
Effect of autonomy-supportive parenting and teaching on adolescents' educational aspirations: Moderating role of grade level

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✎ **ABSTRACT.** Il presente studio mira ad esplorare il ruolo predittivo della genitorialità che sostiene l'autonomia e dell'insegnamento a sostegno dell'autonomia sulle aspirazioni educative degli adolescenti. Inoltre, approfondisce la funzione moderatrice della votazione scolastica sulla relazione tra genitorialità di supporto all'autonomia (ASP) e aspirazioni educative degli adolescenti, e insegnamento di supporto all'autonomia (AST) e aspirazioni educative degli adolescenti. Lo studio ha condotto una indagine trasversale reclutando adolescenti di entrambi i sessi (N = 560) di vari istituti educativi privati e pubblici delle città di Wah Cantt, Taxila, Islamabad e Attock in Pakistan. I costrutti sono stati misurati tramite strumenti di autovalutazione in lingua urdu. I risultati dello studio hanno indicato che l'AST risulta un predittore positivo delle aspirazioni educative degli adolescenti. Questo suggerisce che gli adolescenti che sperimentano insegnamenti di supporto all'autonomia abbiano aspirazioni educative più elevate man mano che i loro voti migliorano.

✎ **SUMMARY.** *The present study aimed to explore the predictive role of autonomy-supportive parenting and autonomy-supportive teaching on adolescents' educational aspirations. Furthermore, this study aimed to explore the moderating role of grade level on the relationship between autonomy-supportive parenting (ASP) and adolescents' educational aspirations, and autonomy-supportive teaching (AST) and adolescents' educational aspirations. The study employed a cross-sectional survey design and purposively recruited adolescents (N = 560) including both boys and girls from various private and government educational institutes of Wah Cantt, Taxila, Islamabad, and Attock cities of Pakistan. The constructs were measured through self-report instruments in the Urdu language. The findings of the study indicated that AST was positive predictor of adolescents' educational aspirations. Findings of binary logistic regression suggested that grade level moderated the relationship between the AST and educational aspiration. Our findings suggest that autonomy-supportive teaching is an important precursors of adolescents' educational aspirations. Adolescents who experience autonomy-supportive teaching are likely to have higher educational aspirations as their grades progress.*

Keywords: Educational aspirations, Autonomy support, Self-determination theory

INTRODUCTION

Adolescence is marked by continuous physical, mental, and psychological changes, and one central and stage-salient task of this developmental stage is achieving autonomy (Steinberg, 1990). The period of adolescence is characterized by sudden changes in biological, social and cognitive spheres, and these abrupt changes have deep influences on autonomy development among the adolescents (Collins & Laursen, 2004). Adolescents with autonomy, set up for themselves such aims and actions as control their own lives. Every aspect of the adolescent's performance is positively affected by the autonomy support from their significant others in the social context, autonomy and self-regulation of the individual. Increased autonomy in the adolescence time period might lower the control of the peers and parents over the decision and opinions of adolescents (Daddis, 2011). The lasting relationship between the autonomous behavior, self-determined behavior and strong wholesome relationship with others play a significant role in psychological development and adjustment (Inguglia, Ingoglia, Liga, Coco & Cricchio, 2015).

Although autonomy implies detachment from and lesser reliance on parents (Hill & Holmbeck, 1986), still parents are debatably one of the most significant influencers in an adolescent's life (Song, Bong, Lee & Kim, 2015). Parents may either, encourage and provide opportunities for children to take independent initiatives, or be controlling and prevent them from availing chances to be self-reliant (Grolnick & Pomerantz, 2009). Such socialization practices are pivotal for autonomy development (Holmbeck et al., 1995). Numerous researches have shown a positive relationship between autonomy-supportive parenting (ASP) and better psychological functioning (Soenens et al., 2007) and academic outcomes (Pino-Pasternak & Whitebread, 2010; Pinquart, 2016; Vasquez, Patall, Fong, Corrigan & Pine, 2015).

The phenomenon of adolescent autonomy can be explained in light of the self determination theory (SDT) which posits that being autonomous entails self-governance and taking initiatives. Three types of psychological needs are stated by the SDT: the need for competence, the need for association and the need for autonomy (Deci & Ryan, 1985; Ryan & Deci, 2000). In order to achieve the finest learning, all the three needs require being satisfied as the gratification of these needs give into motivation that eventually encourages students to engage more in educational pursuit.

An important factor necessary for successful pursuit of education is educational aspiration, which is defined as the expectation of an individual about the achievement of educational status in the future. Aspiration is a long-lasting essential psychological aspect of the ability of students to undertake higher education (Pitre, 2006). Aspirations serve as an initial level to the goal accomplishment, it drives a person to perform goal-oriented actions and emphasize to improve the present status and keep on progressing (Hurlock, 2005). However, being brought up by psychologically controlling parents that are not autonomy supportive, the adolescents' psychological development is expected to be inhibited (Grolnick et al., 1997). On the other hand when primary social figures tend to be supportive of the adolescents' needs and provide opportunity for independence and choices, development of autonomy is facilitated.

Although a substantial amount of research has been conducted on parental autonomy support, much of these studies have been conducted in western cultures. It is known that unlike western individualistic cultures, the collectivistic cultures, such as in Pakistan, prioritize interdependence and respect for social hierarchy over individuality (Markus & Kitayama, 1991). Universally, a strong bond with the family is instrumental in the acquisition of social adequacy for the adolescents; however, in the countries that adhere to a collectivistic culture, the reliance of adolescents on their family is especially strong. Here these young people in order to attain greater parental support prefer meeting halfway between being fully autonomous and not autonomous at all (Kovacheva, 2006).

Still, researchers vary in their opinion regarding the difference in effect of parental autonomy support of adolescent's functioning across cultures (Wang et al. 2007). Exploration of this phenomenon in different cultures is scarce and thus limits its complete understanding. Fuligni (1998) argues that it is possible that children living in a collectivistic culture may expect and desire less autonomy than those that live in individualistic cultures, still upon reaching adolescence they will start to seek individuality as the need for autonomy is salient and universal. Family being the primary social support system of all adolescents, plays a crucial part autonomy development (Kagitcibasi, 2005), regardless of cultural variations.

A significant gap in literature concerning adolescent's autonomy support is the lack of exploration of support from significant social figures in the adolescent's interpersonal

environment other than parents, like teachers (Soenens & Vansteenkiste, 2005). Some research has suggested the influence of teachers on behavior of the adolescent through imperative or self-sufficiency contributing actions (Broeckelman-Post et al., 2016). Studying autonomy support outside family contexts can shed more light onto this phenomenon (Yan, Han, Tang & Zhang, 2017). It has been suggested by studies that along with parents, teachers also influence the behavior of the adolescent through imperative or self-sufficiency contributing actions (Broeckelman-Post et al., 2016). The concept of autonomy-supportive teaching (AST) has been taken from the self-determination theory where such attitude is adopted by the teacher where a student is listened to and is offered choices which ultimately promotes autonomy development (Nunez & Leon, 2015).

According to the research, satisfaction of inner needs; mostly through supportive role of parents and teachers, directs positive consequences that are; higher inner motivation and self-regulation towards learning (Soenens & Vansteenkiste, 2005). Helpful and participative parenting and teaching improve personal, social and academic development and achievement of adolescents (Harris & Goodall, 2008; Jeynes, 2007).

The relationship between a teacher and a student can promote an autonomy supportive learning environment. Such an atmosphere for learning encourages student's preferred activities and interests leading to better educational outcomes (Reeve, Jang, Carrell, Jeon & Barch, 2004). Studies suggest the differences between controlling and autonomy supportive classroom settings by indicating that autonomy supportive atmosphere prompts better results such as academic dedication and achievement, psychological health, and inner motivation, however, coercive, and controlled classroom settings may result in restrained cognition and reduced motivation where the correct behavior is the consequence of external rewards, pressures, and punishment (Ciani, Middleton, Summers & Sheldon, 2010; Shih, 2008).

According to SDT, students may feel encouraged to follow their goals with greater ease when they perceive that teachers are supportive in the pursuit of students' preferred goals. In the presence of choice and substitutions, students are encouraged to accomplish their aspired motives (Katz & Assor, 2007). According SDT, for the finest learning, assistance and order structured by the teacher is vital (Reeve, 2009). The readiness of students to follow and accept the

structure is higher in the considerate and non-coercive context where the students' viewpoint is given respect. The aspirations also begin to appear at an exceptionally early age (Herting & Blackhurst, 2000).

Support system including significant others of the adolescents, sets for them the future expectations to achieve, through the behavior and feedback of the significant others. For instance, if teachers and parents set high and tough prospective goals for the adolescent and assist and boost accordingly, adolescents are more likely to select high aspirations. The children possess high confidence regarding academic potential when higher aspirations are set by their significant others. Currently, in Pakistan, literature is quite scarce on the association between autonomy support and academic aspiration among adolescents. The current study aims to explore the effect of the ASP and AST on adolescents' educational aspirations. Particularly, this study will explore if the ASP and AST will improve adolescent's educational aspirations.

For the preparation and backup of productive and positive change in the learning end product, schools may play a preliminary central role systematically by identifying and backing each student's developmental goals. Current research is useful for schools and teachers in providing appropriate and approachable opportunities, guidance, and structures in the central time period of schooling thus, schools and teachers may support students to discover and set their academic expectations. Teachers may assist students by clarifying the aims and inspirations of the students as identifying the purpose and direction of education is essential even at the beginning of secondary education.

Apart from autonomy supportive social relationships, another potential factor that can influence adolescent's educational aspiration is grade level. Pertinent literature reveals that students of secondary and higher secondary classes are more sensitive to their educational aspirations as these are the grades which lay down the foundation of their future career. According to Marsh, Martin and Jackson (2010), the time period of matriculation for adolescents is critical as a decision about the future requires to be held after the school is completed. The viewpoints on the self, expectations, and behavior of the individual ensure the future success or failure. Adolescents at a senior secondary level may become more conscious about their career and educational choices. Mau and Bikos (2000) found that occupational and educational aspirations were at their peak among students of secondary

and higher secondary education that is, 9th, 10th, and 11th, 12th class, respectively. A study by George (2014) found that students of senior secondary classes have a moderate level of educational aspirations, suggesting that the students at this level may need to have higher parental and teacher autonomy support as well as motivation to increase their educational aspirations.

In light of the above mentioned literature and rationale the present study is designed to test the following hypotheses.

H₁: autonomy-supportive parenting and teaching will positively predict adolescents' educational aspirations.

H₂: the grade level will moderate the relationship between autonomy-supportive parenting, autonomy-supportive teaching, and adolescents' educational aspirations.

METHOD

Participants

A sample of ($N = 560$) students of secondary and higher secondary schools of Wah Cantt, Taxila, Islamabad, and Attock cities was recruited for the present study. The sample included 255 boys and 305 girls from both private sector ($n = 332$) and public sector ($n = 228$) schools. Students of 9th-12th grade were recruited through purposive sampling technique. The participants' age ranged between 13 and 18 years ($M = 16.36$ years, $SD = 1.38$ years). Adolescents living with single parents or without parents were not included in the study.

Instruments

Perception of Parental Autonomy Support. Urdu version (Naz & Gul, 2015) of *Perception of Parent Scale (POPS)*; Robbins, 1994) was utilized to measure students' perceptions regarding their mothers' and fathers' stipulation of autonomy support. POPS is 18 items Likert-type scale with responses varying between 5 (very true of me) to 1 (not true of me at all). High scores indicate a high degree of autonomy-supportive parenting. The scale was found reliable with Cronbach alpha ranging from .71 to .86 (Chipman, Olson, Klein, Hart & Robinson, 2000; Robinson, Mandelco, Olsen & Hart, 1995). For the present study, the coefficient of internal consistency was quite high ($\alpha = .83$).

Learning Climate Questionnaire. Urdu version (Naz, 2015) of the short form of LCQ (Williams & Deci, 1996) consisting of 6 items was used, for the purpose of measuring the extent of students' autonomy perception in the class. Students' responses were recorded on a 5-point Likert type agreement scale with responses varying between 5 (very true of me) to 1 (not true of me at all). High scores indicate high degrees of autonomy-supportive teaching. Cronbach alpha of LCQ reported in the previous studies was .96 (Williams & Deci, 1996) and .93 (Black & Deci, 2000). The LCQ demonstrated excellent degree of internal consistency in the present study ($\alpha = .93$).

Educational aspirations. To examine the educational aspirations of the students a self-report item was added in the demographic section of the questionnaires intended for the current study: "In future, how much education would you like to obtain?". Numerous authors have previously used a single item to measure educational aspirations among educational populations (Khattab, 2015; Swell and Shah, 1968; Widlund, Tuominen & Korhonen, 2018). The response was given as: 1. = Vocational diploma/intermediate, 2. = Graduation/BA/BSc/B-Tech, 3. = Master's degree/BS/MBBS/or equivalent., 4. = M.Phil/MS, and 5. = PhD/specialization. In medical, to choose one of the mentioned categories. The scores were additionally coded as binary variables, to differentiate between students that aspired higher and those who did not. Each student was assigned to one of two levels of academic aspiration based on their chosen level of educational qualification. The first two categories of qualifications (vocational diploma/intermediate and graduation/BA/BSc/B-Tech) were coded as low educational aspiration and given a score of 0. Last three categories of qualifications (Master's degree/BS/MBBS/or equivalent, M.Phil/MS, and PhD) were coded as high educational aspiration and given a score of 1.

Procedure

Participants were approached individually and were briefed about the purpose of the study. They were assured that the information they provided would be kept confidential. Written informed consent was signed by the participants and they were advised to read and respond each statement carefully. Finally, participants were thanked and appreciated for their participation.

RESULTS

Table 1 depicted the reliability coefficients, descriptive statistics and correlation coefficients of the focal constructs for the present study. Results revealed that all the scales had high levels of internal consistency. Pearson correlation coefficients revealed that relationships among variables were in the predicted directions. Educational aspirations of adolescents increased with an increase in ASP and AST.

For the prediction of educational aspirations, logistic regression was carried out using autonomy-supportive parenting and teaching as predictors. School system (public sector vs private sector schools) and school medium (English vs Urdu medium of instructions) were tested as control variables (see Table 2). These control variables had statistically nonsignificant impact on main variables. Testing the full model against the constant came out to be significant, which indicated that the predictors consistently discriminate between students having high degree vs. low degree of educational aspirations ($\chi^2 = 45.97, p = .001, df = 8$). The value of .42 for the Nagelkerke's R^2 specified a relatively strong

association between the outcome (groups) and the predictor (AST). The overall accuracy in the prediction remained at 78.6% (75% and 83.4 % for low and high educational aspirations, respectively).

For the prediction of educational aspirations, logistic regression was carried out using AST and ASP as predictors and grade level was used as moderator. School system and school medium were tested as control variables, which had statistically nonsignificant impact on main variables (see Table 3). The full model was tested against a constant and the significant results suggested that the predictors (as a set) reliably distinguished between adolescents with low and high educational aspirations ($\chi^2 = 42.04, df = 7, p = .001$). Nagelkerke's R^2 (.12) suggested a pretty strong association between the outcome and the predictor (AST). Findings showed that class level moderated the relationship of the AST and educational aspiration. However, the class level did not moderate between ASP and educational aspirations.

Figure 1 illustrates moderating role of class level on the association between educational aspirations and AST.

Table 1 – Pearson correlations, alpha coefficients, and descriptive statistics of variables (N = 560)

Variables	K	α	M	SD	1	2	3
ASP	18	.80	63.16	12.07	–	.683**	.607**
AST	6	.82	19.62	5.39	–	–	.544**
Educational aspirations	–	–	–	–	–	–	–

Legenda. ASP = autonomy-supportive parenting; AST = autonomy-supportive teaching.

Note. Educational aspiration was coded as 0 = low, 1 = high.

** $p < .01$

Table 2 – Autonomy-supportive parenting and teaching as predictors of educational aspirations (N = 560)

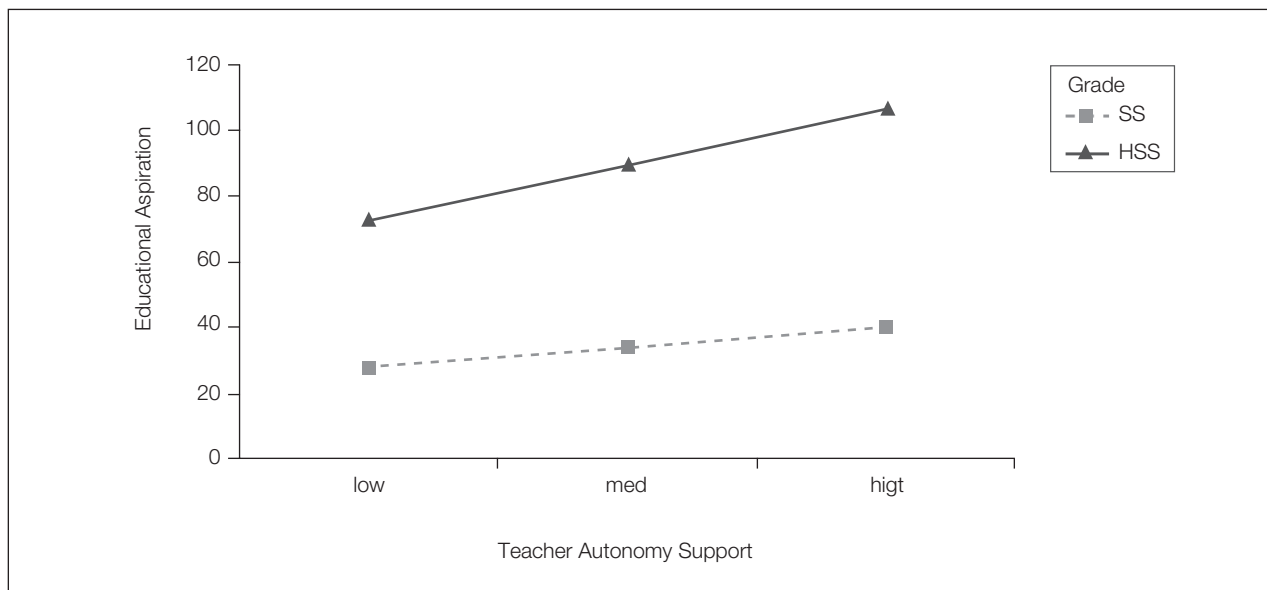
Predictors	B	SE	OR	95% CI for OR		Wald statistic	p
				LL	UL		
Constant	2.32	1.62	.11	–	–	2.07	.15
School system	.30	.21	1.35	.48	11.82	1.96	.16
School medium	.87	.82	2.38	.89	2.04	1.12	.29
ASP	.06	.11	.94	.81	1.15	.37	.54
AST	1.45	.13	4.28	3.32	5.50	127.68	.00

–2 LL = 553.02

R^2 (Cox & Snell) = .32; R^2 (Nagelkerke) = .42

χ^2 (8) = 45.97, (p = .001)

Legenda. ASP = autonomy-supportive parenting, AST = autonomy-supportive teaching.

Figure 1 – Moderating role of grade between autonomy-supportive teaching and educational aspirations

Legenda. SS = Secondary school (9th and 10th grades); HSS = Higher secondary school (11th and 12th grades).

The lines in Figure 1 elucidate that the difference between students of 9th, 10th classes, and students of 11th, 12th classes in the association between AST and educational aspirations is significant. Students of higher secondary classes (11th and 12th grades) demonstrate stronger aspirations with increasing AST as compared to their counterparts from secondary classes (9th and 10th grades).

In a nutshell, our findings revealed that that AST positively predicted adolescents' educational aspirations. Results of binary logistic regression indicated that grade level moderated the relationship between the AST and educational aspiration.

DISCUSSION

The primary purpose of the present study was to study the construct of autonomy support in Pakistan. Among collectivistic cultures, individuals remain committed to relationships with each other throughout their lives and strive for unconditional fidelity (Hofstede, 2001). The development of an independent self is marked by the psychological detachment from parents. In contrast, the individualistic western societies have examined the significance of autonomy offered by the parents for the usual development. Despite that, the construct of ASP should be validated outside western societies for two important reasons. Firstly, the unique social concerns from the standpoint of self-sufficiency are usually confused with the concept of autonomy. Moreover, autonomy reflects an individual's ability to coordinate himself/herself with societal norms (Ryan & Deci, 2008). Lack of understanding of essential values and rules, no matter whether they have been shaped by collectivistic or individualistic cultures may lead to poor self-governance. This perspective, the issues of how smoothly one engages in the prevalent social customs and routines is relevant to all social spheres.

Being a culture-specific value, autonomy seems to be more relevant to the individualistic societies (Markus & Kitayama, 2003), therefore, in Eastern countries, the literature on associations of autonomy-supportive parenting and parental control with adolescent's adjustment and well-being is quite scarce. Autonomy as well as autonomy-supportive parenting practices may espouse various forms in order to remain in line with the cultural milieu. Thus, autonomy could have been conceived as a vital human need, despite the reality that different practices, which may ignore or satiate this need

may get transformed across different cultures. Therefore, autonomy is considered as a basic human need, although the practices that demote or promote autonomy could have been different across cultures (Sheldon, Ryan, Deci & Kasser, 2004). During the whole adolescence period, parents offer support for vital decision making, dispositional and personal assets, and teachers are instrumental in the provision of support for the development of educational accomplishment, insight, and academic attitude.

AST involves searching for approaches to nurture, maintain, and harness students' inherent motivation for their engagement in classrooms (Reeve, 2006). On the other hand, parents who support autonomy for their children listen to their teen's viewpoint, offer a justification for the assigned activity, and offer alternatives for their teens to choose from. Emerging research on autonomy support demonstrates that it is a globally acknowledged need and psychosocial adjustment of adolescents could have substantially been influenced by parental control and autonomy support (Tamis-LeMonda et al., 2008).

The findings of the current research suggested that AST was positive predictor of adolescents' educational aspirations (see Table 2). These findings are in tune with the earlier research as studies suggests that experiencing and studying in an autonomy supportive environment may have a positive influence on adolescents' scholastic performance and academic aspirations (Vansteenkiste, Zhou, Lens & Soenens, 2005). Similarly, various desirable academic outcomes such as students' school adjustment improves with teachers' support (Cadima, Leal & Burchinal, 2010; Reddy, Rhodes & Mulhall, 2003). Furthermore, research suggests that by reducing the sense of self-blame and humiliation and boosting the sense of self-determination, teachers may cultivate an autonomy supportive environment, which may encourage students to develop their autonomous functioning and capabilities in their studies. Likewise, Geckova, Tavel, Dijk, Abel and Reijneveld (2010) indicated that both school and family could inspire adolescents' educational aspirations.

Findings from the binary logistic regression (see Table 3) indicated that grade was a significant moderator of the positive association between AST and educational aspiration. However, the grade did not moderate between educational aspirations and ASP. The findings are consistent with the pertinent literature, which suggests that teachers' provision of autonomy in school-related activities increases primary school students' academic performance (Wang &

Table 3 – Grade, autonomy-supportive parenting, and teaching as predictors of educational aspirations (N = 560)

Predictors	B	SE	OR	95% CI for OR		Wald statistic	p
				LL	UL		
Constant	.06	1.45	1.07	–	–	.00	.96
School system	–.31	.24	.73	.46	1.18	1.61	.20
School medium	.95	.75	2.59	.60	11.16	1.63	.20
ASP	–.05	.17	.95	.67	1.33	.09	.76
AST	.62	.12	1.86	1.47	2.35	26.67	.00
Grade	–.41	.24	.66	.41	1.06	2.99	.08
ASP × grade	.28	.24	1.33	.83	2.11	1.43	.23
AST × grade	–.52	.16	.59	.43	.81	10.41	.00

–2 LL = 511.07

R^2 (Cox & Snell) = .07; R^2 (Nagelkerke) = .12

χ^2 (7) = 42.04 (p = .001)

Legenda. ASP = autonomy-supportive parenting, AST = autonomy-supportive teaching.

Holcombe, 2010). Figure 1 further suggested that intermediate students' (11th and 12th grades) educational aspirations were more strongly influenced by AST as compared to the educational aspirations of students of secondary schools (9th and 10th grades). These results of the current research are in consonance with those of previous studies where, for instance, educational aspirations positively predicted the completion of advance studies (Kay, Shane & Heckhausen, 2016). This is so because after crossing their threshold of adolescence, students develop more pragmatic insight into their future goals and identity. Over time, the enhanced availability

of information regarding postsecondary occupations and education, these future aspirations may transform into more practical objectives (Lapan, Tucker, Kim & Kosciulek, 2003).

Implications of the study

The current investigation may help better understand AST, ASP, and academic aspirations among students of secondary and higher secondary schools from the indigenous Pakistani perspective and it validates

the findings from Western culture. The results of the present research have significant implications for school counselors, parents, teachers, and educationists. Various plans for the provision of counseling and motivation should be offered to the students so that they could maintain an optimal level of educational aspirations. The importance of student's high and firm educational aspirations should be appreciated by their parents and teachers. Special counseling sessions should be held at schools and colleges for boosting the educational aspirations and addressing the family and academic problems of students with low academic aspirations. The results of the present study may help develop new teaching policies to empower adolescents/students in becoming autonomous learners. It may focus on the roles of teachers/parents and students as facilitators and learners respectively.

Limitations and suggestions

Being correlational research, the findings of the present study might not provide causal interpretations. The data of the present study is based on a cross-sectional design, which

limits the scope of knowledge. A longitudinal design in the future may provide greater insight regarding parenting practices for autonomy.

An important limitation during the present study was the presence of the potential effect of a grouping of students in terms of classes and various educational institutions. Students of a particular school and at a more refined level of a particular class may share a specific learning culture that might have shaped their perceptions of teachers' autonomy support and educational aspirations. Furthermore, other demographics such as teachers' and parents' socioeconomic status, educational level, family structure, stage of the family life cycle may also be relevant to the perceived autonomy supportiveness and educational aspirations of the students.

The present study only centered around students' perspectives. Future research should be extended to explore not only the perceived autonomy support on the part of the students but may also incorporate teachers' and parents' self-report measures of autonomy supportiveness. Such dyadic data may be more fruitful for better understanding the dynamic interplay between autonomy-supportive parenting, teaching, and educational aspirations.

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