

A Correlational Study: The Relationship between Self-regulation and Psychological well-being among Undergraduate Students

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Abstract

Self-regulation is an important life skill which if learnt at the right age helps an individual to deal effectively with their environment. It involves self-control over one's behavior, emotions and cognitions, monitoring them when necessary and managing them adequately to function at the highest potential possible. The purpose of the current study was to examine the relationship between self-regulation and psychological well-being among undergraduate students of Bangalore city in the age range of 18-21 years to see if acts of self-regulation predict higher psychological well-being. A sample of 300 undergraduate students were selected using purposive sampling technique. Two research instruments namely: Self-Regulation Questionnaire (SRQ) and Ryff's Psychological well-being Questionnaire (42 item version) were used to gather data for the study. Results of analysis using Spearman's correlation showed that there was a significant positive relationship between self-regulation and psychological well-being. However, Mann-Whitney U test results showed that there was no significant gender difference in the level of self-regulation and psychological well-being.

Key Words – *Self-Regulation, Psychological Well-Being, Undergraduate students, Self-control, Life skills.*

INTRODUCTION

Self-regulation refers to the process of self-control through which individuals learn to have better control over their thoughts, emotions and behavior and understand how to direct themselves towards the attainment of their set target. The process also involves continuously monitoring one's progress towards the goal, keeping a check on the results and reworking on failed attempts by redirecting one's approach. Self-regulation helps an individual to direct his resources, both personal and environmental in the direction of positive goal attainment. Tyler Hatch (2017) defined self-regulation from an applied perspective. According to him self-regulation is an active process wherein the individual constantly keeps a check on his behavior and emotions while engaging in goal directed behavior. It involves finding constructive solution to problems through well thought out action. Self-regulation is dependent on a variety of components such as, one's personal skills like planning and organizing, motivation, discipline, seriousness towards one's goals and availability of resources. Self-regulation is considered to be an important life skill that should be taught to individuals at an early age in order to help them deal effectively with their environment. It is an important life skill which if taught to children at a young age will help them manage and deal with stressors throughout their life efficiently. Self-regulation has been found to positively influence an individual's well-being in three main ways. Firstly, it helps an individual be more planned and organized in their effort to achieve necessary goals, thereby helping in active pursuit of goal attainment. This in turn makes an individual feel more independent and autonomous, helping them to learn how to take responsibility for their actions (Sheldon & Elliot, 1999; Sheldon, Kasser, Smith, & Share, 2002). Secondly, adequate planning helps them to achieve their goal faster, giving them a sense of personal accomplishment, thus, proving to be a source of internal motivation for future actions. Attaining their goals successfully by employing self-regulation strategies has been found to lead to a sense of fulfilment, competence and well-being by providing a sense of meaning to the individual (Carver & Scheier, 1990; Heckhausen, Wrosch, & Schulz, 2010). Thirdly, successful attainment of goals by employing adequate self-regulation helps to avoid goal frustration and unsuccessful or inadequate goal striving which could have otherwise given rise to various emotional and behavioral problems (Massey, Garnefski, & Gebhardt, 2009).

Self-regulation is an important aspect of each phase of human life as it gives direction and structure to one's efforts. The critical period for development of self-regulation as a skill starts right from birth and continues till 5 yrs. of age, when the child starts to understand how to control and manage their basic impulses and drive (Wrosch et al., 2003). Self-regulation helps in improving emotion regulation thereby helping the individual strive for personally valued goals (MacLeod, Coates, & Hetherington, 2008). Self-regulation serves as the foundational basis for positive mental and physical health, emotional and psychological wellbeing, success in academics and career. Some of the characteristics of individuals with good self-regulation includes the ability to keep their emotions in check, to utilize their resources for successful goal attainment, to resist impulsive behaviors, not to be self-critical and have the ability to cheer themselves up when they are feeling low. When it comes to self-regulation among the college population some of the behavioral problems that are seen in undergraduate students contributed by their lack of self-regulation skills are coming late to classes, leaving early from class, inappropriate usage or misuse of mobile phones, spending excessive time on social media, not meeting assignment deadlines, cheating in exams, distracting classmates and disrespecting professors in class, lack of participation, using time unproductively. Thus, looking at the previous studies, it can be seen that self-regulation is fundamental to successful accomplishment of adaptive developmental tasks at all stages of life.

Psychological wellbeing can be defined as a positive attitude towards life in general. It involves inducing positive thought process, being compassionate towards oneself, being mindful of one's environment in order to cope effectively with life situations. Deci and Ryan (2008) conceptualized psychological well-being as "some combination of positive affective states such as happiness and functioning with optimal effectiveness in individual and social life". People with greater psychological well-being are prosocial, physically and mentally healthier, have better quality of life and manage the stressors more efficiently. Nowadays, psychological well-being problems have become increasingly high, especially among college students who are prone to high amount of stress from different areas of their life. College is the first stage in an individual's life where they are moving out of a structured school life, wherein they were under the control of their parents and teachers to an environment where they first experience the sense of freedom and independence. It's a crucial period in a student's life often considered to be the final and ending phase of adolescence, which shapes their values, outlook about the world and life in general. College student's development and well-being is of utmost priority as it not only effects their functioning and achievement in college but it tends to have a long-term impact on their career as well as their overall functioning as a member of the society. Therefore, it is of great significance to get clarity about the factors influencing this growth and the components effecting or supporting college students psychological well-being. Apart from the external challenges, undergraduate students face a transition period with respect to their identity and roles. At this stage they often start to take responsibility with regards to self-management. They also need to build new relationships with people around them. They are expected to have the ability to adapt successfully to these challenges of their new environment. The stress of parental expectations, academic difficulties, need to perform to the best of one's abilities, peer pressure and the overall need to be accepted by everyone creates a lot of uncertainty and confusion in the students often leading them to resort to unhealthy coping mechanisms. Things get worse if they do not possess adequate skills to manage these issues effectively. Thus, looking at the positive effects of self-regulation, it is evident that having self-regulatory strategies at this age will help them to make healthy decisions. As Self-Regulation is found to be an important life skill and college students psychological well-being is an important factor to be focused on due to the high degree of stress in their life at that stage, the current study focusses on exploring the relationship between self-regulation and psychological well-being.

METHODOLOGY

The present study adopted a purposive sampling method to gather data from undergraduate students, studying in private college of Bengaluru city. Sample consisted of 300 undergraduate students (150 males and 150 females). The objective of the study was to assess the relationship between self-regulation and psychological well-being among undergraduate students in the age range of 18-21 years (Mean 19.2, SD 1.14). The usability of the tools was first determined by conducting a small pilot study on 20 undergraduate students after which the tools were finalized. The study was initiated after getting permission from the principal of respective college. Data collection was done on the days approved by the class professors. The tools were administered in a group setting and took nearly 45 minutes for the students to fill both the questionnaires.

Ethical Consideration:

The study followed the ethical standard with respect to the rights of human subjects. Ethical approval for the study was obtained from the Research Ethics Committee of Post- Graduate Department of Psychology, Bishop Cotton Women's Christian College, Bangalore. The study purpose and details were explained and a formal consent of participation was taken from the students. The students were assured about the confidentiality and anonymity of their responses.

Measures:

The study used two validated tools, namely: Self- regulation scale by Brown, Miller and Lewandowski and Psychological well- being scale by Dr. Ryff. Along with this a socio-demographic details sheet was used.

Self-Regulation Questionnaire (Brown, Miller and Lewandowski)

This self- report inventory measures the self-regulatory processes through 63 items belonging to the seven dimensions of Self-Regulation, namely: receiving, evaluating, triggering, searching, formulating, implementing, and assessing. It is 5-point Likert rating scales ranging from strongly disagree to strongly agree. The Total score interpretation falls under three categories that is high moderate and low. Test-retest reliability for the total SRQ is high (0.94). Internal consistency of the scale is also high ($\alpha = .91$).

Ryff's psychological well-being scale (Carol Ryff):

This scale measures an individual's level of psychological well-being across six dimensions namely; autonomy, personal growth, purpose in life, positive relations with others, environmental mastery and self-acceptance. The items should be answered on a 6-point Likert rating scale – from strongly disagree to strongly agree. For the current study the 42- item version was used. The test – retest reliability for the dimensions ranged from .81-.88.

RESULTS AND DISCUSSION

Descriptive and inferential statistical techniques were used to analyze the data. As the data was not normally distributed, therefore, non- parametric tests were used to analyze the data. Under the non- parametric test Mann-Whitney U test and Spearman's correlation was used. 300 was the total sample size for the current study out of which 150 (50%) were girls and 150 (50%) were boys. Frequency distribution for the sociodemographic variable age showed that out of 300 students, 139 (46.3% of the total sample) students were of the age of 18years, 68(22.7%) were of the age of 19years, 52 (17.3) were of the age of 20years and 41 (13.7%) of the students were of the age of 21years. Levels of self- regulation and psychological well- being were assessed in the sample. Data showed that out of 300 individuals 208 (69.3% of the sample) reported low self-regulation, 83 (27.7% of the sample) reported moderate self-regulation and 9 (3% of the sample) of them reported high self-regulation. The finding that majority of the students showed low level of self- regulation is an important aspect from the perspective of understanding student's adjustment in different dimensions of their life. Effective self-regulation is a vital aspect for success in life and helps an individual to develop the ability to adapt to diverse circumstances (R.F.Baumeister, 2001). Hence, the finding that majority of the college student in the current study are showing low self- regulation could help in understanding why this population is so prone to getting addicted to and dependent on unhealthy behaviors. This information can be utilized by the teachers and parents to guide the students adequately and also to psycho-educate them about the importance of self- regulation of behavior and emotions. This can also help psychologists and counselors to come out with effective training techniques to build the skill of self- regulation among students. Results of Mann- Whitney U test showed no significant gender difference in the level of self-regulation and psychological well-being in the sample.

The study's primary objective was to assess if self- regulation has any significant relationship with psychological- well- being, with respect to the same, spearman correlation analysis was carried out. Table 1 shows the result for the same.

Table 1: showing the Spearman's correlation results

SRQ total score	PWB total score
Correlation Coefficient	.246**

Sig. (2-tailed)	.000
N	300

**significant at 0.01 level

As seen in table 1 Spearman correlation value (r) was found to be .246 found to be significant at 0.01 level, indicating that self-regulation and psychological well-being have a significant positive relationship. Thus, higher the self-regulation higher will be the psychological well-being experienced by the students. The finding is in concordance with previous research findings. A study from 2016 showed that adolescents who regularly engage in self-regulatory behavior report greater well-being than their peers, including enhanced life satisfaction, perceived social support, and positive affect (i.e., good feelings) (Verzeletti, Zammuner, Galli, Agnoli, & Duregger). Zimmerman (2000) suggested that proactively regulating desired feelings, thoughts, and actions can allow individuals to not only protect themselves against recurring stressors but also achieve desired wellbeing goals and standards. College environment poses several challenges for the student's which may cause emotional pressure on them leading to increased risk for depression, anxiety and other stress related issues (Bayram & Bilgel, 2008). Self-regulation, which reflects how individuals effectively manage their thoughts, emotions and behaviors, and cope with adversity in their environment, is hence, an important skill that should be taught to young adults so as to help them deal more effectively.

Individuals who effectively self-manage are better able to preserve a sense of purpose and an adequate work-life balance in their daily life. Thus, the current study points out to self-regulation as an important contributory factor in maintaining psychological well-being. The study further explored the correlation between psychological well-being and dimensions of self-regulation and vice versa. Two dimensions of self-regulation were found to have a significant positive correlation with psychological well-being. These were: the dimensions of searching ($r=.149$, sig 2-tailed=.010) and implementing ($r=.168$, sig 2-tailed=.004). These two dimensions focus on the motivational aspect of self-regulation. Motivation is considered to be a core component of self-regulation as it directs an individual towards self-regulative behavior. According to Di Fabio and Kenny (2016) no matter how planned or organized an individual is, how strong willed he is, if he lacks the motivation to carry forward towards the desired goal, to regulate his behavior and to avoid temptations then it will affect his achievement and performance. An individual who feels internally motivated strives towards their goals which in turn fills them with sense of competence, increased self-esteem and gives him purpose in life

On the other hand, four dimensions of psychological well-being were found to have a significant positive correlation with self-regulation. These were: the dimensions of autonomy ($r=.213$, sig 2-tailed=.000), environmental mastery ($r=.121$, sig. 2-tailed=.036), purpose in life ($r=.180$, sig. 2-tailed=.002) and self-acceptance ($r=.260$, sig. 2-tailed=.000). Simon and Durand-Bush (2014) in their study also, found self-regulation capacity to have a strong positive relationship with environmental mastery and purpose in life, which suggested that "effective self-management skills may help students to fulfill/balance tasks and maintain a sense of direction in their work". Tricia A. Seifert (2005) reported that "individuals with high autonomy make their own decisions about how to think and behave without relying on other's opinions or approval. They resist social pressures and pursue their goals that they genuinely value". Thus, more the self-regulation, the individual tends to be more independent and autonomous in decision making and does not have the need to be dependent on others for validation. Individuals high on the dimension of environmental mastery feel adequate in terms of the resources and capacities available to them to cope, adapt and adjust to different stressful situations. They do not get overwhelmed by stress. Current study shows that self-regulated individuals have high environmental mastery and are better adjusted to their environment. The individual is more flexible and adaptable to his surroundings. Individuals who are high in the dimension of purpose in life have a sense of direction in life, which gives a meaning to their lives. Thus, higher the self-regulation higher will be an individual's feeling of satisfaction and purpose in life. Self-regulated individuals find their life to be more meaningful and purposeful. Individuals who have high score in the dimension of self-acceptance under psychological well-being will be aware of their strengths and weaknesses, recognize that life has ups and downs, and are non-judgmental. Higher the self-acceptance higher will be the self-regulation of the individual. Thus, an individual who can accept himself fully by accepting his weakness and strength are the ones who tend to be able to regulate different aspects of their life more positively.

CONCLUSION

The study has shown that there is a positive relationship between self-regulation and psychological well-being, that is, as the level of self-regulation increases the individual's psychological well-being also tends to increase. The findings of the present study confirmed that use of self-regulation by college students has a positive impact on their overall well-being. Emphasis on teaching self-regulation skills to students will increase their level of competence and will help them to make self-changes leading to better adjustment. The results suggest that a deeper understanding of students' capacity to self-regulate could help understand ways to help them achieve positive and healthy living. To increase self-regulative behaviors, the students should be taught to encourage themselves to fix goals/targets and then work towards them in a structured and organized manner, keeping their negative or disruptive emotions and behavior under control, being patient and avoiding impulsive decision making, identifying and making full use of opportunities that comes their way, to self-motivate themselves whenever they are feeling low, to reflect upon the mistakes they made so as to rework on them and to take it as a learning for better outcomes in the future and lastly to learn how to adjust and adapt to their environment more efficiently. The student should be taught self-regulation skills both at home as well as a part of life skill training in universities and colleges. Teaching of self-regulation skills through modeling, practical exercises, providing feedback and reinforcing their progress on skill development and goals, and coaching them on how, why, and when to use their self-regulative skills can go a long way in promoting positive health and well-being among students. Given the positive link between the students' capacity to self-regulate and their levels of well-being, the present study suggests that developing or strengthening self-regulation strategies can help students become adaptive and resilient to the stressful demands of their environment. These results hold important implications for understanding the needs and requirements of this population and to understand what components can be used as part of mental health interventions specific to this population. Self-regulation may be a valuable self-help skill that students could learn early on in their training or career to manage the adversity they face. It can be used as a self-health care skill to enhance well-being and to optimize performance and productivity. College students increased vulnerability to get influenced by external sources at this stage can be reduced by teaching them self-regulatory strategies so that they are better equipped to make healthy decisions.

Limitation:

The study did have its own limitations. The age group was restricted between 18-21 years and representation of subjects in different age groups was unequal. Other limitations were: data collection was limited to single college, sample size was less, and purposive sampling technique was used for the purpose of sample selection. All these factors could affect the generalizability of results. As correlational statistics were utilized, no definitive statements can be made about causality. The data reported here for self-regulation and psychological well-being are limited to self-reported data. Hence, respondents test taking attitude might also have an influence in their pattern of responding. The need to appear desirable through their response could have also affected their test taking attitude (social desirability). A Thematic Analysis technique can be used to analyze themes and sub-themes from the semi-structured interviews to explore how students self-regulate to deal with the difficulties in their lives.

Declaration of Conflicting Interests

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Reference

1. Alhawiti., & Olayan. (2017, April). Self-Determination and Self-Regulation for students with Intellectual and Developmental Disabilities, 1-10. Retrieved from <https://eric.ed.gov/?id=ED591697>
2. Beiter. R., Nash. R., McCrady. M., Rhoades. D., Linscomb.M., Clarahan. M., & Sammut. S. (2014). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, 90-96

3. Bewick, B., Koutsopoulou, G., Miles, J., Slaa, E., & Barkham, M. (2010). Changes in undergraduate students' psychological well-being as they progress through university. *Studies in higher education*, 35(6), 633-645. doi:10.1080/03075070903216643
4. Boekaerts, M. (1996b). Self-regulated learning at the junction of cognition and motivation. *Eur. Psychol.* 2, 100–112. doi: 10.1027/1016-9040.1.2.100
5. Cleary, T., and Zimmerman, B. J. (2012). "A cyclical self-regulatory account of student engagement: theoretical foundations and applications," in *Handbook of Research on Student Engagement*, eds S. L. Christenson and W. Reschley (New York, NY: Springer Science), 237–257
6. Efklides, A. (2011). Interactions of metacognition with motivation and affect in self-regulated learning: the MASRL model. *Educ. Psychol.* 46, 6–25. doi: 10.1080/00461520.2011.538645
7. Fairbrother., & Whitley. An introduction to self-regulation. Retrieved from <https://www.ldatschool.ca/introduction-self-regulation/>
8. Gans, MD. (2020, January 20). How to develop and practice self-regulation. Retrieved from <https://www.verywellmind.com/how-you-can-practice-self-regulation-4163536>
9. Genugten., Dusseldorp., Massey., & Empelen. (2016, December 8). Effective self-regulation change techniques to promote mental wellbeing among adolescents: a meta-analysis, *Health Psychology Review*, doi: 10.1080/17437199.2016.1252934
10. *International Review of Social Sciences and Humanities.* (2013). 5(1), 135-143.
11. *Journal of Happiness Studies*, 9(2), 185-196, doi: 10.1007/s10902-007-9057-2
12. Karimi M, Kyumars F. Emotional self-regulation and study skills with academic performance of Isfahan University of Medical Sciences Students. *Iran J Med Educ.* 2011; 4:331–40.
13. Liu., Ping., & Gao. (2019, August 10). Changes in undergraduate students' psychological well-being as they experience university life. *International Journal of Environmental Research and Public Health*, 16(16), doi:10.3390/ijerph16162864
14. Ludban, & Gitimu, N (n.d). Psychological well-being of college students. 14. Retrieved from <https://www.kon.org/urc/14/ludban.html>
15. Macleod., Coates., & Hetherington. (2008, February). Increasing well-being through teaching goal-setting and planning skills: Results of a brief intervention.
16. Miller DC, Byrnes JP. Adolescents' decision making in social situations: A self-regulation perspective. *J Appl Dev Psychol.* 2001; 22:237–56.
17. Moilanen L. (2007, August). The Adolescent Self-Regulatory Inventory: The Development and Validation of a Questionnaire of Short-Term and Long-Term Self-Regulation. *Journal of Youth and Adolescence* 36(6), 835-848, doi:10.1007/s10964-006-9107-9
18. Murray. w., Rosanbalm., & Christopoulos. (2015, January). Self-Regulation and Toxic Stress: Foundations for understanding self-regulation from an applied developmental perspective.
19. Patock-Peckham JA, Cheong J, Balhorn ME, Nagoshi CT. A social learning perspective: A model of parenting styles, self-regulation, perceived drinking control, and alcohol use and problems. *Alcohol Clin Exp Res.* 2001; 25:1284–92.
20. Rafal., (2018, April 19). Mental health literacy, stigma, and help-seeking behaviors among male college students. *Journal of American College Health*, 66(4)
21. Tavakolizadeh., Yadollahi., & Poorshafei. (2012, December 24). The role of self-regulated learning strategies in psychological wellbeing condition of students. *Procedia - Social and Behavioral Sciences*, 69, 807-815
Retrieved from <https://doi.org/10.1016/j.sbspro.2012.12.002>
22. Udhayakumar. P., & Illango. P. (2018, April 1). Psychological Wellbeing among college students. *Journal of Social work education and practice*, 3(2), 79-89, 2456-2068.
23. Understanding of psychological well-being.
Retrieved from <https://zombiedoc.com/psychological-well-being.html>
24. Zimmerman BJ, Schunk DH. *Self-Regulated Learning and Academic Achievement: Theory, Research, and Practice.* New York: Springer; 1990
25. Zimmerman BJ. Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *AERJ.* 2008; 45:166–83.