brandtstadter J, Renner G 1990. Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilative and accommodative strategies of coping. *Psychology and Aging*, 5: 58-67.
- Brandtstadter J, Baltes-Gotz B 1990. Personal control over development and quality of life perspective in adulthood. In: PB Baltes, MM Baltes (Eds.): *Successful Aging: Perspectives from Behavioral Sciences*. New York: Cambridge University Press, pp. 197-224.
- Dua J 1998. Meditation and its effectiveness. In: DM Pestonjee, U Pareek, R Aggarwal (Eds.): *Studies in Stress and its Management*. Delhi: Oxford and IBH.
- Folkman S 1984. Personal control and stress and coping processes: A theoretical analysis. *J Personality and Social Psychology*, 46: 839-852.
- Fontaine KR, McKenna L, Cheskin LJ 1997. Support group membership and perceptions control over health in HIV positive men. *J Clinical Psychology*, 53: 249-252.
- Grob A 2000. Perceived control and subjective well-being across nations and across the life-span. In: ED Diener, EM Suh (Eds.): *Culture and Subjective Well-being*. Massachusetts: The Massachusetts Institute of Technology Press, pp. 319-339.
- Khalsa SB 2004. Yoga as a therapeutic intervention: A bibliometric analysis of published research studies. *Indian J Physiology and Pharmacology*, 48: 269-285.
- Kim SL, Sandler IN, Tein J 1997. Locus of control as a stress moderator and mediator in children of divorce. *J Abnormal Child Psychology*, 25: 145-155.
- Kumar K 2005. Yogacharya. 2 Achieve Inner Well-being through Practice of Yoga. *The Times of India*, P. 14.
- Lazarus RR, Folkman S 1984. *Stress Appraisal and Coping*. New York: Springer.
- Manchanda SC, Narang R, Reddy KS, Sachdeva U, Prabhakaran D, Dharmanand S, Rajani M, Bijlani R 2000. Retardation of coronary atherosclerosis with yoga lifestyle intervention. *J Association of Physicians of India*, 48: 687-694.
- Menec VH, Chipfield JG 1997. The interactive effect of perceived control and functional status on health and mortality among the young-old and old-old adults. *J Gerontology: Psychological Sciences*, 52B (3): 113-126.
- Michalsen A, Grossman P, Acil A, Langhorst J, Ludtke R, Esch T, Stefano GB, Dobos GJ 2005. Rapid stress reduction and anxiolysis among distressed women as a consequence of a three-month intensive yoga program. *Med Sci Monit*, 11: 555-561.
- Nagendra HR, Nagarathna R 1977. *New Perspective in Stress Management*. Bangalore, India: Vivekananda Kendra Parkashana.
- Newsom JT, Knapp JE, Schulz R 1996. Longitudinal analysis of specific domains of internal control and depressive symptoms in patients with recurrent cancer. *Health Psychology*, 15: 323-331.
- Rothbaum F, Weisz JR, Snyder SS 1982. Changing the world and changing the self. *J Personality and Social Psychology*, 42: 5-27.
- Sahasi G, Mohan D, Kacker C 1989. Effectiveness of yogic techniques in the management of anxiety. *J Personality and Clinical Studies*, 5: 51-55.
- Steptoe A, Evans O, Fieldman G 1997. Perceived control over work: Psychophysiological response to self-paced and externally-paced tasks in an adult population sample. *J Psychophysiology*, 25: 211-220.
- Telles S, Reddy SK, Nagendra HR 2000. Oxygen consumption and respiration following two yoga relaxation techniques. *Applied Psycho-physiological Biofeedback*, 25: 221-227.
- Udupa KB, Singh RH, Dwivedi KN 1977. Biochemical Study on Meditation. *Paper presented at the International Seminar on Stress in Health and Diseases*. Banaras Hindu University, Varanasi.
- Wallhagen MI, Brod M 1997. Perceived control and well-being in Parkinson's disease. *W J Nursing Research*, 19: 11-31.