Effect Of Birth Order On Academic Resilience: Deduced From The Output Of A Survey

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Abstract

Adolescence is stated to be a period of stress and strain, not because the individuals are in the midst of chaos and confusions, rather they are at the crucial time of choosing the best among the good ones to structure their own future. It is the stage, in the life of every student to pass through while they are right in the mid of the intermediate course of study. It is the most colourful phase of life woven with dare-devil enactments. The play of academic resilience is at its best and as such they complete the most difficult learning tasks in the shortest duration and smile at the toughest challenges with enhanced inclination for more and more participation in class/school activities (Finn & Rock, 1997; Capalla & Weinstein, 2001). Moreover, adolescence is the stage wherein the psychological differences among the young ones, observed ever since infancy will be seen prominent in the case of core characteristics at the stage of adolescence, and start getting blurred with greater and greater exposure to life experiences. Psychologically, the birth order is said to have its influence over the psychological characteristics of children and likely to perpetuate in them throughout their life time. Though another school of thought does not subscribe to the concept fully, the researchers convinced of the several arguments put forth in favour of the influence of the birth order, have marked it as a research gap and pose the research question–Will there be a possibility to examine the genuineness in the noted differences in regard to academic resilience and its dimensions of the students of different birth order? It prompted the researchers to prepare the ready reckoner comprising three Tables–1, 2, 3, with Table-1 providing the research identified traits and characteristics of the first borns juxtapose to the corresponding constituents forming academic resilience. Likewise, ready reckoner Table-2 and ready reckoner Table-3 furnishes the traits/characteristics predominant in the second borns and third borns respectively along with constituents of academic resilience. The ready reckoner is used for answering why and how of the research outcomes – the levels of academic resilience and its dimensions in terms of birth order and statistical differences noted in their means among the sub-samples of birth order. It has been concluded that there are certain deviations in the first borns, while the middle borns and last borns stand almost to the standard expected of them in the traits, characteristics assessed.

Keywords: Academic resilience, Birth order, Ready Reckoner, Self-confidence, Mental toughness, Grit.

Introduction

It is customary in any field of activity, changes are occurring time and again for ushering in developments in that field for better human achievement and wellbeing. Pertaining to education, from time immemorial, several concepts appeared and some have disappeared after a period of time, and several theories were postulated and successfully practiced over a period but became obsolete, when another modified or an enriched one grabbed the rein in course of time. According to Linda, Ryan and Marie, L. Caltabiano (2009), "Recently the field of 'mental health' has seen a shift in focus from a deficit-oriented approach to a strengths-based approach which is associated with healthy, adjustment trajectories such as resilience." Similarly, in the domain of education which is the growing field of positive

psychology, resilience is highlighted as a strength that can assist people in positive life adaptation (Masten & Reed, 2005). Since improving the quality of education and empowering students in any educational system are the most important developmental factors in society, several researches in the field started focusing on to identify the factors that could influence quality and empower the students (Alireza, Ramezenpour, et al., 2019). Subsequently, some of the researchers have made use of the term 'academic resilience' when they attempted to address the question – 'why do some students show stress so much against academic challenges, while others do not? Thus academic resilience in this regard has come to mean 'one's ability in the academic field to get empowered to cope with stress, pressure and challenges in academic activities' (Mallick & Kaur, 2014; Martin, 2013; Martin & Marsh, 2009).

Concept Clarification

Academic resilience also referred as educational resilience, is an important psychological characteristic required for students belonging to impoverished family backgrounds. It is unique in enabling the individuals to fight against challenges arising from adverse environmental conditions preventing positive academic advancements (Colp & Nordstokke, 2014). In this context, poverty in the family is often held as a factor responsible for debilitating the academic attainment of students in such inconspicuous state of life (Kanevsky, et al., 2008). It clarifies the fact that most of the students coming from not so congenial backgrounds are likely to suffer due to lack of academic resilience. However, in contrast to this occurrence, when the disadvantaged students are successful in developing academic resilience, they gain the capacity 'to reverse academic misfortune and failures, and succeed, while others fail in their attempt to develop academic resilience, continue to perform poorly and fail' (Martin & Marsh, 2006). It has also been shown explicitly that the approach of these students towards developing academic resilience is an inherently asset oriented, strength based and predominantly aspiration related one (Martin & Marsh, 2009).

From all these, the researchers are able to infer two factors that are of importance: The first factor is to cause deprivation of basic requirements to cultivate academic resilience, and the second factor is to promote academic resilience in the aggrieved students.

One may understand from psychology that the cause of deprivation in the life of students as per the first factor is totally external, for the reason, the students do not have any control over the economical and financial status of the family. They have been destined to be born in a family of poverty to struggle in life over the misfortunes surrounding them. The second factor promoting academic resilience in the struggling students by their own efforts is totally internal, and individual based one, disregard of the external factors. A student at the young age, being caught in the vicious cycle of deprivation caused by family poverty, cannot easily swim against the current to reach the point of safety. In order to gain the strength of academic resilience, the students swimming against the current should be bestowed with the following psychological characteristics:

Mental Toughness: A capability to bear with physical, mental and emotional sufferings for long without any protest. It is defined as a "personality trait which determines in large part how individuals deal with stress, pressure, and challenges irrespective of circumstances."

Hardiness: A strong mental ability to face danger, and manifest a will to accept difficulties as challenges. It is defined as a characteristic formed of optimism and predisposition towards challenge and risk, constituting mental toughness.

Self-Confidence: It is another unit or part of mental toughness that allows people to take whatever that comes in stride, with a focus on what they can learn and gain from the experience.

It is one's own belief about his/her ability or strength to win over the hardship or challenge being offered or accepted.

Thus, those who are mentally tough are not only able to bounce back, they are more likely to see hardships as a welcome challenge and greet it with a smile.

Grit and Mindset: Grit is defined 'as a tendency to sustain interest and effort towards long term goals.' Although it is treated as a synonym of resilience, it is not the exact synonym of resilience. Resilience is more often

referred as "the ability to bounce back from short term struggles, while Grit is the tendency to stick with something long term, no matter how difficult it is." According to Duckworth (2013). 'Grit is an individual's tendency to sustain interest, passion, effort and persistence towards achieving long term goals.' Moreover, Grit is a better predictor of success in studies than intelligence (Duckworth, et al., 2007).

Similarly, studies on mindset have identified two kinds of mindset, known as fixed mindset and growth mindset. A fixed mindset in an individual presupposes fixed believes about their mental calibre and ability to remain stable. The growth mindset on the other hand helps individuals approach their intelligence and ability as a base for nurturing capacity for mapping success through one's own effort and practice. On the other hand, consider the growth mindset as an instrumental one in the formation of grit. Consequently, Farrington, et al., (2012) Ready Reckoner Table – 1

revealed that the combination of growth mindset and grit in students is capable of producing higher academic grades.

On the basis of the psychological aspects involved in making one's academic resilience, the researchers have been prompted to think that there is a possibility of gaining a better understanding about the subject of the study–the Junior College students of Warangal District of the Telangana State–likely to differ in their birth order may also differ in their academic resilience, as psychology has established the effects of birth order on the psychological characteristics of the individuals. Alfred/Adler (1928) was the first to theorize that birth order influences personality. The following ready reckoner Table – 1 furnishes some of the traits of the first borns, and the corresponding constituents of academic resilience.

Details of First Borns

Reported Characteristics	Corresponding constituents of Academic Resilience
Belmont, M and **Marolla, F. A. (1972)** Higher level intelligence	Higher level mental toughness
Kalkan (2008) Born with leadership characteristics	Grit; growth mindset
Paulhus, D.L, et al. (1998) Conservative	Mental toughness
Good at pleasing adults	Self- confidence
Adler, A (Curtis Gustafson) 2010 Adherence to rules	Self- confidence
More ambitious	Mental toughness; Grit
More confirming	Self-confidence
More motivation to achieve	Growth Mindset
Hard work to stay ahead	Hardiness
Sulloway, F. J. (1996) Good social dominance	Grit

Similarly, the following Ready Reckoner Table – 2 furnishes the traits of middle borns and the corresponding constituents of academic resilience.
Ready Reckoner Table – 2

Details of Middle Borns

Reported Characteristics	Corresponding constituents of Academic Resilience
Paulhus, D.L, et al. (1998) Rebellious	Mental toughness
Strong social relationship	Self-confidence
Adler, A. (1928) More challenging authority	Hardiness; Self-confidence

More competitive	Self-confidence, Grit
Work hard to equal the status of the first born	Hardiness, Grit
Set higher goals to overtake the first borns	Growth mindset, Mental toughness

Likewise, the following Ready Reckoner Table – 3 furnishes the salient features of the Last borns along with the corresponding constituents of academic resilience.

Ready Reckoner Table – 3

Details of Last Borns

Reported Characteristics	Corresponding constituents of Academic Resilience
Gfroerer, et al. (2003) Sense of belonging	Fixed mindset
Entitlement	Grit
Striving for perfection	Self-confidence
Stewart, et al. (2001) Strong attention seeking behaviour	Fixed mindset
Skillful in developing and maintaining relationships	Self-confidence
Harraera, et al. (2003) Boldest	Mental toughness, Hardiness
Most creative	Growth mindset
Emotional	Poor self-confidence
Extraverted	Mental toughness
Agreeable	Grit, Self-confidence
Least stable	Lack of hardiness

The three Tables furnished above with the salient psychological characteristics of the first born, middle born and the last born, along with their corresponding constructs of academic resilience are to be treated as ready reckoners to find an explanation for the why and how of the findings reported in the study regarding the level of academic resilience and its dimensions in respect of first, middle, and last borns. Similarly, an interpretation can be attempted for the findings deduced from differential analysis of academic resilience and its dimensions in respect of the birth order of the target population.

Operational Definitions

Birth Order: By this, the researchers mean, the order of children born in a family; first-born, second-born/middle born, and last born. Birth order is often believed to have a profound and lasting effect on psychological developments.
Academic Resilience: It is defined as "a capacity to overcome acute or chronic adversity that is regarded as a serious threat to a student's educational development" (Martin, 2013).

Operationally, by academic resilience the researchers mean the scores obtained by the junior college students on the Academic Resilience Scale (ARS) prepared and validated by the researchers.

Need and Significance

Any survey on a particular characteristic of a chosen population, does not generally end with reporting the size of the sample of the population involved in the survey in total, the details of the sub-samples formed of the demographic characteristics such as gender, age group, community, locality, and so on but also extends to provide information in respect of the nature of the chosen characteristic as high or low or moderate in total wise or sub-sample wise. However, in the case of psychological characteristics, the researchers are likely to go further to verify the existing differences in the characteristics studied among the sub-samples tested. As the scope of the study is extended beyond the percentage analysis to include statistical application for confirming the differences among the means, the study may be

regarded as a descriptive survey. But owing to the inclusion of just only one demographic characteristic-birth order-the present research is treated only as a survey.

Though the scope of the present study is narrowed down by the design adopted, the researchers have carved out a different route to make it an indepth study on academic resilience of Junior College students. That is, by bypassing the usual strategy of relating the research outcomes of the present study with the research output reported in past researches of similar category, as corroborating ones or contradicting ones, the researchers feel satisfied and stop probing further into answering why and how of the outputs arrived at. This is the noted lacuna, the researchers have attempted to address in the present study. The strategy adopted by the researchers in this regard involves preparation of a Ready Reckoner on the basis of the previous research findings on the psychological characteristics of early adolescence, mid adolescence, and late adolescence of the first borns, middle borns and last borns. The findings inferred from the analysis will be discussed with the help of findings given in the ready reckoner to explain why and how of the present output. The researchers consider it as a significant breakthrough strategy to enrich the outputs obtained from the surveys to take them or of similar researches authentically to next higher level.

Process of Research

Method

The researchers have designed the study in such a way to make use of the survey method for studying the target group in terms of the variable–Academic Resilience–a noted research gap not yet addressed in Warangal District of theTelangana State.

Population

Population of the present study comprises all the Junior College students in twelfth standard in the Junior College managed by the government and private bodies in Warangal District of theTelangana State.

Sample

Stratified random sampling method was followed for forming the sample of the present study.

10% to 15% of the population was chosen by random from different categories of schools, first with the stratification on type of school management, and then followed by gender of the subjects to form the sample of the study.

The final sample of the study comprises 600 Junior College students chosen by random of which 240 are first born, 280 middle borns and 80 are last born students doing their studies in the government and private schools in Warangal District of the Telangana State.

Objectives

- ➢ To find the level of academic resilience and its dimensions–Perseverance, Reflecting and adaptive help-seeking and Negative affect and emotional response-of Junior College students in terms of birth order.
- ➢ To find the significance of difference in academic resilience and its dimensions among Junior College students differing in birth order.

Hypotheses

- ➢ The level of academic resilience and its dimensions–Perseverance, Reflecting and adaptive help-seeking, and Negative affect and emotional response-of Junior College students in terms of birth order is moderate.
- ➢ There is no significant difference among the first born, middle born and last born students of Junior College in academic resilience and its dimensions.

Tool Used

- • Academic Resilience Scale (ARS)– prepared and validated by the Researchers and the Research Supervisor.

Statistical Techniques Used

- • Percentage analysis is used to find the level of academic resilience.
- • 'F' test is used to find the significance of difference among the first born, middle born and last born Junior

College students in their academic resilience.

- Scheffe–a Post ANOVA test is used to find the difference between the means of samples, if F value is found significant.

Analysis of Data

Hypothesis 1

The level of academic resilience and its dimensions of junior college students in terms of birth order is moderate.

Table – 1 Level of academic resilience and its dimensions of higher secondary students in terms of birth order

Birth Order	Dimension	N	Low		Moderate		High	
			N	%	N	%	N	%
First Born	PRCE	240	49	20.4	165	68.8*	26	10.8
	RAHS	240	75	31.3	70	29.2	95	39.6*
	NAER	240	80	33.3	89	37.1*	71	29.6
	OAR	240	64	26.7	141	58.8*	35	14.6
Middle Born	PRCE	280	23	8.2	141	50.4*	116	41.4
	RAHS	280	77	27.5	90	32.1	113	40.4*
	NAER	280	110	39.3*	75	26.8	95	33.9
	OAR	280	18	6.4	135	48.2	127	45.4*
Last Born	PRCE	80	12	15.0	42	52.5*	26	32.5
	RAHS	80	24	30.0	36	45.0*	20	25.0
	NAER	80	29	36.3*	25	31.3	26	32.5
	OAR	80	9	11.3	44	55.0*	27	33.8

* indicates the level of academic resilience

PRCE – Perseverance

RAHS - Reflecting and adaptive help-seeking

NAER - Negative affect and emotional response

OAR- Overall Academic Resilience

Hypothesis 2

There is no significant difference among the first born, middle born and last born students of Junior College in academic resilience and its dimensions.

Table – 2 Difference in academic resilience and its dimensions of higher secondary students in terms of birth order

Variable	Birth Order	Mean	Calculated 'F' Value	'p' Value
PRCE	First	22.77	173.76	0.00**
	Middle	43.31**		
	Last	40.30*		
RAHS	First	41.80	3.32	0.03*
	Middle	43.62*		
	Last	42.20		
NAER	First	34.59	4.88	0.00**
	Middle	31.58		

		Last	34.58		
OAR		First	99.16	86.19	0.00**
		Middle	118.51**		
		Last	117.08*		

** significant at 0.01 level   * significant 0.05 level

Findings

1. The first born Junior College students are found to be moderate in their overall academic resilience (58.8%) as in the case of the dimensions-Perseverance (68.8%), and Negative affect and emotional response (37.1%). However, they are found to be high in the dimension Reflecting and adaptive help-seeking (39.6%).

In the case of the middle born Junior College students, the overall academic resilience is found to be high (45.4%), as in the case of the dimension-Reflecting and adaptive help-seeking (40.4%). However, they have recorded moderate in Perseverance (50.4%) and low in Negative affect and emotional response (39.3%).

In the case of the last born Junior College students, the overall academic resilience is moderate (55%), as in the case of its dimensions Perseverance (52.5%) and Reflecting and adaptive help-seeking (45%). However, they are found to be low in the dimension-Negative affect and emotional response (36.3%).

2. On testing the significance of difference among the Junior College students of different birth order, significant difference is observed among them in their overall academic resilience and all its dimensions.

In the case of overall academic resilience and in its dimension Perseverance, the middle born Junior College students are found to be at the top followed by last born students and then the first born.

In the case of the dimension - Reflecting and adaptive help-seeking, the middle born Junior College students are found to be significantly higher than the other two categories of students. However, in Negative affect and emotional response, the first born and the last born are significantly higher than the middle born students.

Discussion

The prime outcome of the study clarifies that the first born Junior College students are just moderate in their academic resilience. It stands contradictory to the psycho-social characteristics attributed to the first born individuals, ranging from pre-adolescence to the entry point of late adolescence. It has been confirmed by series of researches that the first born individuals are superior to middle borns and the last borns in intelligence and other academic activities. In addition to such basic advantage, they are credited with the inherent meritorious qualities such as the inclination to lead others in their own task accomplishments, and community development. More importantly, they are capable of wielding authority over others to accomplish their purpose. That is, their mental caliber accompanied by their will to establish themselves superior to all others exhibit their cognitive and emotional strength, derived from the constituent of academic resilience – mental toughness. Over and above, such a realm of positivity, the first borns are ambitious by birth, to retain their prime position in all sorts of activities at home, with the extension of the same in other social setups. Ambitious person is an ever vibrant person to secure his/her territory at the forefront place in all situations and in all places. Therefore, the born leaders with the ambition of long term goals need to be a relentless fighters throughout their life. Further, the first borns are reported to be better than the individuals of middle and last borns in their self-confidence, another constituent of academic resilience. It is best seen in their ability to move with the adults, and more confirming with rules and regulations. Likewise, the first borns higher level motivation to achieve, signifies the influence of the constituent–Growth Mindset; good social dominance that reflect the involvement of Grit, and another construct, and working hard ceaselessly to achieve the goal of staying ahead, denote the influence of hardiness and mental toughness. Thus, the first born students vested with all positive characteristics needed for structuring good academic resilience should have recorded high in their academic resilience. By virtue of this, they may reequip themselves and bounce back with renewed strength and

strategies to win over the obstacles which blocked them in the beginning.

The recorded unexpected and illogical outcome in the case of first borns with moderate level academic resilience may be attributed to: i) Registering only moderate for the dimension Perseverance–which is formed of mental toughness, hardiness, grit and self- confidence. Therefore, comparatively lesser utilization of these essential constituents of academic resilience, may be the major cause for the sub-samples – First borns to fall flat at moderate level; ii) The recorded level of moderate for the wholly negative factor – Negative affect and emotional response – seems to have damaged the scope of the criterion rising above the moderate level of academic resilience; and iii) Moreover, the lack of experience in answering the Likert type of tools may also be a reason for such an unexpected outcome.

However, the only solacing outcome pertaining to the first born is, they have registered high in the positive factor–Reflecting and adaptive help seeking. It indicates that the first born Junior College students seem to have been influenced more by the constituents of academic resilience such as self-confidence, and growth mindset than hardiness and Grit, the core characteristics of mental toughness. Therefore, the researchers conclude that the absence or lesser contribution of hardiness and grit to the formation of mental toughness in the first borns may also be a cause for Junior College students striking moderate in the dimension-Perseverance and Negative affect and emotional response, and registering the over whelming contribution of self-confidence and growth mindset in constructing mental toughness might have caused high in Reflecting and adaptive help seeking.

The middle born individuals, caught between the older and younger siblings have to fight to get equalized with the first borns and suppress the younger ones as much as possible to take the leadership in his/her hands. Almost in all characteristics, they are closer to the first borns. The middle borns are necessarily mentally tough, because they set higher goals to overtake the first borns, but unlike the first borns they are credited only negatively with 'rebellious' behaviour, spoiling the life of others, just to appease the souls of a few, who cannot bear the sight of people flourishing in life. Moreover, they subject themselves to more and more hard work to gain equal status as that of the first borns, manifesting hardiness. Also, the middle borns are noted for establishing strong social relationships by the manipulation of grit and self-confidence. Thus, it is not surprising, that the middle borns can stand shoulder to shoulder with the first borns, and as far as academic resilience is concerned, they have the potential to fetch high in the concept. The analysis revealed that they are high in academic resilience and in the positive dimension - Reflecting and adaptive help seeking pulling the first borns to the moderate levels. They also recorded moderate in perseverance and low in Negative affect and emotional response. The behaviour of the middle borns seems to be more ideal and very much in accordance with the characteristic feature reported by researches on birth order.

Unlike the first borns, the middle born students seem to get along with the past research outcomes confirming their characteristics with those of the outcomes of positive study. The deviant behaviour reported by the first born students of Junior College seems to be inexplicable. The last borns are attested with the characteristics such as, the boldest, most creative, emotional, extraverted and the least stable (Herrera, et al., 2003) as furnished in Table-3. The last born children are often considered as pampered (Adler, A., 1964) ones because of too much of protection, care, and affection showered on them. However, when they grow in to early adolescence and cross mid-adolescence, they are likely to acquire different skills related to cognitive, affective and psychomotor domains to alter their behavioural manifestations in such a way to agree with the characteristics of their older siblings. The present study declared that the last borns are moderate in their academic resilience as demonstrated by the first borns. Moreover, in a way they seem to have super seeded the first borns and almost equalized with the middle borns by registering low in the negative factor-Negative affect and emotional response. The revelation of a fairly higher status (i.e moderate) on their part, in spite of debilitating characteristics such as – least stable, emotional, etc confirming the absence or less representation of the major constituents of academic resilience such as mental toughness, Hardiness and grit seem to signify the efforts and motives of the last borns to fair in par with all activities–academic and non academic as in the case of other high performing peers, friends and others in the public. It is very much

confirmed in the differential analysis. Thus, the birth order, though known theoretically as the one which alters the academic, social and emotional behaviour of the adolescents, there seems to be exemptions in certain cases as in the present study.

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