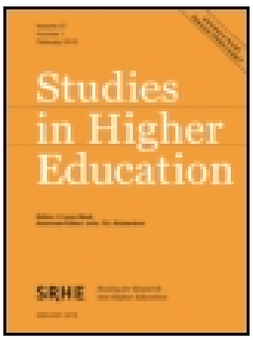

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Deconstructing coping using cognitive influences on ability groups

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ABSTRACT

The influence of emotionality and conscientiousness, the personality traits, on academic performance were examined on students of higher education using the perspectives of conservation of resources theory and social cognitive theory. Skinner's coping model was utilized to understand coping mechanisms in the context of engineering education. Ability groups were formed by differentiating the students on academic performance. The mediation effects of demands intervening between exogenous personal resources, institutional teaching support and coping were tested for significance using structural path models. Results suggest significant challenges exist in enabling adaptive coping processes across ability groups. The absence of hypothesized conscientiousness trait reveals lack of task engagement coupled with the presence of high levels of anxiety across ability groups. Differentiating the demands placed on students on the basis of ability grouping might reduce distress and promote adaptive coping behaviours. The insights of the study are key to future institutional interventions and research possibilities.

KEYWORDS

Coping; emotionality factor; ability grouping; teacher support; academic performance

1. Coping and higher education

Developing countries have seen massive expansion in higher education driven by the goals of human capital development, entrepreneurship and technology needed to compete in a knowledge economy. This massive expansion has enabled access to many sections of society, with little information on how to cope with the demands made by higher education. Research in India on how students of higher education are coping is of basic interest to all the stakeholders' viz. industry, higher education institutions, regulators as well as students. This research attempts to understand coping and human capital development in the social context of undergraduate engineering programmes of higher education in India using personality variables of conscientiousness and emotionality. Research interest exists in the long term impacts of those students who are not able to cope successfully with the stressful demands of higher education and are often deemed unemployable. Coping is an organizational construct used to encompass the myriad actions that individuals use to deal with stressful experiences. Coping structure is theorized centrally around identifying a set of adaptive processes that mediates between students of higher education and stressful encounters (Skinner et al. 2003). Episodes of coping form steady state patterns that eventually coalesce into a hierarchical structure. Coping research was surveyed using Skinner's twelve scales that are theoretically established and able to determine important needs of motivation dictated by the theory of self-determination

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viz. autonomy, relatedness and competence (Ryan and Deci 2000). Research interest lies in whether emotional and cognitive activity are predominantly directed towards or away from the stressor. Coping explains how individual students deal with actual stressors in real-life contexts and how the effects of these episodes accumulate (Skinner and Zimmer-Gembeck 2007). This research intended to understand coping strategies in the context of academic demands made by institutions of higher education on students of varied academic abilities and personal resources that enable academic performance. The achievers and underachievers based on academic performance were classified into ability groups having differential paths leading to coping under the influence of academic demands made. The influence of teacher and social support as well as individual differences were theorized to be important predictors of demands across ability groups leading to coping.

1.2. Literature review

Theories under motivational-behavioural systems concur that eagerness, excitement, elation and similar feelings are experienced under approach process where as feelings like fear and anxiety are experienced under avoidance process. Individual differences exist in behaviour of students, how their traits are differentially attuned to the approach process or avoidance process, with students sensitive to behavioural inhibition system (BIS) displaying more levels of anxiety (Carver and White 1994). There exists incentive to research the individual differences in the strength of students' approach or avoidance in dealing with stressors in higher education. Research requires to inquire in the Indian context what are the higher educational goals and incentives that enable adaptive coping and prevent maladaptive coping. During the college years multiple threats and incentives arise and students respond with priorities of approach and avoidance movements defining personality. Differential affective experiences follow and eagerness and elation dominate one end of the spectrum whereas anxiety and fearfulness dominate the other end. Research requires to inquire the links between personality and emotion (Carver et al. 2000). An elemental tenet of coping theory holds that coping processes are activated in response to negative emotion. This fundamental assumption belies the traditional assumptions in the popular two-factor definition of coping behaviour as either problem focused or emotion focused. Emotion is postulated as an antecedent variable of all coping behaviours (Duhachek and Oakley 2007). Emotionality is defined by commonly used adjectives of being emotional, oversensitive, fearful, sentimental, anxious, and vulnerable versus brave, tough, independent, self-assured and stable (Ashton and Lee 2007). The emotionality factor has sentimentality and sensitivity content at its positive pole and bravery and toughness content at its negative pole (Lee and Ashton 2004). Research on coping during adolescence has applied as well as basic importance and is a significant antecedent of self-regulation processes. Emotion, cognition, behaviour and the environment are self-regulated during developmental coping with long term consequences for future adjustment (Compas et al. 2001).

Conscientiousness personality factor is defined by traits seeking order and a structured approach in performing tasks, a disciplined and strong work ethic, concern for details and a tendency to be deliberate and cautious whilst considering options (Lee and Ashton 2004).

Social Support is a lower order construct trying to ascertain the presence of trusted support within the family of coping and additionally exists as a latent variable. Social support probably is influenced by within-person factors, including both long-standing traits on the one hand, and temporal changes in attitude or mood on the other. Both of these may influence the perception of whether support, information and feedback is available or has been provided (Procidano and Heller 1983). Emotionality factor was hypothesized to predict social support in this research. Social support is a significant factor enabling integration and ameliorating distress encountered in an institution of higher education (Solberg and Viliarreal 1997). Social support can improve coping by meeting support needs through information, empathy, encouragement and communication (Stewart et al. 2001).

The primary developmental concerns of undergraduates are academic performance, physical conditioning, dating and career selection (Knight and Ember 2008). Overreaction to hassles accurately

predicts the influence of everyday stressors on physical and mental health (Kohn, Lafreniere, and Gurevich 1990). The scales of academic demands yield to be operationalized with personality factors as an antecedent, permitting the estimation of structural paths between personality and hassles.

The scales of Course Experience Questionnaire viz. Good Teaching, Clear Goals and Standards, Appropriate Workload, Appropriate Assessment and Generic Skills have statistically significant correlation with satisfaction (Richardson 2010). The teaching learning process and the assessment system is critical to promoting competence, autonomy and connectedness through appropriate academic demands made in the context of the higher educational process.

This research was driven by the question whether personality traits of emotionality and conscientiousness influenced demands, consequent coping and academic performance. This research inquired whether teacher and social support influenced demands and resultant coping leading to academic performance. Ascertaining whether ability groups were also influencers of demands leading to differential coping and academic performance was a major research inquiry.

Anxiety, a facet of emotionality, was hypothesized to predict coping differentially across the ability groups. If levels of anxiety are significant, then, it was hypothesized that a negative relationship exists between coping and academic performance. Concurrent with levels of anxiety, the better academic performers of ability group II were postulated to have a stronger negative relationship in contrast to the underachievers of ability group I. It was theorized that demands were strongly related by positive structural paths to coping for the ability group II when compared to the ability group I. Low scorers of emotionality personality factor are tough whilst experiencing fear, relaxed in stressful contexts, feel self-assured in dealing with problems and have weak emotional bonds with others (Lee and Ashton 2004). High scorers tend to avoid physical pain, get preoccupied with trifles, share their distress with others, seeking encouragement and value strongly the empathetic attachments with others. The teacher support variable was predicted to be linked weakly to demands made for the ability group II when compared to ability group I. The social support variable was hypothesized to link more weakly to demands made for ability group II when compared to ability group I. It was postulated that for the students of ability group II, the emotionality factor would define a weaker structural path to social support. The structural path between emotionality factor and demands made would be stronger for the ability group I as compared to ability group II. The structural path relationship between emotionality and coping was hypothesized to be weaker for the better academic performers from ability group II. Students from ability group II would score highly in conscientiousness, have higher personality resources in coping with stressors in the higher education process and engage with academically relevant tasks. Students from ability group II were postulated to link through strong structural paths from conscientiousness to the demands made by an institution of higher learning.

1.3. Theoretical perspective

The term stress, meaning hardship or adversity, was analysed in the seventeenth century by the work of the prominent physicist-biologist, Robert Hooke. Hooke laid the foundations of classical mechanics probing how man-made structures can carry heavy loads whilst resisting winds and natural calamities like earthquakes. Load refers to a weight on a structure, stress is the load over an area, and strain the deformation of the structure created by the interaction of both load and stress (Lazarus 1993). Subsequently, even ordinary life situations where the percept of load in forms of teaching and learning is analysed for stress using the same conceptual distressing load formulations of conflict. Analogous to different materials possessing different elastic properties as predicted by Hooke's theory, personality research of individual differences evolved trying to understand human behaviour in stress-filled environments. Appraisal process is central to the cognitional mediational approach that negotiates between resources, demands and goals (Lazarus 1993). In order to respond to a stressful situation, either problem focused efforts are directed at altering the stressor or an ameliorating emotional

response is changed under an emotional strategy. Successful outcomes engender paths wherein individuals manage their emotions, regulate and direct their behaviour, and act on the contextual environments to alter or decrease sources of stress (Compas et al. 2001).

The conservation of resources theory postulates that when resources are threatened, or when resources are actually lost people experience stress (Hobfoll 2001). Students with differences in resources and abilities, invest in higher education and try to gain competencies and skills enabling them to commence a career of their interest in a field of their choice. Productive coping is enhanced when personal resources are larger, leading to more resources (Alarcon, Edwards, and Menke 2011). Coping should fully mediate the relationship of resources and perceptions of demands on stress and optimal functioning. A different perspective in psychology also evolved conceptualizing linkages between emotion, motivation and personality (Carver et al. 2000). This research seeks to be guided by the self-determination theory to understand socio-contextual factors that enhance or diminish intrinsic motivation, self-regulation and well-being (Ryan and Deci 2000). Emotions induce motives and dictate behaviour directed towards goals that enable the experiential affect. Certain emotions direct either approach or avoidance actions and eventually lead to the intended emotional experience. Gray's theory (as quoted in Carver and White 1994) postulates that behavioural activation systems (BAS) responds to incentives and causes movement towards goals. The behavioural inhibition systems (BIS) react to threats and disengage from pursuit of goals. The theory of human agency postulates that individuals are autonomous agents of experiences rather than environmentally determined experiencers (Bandura 2001). Individual students autonomously select institutions of higher learning wherein conducive social and physical environments exist and regulate their motivation and activities to produce desirable experiences. Groups are formed when its members share a common vision of desirable competencies and self-determination, interact and foster trusted relationships. The group intent forms the basis for their cognitive behaviour and regulation influencing academic outcomes.

2. Method

2.1. Operational definitions and measures used

Coping implies basic adaptive processes that intervene between stress and its psychological, social, and physiological outcomes. Information Seeking and Problem Solving scales assess competence whereas the scales of Helplessness and Escapism define the measures that threaten competence (Skinner et al. 2003). Connectedness is appraised positively through the coping scales of Self-Reliance and Social Support, whereas Isolation and Delegation are the scales that reveal the threats to connectedness. Autonomy is revealed through the adaptive coping scales of Negotiation and Accommodation whereas the threats are evidenced by the maladaptive scales of Submission and Opposition.

Emotions were considered to be fluid and intangible and hence impossible to be analysed experimentally seven decades ago (Lewin 1947). Lexical studies in the subsequent decades have unearthed a five factor model of personality structure popularly known as Big Five Model (B5/FFM). Emotionality is defined using the facets of Fearfulness, Anxiety, Dependence and Sentimentality. Emotionality is interpreted using kin altruism and is mapped by traits of empathy, harm avoidance and help seeking. The benefits of high levels of emotionality are survival of kin (Ashton and Lee 2007). Organization, Diligence, Perfectionism and Prudence are the facet scales of conscientiousness factor. Conscientiousness is interpreted using engagement in task-related endeavours and is revealed by traits of organization and diligence (Ashton and Lee 2007) and gains of resources are the benefits accrued by high levels.

The Multidimensional Scale of Perceived Social Support (MSPSS) is used to assess social support using three scales of support from family, friends and a significant other (Canty-Mitchell and Zimet 2000). Significant other could be interpreted as significant support received from a boyfriend, girlfriend, counsellor or a teacher. Academic Demands are established by segregating the physical

and mental responses to the stress encountered in higher education from the daily hassles (Kohn, Lafreniere, and Gurevich 1990). The scales of Developmental Challenge, Time Pressure, Academic Alienation and General Social Mistreatment are adapted from the Inventory of College Students' Recent Life Experiences (ICSRLE).

The Course Experience Questionnaire (CEQ) is used as a measure of perceived teaching quality in degree programmes in Australian higher education system and being increasingly adapted as a measure of quality in teaching in universities in the United Kingdom (Wilson, Lizzio, and Ramsden 1997). Teacher Support utilizing the scales of Good Teaching, Clear Goals and Standards, Appropriate Workload, Appropriate Assessment and Generic Skills was adapted for a generic evaluation of teaching quality (Byrne and Flood 2003).

2.2. Participants

The survey was carried out in an institution of higher education located in a coastal state in western India. The printed survey instrument forms with 8 endogenous variables being mapped by 38 instruments with all the variables having more than two instruments to prevent bias. The 152 questions were first administered to 12 students as a pilot test on 3 November 2017. Subsequently, the classes of undergraduate students of engineering were randomly chosen and administered the very same survey during the period 23 January 2018 to 18 April 2018 with a total of 438 responses (Table 1). The completed survey forms were coded by the researcher and the entire exercise was completed by July 2018. The missing data were verified to be less than 10 percent of the total data prior to commencement of the analysis. The missing data were replaced by the maximum likelihood estimate prior to initiating the structured equation modelling exercise. R program (version 3.4.10) using RStudio was used for analysis. 'Lavaan' package was utilized for structured equation modelling and 'semPlot' package was installed for the graphical output.

2.3. Sample size and model fit

The database was split into two on sorted aggregate academic performance after coding. This made two databases one for the students with academic performance from 23.17 percentage to the median value of 61.59 percentage and the rest from 61.59 percentage to 96 percentage. The social cognitive theory formed the theoretical justification for ability groups. The statistical rationale for the split was justified by the minimum sample size requirement of 68 for degrees of freedom of greater than 400 and statistical power of 0.9 (McQuitty 2004). When more than two instruments load onto a variable, enabling the model to run a sample size of 150 'will usually be sufficient for a convergent and proper solution' (Iacobucci 2009). The analysed model had degrees of freedom of 3211 and sample size of $N = 219$ justifying the statistical power requirement of a close fit. The hypothesized existence of ability grouping provided the basis for the split on the academic performance. Figure 1 depicts the structural path model for the ability group I, which comprises students with aggregate academic performance up to 61.59 percentage, and Figure 2 shows the structural path model for the students with an aggregate academic performance above 61.59 percentage. The fit statistics are summarized in Table 2. Differences and similarities between the groups were important for research. A frequently

Table 1. Data classification of the survey respondents.

Age	Urban/rural	Gender	Programme
(17–18) = 130	Urban = 226	Male = 313	Mechanical = 129
(19–20) = 148	Rural = 126	Female = 124	E.T.C = 141
(21–22) = 135			Computers = 102
(≥23) = 09			I.T. = 62
Not recorded = 01	Not recorded = 86	Not recorded = 01	

Note: E.T.C = Electronics & telecommunication; I.T. = Information technology.

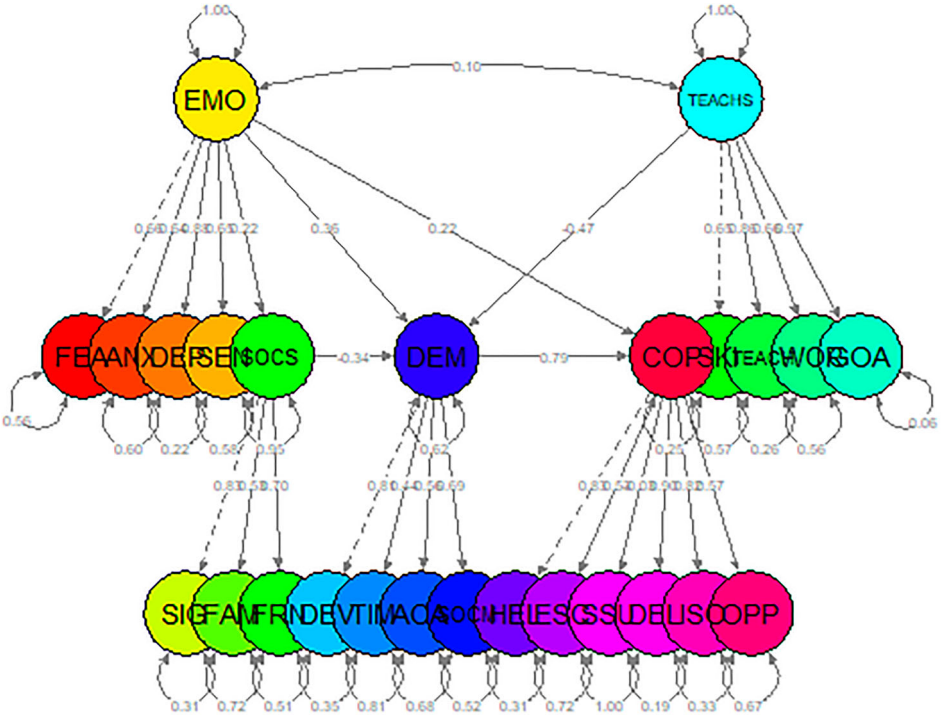

Figure 1. Structured Path Model for ability group I.

used rule of thumb expects the number of scales in the survey to be multiplied by a factor of 10 (Hoe 2008). In the confirmed model 21 scales are confirmed and hence 210 filled survey forms can be used to generate a structured equation model.

In the analysis, two ability group models have been generated by 219 survey responses. The (Chi-Square distribution)/(degrees of freedom) equals 1.606 for ability group I is a marginally better fit as compared to ability group II where it equals 1.699 and are both considered acceptable (Iacobucci 2009).

Fit indices of Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) are better for group II whereas root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) are better for group I. RMSEA is acceptable for both ability groups and SRMR is considered acceptable for the model confirmed by ability group I (Iacobucci 2009; Schreiber et al. 2006). The traditional hypothesis testing using a Chi-Square test confirming both the ability group models outperforms all the other goodness of fit indices and instances of Type I error have been reported for models considered mis-specified by Hu and Bentler (as quoted in Marsh, Hau, and Wen 2004).

3. Results and analysis

The correlation of anxiety and coping was traced in the analysis using Wright's path tracing rules and the Table 3 sums up the computation for both the groups. The hypothesized relationship between anxiety and coping was accepted for both the ability groups and anxiety was established as a significant determinant of coping . The standardized estimate of 0.236 for better performers of ability group II is marginally different from the estimate of 0.261 for ability group I.

The regression between aggregate academic performance and coping in Table 4 is statistically significant only for the ability group II with an estimate of −0.225 when compared to −0.136 for the ability group I. The structural path between demands and coping are statistically significant and requires to be considered for practical implications across both the ability groups. The better

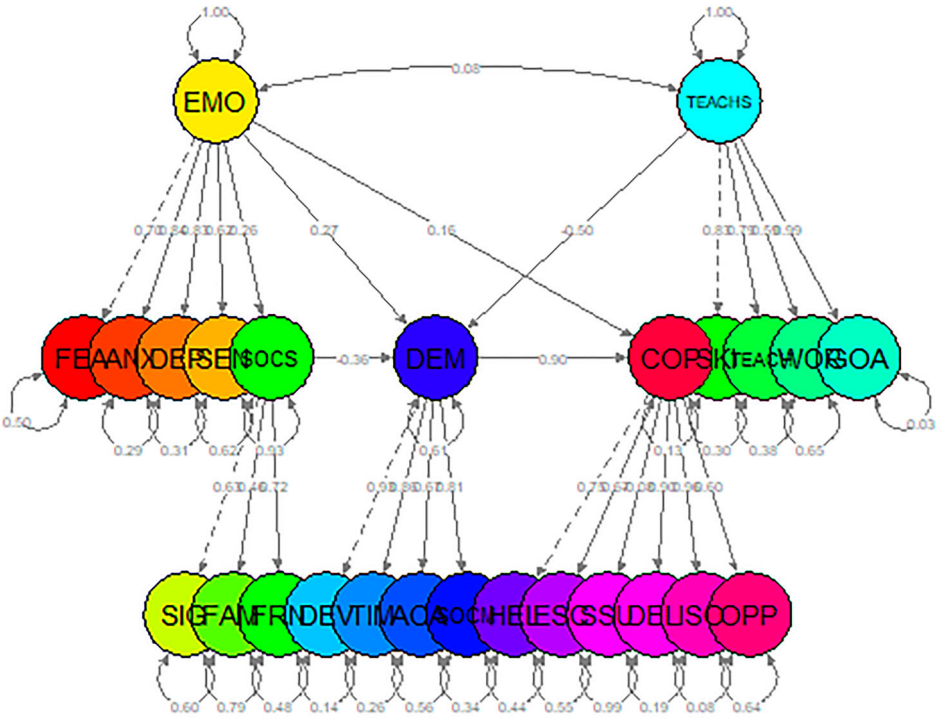

Figure 2. Structured path model for ability group II. Glossary note for the abbreviations in the structural path models. Emotionality resource (EMO) is measured using the scales of Fearfulness (FEA), Anxiety (ANX), Sentimentality (SEN), and Dependence (DEP). Teacher Support (TEACHS) is quantified in the model by the scales of Good Teaching (TEACH), Clear Goals and Standards (GOALS), Appropriate Workload (WOR), Appropriate Assessment (ASSESS) and Generic Skills (SKI). Social Support (SOC) is measured using the instruments of Family (FAM), Friends (FRN) and Significant Other (SIG). Developmental Challenge (DEVC), Time Pressure (TIM), Academic Alienation (ACA) and General Social Mistreatment (GSM) were the scales tested to establish Demands (DEM). Coping is established through the scales of Problem Solving (PSOL), Information Seeking (ISEEK), Helplessness (HELP), Escapism (ESC), Self-reliance (SREL), Social Support (SSU), Delegation (DEL), Isolation (ISO), Accommodation (ACC), Negotiation (NEG), Submission (SUB) and Opposition (OPP).

Table 2. Fit Statistics for the models.

Fit statistics	Ability grouping up to the 50th percentile (ability group I)	Ability grouping greater than the 50th percentile (ability group II)
Chi-square	$\chi^2(3211, N = 219) = 5159.813$, $p = .00$	$\chi^2(3211, N = 219) = 5457.338$, $p = .00$
Comparative fit index (CFI)	0.632	0.653
Tucker-Lewis index (TLI)	0.620	0.641
RMSEA	0.053	0.057
SRMR	0.089	0.091

Table 3. Correlation estimates for ability groups.

	Estimate (β)		Standard error (SE)		Standardized latent variable (*B*)	
Correlation	Ability group I	Ability group II	Ability group I	Ability group II	Ability group I	Ability group II
Anxiety∼Coping	0.646**	0.745**	0.362	0.620	0.261*	0.236*

Note:*$p < .01$, hence statistically significant; **$p < .0001$, hence statistically significant and considered meaningful for discussion.

academic performers of ability group II have a stronger path estimate of 0.9 as compared to 0.79 for the weaker academic performers in ability group I.

The conscientiousness resource was not confirmed during the structural equation analysis and had to be discarded to secure model fit. The negative variances of conscientiousness latent variable

Table 4. Regressions estimated for ability groups.

Regressions	1	2	3	4	5	6
1. AGG. PERF.						−0.136
2. EMO				0.225*	0.359**	0.225*
3. TEACHS					−0.468**	
4. SOCS		0.260*			−0.339**	
5. DEM		0.270*	−0.501**	−0.363**		0.788**
6. COP	−0.255*	0.159			0.898**	

Note: Standardized regressions are presented for ability group I above the diagonal and for ability group II below the diagonal. AGG. PERF. = Aggregate performance; EMO = Emotionality; TEACHS = Teacher support; SOCS = Social support; DEM = Demands; CO*P* = Coping.

*$p < .01$, hence statistically significant; **$p < .0001$, hence statistically significant and considered meaningful for discussion.

implying task engagement struggled for confirmation with the rest of the latent variables used in this research. The hypothesis made linking conscientiousness to demands made could not be verified in the structural path models across ability groups.

Emotionality factor was established as a statistically significant predictor of coping only in ability group I but was not considered a significant predictor in case of ability group II. Hence, the hypothesized relationship was accepted only for ability group I and rejected in case of ability group II. The regressions in Table 4 confirm the same conclusions with a standardized estimate of 0.225 in case of ability group I as opposed to a standardized estimate of 0.159 in case of ability group II. The standardized structural paths between teacher support and demands were statistically significant negative paths and the regressions table confirm the same relationship across both the ability groups (Hoe 2008). The regression coefficient for ability group II is −0.501 as compared to −0.468 for the academic underperformers of ability group I rejecting the hypothesis made of a positive structural path.

The hypothesis made of a positive structural path between social support and demands made was also rejected across both the ability groups. The structural path between social support and demands made is −0.339 for ability group I against −0.363 for ability group II referencing Table 5.

The hypothesized relationship between emotionality and social support was confirmed across both the ability groups through statistically significant model paths (Hoe 2008) as revealed in Table 5. The structural path coefficient is 0.225 for the students of ability group I that is marginally lower than the path coefficient of 0.260 for the students of ability group II. These values compel the rejection of the hypothesis made that the better-performing students of ability group II would have weaker structural paths to social support.

The hypothesized relationship between emotionality factor and demands was confirmed differentially across the ability groups. The path between emotionality factor and demands made was statistically significant at 0.270 for the ability group II, but the same path was statistically significant and needs to be critically examined for practical implications for the underachievers of ability group I with a path value of 0.359.

A statistically significant path between emotionality personality factor and coping exists for the underachieving students of ability group I with a value of 0.225 in comparison to a value of 0.159

Table 5. Standardized structural paths for the ability group models.

Measure	1	2	3	4	5
1. EMO			0.22*	0.36**	0.22*
2. TEACHS				−0.47**	
3. SOCS	0.26*			−0.34**	
4. DEM	0.27*	−0.5**	−0.36**		0.79**
5. COP	0.16			0.9**	

Note: Standardized structural paths are presented for ability group I above the diagonal and for ability group II below the diagonal. EMO = Emotionality; TEACHS = Teacher Support; SOCS = Social Support; DEM = Demands; CO*P* = Coping.

*$p < .01$, hence statistically significant; **$p < .0001$, hence statistically significant and considered meaningful for discussion.

and a consequent insignificant structural path for the better performers of ability group II as referenced in Table 5. These values confirm the hypothesis made.

4. Discussion

Anxiety, a facet of the emotionality resource was confirmed as an important predictor of coping across both the ability groups. These levels of anxiety might sustain adaptive coping leading to better aggregate academic performance in resilient students with resources of low emotionality personality factor. The high levels of anxiety could dictate dominance of avoidance over approach and the emotional respite gained through avoidance may provide the energy to the better performers for more effective subsequent approach responses. Grays's theory holds that activity in the Behavioural Inhibition System is responsible for experience of negative feelings (Carver et al. 2000).

The lower order constructs of Coping posing threats to competence in the form of Helplessness and Escapism had defined paths in both the ability groups whereas Problem Solving and Information Seeking scales were discarded due to negative variances. The students who show prolonged use of ways of coping such as Helplessness and Escapism can be considered at developmental risk (Skinner et al. 2003). These ways of coping prevent resources mobilization through coping and contributes to the development of coping vulnerabilities. The structural equation models confirmed the existence of threats to connectedness whereas adaptive coping through Social Support scale struggled for confirmation. The scale of Self-Reliance was not confirmed due to negative variances across both the ability group models. Isolation and Delegation were scales confirmed in these models that threaten information, empathy and encouragement from trusted connections. The structured equation models for both the ability groups confirm Opposition a scale that threatens student autonomy. Accommodation and Negotiation, the scales that promote autonomy were discarded due to negative variances. The relationship between coping and academic performance was consequently negative and statistically significant for the weaker performers of ability group I when compared to the insignificant relationship for the better performers of ability group II. The paths between the demands and coping were influenced by the emotionality personality factor, the teacher and social supports. The toughness to deal with the perception of hassles associated with demands whilst optimizing support seeking were critical to academic performance. When anxiety levels were high across both the ability groups the students avoided the stressors magnifying the hassles associated with the demands made and consequently driving maladaptive coping.

Conscientiousness was not confirmed as a significant resource during the structured equation modelling implying the absence of task-related engagement across ability groups. If the students are unable to plan their own workload then the perceived structural paths between teacher support and academic demands could turn negative (Byrne and Flood 2003). Good teaching scales could encompass a developmental challenge of mathematical skills and use of English as language of instruction, magnifying the hassles associated with the Appropriate Workload scale, explaining the negative structural path between teacher support and demands across the ability groups. This negative path association was stronger for the better performers who were resilient and tough in the face of demands made, driving the strong structural path between demands and coping. The higher education academic performance was adjudged largely by the end semester examinations, assessed centrally, which could also be a major reason for negative path correlations.

The needs of information, feedback and support were not fulfilled across both the ability groups. When encountering the stressors of the higher education process the sources of support viz. family, friends and the significant other could promote avoidance causing the structural path between social support and demands to turn negative. The weaker relationship between emotionality factor and social support for the underperforming students of ability group I has to be analysed with

concern. Under high levels of anxiety, weaker than expected relationships between emotionality and social support could be symptomatic of student burnout for ability group I. The differential structural paths between emotionality factor and demands could also enlighten the hassles encountered by the academic underperformers of ability group I.

A statistically significant path exists between emotionality traits and coping for the students of ability group I. This provides the clinching evidence for the research model of differential coping across ability groups. An insignificant structural path between emotionality traits and coping for the better performers of ability group II validates the differential paths between the ability groups.

5. Conclusion and future scope

This research is a quantitative attempt to understand differential influence of personality traits, social and teacher supports on coping behaviour grouped by abilities. This research attempts to promote the standardization of coping utilizing the Skinner et al. (2003) coping model that coalesces into the important aspects of self-determination, relatedness and competence. The students can burn out prior to the entry into higher education by maladaptive coping in the stressful schooling system or in the extremely competitive preparation towards the qualifying entrance examinations. Institutions are required to track behavioural anxiety amongst students of differential abilities utilizing technology and enable approach of academic stressors to adaptively cope and enable academic performance.

The environmental reasons could be expectations and goals of overbearing parents, driving avoidance behaviour in their children. The impact of avoidance on student coping in the social context of both parents working needs to be probed. The students exposed to demands beyond their abilities need to connect to the institutional teaching support and prevent maladaptive coping. In the current context where support may exist only in institutions and not in places of residence, it is incumbent to devise technology interventions where support needs are facilitated (Heiman and Kariv 2010). Fairness and integrity of teacher assessment dictated by the centralized paper setting and evaluation is also a concern that could induce negative affect and initiate avoidance. Experience of bias and debasement at the hands of parents and teachers at any stage could reinforce and contribute to the negative perceptions of demands made. Regulators require to redesign assessment methodologies to reduce anxiety levels, engage with academic tasks and promote adaptive coping. Ability groupings and its affective norms may be the way the unstable avoidance process is adaptively managed by Institutions to induce resilience and approach goals. Under effective adaptive processes, high levels of anxiety are transformed to relief, enabling rebellious performers to meet developmental goals (Carver et al. 2000).

Emotionality personality factor is established as a significant predictor of differential approach-avoidance across ability groups in the coping process enabling academic performance. Institutions require to be aware of the support needs of different ability groups and the disadvantaged sections of society to enable adaptive coping (Heiman and Kariv 2010). There could be further research probing coping strategies based on ability groups amongst gender differences and socio-economic status leading to successful academic performance. Higher education thrives in environments where learners are able to be curious, explore, make mistakes and learn from mistakes to be responsible. There exists opportunities to facilitate more autonomous learning, promoting competence and relatedness in both models confirmed by this research (Ryan and Deci 2000). Higher Education stakeholders are required to recognize that the academic processes require to harness students' autonomy and engage in academic tasks across ability groups. Institutions of higher education need to be granted autonomy in enabling its teaching faculty to gain mastery, promote competencies, create ability groups, and offer choices, embarking responsibly in differentiating career paths for all learners. Interventions made on the above future directions can complement further development in furthering the basics of coping process (Compas et al. 2001).

Competencies can only be nurtured in environments without a preponderance of fear and anxiety.

Higher education institutions are enjoined in the modern era to recruit teachers as positive agents who support healthy development generating social, emotional, cognitive, behavioural and moral competencies in an empathetic environment (Snyder, Lopez, and Pedrotti 2011). Institutions have to encourage self-determination nurturing clear and positive identity, recognizing and reinforcing positive behaviour. Managements, regulators and teachers may have to unlearn the environments they may have been exposed to during their undergraduate and graduate programmes and understand the competencies which can be currently enabled across ability groups through the teaching learning processes. Collaboration amongst teachers across different institutions has to be encouraged by managements and regulators with the goals of human capital development across ability groups.

Disclosure statement

No potential conflict of interest was reported by the authors.

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