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Positive Psycho-Educational Intervention (PPEI)

Motivation and Alleviation of Depressive Symptoms

Martin Joseph Kuzhivellil
University of Santo Thomas, Manila, Philippines

Abstract

India with more than a billion residents has the second largest education system in the world. But it is alarming that the dropout problem is very pervasive in the Indian educational contexts. Many children who enter school are unable to complete their education and multiple factors are responsible for students dropping out of school. Therefore, this study is aimed to develop and assess the effectiveness of the positive psycho-educational intervention (PPEI) in enhancing student engagement, motivation and alleviation of depressive symptoms among the dropouts in West Bengal, India. A total of 68 dropout boys from urban areas were randomly assigned both in control and experimental groups. The statistical analysis between the pre-test and post-test scores of the experimental group showed significant difference (p=.000) and its post-test scores indicated significant increase in student engagement and motivation and significant decrease in the depressive symptoms. It indicates that the Psycho-education focused positive intervention Program (PPEI) was effective for the participants.

Introduction

Education is the foundation of human development, survival of the society and economic growth (Sharma, 2007). It is the universal component of the society through which social heritage is handed down from generation to generation. Development of body, mind and soul is achieved through education. The advancement of the individual and the nation as a whole depends on education. It is a fundamental human right, a factor in the continued economic development of the country

and a tool in enhancing the quality of life of the citizenry and makes them globally competitive (Okumu, et al 2008).

Second to China, India has the second largest education system worldwide (Cheney, Ruzzi & Muralidharan, 2005). As contrasted to some countries that are disturbed by the economic effects of an aging population, India is increasingly growing in younger populations. Estimated population of India by 2050 is 1.57 billion. As per report of Indian 's census bureau, 40% of the population is under the age of 18, and by 2015, 55% will be below 20. With a multitude of would-be workers, this makes India a promising services and manufacturing power in the next twenty years (Kripalani, M, 2005). Sadly, this demographic edge could easily be squandered. Dropout problems in the Indian education system are prevalent. Reasons for dropout problems are multi-factorial ranging from unfriendly environment, poor comprehension, lack of engagement, motivation, absenteeism and teachers ' attitude and behavior (Sajjad, et al, 2012). Arun (2000) and Anupreet (1999) stated that a large number of Indian children remain out of school. In the year 2000-2001, the Ministry of Human Resources Development, Government of India reported a 54% dropout rate for classes I to VIII and 69% for classes I to X (Govindarajis & Venkatesan, 2010). As per the latest estimates available from the Ministry of Human Resource Development at State level, the dropout rate has been quite high in West Bengal, Bihar, Jammu-Kashmir, Orissa, Rajasthan, UP and most of the States in North East (National Human Development Report, 2001).

As students progress from elementary to middle school to high school and on to secondary school, workload definitely increases, academics become more difficult and grading becomes stricter. Motivation becomes mostly extrinsic than intrinsic which in effect leads students to exert lesser effort, poor concentration indifference, and generally withdraw from the activity (Legault et al, 2006). Kaplan et al, (1994) noted that failure to graduate increased the tendency for depression, anxiety, and self-pity. High school dropouts were found to be less satisfied in their lives, more psychologically distressed, and socially despaired in contrast to those who were able to graduate (Kortering et al, 1997). More depressive symptoms and less life satisfaction were also reported by Liem, J.H. Lustig, K. Dillon, C (2010). Dropouts who continued high school and acquired a degree were found to manifest less depression and more life satisfaction. In the event of many cases of adolescents in India are referred to counsellors, psychologists and hospital psychiatric units with school – related agony, showing signs of

depression, great anxiety, frequent school rejection, physical complaints, irritability, and decreased interest in school work (Chawla, 1997), researcher find it fitting to undertake the current study on student engagement, motivation enhancement and alleviating the depressive symptoms among the high school dropouts.

Because of its positive impacts among dropouts, student engagement and motivation enhancement has grained impetus with counseling and clinical psychologists. Kasen, Johnson, and cohen (1990) observed that negative attitude towards school is associated with internal and external problem behaviors and which reduced quality of life. Other problems with which students are faced with are low academic achievement motivations, poor self-esteem, school stress and tiredness. With all these problems at hand, it is imperative to endeavor more on the study of student engagement, motivation enhancement and alleviating the depressive symptoms among the dropouts.

Most theories of school dropouts focus on engagement (Finn, 1989; Tinto, 1975). Important components of adolescent competence are engagement and achievement. These can either strengthen or weaken future competencies and developmental pathways. For instance, failure to complete secondary school could equate to greater chance of unemployment, reduced psychosocial well-being, and other negative results (Creed, Muller, & Patton, 2003). Development of educational practices that will promote success in high school would adequately help the adolescents (Christenson & Thurlow, 2004). In a bid to adopt a more integrative approach to enhance motivation and engagement among the drop outs and alleviation of depressive symptoms, the current study utilizes measures of motivation and engagement that reflect the diverse and multidimensional nature of students' academic lives. Limited achievement and academic attainment represent two important consequences of growing up poor (Entwisle, Alexander, & Olson, 2005) More than ever, younger generations need a basic education in order to successfully participate in the demanding labor force that awaits them (Heckman, 2006) Those not earning a high school diploma face a life-course of underemployment and its correlates, which, for many perpetuates their economically disadvantaged origins (Rumberger & Lamb, 2003)

The researcher finds the aspects of positive psychology as the tools for optimal human functioning so the positive psycho-educational intervention program (PPEI) is fashioned on the basis of positive psychology of Martin Seligman and the related theories like Broaden,

Build, Undoing, Resilience and Flourish hypothesis. Positive psychology is the scientific study of optimal human functioning for the purpose of understanding better and applying factors that help individuals and communities to thrive and flourish. It is the study of what goes right in life from birth to death and all those in between occasions that make life most worth living (Peterson, 2006). Positive emotions expand the repertoires of momentary thought-action in a larger range of thoughts and actions an individual is tending to pursue (Fredrickson 1998, 2001). Positive emotions enable one to see more possibilities. Although positive emotions are momentary, the personal resources that are built are lasting which could be useful later during life threatening situations or hard times. The concept of upward spirals of well being is the total opposite of the downward spirals of depression. Regular experiences of positive emotions tend to lead to experiences of upward spirals of well-being. Significantly, upward spirals of well-being build a toolbox of coping mechanisms. Those who experience positive emotions are better in coping and are more resilient in the face of life's adversities (Fredrickson, 2000).

Hypothesis

This research aims to investigate the effectiveness of positive psycho-education interventions in enhancing student engagement, motivation and alleviation of the depressive symptoms among the secondary school dropouts in West Bengal, North India. In line with this investigation the author tested the following null hypothesis at the .05 level of significance and they are: (1) There is no significant difference in the pre-test and post-test of experimental group in terms of the following such as (a) Motivation and Engagement Scale - High School (MES-HS), (b) Student Engagement Instrument (SEI) and Beck Depression Inventory (BDI) (2) There is no significant difference between the pre-test and post-test of control group in terms of the following such as (a) Motivation and Engagement Scale - High School (MES-HS), (b) Student Engagement Instrument (SEI) and (c) Beck Depression Inventory (BDI) (3) There is no significant difference in the pre-test of experimental and control group in terms of the following such as (a) Motivation and Engagement Scale - High School (MES-HS), (b) Student Engagement Instrument (SEI) and (c) Beck Depression Inventory (BDI) (4) There is no significant difference in the post-test of experimental and control group in terms of the following such as (a) Motivation and Engagement Scale - High School (MES-HS), (b) Student Engagement Instrument (SEI) and (c) Beck Depression Inventory (BDI)

Method

Research Design

The current study focuses mainly on the two aspects. The first phase was the development of the intervention program, that is, the positive psycho-educational intervention program (PPEI). The integrating theoretical models and empirical elements of positive psychology served as the base for the development of the intervention program the objective of which is to enhance the engagement, motivation and alleviation of depressive symptoms among secondary school dropouts in West Bengal, India. To develop the PPEI, the researcher explored the link among clinical and psychological researches and consequently made a conceptual integration on it.

The second phase of the study was focused on a true experimental research design to find out the effectiveness of the positive psycho-educational intervention program (PPEI) in enhancing engagement, motivation and alleviation of depressive symptoms among secondary school dropouts. For the phase two, the researcher utilized the true experimental research method specifically between subjects: Two independent group designs (Myers & Hansen, 2006) to determine the effectiveness of researcher made positive psycho-educational intervention program. Research was conducted among the secondary school dropouts in west Bengal, India. West Bengal is one of the states in India with soaring school dropouts.

The respondents of the study were 68 urban dropout boys from west Bengal, India. Their age level was between14 to 16 and they belonged to grade level 9 and 10. The participants of the study were selected through the help of Don Bosco Center in Calcutta. The participants were given a set of questionnaires which included Motivation and Engagement scale for high schools (MES-HS), Student engagement instrument (SEI) and Beck depression inventory (BDI). After administration of the tests, scoring and interpretation of the results, students who got low scores in MES-HS and SEI and those who got high scores in Beck depression inventory were randomly assigned to the experimental and control group. From this total number of participants and by assessing the inclusion/exclusion criteria 36 participants were selected for the intervention program of the study. Randomization technique was used to assign the participants randomly to different groups.

Inclusion Exclusion Criteria

The participants who were included in the study possessed the following criteria to ensure that the groups were homogeneous in all

possible ways. They were the dropout boys of secondary schools, had not attended any intervention program of any sort for the past six months. They were from urban area and their age level is from 14 to 16. Their IQ score was 90 and above. They were selected based on the result of the pre-test, the ones who attained low scores in MES (HS), SEI and high scores in BDI. Respondents who were excluded from the study were those dropouts who were undergoing severe health problems. Those who scored below 90 in IQ test also were excluded.

Description of the instrument

Personal Data Sheet

Personal data sheet is a researcher-made demographic questionnaire which was filled-out by the research participants at the time of the pretest. It provided relevant information to describe the socio-demographic profile of the participants and to know the reasons why they did dropout from the study and what were the goals they had if they continued their study. This also included participant's information such as name, age, social and financial status.

The Motivation and Engagement scale (MES-HS)

The MES student self-report measure creates individual profiles across 11 subscales reflecting a multidimensional model of motivation and engagement. The Motivation and Engagement Scale — High School (MES-HS; Martin, 2001, 2003) has been developed to reflect such an integrative approach. It is hypothesized to assess motivation and engagement through three adaptive cognitive dimensions (Booster thoughts), three adaptive behavioral dimensions (Booster behaviors), three impeding/maladaptive cognitive dimensions (mufflers), and two maladaptive behavioral dimensions (guzzlers) of motivation and engagement. Each of these factors comprises four items- hence it is a 44-item instrument. The MES is psychometrically sound in high school (Martin, 2007).

Student Engagement Instrument (SEI)

The instrument consists of six subscales measuring two constructs: psychological engagement and cognitive engagement. The Student engagement instrument was developed to go beyond observable indicators of academic and behavioral engagement (time on task, attendance, homework completion) to measure the cognitive and psychological aspects of engagement as reported by students. Four-point response scale ranges from strongly disagree to strongly agree. Negatively worded items are reverse scored. Scale scores are calculated by summing or averaging individual items. (Appleton et al. 2006).

Beck Depression Inventory (BDI) (*Beck, 1978)*

This self-report measure consists of 21 items assessing the intensity of emotional, behavioral, cognitive and somatic symptoms characteristic of depression. Each item offers a choice of four answers graduated from 0 to 3. A cut-off score of 16 has been suggested to identify subjects manifesting characteristics of clinical depression (Strober, Green, & Carlson, 1981).

Data gathering procedures

The data gathering procedure was divided into three phases: pre-experimental, experimental, and post-experimental phase.

Pre-Experiment Phase:

The first step in this study was the development of the positive psycho-educational intervention program (PPEI) for dropouts. The researcher made extensive research into the treasures of literature and different models of existing intervention programs to come up with a positive psycho-educational intervention in view of helping the dropouts in enhancing the student engagement and motivation and alleviating the depressive symptoms. Then the researcher coordinated with the director of the center in Kolkata who organized the dropouts to join the modules. MES-HS, SEI and BDI were administered to114 secondary school dropouts. Those who got low scores in MES-HS and SEI and those who got high scores in BDI met the criteria for the study. Then the selected 68 respondents were randomly assigned to experimental and control groups with 34 in each group.

Experiment Phase:

Considering the ethical elements of the research, the researcher treated both the experimental and control groups equally, thus arrangements were made to meet the respondents in two batches at different settings. One week after the completion of the pre-test, researcher began to administer the intervention program. The participants in the Experimental group were given the positive psycho-educational intervention program (PPEI), a ten modular intervention program while those in the control group were not exposed to this particular researcher designed intervention program. Administration of the summarized version of positive psycho-educational intervention program was given to the dropouts in the control group in compliance with the ethical principles of the research. This was done so as not to deprive of this group the possible benefits of the positive psycho-educational interventions.

Post experimental phase

When the intervention program had been completed, the researcher conducted the post-test for the two groups using similar protocols to measure the difference between both the experimental and control groups to investigate the possible cause and effect relationships between positive psycho-educational interventions (PPEI) and the level of engagement, motivation and depressive symptoms. The results were evaluated by subjecting the pre-intervention and post intervention scores to statistical analysis for significant differences.

Psycho-education focused positive intervention program (PPEI)

It is a 10 modular program to enhance the motivation, engagement and alleviate the depressive symptoms the dropouts are experiencing. The titles of the modules are as following: 1) Anxiety (Cast your fears) 2) disengagement 3) Instilling hope 4) Setting goals (dream high) 5) optimism and School (optimism is your choice) 6) gratitude (Grow into gratitude) 7) Importance of Education 8) Positive self concepts (Positive mirroring) 9) Time management 10) Persistence (Never ever give up).

Results

Mean and standard deviation of the pre-tests and post-tests of the experimental group and control group were computed in all the subscales of MES-HS, SEI and BDI. This was done to determine whether or not there was a difference in the scores of the participants after the administration of the intervention program. To compare the mean difference of pre-test and post-test scores within the groups, t-test for dependent sample was utilized. To compare the mean difference of pre-test and post-test scores between groups, t-test for independent samples was utilized. To measure the extent of the effectiveness of the program, Cohen's d was computed. The effect size is a measure of strength of the relationship between two means. The null hypothesis was tested at the 0.05 level of significance.

Table 1: Pre-test and Post-test Mean scores and standard deviation values of the experimental group as measured by Motivation and Engagement scale for High school (MES-HS)

Compo-nents	Experimental Group			
	Pre-test	Interpre-tation	Post-test	Interpre-tation
	Mean (SD)	VI	Mean (SD)	VI
MES	103.20 (6.54)	Low	267.76(8.02)	High
SB	9.85 (1.15)	Low	25(1.04)	High
PE	9.47 (.991)	Low	24.82(1.11)	High
LF	9.76 (1.12)	Low	25.23(1.10)	High
VA	10.14 (1.10)	Low	25.52(1.41)	High
TM	10.17 (1.24)	Low	24.97(.968)	High
PL	8.67(1.31)	Low	25.14(1.15)	High
DI	8.85 (1.79)	High-t	25.47(1.28)	Low-t
SS	9.23 (1.39)	High-t	16 (1.12)	Low-t
UC	8.82 (1.76)	High-t	25.02(1.31)	Low-t
FA	8.73 (1.60)	High-t	25.29(1.26)	Low-t
AN	9.50 (1.79)	High-t	25.26(1.21)	Low-t

Table 2:Pre-test and Post-test Mean scores and standard deviation values of the control group as measured by Motivation and Engagement scale for High school (MES-HS)

Compo-nents	Control Group			
	Pre-test	Interpre-tation	Post-test	Interpre-tation
	Mean (SD)	VI	Mean (SD)	VI
MES	103.32(7.23)	Low	103.55(6.89)	Low
SB	9.88 (1.06)	Low	9.76(1.10)	Low
PE	9.47(.991)	Low	9.58 (1.28)	Low
LF	9.70 (1.05)	Low	9.85(.857)	Low
VA	10.35(.949)	Low	9.82(1.11)	Low
TM	9.82(1.50)	Low	10.02(1.19)	Low
PL	8.67(1.31)	Low	8.67(1.31)	Low
DI	8.85(1.79)	High-t	8.91(2.03)	High-t
SS	9.20(1.36)	High-t	9.23(1.39)	High-t
UC	8.88(1.91)	High-t	8.91(1.33)	High-t
FA	8.97(1.58)	High-t	9.05(1.99)	High-t
AN	9.50(1.79)	High-t	9.70(1.80)	High-t

Table 1 and 2 show the mean scores and standard deviation values of the pre-test and post-test of both the control and experimental groups as measured by MES-(HS). According to MES-(HS) lower scores indicate lack of student engagement and motivation and higher scores indicate enhancement of student engagement and motivation. The participants in both the experimental group and the control group reported low level of student engagement and motivation in the pre-test. This shows the homogeneity of the research participants before the administration of the intervention program which indicates that they had almost the same level in student engagement and motivation.

The motivation and engagement for high school is designed to measure the level of engagement and motivation among the students. This measure yields a total scale score of overall level of student engagement and motivation with specific 11 sub-factors like self-belief, valuing, learning focus, planning, task management, persistence, anxiety, failure avoidance, uncertain control, self sabotage and disengagement. Low pre-test scores of the participants in the motivation and engagement scale, both in experimental group (Mean=103.20, SD=6.54) and the control group (Mean=103.32, SD=7.23) show the low level of motivation and engagement. It means the participants really were experiencing lack of motivation and engagement.

The *self-belief* (SB) scale of MES (HS) measures students' belief and confidence in their ability to understand or to do well in their school work. It helps them to meet challenges they face and to perform to the best of their ability (Martin, 2011a). The participants in both the experimental group (Mean=9.85, SD= 1.15) and control group (Mean=9.88, SD=1.06) reported low self belief levels which indicate that participants, in general in both groups were experiencing lack of self-belief prior to the administration of the intervention program. Academic self-belief is one of the most critical factors to develop in students. It is a strong predictor of achievement (Bandura, 1986, Martin & Debus. 1998).The *valuing* scale(VA)consists of 4 items and they measure how much students believe what they learn at school is useful, important and relevant to them or to the world in general (Martin, 2011a). The respondents in both the experimental group (Mean=10.14, SD=1.10) and control group (Mean=10.35, SD=0.95) reported low valuing levels which indicate that participants, in general in both groups were not valuing as useful what they learn in school prior to the administration of the intervention program. The *learning focus* (LF) scale consists of 4 items and they measure how much students are pleased with themselves when they understand what they are taught at schools. Learning focus is being focused on understanding, learning, solving problems and developing

skills (Martin, 2011a). The respondents in both the experimental group (Mean=9.76, SD=1.12) and control group (Mean=9.70, SD=1.05) reported low learning focus which indicate that participants, in general in both groups were not focused on learning and developing skills prior to the administration of the intervention program. The *planning* scale (PL) consists of 4 items and they measure how much students plan their school work, assignments and study and how much they keep track of their progress as they are doing them (Martin, 2011a). The respondents in both the experimental group (Mean=8.67, SD=1.31) and control group (Mean=8.67, SD=1.31) reported low planning levels which indicate that participants, in general in both groups were not focused on doing well planning regarding their studies prior to the administration of the intervention program. The *task management (TM)* scale consists of 4 items and they refer to the way students use their study time, organize their study time table and choose and arrange where they study (Martin, 2012). The respondents in both the experimental group (Mean=10.17, SD=1.24) and control group (Mean=9.82, SD=1.50) reported low task management levels which indicate that participants, in general in both groups were neither using their study time well nor organizing their study time table prior to the administration of the intervention program. The *persistence (PE)* scale consists of 4 items and they refer to how much students keep trying to work out an answer or to understand a problem even when that problem is difficult or challenging (Martin, 2011a). The respondents in both the experimental group (Mean=9.47, SD=0.99) and control group (Mean=9.47, SD=0.99) reported low persistence levels which indicate that participants, in general in both groups were not trying to work out an answer to a problem when the problem was difficult or challenging prior to the administration of the intervention program. The *failure avoidance* (FA) scale consists of 4 items and they occur when the main reason students do their school work is to avoid doing poorly or to avoid being seen poorly (Martin, 2011a). The respondents in both the experimental group (Mean=8.73, SD=1.60) and control group (Mean=8.97, SD=1.58) reported high tendency failure avoidance levels which indicate that participants, in general in both groups were doing their school work only with the intention of avoiding doing poorly in school prior to the administration of the intervention program. The *anxiety* (AN) scale consists of 4 items and they refer to feelings of nervousness and worrying. Feeling nervous is the uneasy or sick feeling students get when they think about their school work, assignments or exams. Worrying refers to their fear about not doing very well in their school work, assignments or exams (Martin, 2011a). The respondents in both the experimental group (Mean=9.50, SD=1.70) and control group (Mean=9.50, SD=1.79) reported high tendency anxiety

levels which indicate that participants, in general in both groups were worrying about not doing very well in their school work, assignments or exams prior to the administration of the intervention program. The *uncertain control* (UC) scale consists of 4 items and they assess students' uncertainty about how to do well or how to avoid doing poorly (Martin, 2011a). The respondents in both the experimental group (Mean=8.82, SD=1.76) and control group (Mean=8.88, SD=1.91) reported high tendency uncertain control levels which indicate that participants, in general in both groups were not sure about how to do well or avoid doing poorly prior to the administration of the intervention program. The *self-sabotage* (SS) scale consists of 4 items and they refer to students' tendency to do things that reduce their chances of success at school (Martin, 2011a). The respondents in both the experimental group (Mean=9.23, SD=1.39) and control group (Mean=9.20, SD=1.36) reported high tendency of self-sabotage levels which indicate that participants, in general in both groups had tendency to do things that reduce their chances of success at school prior to the administration of the intervention program. The *disengagement (DI)* scale consists of 4 items and they assess the feelings and thoughts of giving up in particular school subjects or school generally (Martin, 2011a). The respondents in both the experimental group (Mean=8.85, SD=1.79) and control group (Mean=8.85, SD=1.79) reported high tendency of disengagement levels which indicate that participants, in general in both groups had tendency to give up in particular school subjects or school generally prior to the administration of the intervention program.

Table 1 and 2 also presents the post-test mean scores of both groups. Evidently, the post-test mean scores of the experimental group shows notable difference from its pre-test scores as well as from the mean scores of the control group. The participants in the experimental group reported higher mean scores in all the components of MES-HS: *Self Belief* (SB) (Mean=25.00), *Persistence* (PE) (Mean=24.82), *learning focus* (LF) (Mean=25.23), *valuing* (VA) (Mean=25.52), *task management* (TM) (Mean=24.97), *planning* (PL) (Mean=25.14), *Disengagement* (DI) (Mean=25.47), *Self-sabotage* (SS) (Mean=16.00), *uncertain control* (UC) (Mean=25.02), *failure avoidance* (FA) (Mean=25.92), *anxiety* (AN) (Mean=25.26). It is very evident from the mean scores of the participants of the experimental group experiences, an increase in the level of engagement and motivation. But the level of the control group who did not receive the treatment seemingly remained unaffected. It indicates that positive psycho-education intervention program helped in enhancing the student engagement and motivation of the participants of the experimental group.

Table 3: Pre test and Post test Mean scores and standard deviation values of the experimental group as measured by Student Engagement Instrument (SEI)

Compo-nents	Experimental Group			
	Pre-test	Interpre-tation	Post-test	Interpre-tation
	Mean (SD)	VI	Mean (SD)	VI
SEI	63.29(3.53)	Low	156.26(3.12)	High
TSR	16.17(1.26)	Low	39.91(1.50)	High
CRSW	16.26(1.37)	Low	39.82(1.35)	High
PS	10.94(1.01)	Low	26.82(1.21)	High
FAG	9.11(.977)	Low	22.08(1.42)	High
FSL	7.17(.796)	Low	18.17(.968)	High
IM	3.64(.549)	Low	9.44(.503)	High

Table 4:Pre-test and Post-test Mean scores and standard deviation values of the control group as measured by Student Engagement Instrument (SEI)

Compo-nents	Control Group			
	Pre-test	Interpre-tation	Post-test	Interpre-tation
	Mean (SD)	VI	Mean (SD)	VI
SEI	63.05(2.88)	Low	63.38(3.52)	Low
TSR	16.58(1.37)	Low	16.17(1.11)	Low
CRSW	16.14(1.01)	Low	16.26(1.33)	Low
PS	10.32(1.17)	Low	10.70(1.14)	Low
FAG	9.20(.946)	Low	9.41(1.15)	Low
FSL	7.08(.900)	Low	7.14(.821)	Low
IM	3.70(.523)	Low	3.67(.534)	Low

Table 3 and 4 show the mean scores and standard deviation values of the pre-test and post-test of both the control and experimental groups as measured by SEI. According to SEI lower scores indicate lack of student engagement and motivation and higher scores indicate enhancement of student engagement and motivation. The participants in both the experimental group and the control group reported low level of student engagement and motivation in the pre-test. This shows the homogeneity of the research participants before the administration of the intervention program which indicates that they had almost the same level in student engagement and motivation.

As seen in the above tables the SEI instrument consists of six subscales measuring two constructs: psychological engagement and cognitive engagement. The Student engagement instrument was developed to go beyond observable indicators of academic and behavioral engagement (time on task, attendance, homework completion) to measure the cognitive and psychological aspects of engagement as reported by students. (Appleton et al. 2006). Low pre-test scores of the participants in the student engagement instrument, both in experimental group (Mean= 63.29, SD=3.53) and the control group (Mean=63.05, SD=2.88) show the low level of engagement. It means the participants really were experiencing lack of cognitive and psychological engagement.

The *Teacher-student relationships (TSR*) scale has 9 items. The participants in both the experimental group (Mean= 16.17, SD=1.26) and control group (Mean=16.58, SD=1.37) reported low levels of teacher student relationships prior to the administration of the intervention program. The *control and relevance of schoolwork (CRSW) scale* has 9 items. The participants in both the experimental group (Mean=16.26, SD=1.37) and control group (Mean=16.14, SD=1.01) reported low levels of control and relevance of school work prior to the administration of the intervention program. The *peer support for learning (PS) scale has* 6 items. The participants in both the experimental group (Mean=10.94, SD=1.01) and control group (Mean=10.32, SD=1.17) reported low levels of peer support for learning prior to the administration of the intervention program. The *future aspirations and goals (FAG)* has 5 items. The participants in both the experimental group (Mean= 9.11, SD= 0.98) and control group (Mean=9.20, SD=0.95) reported low levels of future aspirations and goals prior to the administration of the intervention program. The *family support for learning* (FSL) scale has 4 items. The participants in both the experimental group (Mean= 7.17, SD= 0.80) and control group (Mean=7.08, SD=0.90) reported low levels of family support for learning prior to the administration of the intervention program. The *extrinsic motivation* (IM) has 2 items. The participants in both the experimental group (Mean=3.64, SD=0.55) and control group (Mean=3.70, SD=0.52) reported low levels of extrinsic motivation prior to the administration of the intervention program.

Table 3 and 4 also presents the post-test mean scores of both groups. Evidently, the post-test mean scores of the experimental group shows notable difference from its pre-test scores as well as from the mean scores of the control group. The participants in the experimental group reported higher mean scores in all the components of SEI: TRS (Mean =39.91), CRSW (Mean=39.82), PS (Mean=26.82), FAG (Mean=22.08), FSL (Mean=18.17), IM (Mean=9.44). It is very evident from the mean scores

of the participants of the experimental group that they experience an increase in the level of engagement. But the level of the control group who did not receive the treatment seemingly remained unaffected. It indicates that positive psycho-education intervention program helped in enhancing the student engagement of the participants of the experimental group.

Table 5: Pre-test and Post-test Mean scores and standard deviation values of the experimental and control group as measured by Beck Depression Inventory (BDI)

Grouping	Test	Mean	SD	Interpretation
Experimental	Pre-test	48.02	1.42	Extreme depression
	Post-test	7.02	1.66	Normal
Control	Pre-test	48.23	1.25	Extreme depression
	Post-test	47.79	2.48	Extreme depression

Table 5 shows the mean scores and standard deviation values of the pre-test and post-test of both the control and experimental groups as measured by BDI. According to BDI lower scores of BDI indicate decrease in the depressive symptoms and higher scores indicate increase in the depressive symptoms. The participants in both the experimental group and the control group reported high level of depressive symptoms in the pre-test. This shows the homogeneity of the research participants before the administration of the intervention program which indicates that they had almost the same level in student engagement, motivation and depressive symptoms. BDI is a self-report measure consists of 21 items assessing the intensity of emotional, behavioral, cognitive and somatic symptoms characteristic of depression. High pre-test scores of the participants in BDI, both in experimental group (Mean=48.02, SD=1.42) and the control group (Mean=48.23, SD=1.25) show the high level of depressive symptoms experienced by the participants. It means the participants really were experiencing depressive symptoms. Table 5 also presents the post-test mean scores of both groups. Evidently, the post-test mean scores of the experimental group shows notable difference from its pre-test scores as well as from the mean scores of the control group. The participants in the experimental group reported lower mean score (7.02) It is very evident from the mean scores of the participants of the experimental group a decrease in the level of depression. But the level of the control group who did not receive the treatment seemingly remained unaffected. It indicates that positive psycho-education intervention program helped in alleviating the depressive symptoms of the participants of the experimental group.

Table 6: Test on the significant differences between the pre-test and post test scores of the experimental group in MES-HS, SEI and BDI

Scale	Group	Mean	SD	t	p value	Interpre-tation*	Decision
MES	**Pre** **post**	**103.20** **267.76**	**6.54** **8.02**	**83.53**	**0.00**	**Significant**	**Ho re-jected**
SEI	**Pre** **post**	**63.29** **156.26**	**3.51** **3.12**	**119.33**	**0.00**	**Significant**	**Ho re-jected**
BDI	**Pre** **post**	**48.02** **7.02**	**1.42** **1.66**	**121.39**	**0.00**	**Significant**	**Ho re-jected**

* At 5% level of significance

In line with the first hypothesis, table 6 shows result of the test on difference of means between the pre-test and post-test scores of the experimental group as measured by MES-HS, SEI and BDI. The t-test for dependent samples (paired samples test) is essential to ensure if there was a statistically significant change in the mean scores of the experimental group after the administration of the intervention program, PEPI. The level of significance was again set at 0.05. Table 6 shows that the differences in the pre-test and post test values of the experimental group in all the variables tested are all highly significant at 0.05 level of significance with p-values =.000. Therefore, the null hypothesis of no difference is rejected. Furthermore, the statistical analysis shows that the positive psycho-education focused intervention (PPEI) had a solid effect on the experimental group. In a nutshell the program (PPEI) helped significantly in the enhancement of student engagement and motivation and the alleviation of depressive symptoms.

The statistical analysis of the test shows the difference between the pre-test and post-test mean scores of the experimental group as measured on the components of the standardized instrument MES-HS, SEI and BDI. The statistical analysis between the pre-test and post-test scores of the experimental group showed significant differences (p=0.000) at 0.05 level in all the components of scales. The result indicates that there is almost 95% certainty that the psycho-education focused positive intervention (PPEI) administered to the school dropouts in the experimental group was effective in enhancement of student engagement and motivation and alleviation of the depressive symptoms.

Table 7: Test on the significant differences between the pre-test and post-test scores of the control group in MES-HS, SEI and BDI

Scale	Group	Mean	SD	t	p value	Interpretation*	Decision
MES	Pre Post	103.32 103.55	7.23 6.89	0.14	0.89	Not significant	Ho accepted
SEI	Pre Post	63.05 63.38	2.88 3.52	0.51	0.61	Not significant	Ho accepted
BDI	Pre Post	48.23 47.79	1.25 2.48	0.83	0.42	Not significant	Ho accepted

* At 5% level of significance

In line with the second hypothesis, table 7 shows the result of the statistical analysis on the differences between the pre-test and post-test scores of the control group as measured by MES, SEI and BDI. The test was utilized to determine if there was as a statistically significant change in the mean scores of the control group that did not receive any intervention. The test on the difference in the pre-test and post-test values of the control group in all the variables tested showed statistical non-significance at 5% level of significance (p-value>.05). The p-values (MES=0.89, SB= 0.66, PE=0.69, LF=0.50,Va MES=0.89, SB= 0.66, PE=0.69, LF=0.50,Va 0.06, TM=0.43, Pl=1.00, DI=0.90, SS=0.93, UC=0.95, FA=0.86, AN=0.60, SEI=0.61, TSR=0.33, CRSW=0.62, PS=0.14, FAG=0.40, FSL=0.73, IM=0.74, BDI=0.42) yielded by the test are greater than the 0.05 level of significance in all the variables. Statistically this means that there is no significant difference between the pre-test and post test scores of the control group. Hence the null hypothesis that there is no significant difference between the pre-test and post-test mean scores of the control group is accepted. There is almost 95% certainty that the level of student engagement, motivation and depressive symptoms among the dropouts in the control group remained more or less the same during the period of study.

The fact that the scores of the control group participants in both pre-test and post-test did not noticeably change nor have any significant difference suggest that the absence of the psycho-education focused positive intervention maintained their low level of student engagement and motivation and high level of depressive symptoms. It points to the effectiveness of the program for the participants of the experimental group who were initially in similar conditions of the participants in the control group as well as to the need of such purposefully and systematically prepared programs to help the dropouts who experience

lower level of student engagement and motivation and high level of depressive symptoms. The statistical analysis of the test shows the difference between the pre-test and post-test mean scores of the control group as measured on the components of the standardized instrument MES-HS, SEI and BDI. But there is no statistically significant difference between the pre-test and post-test mean scores of the control group in all the components of the scales. The present research suggest that intervention programs using positive constructs have the potential to open new horizon of understanding and insights in order to deal with challenges associated with dropouts.

Table 8: Test on the significant differences between the pre-test scores of the experimental and control group in MES-HS, SEI and BDI

Scale	Group	Mean	SD	t	p value	Interpretation*	Decision
MES	Exp Ctrl	103.20 103.32	6.54 7.23	0.07	0.94	Not significant	Ho accepted
SEI	Exp Ctrl	63.29 63.05	3.53 2.88	0.30	0.76	Not significant	Ho accepted
BDI	Exp Ctrl	48.02 48.23	1.42 1.25	0.63	0.53	Not significant	Ho accepted

* At 5% level of significance

In line with the third hypothesis, table 8 presents the results of the test on the significance of difference between the scores of the control and experimental groups in the pre-test. This test helped the researcher to have homogeneity of the conditions of both groups before conducting the intervention program; Psycho-education focused positive intervention (PPEI). This was also to make sure that any change brought about by the administration of the intervention program could be attributed to the effect of the intervention program, rather than to any other factors that are not suited by this research. In view of that, the pre-test scores of both experimental group and control group were subjected to t-test for independent samples, setting the significance level at 0.05, so that the results would be 95% sure of being correct.

The p-values (MES=0.94, SB=0.91, PE=1.00, LF=0.82, VA=0.41, TM=0.30, PL=0.83, DI=1.00, SS=0.93, UC=0.89, FA=0.55, AN=1.00, SEI=0.76, TSR=.60, CRSW=0.70, PS=0.49, FAG= 0.71, FSL= 0.67, IM=0.65, BDI=0.53) the test yielded are greater than the a=0.05. This statically means that there is no significant difference between the mean scores of the experimental and control groups prior to the administration of

the intervention program in terms of the appraisal of the participants on their student engagement, motivation and depressive symptoms. Hence, the null hypothesis that there is no significant difference between the groups in the pre-test results is accepted. Thus, at this stage of the study, there is 95% certainty that the groups were homogenous in the variables under study. It also indicates that there was no bias in selecting the participants who were randomly assigned into experimental and control groups (Mayers & Hansen, 2006).

Table 9 .Test on the significant differences between the post-test scores of experimental and the control group in MES-HS, SEI and BDI

Scale	Group	Mean	SD	T	p value	Interpre-tation*	Deci-sion
MES	Exp Ctrl	**267.76** **103.55**	**8.02** **6.89**	**90.49**	**0.00**	**Signi-ficant**	**Ho rejected**
SEI	Exp Ctrl	**156.26** **63.38**	**3.12** **3.52**	**114.94**	**0.00**	**Signi-ficant**	**Ho rejected**
BDI	Exp Ctrl	**7.02** **47.79**	**1.66** **2.48**	**79.56**	**0.00**	**Signi-ficant**	**Ho rejected**

* At 5% level of significance

In line with the fourth hypothesis, table 9 illustrates the results of the test of difference of means in terms of post-test scores of the experimental and control groups. The purpose of the test was to know if there was a statistically significant change in the mean scores of both groups where experimental group received treatment and control group did not receive any treatment. Thus the post-test scores of both groups were subjected to independent sample t-test, setting again the level of significance at 0.05. The observed differences between the post-test scores of the groups are significant as the p-values (p=.000) in all the factors of student engagement, motivation and depressive symptoms tested are less than the set significance level of 0.05. This implies that the null hypothesis, there is no significant difference between the experimental group and control group in terms of post-test student engagement, motivation and depressive symptoms mean scores, is rejected. The fact that the post-test results of the experimental group are significantly higher than that of the control group indicates that the intervention program, PPEI, was quite effective. In other words, the participants in the experimental group experienced significant increase in the enhancement of student engagement and motivation and decrease in the depressive symptoms.

This finding was also substantiated by the feedback derived from the participants of the experimental group. For example, here are some excerpts from the participants' feedback: I am glad to learn to be optimistic in my life that brings in a new outlook in the events regarding my studies. I have more strengths than weaknesses. Before participating in the program I always tend to be negative thus losing my interest in school….The current study attests the effectiveness of positive intervention programs in enhancing student engagement and motivation and alleviating the depressive symptoms.

Table 10: The Cohen's d value and the verbal description of the PEPI on testing the effectiveness

Components	Cohen's d	Interpretation
MES	22.49	Large effect
SB	13.82	Large effect
PE	14.60	Large effect
LF	13.94	Large effect
VA	12.16	Large effect
TM	13.29	Large effect
Pl	13.36	Large effect
DI	10.68	Large effect
SS	5.36	Large effect
UC	10.44	Large effect
FA	11.50	Large effect
An	10.31	Large effect
SEI	27.91	Large effect
TSR	17.14	Large effect
CRSW	17.32	Large effect
PS	14.25	Large effect
FAG	10.66	Large effect
FSL	12.43	Large effect
IM	11.14	Large Effect
BDI	26.54	Large effect

*<0.20= Small effect, 0.20-0.80= medium effect, >0.80 large effect

Table 10 shows the extent of the treatment effect when comparing the pre-test and post-test mean scores of the experimental group. According

to Cohen (1998), when the value is lower than 0.2. the effect size is small. Whereas, a value from 0.2 to 0.8 indicates medium effect size and a value 0.8 or higher signifies very high effect size. The table below shows that the Cohen's d values (MES=22.49, SB=13.82, PE=14.60, LF=13.94, VA=12.16, TM=13.29,PL=13.36, DI=10.68, SS=5.36, UC=10.44, FA=11.50, AN=10.31, SEI=27.91, TSR=17.14, CRSW=17.32, PS=14.25, FAG=10.66, FSL=12.43, IM=11.14, BDI=26.54) in all components of MES-HS, SEI and BDI are above the value 0.08. This shows that the intervention program (PEPI) is highly effective in enhancement of student engagement and motivation and also in the alleviation of the depressive symptoms associated with it.

Discussion

The study determined that the positive psycho-educational intervention program (PPEI) has a significant effect on enhancing student engagement, motivation and alleviating the depressive symptoms of the school dropouts. The study proved that the statistically significant differences in the experimental group post test results showed in all the variables tested is a clear indication that the positive psycho-educational intervention program(PPEI) was highly effective in enhancing student engagement, motivation and the depressive symptoms of the secondary school dropouts. In the area of education, researchers believe that insights available from investigations that emphasize a positive psychology perspective will illuminate key differences between students who are "at-risk" or "unmotivated" and students who are resilient, resourceful, and successful. It is also through self-reflection that people make judgments about their capability to accomplish tasks and succeed in the many activities that comprise their lives. These self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment because no matter what other factors may serve as motivators, "they are rooted in the core belief that one has the power to effect changes by one's actions" (Bandura, 2004, p. 622). In short, PPEI was program aimed to provide more awareness about the strengths, self efficacies and the positive traits a person possess that can help to change the weaknesses and negative attitudes. Researchers have also demonstrated that self-beliefs influence self-regulatory processes such as goal setting, self-monitoring, self-evaluation, and strategy use. Confident students embrace more challenging goals (Zimmerman, Bandura, & Martinez-Pons, 1992) and persist longer than those who lack confidence (Zimmerman, 2000, 2006). Pajares (2001) suggested that students who value school, who view learning as an end in itself and believe that the purpose of learning is to master ideas and seek

personal challenge, and who accompany these beliefs with confidence, positive self-feelings, and confidence in their self-regulatory practices also engage the world with optimism and view their accomplishments as merited and deserved.

Limitations, scope and recommendations

The focus of this research was to come up with a psycho-education focused positive intervention in enhancing student engagement, motivation and alleviating depressive symptoms among the secondary school drop outs of West Bengal, India. It is very much important to mention the strengths and weakness of this study upon interpreting the results. First of all, some limitations of this study bear mentioning. The first limitation is that the researcher conducted the study among the urban dropouts. There are variations in the quality of schooling with differences in schooling experiences and accompanying pressures in rural and urban areas. Most families in rural India do not have the economic means to send their children to private schools. Since the participants live in the urban areas, they have more economic and scholastic opportunities than those living in more isolated areas of the country. The results may therefore not be reliable if generalized to other students especially to that of the rural areas. Given these unique characteristics, data obtained multiple environments suburban and urban locales are clearly necessary to provide further empirical support for the validity of the current findings. The role of positive emotions' potential role in enhancing student engagement, motivation and alleviating the depressive symptoms has been largely unexplored so there is a greater effort for further and continuous research on this aspect. The research was limited only to secondary school dropout boys in a certain locality in West Bengal and hence it is recommended that in the future researches other states in India be included.

To the best of the researcher's knowledge, the present study represents the first empirical exploration in order to enhance the student engagement, motivation and alleviation of depressive symptoms among the secondary school dropouts in India. In this regard, the results should be considered a starting point and interpreted cautiously. India is a vast country with regional, socioeconomic and other variations that could have a significant impact upon the students regarding their education, student engagement, motivation and the depressive symptoms associated with it. As such, the present findings can by no means be assumed to generalize to the entire population of India.The result of the current study is a valuable contribution to the field of

psychology and education. Especially to the educational and clinical psychologists, since this is the pioneer effort, in developing a positive psycho-educational intervention program (PPEI) in enhancing student engagement, motivation and alleviating the depressive symptoms of the secondary school dropouts. The PPEI program is of immense help to teachers, school counselors, other mental health professionals and parents who are worried about the engagement, motivation and associated depressive symptoms among the students.

Conclusion

The results of the study revealed the effectiveness of the PPEI intervention program in significantly enhancing student engagement, motivation and alleviating the depressive symptoms associated with school dropouts of experimental group compared to that of the control group. This indicates that PPEI intervention program has a significant effect. In short, PPEI was program aimed to provide more awareness about the strengths, self efficacies and the positive traits a person possess that can help to change the weaknesses and negative attitudes. Overall the results support the effectiveness of the positive psycho-educational intervention program. Using a pre-post treatment-control group design the present study found that the intervention brought about significant shifts in motivation, engagement and depressive symptoms. Findings showed that the treatment group made positive motivation shifts. PPEI involves teaching self-belief, perseverance, and countering procrastination, decision making skills, and combining these skills with more hopeful thinking in a comprehensive problem-solving model. It also teaches children to dispute irrational beliefs and generate worst case, best case, and most likely scenarios to situations, thereby expanding the arena of possible solutions for the purpose of maximizing hopefulness. PPEI has been found to significantly reduce depressive symptoms and improve classroom behavior for children at-risk for depression in a treatment group as compared to a control group. Increasing the number of students who achieve success in their academic and personal lives was of primary importance to the designing of PPEI. PPEI produced enduring relief of depressive symptoms, an effect which grew over time. In addition, PPEI improved the level of optimism of those in the treatment group compared to a control group. The present findings therefore can potentially offer some unique insights into the process in which educators attempt to instill positive beliefs in to the minds of students. The present study is unique as it is the first time a positive psycho-educational intervention program was used.

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