Canadian Journal of Educational and Social Studies
Vol. 2(3), 2022, pp.1-22

Mediation of Spiritual Intelligence between Psychological Capital and Academic Behaviours of College Students

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DOI: 10.53103/cjess.v2i3.40

Abstract

The study was carried out to examine the mediation of spiritual intelligence between psychological capital and academic behaviour of college students. Spiritual intelligence included critical existential thinking, personal meaning production, transcendental awareness and conscious state expansion. Psychological capital included hope, self-efficacy, resilience, and optimism. Academic behaviour included academic engagement, perceived academic competence, learning strategies, and class room interaction. Participants were 120 randomly selected college students who responded to King's Spiritual Intelligence Inventory, Luthan's PsyCap Questionnaire, and Sia's Academic Behaviour Scale. Correlational analyses of the data pointed out that all the attributes of spiritual intelligence have significant positive correlation with all the attributes of psychological capital and of academic behaviour. Confirmatory factor analyses were carried out for each attribute of spiritual intelligence and adequate model fits were obtained. The results revealed significant mediation effect of each attributes of spiritual intelligence between psychological capital and academic behaviour.

Keywords: Academic Behaviour, Existential Thinking, Resilience, Mediation, Structural Equation

Introduction

The study of human intelligence has passed through a long process of change, revision, controversy and theory building. In fact, Gardner's theory of multiple intelligences led to the foundation of a new era in study of human intelligence, which was subsequently added by two promising concepts namely; Emotional intelligence (Goleman, 1995) and Spiritual Intelligence (Zohar, 1997). In fact, Zohar (1997) coined the term "Spiritual Intelligence" and introduced the idea in her book 'Rewiring the Corporate Brain'. Finally, Emmons (1999) identified it as a further dimension of human intelligence concerned with "cosmic or existential issues". He highlighted four criteria that qualify this facet of human intelligence. Those are: (i) the capacity to transcend the physical and

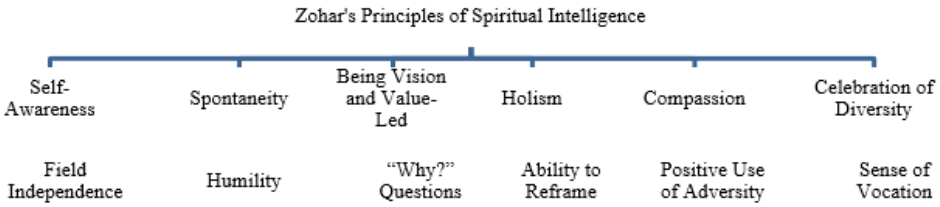
material; (ii) the ability to experience heightened states of consciousness; (iii) the ability to sanctify everyday experience; and (iv) the ability to utilize spiritual resources to solve problems.

Arising from the notions of Emmons, Zohar and Marshall (2004) defined spiritual intelligence as "an ability to access higher meanings, values, abiding purposes, and unconscious aspects of the self and to embed these meanings, values and purposes in living a richer and more creative life". They claimed that Spiritual Quotient (SQ) is our ultimate intelligence and is the necessary foundation for the effective functioning of IQ and EQ (Zohar & Marshall, 2000). Developing and using IQ, EQ, and SQ leads us to different abilities and skills to deal with everyday situations and problems. IQ allows us to think rationally, which helps in our everyday problem solving and goal attainment. This is the ability to generate a rich set of alternatives and utilize an appropriate algorithm to select the best one to solve a problem. EQ is manifested in trust, empathy, self-awareness, and self-control, and is the ability to respond appropriately to the emotions of self and others. EQ allows us to judge our situation and then behave appropriately within it; i.e., working within the boundaries of the situation and allowing the situation to guide us. On the other hand, SQ amplifies and integrates IQ and EQ. It allows us to be present in the moment free from anger, resentment, worry, and fear. Based on a number of cross-cultural researches, Zohar (2000) identified 12 principles of Spiritual Intelligence.

Spiritual Intelligence

Zohar (2000) derived these principles from the qualities that define complex adaptive systems in human beings. According to him, complex adaptive systems create order out of chaos. They are holistic, emergent, and respond creatively to environmental challenges. Spiritual Intelligence being a complex adaptive system, balances the experiences with discipline and responsibility. The SQ principles, underpinned by vision, purpose, meaning, and values, facilitate everyday problem solving and goal attainment. In his article, "Spiritual intelligence: A new paradigm for collaborative action", Zohar (1997) identified three forms of human capital; the material capital, social capital and the spiritual capital. He observed that growth of material capital among people is related to IQ, the Rational Intelligence, which is controlling 'What I think?' and having a direct connection with the material prosperity. The social capital is the EQ or the Emotional Intelligence of people, which decides as to what they feel and is fundamental for the existence of harmony in the society. Even more fundamental than social capital is spiritual capital, which reflects what an individual exists for, believes in, aspires to, and takes responsibility. Spiritual intelligence, which involves discovering for everybody, 'What I am?' is the source of spiritual capital of the society.

The following are Zohar's description of the 12 principles of spiritual intelligence.



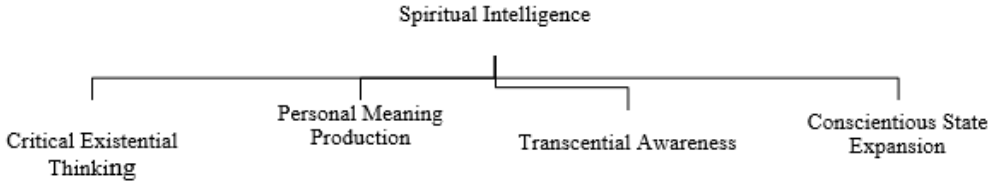
1. Self-Awareness: Knowing what I value, and what deeply motivates me
2. Spontaneity: Living in and being responsive to the moment
3. Being Vision: and Value-Led: Living on principles and deep beliefs
4. Holism: Seeing larger patterns, relationships, and connections
5. Compassion: Having the quality of "feeling-with" and deep empathy
6. Celebration of Diversity: Valuing other people for their differences, not despite them
7. Field Independence: Standing against the crowd and having one's own convictions
8. Humility: Having the sense of being a player in a larger drama, and of one's true place
9. Tendency to ask "Why?" Questions: To understand things getting to the bottom of them
10. Ability to Reframe: Standing back from a problem and seeing problems in a wider context
11. Positive use of Adversity: Learning and growing from mistakes, setbacks, and sufferings
12. Sense of Vocation: Feeling called upon to serve, and to give something back

Otherwise, Emmons (2000) who pioneered in the field spiritual intelligence described it as "the adaptive use of information to facilitate everyday problem solving and goal attainment." Emmons, based on a factor analytic study of Zohar's principles, proposed the following four components of spiritual intelligence as (i) the capacity to transcend the physical and material; (ii) the ability to experience heightened states of consciousness; (iii) the ability to sanctify everyday experience; and (iv) the ability to utilize spiritual resources to solve problems. Subsequently, responding to the Emmon's components, Wigglesworth (2012) proposed a quadrant model of spiritual intelligence, which explained 21 human virtues in the four quadrants.

Cindy's Four Quadrants of Spiritual Intelligence

What You See-Inner world / What other people see-Outer world	Self / Self focused	Other Focused
	Higher Self/ego self-Awareness 1. Aware of own world view 2. Aware of life purpose 3. Aware of values hierarchy 4. Complexity of thought 5. Aware of ego and higher self	Universal awareness 1. Aware interconnectedness 2. Aware of other world views 3. Breadth of time perception 4. Aware of perception limits 5. Aware of Spiritual laws 6. Experience of oneness
	Higher Self/ego self-Mastery 1. Commitment to Spirit, Growth 2. Keeping spirit in charge 3. Living purpose and values 4. Sustaining faith 5. Seeking guidance	Spiritual presence (social Mastery) 1. Wise teacher of spirit 2. Wise change agent 3. Compassionate/wise decisions 4. Calming healing presence 5. Align ebb and flow of life
	Calm & Peaceful at all times	Compassionate & wise action

However, considering the issues and debates in prior research, particularly in respect of scientific evaluation of the constructs, King & Decicco (2009) summarized the above models of spiritual intelligence, and not only proposed a precise four-factor model but also developed SSRI-24, a reliable measure of spiritual intelligence. Therefore, the present research used the King's model to measure the spiritual intelligence of college students. In the present research, it is proposed to examine the direct effect of spiritual intelligence on the academic behavior of college students, and also its mediating function in enhancing the positive academic behavior among college students through their psychological capital. Hence, following are the elaboration of constructs relating to King's four factors of spiritual intelligence, Luthan and Youssef's (2004) four attributes of psychological capital and Sia's concept of academic behavior.



Critical existential thinking: Critical existential thinking is the capacity to contemplate the nature of existence, reality, the universe, space, time, and other existential/metaphysical issues. It is also the capacity to contemplate non-existential issues

in relation to one's existence (i.e., from an existential perspective).

Personal meaning production: Personal meaning production is the ability to derive personal meaning and purpose from all physical and mental experiences, including the capacity to create and master a life purpose.

Transcendental awareness: Transcendental awareness is the capacity to identify transcendent dimensions/patterns of the self (i.e., a transpersonal or transcendent self), of others, and of the physical world (e.g., non-materialism) during normal states of consciousness, accompanied by the capacity to identify their relationship to one's self and with the physical world.

Conscious state expansion: Conscious state expansion is the ability to enter and exit higher states of consciousness (e.g. pure consciousness, cosmic consciousness, unity, and oneness) and other states of trans at one's own discretion as in deep contemplation, meditation, and prayer etc.

Psychological Capital

Psychological capital refers to a set of resources a person can use to improve his performance in different spheres of life. Luthans and Youssef (2004) identified four psychological resources such as hope, self-efficacy, resilience, and optimism as dimensions of psychological capital following different inclusion criteria. The main feature of these dimensions is that these are state-like and open to development. The following are some descriptions of each of the dimensions.

Hope: Hope, an important component of psychological capital (PsyCap) is related to the physical and mental health of people and is the ability to deal with trouble and distress (Curry et al., 1997; Snyder et al., 1991). According to Peterson and Byron (2008), hope is positively associated with performance, leadership, commitment, satisfaction, and happiness. Harvey et al., (2009) found that hope comprised of three components such as power, goals, and path. It provides a realism and challenge to achieve the goals (Malone, 2010). Hope is the ability to determine, illuminate and follow the best way to success. People with high levels of hope have the capacity to deal with all the situations. Luthans et al. (2008) argued that hopeful individuals have high energy to identify the goal and develop alternative pathways to attain these goals. They also found that hopeful people are considered independent thinkers. When all the ways are blocked, hopeful and dedicated individuals like to take risks and find different alternative pathways to success (Snyder, 1994; Snyder, 2002).

Self-efficacy: Self-efficacy is an individual's belief in his or her innate ability to achieve goals. Albert Bandura (1977) defined it as a personal judgment of, "how well one can execute courses of action required to deal with prospective situations". Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. The sources of self-efficacy according to Goleman (1998) are mastery experiences, vicarious

experiences, verbal persuasion, emotional and physiological states and imaginal experiences. The individual's development of self-efficacy beliefs has its roots in early contingency experiences, in the use of degrees of freedom, and in the experience of success and failure depending on appropriate causal attributions (Luthans & Youssef, 2004). These basic experiences also hint at the most effective educational approaches.

Resilience: Third important component of psychological capital is resilience. According to Luthans (2002) resilience is the capability of the individuals to strike back from uncertainty and failure. Masten and Wright (2010) referred to resilience as the process of positive arrangement and modification in difficult and tough environment. Individuals with high resilience have the ability to take risk and overcome the risk (Masten & Reed, 2002). They are optimistic, humorous, curious and energetic towards life (Wolin & Wolin, 1993; Masten, 1994). These individuals are innovative, like new experiences and use creative exploration. Kappagoda et al. (2014a) characterized resilience as "a positive force that might be utilized to counter the negative events by adding the extreme positive events". Enzi and Ibrahim (2012) stated the three basis of resilience as (Cs): connectedness, coherence, and control.

Optimism: Seligman (1998) originates the theory of optimism, as a positive organizational behaviour (POB). Optimism is characterized as making stable, global and internal attribution towards achievement of goals. According to Seligman (1998), optimists are those who anticipate that positive things will happen in life, and pessimists think about the negative things in life. Optimists are self-assured persons who think that positive and constructive events and occasions happen as consequence of their own behaviour and practices. Optimism as an activity is related to achieve the target by self-regulation. Therefore, optimist has a sense that positivity comes in reaction to their own behaviour and actions (Avey et al., 2010). Seligman (1998) stated that the individuals who have positive attitude towards incidents, an internal stability, global attribution and inward steadiness are optimists. Totterdell et al., (2006) found that the characteristics of stress are positively mediated by the optimism. Sarwar et al. (2017) found that a broad conviction of optimism is that good and pleasant events occur more than bad events in life.

Academic Behaviour

There are many kinds behaviour of students such as active, ambitious, cautious, conscientious, creative, curious, logical etc., which are necessary for their academic success. These behaviours are referred to as their academic behaviours. Sia (2012) undertaking a factor analytic study identified five factors about the academic attitude and behaviours of students and developed a scale for the measurement of these factors. He named the identified factors as: (i) engagement attitude and behaviour, (ii) perceived academic competence, (iii) perception of teachers and teaching, (iv) use of active learning

strategies, and (v) student-student interaction. The following are the descriptions of the factors.

Engagement attitude and behaviour: It is an indicator, which combines academic identification and participation. It involves the student's preparedness for the class, interest in the subject matter, discipline and hard work in the study, and involvement in the activities of the classes.

Perceived academic competence: It refers to the student's judgement about his or her academic abilities, confidence in performance, and knowledge of result, information about academic skills and strategies, and appropriate estimation of his or her position among the classmates.

Perception of teachers and teaching: It refers to the student's perception about teacher's expectations of him or her, ability to get along with the teachers, positive thinking about teachers caring, impartiality, and teacher ability in teaching, and respect for the teachers.

Use of active learning strategies: It involves the student's ability in reading, writing, discussion and problem solving, which promotes his analysis, synthesis, and evaluation of class contents. It also involves his or her understanding of the strategies for preparation and performance in the examinations.

Student-student interaction: It is a vital part of classroom behaviour, which involves listening to each other's comment, discussing problems with peers, having frequent contacts with friends, and making good use of peer learning.

Spiritual Intelligence, Psychological Capital and Academic Behaviour

The present research derived its concept from several prior studies examining the relationships among spiritual intelligence, psychological capital and academic behaviour of students. Some studies are reviewed below to develop the theoretical framework for the present research.

1. Studies on Psychological Capital and Academic Behaviour

Jafri (2013) compared the psychological capital between two groups of students designated as high performing and low performing groups. The measured psychological capitals were hope, self-efficacy, resilience, and optimism. The participants were two hundred forty randomly selected management students. T-test, regression analyses and Cohen's effect size test revealed that high performing students have significantly higher level of psychological capital in each of its attributes compared to low performing students. The results of regression analyses revealed that each attribute of PsyCap significantly predicted academic performance of the students.

Vanno et al. (2014) examined the relationship of the four psychological capitals such as hope, self-efficacy, optimism, and resilience on the academic outcome of four

hundred eighteen Thai undergraduate students. The students completed measures of individual PsyCap and reported their grade point average (GPA). Structural equation modelling was used to test the proposed relationship. The fit indices showed that the hypothesized model had an adequate fit to the data. The results showed that each of the psyCap variables has a direct positive effect on academic performance of the students.

You (2016) examined the college students' psychological capital consisting of self-efficacy, hope, optimism, and resilience related to their learning empowerment, and academic engagement. Four hundred ninety students participated in his study. Based on the results of structural equation modelling, he reported that college students' psychological capital has a significant positive relationship with their learning empowerment, and learning empowerment fully mediated the relationship between psychological capital and academic engagement.

Gong et al. (2018) examined the influence of psychological capital on students' study engagement. The participants in the study were 211 (64 men, 147 women) students from Qingdao University. From correlational analyses, they found that psychological capital has positive impact on study engagement. According to structural equation modelling, they found that positive emotions could be used as mediators between psychological capital and study engagement. They reported that high psychological capital brought more positive emotional experiences among students and improved their level of study engagement.

Martinez et al. (2019) examining the academic engagement and psychological capital resources as antecedents of academic performance of university students reported positive relationships among academic engagement, psychological capital, and academic performance. Results also supported PsyCap as a full mediator in the relationship between academic engagement and academic performance.

Jaweed et al. (2020) carried out a research project on the role of psychological capital in academic adjustment among university students. The study included five hundred eleven BBA students as participants. Using structural equation modelling, they reported that each attribute of psychological capital is a positive resource, playing a central role in students' academic adjustment.

The above studies strongly point to the fact that psychological capital is a strong source of students' academic behaviour. Not only it has direct effects on the academic behaviour of students but also it mediates other relevant academic variable to create indirect positive effect on the academic behaviour of the students.

2. Studies on Spiritual Intelligence and Psychological Capital

Sharma and Arif (2015) conducted a study on spiritual intelligence, self-esteem and mental well-being of adolescents. The study suggested that spiritual intelligence has a positive relationship with self-esteem and mental health status of adolescents. Spiritual intelligence leads to better ability among adolescents to solve problems, attain goals, and

improve their overall quality of life. The participants of the study were eighty students from two English medium schools in Emphal, Manipur.

Tankamani and Shahidi (2016) conducted a study on one hundred fifty university students including 89 boys and 61 girls to examine the relationship of spiritual intelligence with optimism and happiness. Using correlation and regression analyses on the total sample, they pointed out that optimism has significant correlations with personal meaning production, transcendental awareness, and conscious state expansion but not with critical existential thinking. They explained that because critical existential thinking has not adequately developed among those students, its effect could not be observed. However, the overall prediction of optimism from spiritual intelligence was significant. They have also reported similar findings with regard to the overall relationship and prediction of happiness from spiritual intelligence.

Khalajani and Farhangi (2017) conducted a study on the relationship between components of spiritual intelligence and individual identity among students. They used several inclusive constructs of spiritual intelligence. Those are consciousness (mindfulness and synthesis), grace (beauty, gratitude and joy), inner-directedness (freedom), meaning (purpose and service), existence (immanence and intuition), truth (trust, equanimity and wholeness), and transcendence (relatedness, sacredness, higher self, and egolessnees). The findings of the study showed significant correlations between the components of spiritual intelligence and identity status of the students. Finally, bases on regression analyses, they suggested a hypothetical output model governing the relationship between spiritual intelligence and identity development. The study was carried out on one hundred sixty-one graduate students.

Rahimi (2017) conducted a study to examine the relationship of spiritual intelligence and psychological capital with academic performance among the students of medical science. He had two hundred ninety-four participants in the study. The results of correlation pointed out that there is a significant positive relationship between spiritual intelligence and psychological capital. In addition, there are significant positive relationships between spiritual intelligence and academic performance, and psychological capital and academic performance. The term psychological capital in the study included self-efficacy, optimism, hope and resiliency, and spiritual intelligence included critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion.

Shamsi and Nastiezaie (2019) examined the mediating role of spiritual intelligence in the relation between social behaviour and psychological capital of graduate students. The study was carried out on 341 post-graduate students. The results revealed that the correlations between social behaviour and psychological capital, between social behaviour and spiritual intelligence, and between spiritual intelligence and psychological capital are all positive and significant. Furthermore, the direct effect of psychological capital on social

behaviour, spiritual intelligence on social behaviour, and spiritual intelligence on psychological capital were all positive and significant. The indirect effect of psychological capital on social behaviour was also significant and positive with the mediating role of spiritual intelligence. The conclusion of the study was that the psychological capital of the students could be improved by focusing on the growth of spiritual intelligence.

The above studies implied strong relationship between spiritual intelligence and psychological capital and between spiritual intelligence and academic performance among students. However, the mediating functions of spiritual intelligence between psychological capital and academic behaviour of students have not been explored in any prior study. Realizing that spiritual intelligence is a very higher-level mental faculty, it is hypothesized for the present research that it could be strongly mediating between psychological and academic behaviour of the students. Hence, the theoretical model is proposed for empirical validation.

Objectives and Hypotheses

The study aimed to examine: (i) the impact of the psychological capital such as hope, self-efficacy, resilience, and optimism on academic behaviours of college students; (ii) impact of the attributes of spiritual intelligence such as critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion on academic behaviours of college students, and (iii) the mediating role of each of the attributes of spiritual intelligence between psychological capital and academic behaviours of college students. Arising from the review of related literature, the following hypotheses were developed for the study.

Hypothesis 1: Psychological capital and spiritual intelligence have positive effects on the academic behaviour of college students.

Hypothesis 2: Critical existential thinking as a faculty of spiritual intelligence mediates through psychological capitals in enhancing positive academic behaviour.

Hypothesis 3: Personal meaning as a faculty of spiritual intelligence mediates through psychological capitals in enhancing positive academic behaviour.

Hypothesis 4: Transcendental awareness as a faculty of spiritual intelligence mediates through psychological capitals in enhancing positive academic behaviour.

Hypothesis 5: Conscious state expansion as a faculty of spiritual intelligence mediates through psychological capitals in enhancing positive academic behaviour.

Method of Study

Participants in the study were 120 college students randomly selected from the degree classes of two rural colleges in Odisha. The sample included both boys and girls. The students' age ranged between 17 to 20 years. The academic behaviours of the students were measured by the 40-item "Students' Academic Attitude and Behaviour Rating Scale"

(Sia, 2012). The scale measures five constructs of academic behaviours namely; engagement attitude and behaviour, perceived academic competence, perception of teachers and teaching, use of active learning strategies, and student-student interaction, having assigned eight items to each construct. All items are rated from 0 (strongly disagree with the statement) to 4 (strongly agree with the statement). Hence, the maximum score for each of the construct is 32. Reliability of the test is quite satisfactory for this research sample as the Cronbach Alpha coefficients ranged from 0.78 to 0.85. "Spiritual Intelligence Self Inventory" (King, 2008) was used to measure the Spiritual intelligence of the students. It consists of 24 items, 6 items measuring each of the four constructs namely; critical existential thinking, personal meaning production, transcendental awareness, and conscious state expansion. Each item in the inventory was responded by the students on a five-point scale from 0 (not at all true of me) to 4 (completely true of me). Hence, the maximum score for each of the constructs is 24. Reliability of the test is satisfactory for this research sample having reported the Cronbach alpha between 0.73 and 0.79. Psychological capital of the students was measured by the 24-item Psychological Capital Questionnaire developed by Luthans et al. (2007). Psychological capital comprises four dimensions that include hope, self-efficacy, resilience and optimism. This questionnaire of psychological capital assigns 6 items for each of these four dimensions. Students responded to each item in the test on a six -point Likert scale from 1 (strongly disagree with the statement) to 6 (strongly agree with the statement). Hence, the maximum score for each dimension was 36. All four instruments of PsyCap scale demonstrated adequate internal reliability as α greater than 0.76.

Results and Discussion

The theoretical framework of the study is presented in Figure1. The framework suggests to examine the direct effect of each of the four attributes of spiritual intelligence and of the four attributes of psychological capital on academic behaviour of the students. Further, it also suggests to examine the mediating effect of each attribute of spiritual intelligence on academic behaviour of students through their psychological capital. Hence, the results are analysed separately for each attribute of spiritual intelligence.

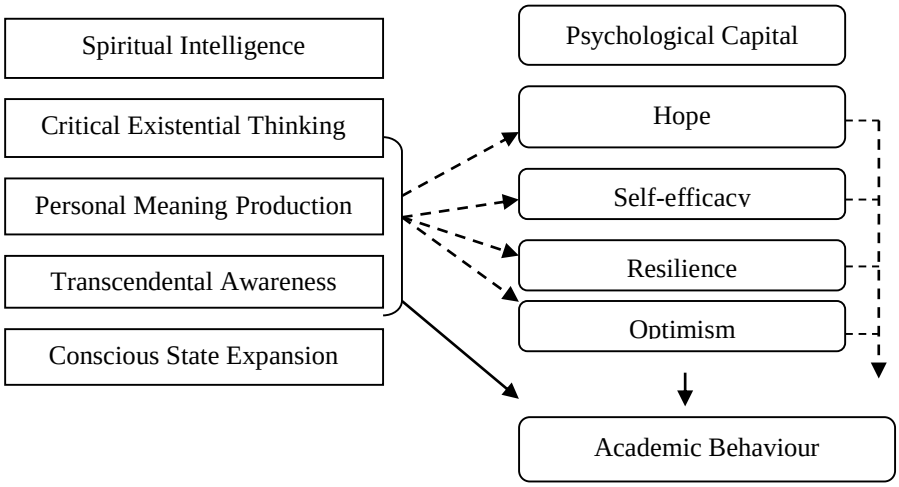


Figure 1: Theoretical framework of the study

Critical Existential Thinking

Correlations: Means, standard deviations (per item) and correlations of academic behaviour with PsyCap variables and attributes of spiritual intelligence are reported in Table 1. The results of correlation point out that all the variables are significantly correlated with academic behaviour of the students. Critical existential thinking has a significant positive correlation with academic behaviour ($r = 0.516$). Further, each dimensions of psychological capital such as Hope ($r = 0.424$), Self-efficacy ($r = 0.455$), Resilience ($r = 0.374$), and Optimism ($r = 0.462$) are significantly positively correlated with academic behaviour. Further, critical existential thinking has also significant correlation with Hope (.597), Efficacy (.583), Resilience (.544) and Optimism (.482). Hence, results of correlation confirmed the direct positive relationship of the four PsyCap attributes with academic behaviour and critical existential thinking. Based on the results of correlation, the mediating relationship of critical existential thinking between PsyCap variables and academic behaviour were examined. Therefore, confirmatory factor analysis was carried out first to examine the model fit of the data and when it was found that the data were reasonably model fit, structural equation modelling was carried out with the data.

Table 1: Means, standard deviations (per item) and correlations of academic behavior with PsyCap variables and attributes of spiritual intelligence

Variables	Mean	SD	AB	CET	PMP	TA	CSE
AB	3.21	0.57		.516	.389	.274	.379
CET	3.42	0.64	.516	**Note:**	AB-Academic Behavior		
PMP	2.89	0.51	.389		CET-Critical Existential Thinking		
TA	2.68	0.54	.274		TA- Transcendental Awareness		
CSE	3.09	0.67	.379		CSE- Conscious State Expansion		
Hope	4.12	0.77	.424	.597	.384	.462	. 511
Efficacy	4.26	0.63	.455	.583	.438	.337	.397
Resilience	4.27	0.81	.374	.544	.379	.409	.339
Optimism	4.18	0.74	.462	.482	.493	.463	.482

Note: There is no problem of multicollinearity among the independent variables because the correlation coefficients are below the cut off value of 0.75. Correlation coefficient higher than 0.234 is significant above .01 level.

Confirmatory factor analysis: Anderson and Gerbing (1988) recommended CFA for the assessment of unidimensionality and model fit of the measurements. The analysis of CFA model fitness of the present data resulted in ratios (Table 2), which indicated that the model is reasonably fit with the data. Hence, structural equation modelling was carried out on the data.

Table 2: Fitness ratios of the model with critical existential thinking

	CMIN/DF	GFI	NFI	CFI	RMSEA
Model (R)	1.916	0.957	0.964	0.972	0.028

Structural equation modelling: A structural equation modelling of psychological capital, critical existential thinking and academic behaviour was carried out to estimate the parameters. This SEM technique is supposed to be more acceptable than stepwise regression because in this technique all mediation paths of variables were simultaneously measured.

As observed in the resultant structural equation (Figure 2), hope is significantly related to academic behaviour directly ($\beta = 0.34$), and indirectly through critical existential thinking ($\beta = 0.23$). Hence, the findings clearly confirmed that being hopeful as a PsyCap is helping students' positive academic behaviour. Further, hopeful students with higher

existential thinking significantly add to their positive academic behaviour. Similarly, self-efficacy is also found to both directly (β = 0.47) and indirectly through critical existential thinking (β = 0.39) influence the positive academic behaviour of students. Hence, the results implied that critical existential thinking partially mediates the relationship between students' self-efficacy and their positive academic behaviour. It means that students with higher critical existential thinking get better benefit of self-efficacy in improving their positive academic behaviour. Further, resilience has also a direct impact on positive academic behaviour (β = 0.32) and an indirect impact on academic behaviour through mediation of critical existential thinking (β = .0.23). Hence, it may be concluded that students with higher existential thinking make better use of their resilience for positive academic behaviour. Finally, optimism also both directly (β = 0.42) and indirectly mediated by critical existential thinking (β = 0.39) influenced the positive academic behaviour of the students. Probably, critical existential thinking has the most effective mediation through optimism, as the mediating beta value is very high. Therefore, it may have concluded from the findings of the study that critical existential thinking not only directly enhances the positive academic behaviour of students, but also acts as a strong positive mediator for each of the PsyCap variables to encourage positive academic behaviour among students

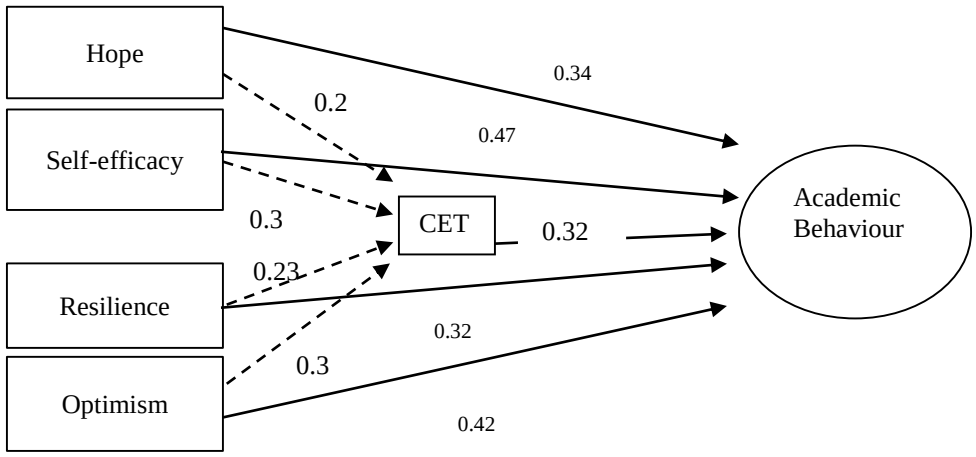


Figure 2: Resultant structural equation model for critical existential thinking

Personal Meaning Production

Correlations: The results of correlation (Table 1) point out that all the variables are significantly correlated with academic behaviour of the students. Personal meaning production has also a significant positive correlation with academic behaviour (r = 0.389). Personal meaning production has also significant correlation with Hope (.384), self-efficacy (.438), Resilience (.379), and Optimism (.493). Further, it is previously reported

that each dimension of psychological capital is significantly positively correlated with academic behaviour. Hence, results of correlation established the direct relationship of the four PsyCap attributes and personal meaning production with academic behaviour. Arising from the results of correlation, the mediating relationships of personal meaning production between PsyCap and academic behaviours were examined. First, confirmatory factor analysis was carried out which showed reasonable model fit of the data and then structural equation modelling was carried out with the data.

Confirmatory factor analysis: The data were analysed for CFA model fitness. The analysis of the data resulted in a good fitness excepting for the measure of GFI, which was 0.932 in the initially analysis. Therefore, one item each of personal meaning production and hope having factor loadings less than 0.40 were deleted from final analysis and revised results showed ratios of reasonable model fitness (Table 3). Then, structural equation modelling was carried out on the revised data.

Table 3: Fitness ratios of the model with personal meaning production

	CMIN/DF	GFI	NFI	CFI	RMSEA
Model (R)	3. 086	0.965	0.955	0.968	0.038

Structural equation modelling: It is previously discussed in the structural equation modelling of critical existential thinking that the four spiritual intelligence attributes and the four PsyCap variables have direct consequences on the academic behaviours of students. Now, the results are discussed with respect to the mediating effect of personal meaning production between PsyCap variables and academic behaviour. Each of the four PsyCap variables is found to be indirectly but significantly related to academic behaviour (Figure 3) having $\beta = 0.22$ for hope, $\beta = 0.30$ for self-efficacy, $\beta = 0.26$ for resilience, and $\beta = 0.33$ for optimism. Hence, the results may be interpreted that with higher level of personal meaning production, a student gets enhanced benefits in academic behaviours from each of his/her attributes of psychological capital. In other words, personal meaning production as an attribute of spiritual intelligence positively mediates the relationship between psychological capital and academic behaviour of students.

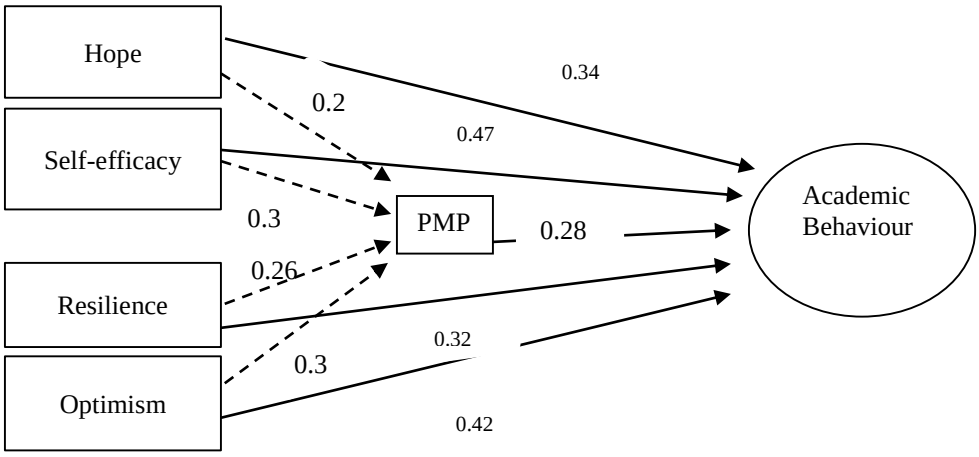


Figure 3: Resultant structural equation model for personal meaning production

Transcendental Awareness

Correlations: Transcendental awareness has a significant positive correlation with academic behaviour (r = 0.274). Transcendental awareness has also significant correlations with each dimensions of psychological capital such as Hope (r = 0.462), Self-efficacy (r = 0.337), Resilience (r = 0.409), and Optimism (r = 0.463). Further, as previously reported each dimension of psychological capital is significantly positively correlated with academic behaviour. Hence, results of correlation pointed to the direct relationship of the four PsyCap attributes and transcendental awareness with academic behaviour of students. Based on the results of correlation, the mediating relationships of transcendental awareness between PsyCap and academic behaviours were examined. First, confirmatory factor analysis was carried out which showed reasonable model fit of the data and then structural equation modelling was carried out with the data.

Confirmatory factor analysis: The data were analysed for CFA model fitness. The analysis of model fitness of the data resulted in a good fitness excepting for the measure of GFI, which was 0.917 in the initially analysis. Therefore, two item of transcendental awareness, one item of hope, and one of resilience having factor loadings less than 0.40 were deleted from final analysis and revised results showed ratios of reasonable model fitness (Table 4). Then, structural equation modelling was carried out on the revised data.

Table 4: Fitness ratio of the model with transcendental awareness

	CMIN/DF	GFI	NFI	CFI	RMSEA
Model (R)	2.838	0.962	0.958	0.956	0.043

Structural equation modelling: It is previously discussed in the structural equation modelling of critical existential thinking that the four attributes of spiritual intelligence and the four PsyCap variables have direct consequences on the academic behaviours of students. Now, the results are discussed with respect to mediating effect of transcendental awareness between PsyCap variables and academic behaviour. Each of the four PsyCap variables is found to be indirectly but significantly affecting the academic behaviour (Figure 4) having $\beta = 0.27$ for hope, $\beta = 0.24$ for self-efficacy, $\beta = 0.24$ for resilience, and $\beta = 0.32$ for optimism. Thus, the results are interpreted that higher level of transcendental awareness mediates through the PsyCap of the students to help them increase their positive academic behaviour. In other words, transcendental awareness as an attribute of spiritual intelligence not only directly activates positive academic behaviour among students but also indirectly mediates through psychological capital enhancing their positive academic behaviour.

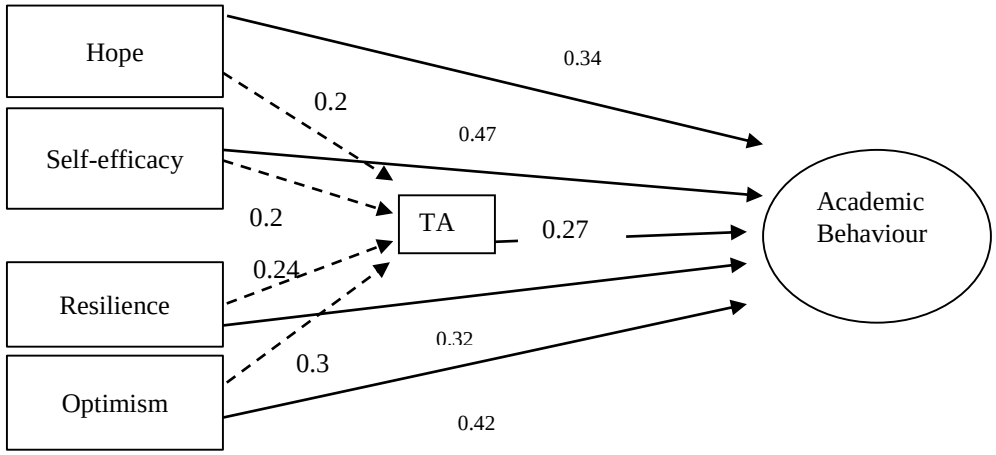


Figure 4: Resultant structural equation model for transcendental awareness

Conscious State Expansion

Correlations: Conscious state expansion has a significant positive correlation with academic behaviour ($r = 0.379$). Further also, each dimensions of psychological capital such as Hope ($r = 0.511$), Self-efficacy ($r = 0.397$), Resilience ($r = 0.339$), and Optimism ($r = 0.482$) are significantly positively correlated with conscious state expansion. It is previously reported that each dimension of psychological capital is significantly positively correlated with academic behaviour. Hence, results of correlation confirmed the direct relationship of the four PsyCap attributes and conscious state expansion on academic behaviour of students. Based on the results of correlation, the mediating relationships of

conscious state expansion between PsyCap and academic behaviours were examined. First, confirmatory factor analysis was carried out which showed reasonable model fit of the data and then structural equation modelling was carried out with the data.

Confirmatory factor analysis: The data were analysed for CFA model fit. The analysis of model fitness of the data resulted in ratios (Table 5), which indicated that the model is reasonably fit with the data. Hence, structural equation modelling was carried out on the data.

Table 5: Fitness ratio of the model with conscious state expansion

	CMIN/DF	GFI	NFI	CFI	RMSEA
Model (R)	1.088	0.981	0.986	0.974	0.022

Structural equation modelling: It is previously discussed in the structural equation modelling of critical existential thinking that the four attributes of spiritual intelligence and the four PsyCap variables have direct consequences on the academic behaviours of students. Now, the results are discussed with respect to mediating effect of conscious state expansion between PsyCap variables and academic behaviour. Each of the four PsyCap variables is found to be indirectly but significantly affecting the academic behaviour (Figure 5) having $\beta = 0.30$ for hope, $\beta = 0.34$ for self-efficacy, $\beta = 0.29$ for resilience, and $\beta = 0.35$ for optimism. Thus, the results are interpreted that higher level of conscious state expansion mediates through the PsyCap of the students and increase their positive academic behaviour. In other words, conscious state expansion as an attribute of spiritual intelligence not only directly activates positive academic behaviour among students but also indirectly mediates through psychological capital enhancing their positive academic behaviour.

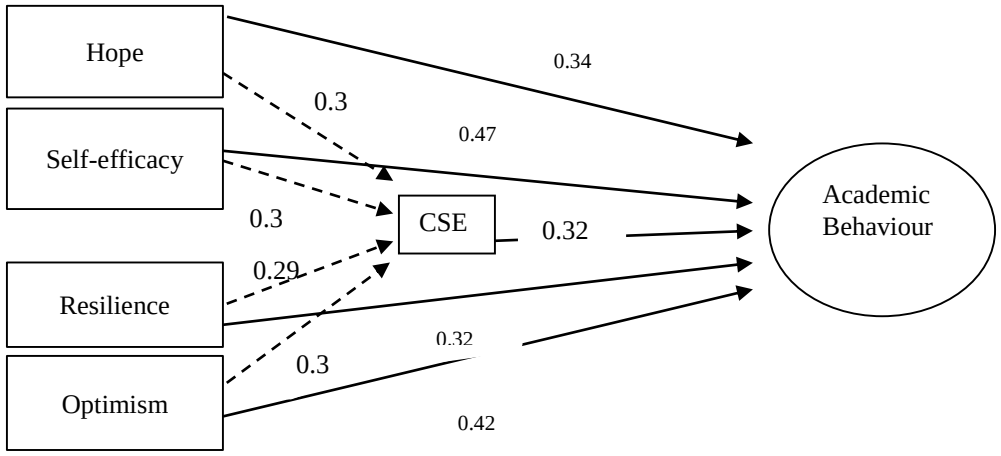


Figure 5: Resultant structural equation model for conscious state expansion

Conclusion

1. Each of the four attributes of spiritual intelligence has strong relationship with positive academic behaviour of the college students. Critical existential thinking has the strongest effect while transcendental awareness has the weakest effect (as observed from correlation). It may be due to the fact that transcendental awareness has not been as adequately developed among college students as about other faculties of spiritual intelligence (from the observations of means)

2. Similarly, each of the four attributes of psychological capital has strong relationship with positive academic behaviour of college students. Observation of means point to the fact that all the four PsyCap attributes have been well developed among the college students. However, resilience has relatively less impact on their academic behaviour compared to the other attributes; even resilience is found to be well developed among them (observation of mean). Such findings need to be further examined.

3. The attributes of psychological have also indirectly affected the academic behaviour of college students mediated by each of the four attributes of spiritual intelligence. The beta value for the mediation effect ranged between 0.27 to 0.32, pointing to the fact that 7 to 10% of the positive academic behaviour of college students are enhanced by their psychological capital mediated through spiritual intelligence.

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