CHAPTER V

DISCUSSION
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The overall findings of the present study prove the efficacy of RAT in enhancing academic resilience among adolescents. The findings depict that adolescents with low academic resilience showed dysfunctional attributional style as compared to their counterparts. This proved the first hypothesis of the study. The findings can be explained within the framework of previous researches (Alva, 1991; Hackett et al., 1992; Bernard, 1993; Wylie, 1979; Waxman et al., 2003; Wood et al., 2009).

Students who are academically resilient show greater optimism than those who are academically low in resilience. Such students have the capacity to foresee problems, analyze them logically and reach to innovative solutions. As a result, they show high self esteem showing a tendency to learn from experiences. Since academically resilient students have high levels of achievement motivation and perform despite stressful conditions, they show higher sense of control and take credit for academic success. They are also more likely to attribute academic failure to unstable and controllable factors. Also, tendency of resilient students to have higher perceptions of involvement and task orientation helps them make functional attribution for success and failure outcomes. According to Wylie (1979) resilient students show a positive self-evaluation of their academic status at school. This positive attitude further leads them not to adopt a dysfunctional attributional style. The components of resilience assessed in the present research work, namely, self belief, persistence, perceived control and anxiety can also be used as a basis for explaining why the participants with high levels of academic resilience showed functional attributional style.

Students who are high on resilience have faith in their capacity to understand academic assignments. They take difficult assignments as challenges to be met. They channelize their energy towards solving a problem rather than getting stressed. They don’t quit easily when confronted with difficult academic problems and show a tendency to endure. They also experience a strong sense of perceived control. They are confident at their personal action controls outcomes and they are
skillful enough to enact desirable actions. As a result, they don’t feel anxious during challenging times (Martin, 2003 a). This leads one to infer that adolescents high on academic resilience are more likely to show functional attributional style. On the contrary, adolescents with low academic resilience are uncertain of their proficiency to take up challenging academic assignments. They renounce very easily when faced with demanding tasks i.e. they show poor endurance. Lack of confidence in one’s predispositions clearly depicts that the individual feels lack of personal control and higher levels of anxiety. This functions as a block or hindrance in goal achievement. Attentiveness and memory of highly anxious students is hampered which leads to poor academic performance (Everson & Millsap, 1991). The poor academic performance is attributed to internal, stable, global and uncontrollable factors by these academically low resilient students.

The second hypothesis proposed for the present study was Adolescents with high academic stress would exhibit dysfunctional attributional style as compared to those with low academic stress. The reason for high academic stress students in the present study showing dysfunctional attributional style could be the fact that academic stress is negatively correlated with factors like social resources, social self-efficacy, self-assertive efficacy and meeting other’s expectations. The self-efficacy judgments of students with high academic stress are thus low. This results in negative evaluation of the self and blaming the self for negative outcomes. Such students tend to attribute poor performance to factors that are internal, stable, global and uncontrollable in nature. Other researches that lend support to this finding have reported that academic stress and anxiety interfere with learning various skills (Bell, 1991). There is a negative correlation between stress levels and academic performance of student (Felsten & Wilcox, 1992). Academic stress hinders academic growth and academic success (Garret, 2001; Murff, 2005). At times the effect of stress is so bad that students may turn to substance abuse, depression, suicidal ideation and suicidal attempts (American College Health Associations, 2007). On the basis of the researches on poor effects of academic stress
on a student’s life, it can be concluded that students experiencing high level of academic stress tend to be high on dysfunctional attributional style.

The findings of the present research work clearly depict the success of reattribution training. Table 1 is the comparison of experimental and control group individuals on all the dependent variables, viz., Academic Resilience, Academic Stress and Academic Attributional Style. Through RAT the participants in the experimental group were taught to make functional attributions instead of dysfunctional attributions, thus changing their attributional style. The post scores of experimental group were better for self-belief, perceived control and persistence. Weiner’s theory of academic attribution lends the most significant support to the findings. Weiner suggested that need for achievement is mediated by the perception of causality. This, in turn has important impact on affective reactions to success and failure as well as expectation of future success. For e.g. if a student attributes failure to low effort, feeling of shame is intensified though sustaining high expectation of success in the future. On the contrary, if a student attributes failure to lack of ability, there would be less shame but lower expectation of success as well. This means the subjects in the present research work experienced positive affect and believed in their own capabilities to bring a change in their efforts. This helped in enhancing their sense of perseverance in face of failure. Once an individual develops an internal locus of control and believes that causes of various events are controllable, there is an increase in persistence. Stability links to the expectations of future. When the participants saw stability in a cause they became hopeful of future. Such changes were however not seen in case of participants of control group. Abramson et al’s (1978) theory of learned helplessness also offers an explanation to this finding. Learned helplessness describes a belief in one’s powerlessness which makes any attempt to learn futile. The participants of control group may have been experiencing learned helplessness because of their tendency to attribute negative events to internal, stable and global causes. Thus, in case of participants of the experimental group, the
researcher successfully made them substitute adaptive causal ascriptions for those that were dysfunctional which further produced changes in behavior. RAT helped these students by encouraging controllable and unstable perceptions of academic failure (Perry et al., 1993). The students were encouraged to adopt controllable and unstable explanations for academic failure (Forsterling, 1985). These modified attributions encouraged motivation of students to make better strategy and enhance achievement level, increased effort and improved performance (Schunk, 1990). The attributional style thus became functional. Making dysfunctional attributions acts as deterrence to personal growth. Individuals who blame themselves for failure outcomes tend to be poor on self-confidence. Their belief in their capability too is poor. Along with internal attributions for failure if attributions are stable and uncontrollable, the hope for future success also diminishes. This makes the individual doubt his or her personal worth. On the contrary, if attributions for negative outcomes are internal but unstable and controllable, the belief in one’s capacity to do well is retained. As part of the training in the present study, the students in the experimental group were discouraged to make attributions to failure to factors like lack of ability. They were encouraged to substitute this with factors like poor strategy and lack of effort. This must have helped the participants to trust in their competence. As a result they scored more on self-belief after the intervention. The finding is supported by previous researches (Miller & Ross, 1975; Brown et al., 1989). It has been found that attributing success to factors related to self and failure to external factors help in enhancing self-esteem. Another important support for this particular finding is lent by Bandura’s theory of self-efficacy (1986). According to Bandura, attributing performance failure to lack of ability leads to reduction in self-efficacy rather than when it is attributed to task difficulty or bad luck. Such students experience low level of anxiety (Jolly & Dykman, 1994) and approach complex tasks as challenge to be mastered rather than a threat to be avoided. The participants in the experimental group were trained to attribute performance failures to
factors like poor strategy & lack of effort. This helped them in maintaining their efficacy beliefs which would help them in better performance in subsequent tasks. Thus as hypothesized (hypothesis no. 3), RAT enhanced the attributional style of the participants.

The findings depict that students in the experimental group showed a reduced level of academic stress as compared to their counterparts in the control group. The findings are consistent with previous researches that have identified attributions as powerful determinants of student learning, achievement and self-esteem (Borkowski, Chan & Muthukrishna, 2000; Dweck & Elliot, 1983; Zimmerman, 2000; Zimmerman & Kitsantas, 1999). It has been noted that too much stress can interfere with student's preparation, concentration, and performance but positive stress can be helpful to students as it motivates them to peak performance. Another important component of academic stress is student’s fear of failure in relation to their grades and academic work. To fall short of their own or others expectations in school, job, athletes, or any other activity one risks both external and internal costs, threat to academic and career prospects, disapproval, rejection, humiliation, guilt and blow to the self-esteem (Schafer, 1996). In such a situation the concerned students are most likely to make pejorative attributions. They make dysfunctional attributions by attributing poor performance to internal factors that are stable and beyond their control. This dysfunctional pattern of explaining academic performance was modified with the help of RAT in the present study. Self-blaming, learned helplessness and maladaptive beliefs have long lasting effect not only on current but also future motivation and learning (Chan & Moore, 2006). However, after RAT the participants were in a position to perceive things in a new light. The finding also gets support from researches on interventions (Forsterling, 2001; Paris & Paris, 2001) that have shown effectiveness of RAT by demonstrating that it is possible for students to ‘learn how to learn’. Targeted intervention on changing student’s conceptions of the causes behind their success and failures in academics has been reported to have improved achievement (Chan & Moore, 1996;
Forsterling & Morgenstern, 2002; Zimmerman & Kitsantas, 1999). Combined attribution and learning strategy training has also led to less self-blame and less learned helplessness (Chan & Moore, 2006). This can further be expected to reduce the level of academic stress among students. The hypothesis (no.4) that RAT would reduce academic stress thus stands true.

It was hypothesized in the present research work that Academic Resilience (self belief, persistence, perceived control and anxiety) would be enhanced with the help of RAT. This hypothesis was also proved. There was significant increase in the scores of Self-belief, Perceived Control & Persistence & fall in the scores of anxiety of participants of experimental group. The finding is also supported by researches that have used attribution retraining and reported that such techniques not only improve performance, but also increase motivation, self-efficacy, success expectations, and controllable attributions, as well as lower uncontrollable attributions (Andrews & Debus, 1978; Fowler & Peterson, 1981; Schunk, 1983). The improved values of self-belief after RAT could be due to the fact that functional attributions enhanced self-confidence of the participants. The finding is also in line with previous research (Amatea & West-Olatunji, 2007) that shows that academic resilience is positively related to positive self-perceptions about academic abilities, educational aspirations and an internal locus of control. This helps students experience a stronger belief in the self. A stronger belief in one’s self is quite likely to result in increased perception of control over the events. Bandura (1994) proposed four major sources of information with the help of which an individual’s self efficacy and thus self belief can be enhanced. The first source is mastery experiences, which means performing a task successfully and thereby enhancing sense of self efficacy. Second source is social modeling wherein people learn skills by seeing people similar to one succeeding by sustained effort. The third source of information is persuasion. The fourth source is an individual’s emotional state which refers to mood and feelings in a particular situation. While using RAT in the present research work, self belief of the participants of experimental
The participants in experimental group showed increased perceived control which was missing in case of the participants of the control group. This proved the hypothesis 6 of the present research work. The finding is in line with the researches done by Perry & Hladkyj et al. (2005 a). After the intervention the students felt that they could control the significant academic outcomes. Perceived control has been reported to be a significant predictor of academic performance. It is so important that in its absence even effective teaching can’t be of much use. Because students with low perceived control believe that academic outcomes are beyond their control, they attribute performance to uncontrollable factors such as task difficulty, unfair teachers, bad luck, etc. These low perceived control students are caught in self-defeating vicious cycle involving low expectations, negative affect, de-motivation, and poor performance. The findings also gets support from other researches (Connell, 1985; Harter & Connell,1984; Patrick, Skinner & Connell, 1993) that suggest that students high on control avoid failure and achieve success whereas students low in control may lack resilience as they doubt their ability in stressful situations (Martin et al., 2001b). Previous researches show that RAT is regarded as a therapeutic method for reinstalling psychological control among students for improving their academic achievement (Perry et al., 1990). The finding is supported by researches that have used videotaped instructions for enhancing perception of control among fresh men (VanOverwalle & DeMetseaere, 1990). RAT encouraged students to adopt controllable and specific explanations for academic failure. The students were motivated to substitute factors like lack of effort for lack of ability. This instilled a sense of control in the participants of the
experimental group. Thus, after the participants were made to believe that they had the ability to change the factors affecting academic success and failure, their level of perceived control enhanced.

Another significant finding of the present study is increase in persistence in the participants of experimental group. As hypothesized (no. 7), RAT enhanced persistence of the participants in experimental group. When a student believes that he can persevere in times of failure, he or she is showing a higher sense of determination and commitment as compared to the one who believes that he or she would ‘give up’ during difficult times. RAT helped the participants to reassess their attributional styles and look for self-enhancing attributions for failures. Prior to intervention these participants used to believe in factors like lack of ability responsible for their failure. However, the intervention enabled them to think about factors like poor strategy or less efforts for the same outcome. This further led to the belief that they can keep on during negative academic events. Previous researches have reported that (Craske, 1985) RAT is instrumental in enhancing persistence among children. It can thus, be inferred that the adolescents in the present research work gained confidence to continue trying putting efforts despite the tasks being difficult in nature. Restructuring of explanations for success & failure enabled the participants see controllability further enhancing the sense of persistence. The findings of research done by Weiner (1974) also lend support to the present finding. According to Weiner high control is linked with students’ persistence, attention, effort, participation, mastery, motivation and achievement. Substituting effort and strategy attributions for ability attributions enhanced not only the perception of control of the participants; it also enhanced their level of persistence. Other researches on the basis of which present finding can be explained (Nicholls, 1989; Qin et al., 1995; Craven et al., 1991; Martin et al., 2001 b) have reported that in relation to students, a large part of enhancing persistence involves promoting a focus on mastery. By showing students how effort and strategy are important means of improvement and accomplishments, students can be helped to set goals and deal
effectively with hurdles (McInerney, 2000). RAT probably helped in developing students self regulatory skills which are significant means of enhancing persistence in the face of challenge.

Post-intervention anxiety score of participants in experimental group were less than those of participants in control group. This difference is attributable to the effect of reattribution training. Individuals in experimental group felt less anxious after their dysfunctional attributional style was altered. Reattribution training helped the students in experimental group to reduce the primary factor in anxiety, i.e., fear of failure (Martin & Marsh, 2003). This could be possible because reattribution training probably promoted the belief that increased effort and more effective strategy enhance performance and do not imply a lack of ability or intelligence (Covington & Omelich, 1991). There was a shift in students’ focus onto controllable elements like effort & strategy. RAT could reduce the level of anxiety of the participants of the experimental group because it made them see controllability in academic events. This must have encouraged sense of persistence and lack of fear of failure, thus, experience of less anxiety. Due to anxiety a student is not able to devote his full energy in a given assignment. He comes across failure and blames failure on to the self. With the help of RAT, however, the participants were made to change their perception. They were made to realize as how self defeating attributions work as a hindrance in goal attainment. The fruitful consequences of self enhancing attributions were highlighted which inculcated feelings of security and confidence thereby reducing level of anxiety. The hypothesis no 8 of the present study was thus proved.

Along with the post-intervention comparison of participants of experimental group and control group on all the variables, the pre-post intervention scores of subjects in experimental group also show significant differences for all the variables. Table 2 shows the pre-post comparison of individuals in experimental group for attributional style, self-belief, perceived control, persistence, anxiety and academic stress. As hypothesized (hypotheses 9 & 10) the post values of self-belief, persistence, and academic attributional style were higher than the pre
scores. Similarly, there was a fall in the scores of anxiety and academic stress post intervention. Post-scores on academic attributional style among participants of experimental group showed significant improvement. Assessed along three dimensions, namely locus, stability and controllability, academic attribution style was dysfunctional prior to the intervention. The participants reported more internal locus after reattribution training. The finding is supported by the researches that have found an internal locus of control may affect academic achievement via a higher motivation to learn due to belief in the ability of knowledge to be useful and persist in the academic tasks by believing that one’s own efforts will pay off (Capella & Weinstein, 2001). The participants were made to believe that they have better control of their behaviour and can influence events affecting them especially in the academic setting. This realization was in contrast to what the participants thought pre-intervention. Their belief (before intervention) that powerful others, fate or chance (external locus) control events was challenged and modified.

The third dimension along which academic attribution style was assessed was stability. The participants strongly believed that the negative outcomes in academics were due to stable factors like lack of ability. They were however made to realize that this was not the case. Their attention was focused on unstable factors like inadequate efforts and strategy. This changed the way the participants explained various academic outcomes. The attributional style became functional post RAT. The findings can also be explained on the basis of the fact that the intervention helped the participants to mobilize their self-system which further led to the melting away of learned helplessness. The participants were hopeful that they could now do something to bring about a change in the events affecting them. The renewed sense of belief helped them regain confidence to face the academic challenges. Furthermore, the intervention led the participants realize how effort and strategy are key means of improvements and accomplishment. This resulted in an enhanced sense of control (Martin et al., 2003). The participants were showed as to how by increasing efforts and using
more appropriate strategies academic performance can be improved. According to Peterson, Maier and Seligman (1993) through chronic level of low control, disengaged students have given up to the point of not even trying avoiding failure. However, the feedback given as part of the intervention in the present study enabled the students to experience a sense of control. This lead to the prevention that there is little or nothing they could do to affect academic outcomes in life and display helpless sense of motivation (Covington, 1992).

Post scores on Persistence also showed improvement. The finding can be explained on the basis of previous researches that state that encouraging students to set effective goals and showing them how to work toward these goals are significant ways of enhancing persistence (Locke & Latham, 2002). AR intervention has been found to enhance the use of adaptive cognitions. The adaptive and functional cognitions have a positive impact on students’ academic achievement. Using dysfunctional attributions puts the students at greater risk of future, low motivation and poor academic performance (Perry et al., 2005; Ruthing et al 2004). In such a case, the student shows reduced persistence and surrenders when he comes across a difficult problem. However, with the help of RAT the students were assisted to focus on their self regulatory skills. This worked as a means of enhancing their capacity to plan, manage their study and persist in the face of challenge (Zimmerman, 2002). As hypothesized post intervention scores of adolescents in experimental group on anxiety and academic stress were low as compared to pre- intervention scores. The findings can be explained on the basis of studies (Chapell et al., 2005) reporting that anxiety has detrimental effects on academic performance. Furthermore dysfunctional attributional style prevents a student from performing efficiently. Dysfunctional attributional style results in lack of self-worth, initiative and hopelessness. This further leads to academic anxiety and stress. Previous researches lend support to the present finding (Glassgow et al., 1997; Peterson & Steen, 2002). It has been reported that attributional style is negatively related to academic performance. Students with dysfunctional attributional style face difficulty in making
adjustment and achieving success in academics as compared to those with functional attributional style. However, when attributional style is changed with the help of RAT, the academic pressure and stress can be lowered. Study by Chapell et al. (2005) can also be used as an explanation for the finding. These researchers observed a significant difference on academic achievement among three different levels of anxiety, namely, low, moderate and high. Students with low anxiety report higher academic achievement as compared to those who experience moderate and higher level of anxiety. Individuals with low academic achievement have a dysfunctional attributional style (Perry et al., 1993). Therefore, the participants with the high anxiety showed a self-defeating attributional style as compared to their counterparts. This must have happened in case of participants of the experimental group due to which their post score on anxiety and stress were less as compared to their pre scores. Furthermore, it has been reported that there is a relationship between different type of attributions and academic stress coping efficacy and academic adjustment. Internal attributions have been found to be negatively associated with academic stress. Students low on stress tends to make success in future endeavors a possibility. Participants in the experimental group were trained to make functional attributions leading them to experience less academic stress. Through RAT, the participants were made to realize the benefits of internal locus of control, stability and controllability. An enhanced sense of self-belief, perceived control and persistence contributed to lower levels of anxiety and academic stress. Thus, RAT was successfully used in the present study. A change in cognitions of the participants of the experimental group brought modification in their behavior and affect.

The participants of control group did not show any improvement in the levels of academic resilience, attributional style and academic stress. One finding that needs to be mentioned is the increase in the scores of persistence of participants of control group. Though no intervention was used with these participants, some general topics were discussed. The better scores of persistence could be due to the
familiarity or practice effect. As the participants of the control group were administered the same tools for pre scores, they were familiar with the items. Moreover when they were requested again to fill in the same questionnaires, they may have given the responses in a socially desirable way.

Consolidation of the findings of the study primarily point to the efficacy of RAT in enhancing academic resilience and reducing academic stress of academically weak and underachieving students. The findings have following implications.

- Teachers and education policy makers had conventionally focused on teaching methods and learning styles while examining the underlying basis for low academic performance amongst students.

- Teachers and counselors to be provided expertise in RAT as part of their faculty development program. This would further enable efficacious implementation of RAT by teachers and counselors while targeting academically weak and underachieving students with an aim to enhance academic performance. The findings can thus help teachers in identifying students with dysfunctional attributional style and help them change it with the help of simple feedback.

- The present study urges us to look further into the underlying cognitive processes such as self belief system, persistence, attributional styles and perceived control as being vital contribution to academic performance of the students.

- Most importantly, it provides direct evidence of RAT in simultaneously bringing about functional changes in lowered self belief, weak persistence, dysfunctional attributions and less perception of control in underachieving and academically weak students.
Recommendation of RAT by education policy makers as a highly effective intervention strategy to be used by counselors and teachers dealing with academically weak and underachieving students. The findings can work as guidelines for educational institutions for designing and planning counseling programs for students.

The findings can also be beneficial for counseling of adolescents in areas other than academics.

Despite the above mentioned important implications, the present research work has following limitations.

- Though the intervention was elaborative in nature, no follow up was carried out.
- Gender differences were not assessed.
- The intervention was short term. Long term intervention can be planned with inclusion of follow up in the intervention program.

Future research should focus on carrying follow-up after the intervention. Teacher ratings of the students, i.e., teachers’ attributions for students’ success and failure can also be obtained to have a more accurate assessment of role of attributions. Gender differences in Academic Resilience, Academic Stress and Academic Attributional style should also be assessed.