

Investigating the relationship between Self-Regulation and Self-Esteem and Life Satisfaction
in adults.

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Abstract

Self-regulation is the capacity an individual has to appropriately balance their emotions, behaviours and thoughts (Vohs & Baumeister, 2016). The present study examined the relationship between self-regulation and self-esteem and self-regulation and life satisfaction in people over the age of 18, currently living in Ireland. Previous research is contradictory, with some sources saying there is a relationship between the variables and some sources stating there is no relationship. The current study aimed to obtain a greater understanding of the relationships between self-regulation, self-esteem and life satisfaction. The first hypothesis was individuals with higher self-regulation capacities have higher levels of self-esteem. The second hypothesis was individuals with higher self-regulation capacities have higher levels of life satisfaction. The third hypothesis was self-regulation capacities are a predictor of self-esteem and the fourth was self-regulation capacities are a predictor of life satisfaction. A total of 87 participants completed three questionnaires, measuring their self-regulation capacity, self-esteem levels and life satisfaction levels. A Pearson's correlation coefficient analysis was carried out, and revealed that self-regulation and self-esteem had a statistically significant strong positive correlation ($r = .60, p < .001$). It also revealed that self-regulation and life satisfaction had a statistically significant moderate positive correlation ($r = .36, p = .001$). A simple linear regression model revealed self-esteem increased .149 for each unit of self-regulation. It also revealed that life-satisfaction increased .107 for each unit of self-regulation. The results of this study highlight the important role that self-regulation plays in self-esteem and life satisfaction and the importance of promoting appropriate self-regulation techniques to prepare children for their future in adulthood and enhance their emotional regulation capacities. No demographic information was taken in this study as will be discussed subsequently.

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Self-regulation is the capacity an individual has to appropriately balance their emotions, behaviours and thoughts with the aim of achieving a long-term goal (Vohs & Baumeister, 2016). Emotional regulation is one of the major aspects of self-regulation. This is the influence one may have on their own emotions, when and how they experience the emotions and how the emotions are expressed (Gross, 1999). We know that emotional self-regulation can strengthen immune response (Willette, 2022). We also know that when self-regulatory systems fail mental pathologies occur, such as depression and psychopathy (Aldao, Nolen-Hoeksema & Schweizer, 2010; Alloy, Hamilton, Hamlat & Abramson, 2016; Krause, Vélez, Woo, Hoffman, Freres, Abenavoli & Gillham, 2017; Kring & Sloan, 2009; Posner & Rothbart, 2000; Wante, Mezulis, Van Beveren & Braet, 2017). I am interested in looking at the correlation between self-regulation capacity, self-esteem and life satisfaction in a more generalizable public, rather than a specific group. Past research is often done in extreme cases like self-regulatory failure, as mentioned, or in closed environments (such as workplaces) with participants who may be experiencing similar life experiences at that time such as college students or patients within a mental hospital (Jia-Yuan, Xiang-Zi, Yi-Nan, & Yu-Xia, 2022; Pamela, McConnell, Reidinger, Schweit & Hendron, 2014; Potoczny, Herzog-Krzywoszanska & Krzywoszanski, 2022). I hypothesise that individuals who display higher capacity of self-regulation will have higher levels of self-esteem and life satisfaction. Self-regulation will be the main point of interest on this research. I am aiming to find information about this topic as findings in this area of research that can support the hypothesis. This can in turn show importance of teaching children in school or home environments about self-regulation techniques and the detrimental effects that lack of care and support for a child's self-regulatory system could potentially have.

A significant, negative relationship has been identified between higher capacity of self-regulation and mental illnesses, such as depression and anxiety and vice versa (Daly, Haden, Hagins, Papouchis & Ramirez, 2015; Daros, Haefner, Asadi, Kazi, Rodak & Quilty, 2021; Hoseini, Alimoradi & Jamshidi, 2022; Jia-Yuan et al., 2022; Loevaas, Sund, Patras, Martinsen, Hjemdal, Neumer, Holen & Reinfjell, 2018; Noggle, Braun, Khasla, 2013; Resurreccion, Salguero & Ruiz-Aranda, 2014). Yoga has been found to aid participants in their self-regulation skills (Janjhua et al., 2004). It has also been discovered that yoga can also aid in decreasing mental illness' like anxiety and depression, which increased satisfaction with life, this boost in life satisfaction helps to support the hypothesis (Pamela et al., 2014; Tejvani, Metri, Agrawal & Nagendra, 2016). This previous research inspired the hypothesis of a significant positive relationship between self-regulation and self-esteem and/or life satisfaction. Although there is no exact evidence of a relationship between life satisfaction and self-regulation, there is evidence of a positive relationship between self-control (an area closely related to self-regulation but focuses more on impulse control rather than being goal directed like self-regulation (Shanker, 2016; Vohs & Baumeister, 2004) and life satisfaction (Dou, Nie, Wang, & Liu, 2016; Potoczny, Herzog-Krzywoszanska & Krzywoszanski, 2022). A positive relationship between life satisfaction and self-regulation (an aspect of self-regulation) on college students was also discovered (Castro, Suárez & Barra Almagiá, 2021) but the research was limited to a specific age range which couldn't be generalised to the adult population as the typical adult does not attend a college. There isn't available research done on the links between self-regulation as a whole and life satisfaction only aspects of self-regulation such as emotional regulation.

Gender differences was not a focal point for the studies mentioned, but as we known gender can have major effects on mental aspects, which is why it is an important factor to be

considered. Females reported higher capacity for self-regulation overall than males. The menstrual cycle was taken into account and females scores still remained higher on average (Coyne, Vaske, Boisvert & Wright, 2015; Hosseini-Kamkar & Morton, 2014; Liu, He, Chao & Hong, 2021; Tetering, Laan, Koel, Groot & Jolles, 2020), but contradictory to the research I have discussed, in 2003 it was found that women with high capacity for self-regulation displayed lower levels of life satisfaction, due to eating disorders (Katsinas, Gilligan & Kamata, 2003). This gave an interesting perspective into the potential dangers of high self-regulation capacity for people who may have issues with their self-esteem (e.g. body image), something more common amongst women (Zeigler-Hill and Myers, 2012; Zuckerman et al., 2016). This is what raised an interest for me in the relationship between self-regulation and self-esteem, if there is one.

We have seen correlations between self-regulation and self-esteem, but it is hard to know if they are directly linked as no past research examines this. An example of this is, as we have discussed, yoga improves self-regulation capacity (Janjhua, Chaudhary, Sharma & Kumar, 2020), but people also reported higher levels of self-esteem after Yoga (Tejvani et al., 2016), Yoga is not a treatment for self-esteem, so there is a possibility the increase in self-esteem could be due to the increase in self-regulatory skills. Therefore the aim of this current study is to examine the relationships between self-regulation and self-esteem and life satisfaction and find out more information on the importance of strong self-regulation capacities. In order to show the importance of teaching children in school or home environments about self-regulation techniques and the detrimental effects that lack of care and support for a child's self-regulatory system could potentially have. This produces the following research questions: Research question 1: Does low self-regulation capacity effect levels of self-esteem? Hypothesis for research question 1: There will be an association between higher self-regulation capacities and higher levels of self-esteem. Research question

2: How does self-regulation capacities effect satisfaction with life in individuals? Hypothesis for research question 2: People with lower or impaired self-regulation capacity will have lower levels of satisfaction with their life. Research question 3: Will self-regulation capacities predict self-esteem? Hypothesis for research question 3: Self-regulation capacities are a predictor of self-esteem. Research question 4: Will self-regulation capacities predict life satisfaction? Hypothesis or research question 4: Self-regulation capacities are a predictor of life satisfaction.

Methodology

Participants

The sample within this study consisted of 87 participants. Recruitment of participants was conducted through convenience sampling by means of the recruiters social media profile on Instagram and Facebook. All participants of this study were 18 or older, a mandatory requirement for ethical considerations. No demographic information was collected in the survey as the research aim was to look at the relationship between self-regulation levels, life satisfaction and self-esteem among a generalised adult population. All data was stored anonymously.

Measures

3 different scales were used for this research. The first questionnaire that was used was The Self-Regulation Questionnaire (Brown, Miller & Lawendowski, 1999) (See Appendix A) . The second questionnaire used in this research was the Rosenberg Self-Esteem scale (Rosenberg, 1965) (See Appendix B) . The final scale that was used was The Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985) (See Appendix C).

Self-Regulation

The Self-Regulation Questionnaire (SRQ) (Brown, Miller & Lawendowski, 1999) was used to determine participants self-regulation capacity on a self-report basis. It is a 63-item, 5-point Likert scale, scoring 1 on a question means strongly disagree and scoring 5 means strongly agree. Scores are calculated by summing up the total score of each item for

each participant. Scores of > 239 = High self-regulation capacity , $214-238$ = Intermediate self-regulation capacity and < 213 = Low self-regulation capacity. The SRQ is highly reliable. Internal consistency scores ($\alpha = .91$) and test re-test reliability scores ($r = .94, p < .0001$) for the SRQ proved to be high, within research conducted on the reliability of the SRQ (Aubrey, Brown, & Miller, 1994).

Self-Esteem

The second questionnaire used in this research was the Rosenberg Self-Esteem scale (Rosenberg, 1965). This was used to determine levels of self-esteem/self-worth by measuring the positive and negative feelings participants have about themselves. There are 10-items and all are answered using a 4-point likert scale, from 1, strongly disagree to 4, strongly agree. The scale ranges from 0-30. Scores are calculated by summing up all answers. Scores between 30 and 25 suggest high self-esteem; scores between 15 and 25 suggest moderate self-esteem (normal range); scores below 15 suggest low self-esteem. Internal reliability of the Rosenberg Self-Esteem Scale displayed good consistency ($\alpha = .77$) (M. Rosenberg, 1965). Test-retest reliability at the 14 day interval proved to be high at 0.85 (Silber & Tippett, 1965).

Satisfaction with Life

The third and final scale that was used was The Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985). The scale is designed to measure cognitive judgements of the someone's level of satisfaction with their own life. It is a self-report short 5-item questionnaire, answered on a 7-point Likert Scale. The answers range from 7 meaning strongly disagree and 1 meaning strongly agree. Scores for each item is summed up for each participant. Scores from: $31 - 35$ = Extremely satisfied, $26 - 30$ = Satisfied, $21 - 25$ = Slightly

satisfied, 20 = Neutral, 15 - 19 = Slightly dissatisfied, 10 - 14 = Dissatisfied, 5 - 9 = Extremely dissatisfied

The SWLS shows good internal consistency ($\alpha = 0.74$). (López-Ortega, Torres-Castro & Rosas-Carrasco, 2016) as well as strong test-retest reliability, internal consistency = 0.82 over a two-month time period (Albaum, Chan, Sellitto, Vashi, Hastings & Weiss, 2021).

Design and analysis.

The research design of the present study is a correlational research design as I will be comparing two variables with each other at a time. This is a quantitative study, using a survey to research and collect data from participants. Descriptive statistics were carried out to identify the Means (M), Standard Deviations (SD) and Range, alongside tests of normality. Pearson's correlations were conducted to address the first and second hypothesis. Pearson's correlations examined the relationship between self-regulation and self-esteem and secondly, between self-regulation and life satisfaction.

Procedure

Data was collected by means of an online questionnaire. This questionnaire was distributed through the recruiters social media accounts on Instagram and Facebook through a hyperlink. The questionnaire used was self-report and entirely anonymous. Before being given a chance to complete the questionnaire, when clicking the hyperlink (obtained via Instagram or Facebook) they were first presented with an information sheet containing all relevant information for the study they would be partaking in such as risks, anonymity etc. Helpline numbers were also provided for additional support if the questionnaire caused any distress for the participant (See Appendix E). A consent form was also presented to participants (See Appendix D). All participants were required to read documents thoroughly

before providing their informed consent to take participation in this study prior to completing the questionnaire (See Appendix D). Participants were able to withdraw their participation in the survey at any point prior to clicking submit on the form, as addressed in the consent form (See Appendix D). If the participants provided consent via ticking the 'yes' box on the consent form section , and confirmed they were over the age of 18 and currently living in Ireland they could proceed to the full questionnaire. Participants could complete the questionnaire whenever they pleased, it was estimated to take approximately 8-12 minutes per individual to complete. There were 3 sections within this questionnaire required to be completed by participants. The first section was a Self-Regulation Questionnaire (Brown et al., 1999), the second was the Self-esteem Scale (Rosenberg, 1965) and the third section was the Satisfaction With Life Scale (Diener et al., 1985). When the questionnaire was completed by participants they were also presented with a debriefing form containing any additional information that may be useful to the participants, such as my contact details as well as my supervisors.(See Appendix F)

Ethical Considerations

All data for the current study was collected within accordance of the ethical guidelines of National College of Ireland. The potential risks and benefits of taking part in this study were clearly stated. There was no direct benefit to the participant, all participants were aware of this and provided informed consent. Participants were made aware of the possibility of the study being published in the NCI Library for the alumni and others have access to the library, if a grade of 2:1 or above is received for it. This is stated in the participant information form. Phone numbers for a mental health text support line and the Samaritans were also provided (See Appendix E)

Results

Descriptive Statistics

A total of 87 participants took part in this study. Descriptive statistics were carried out for all variables self-regulation, self-esteem and life satisfaction. The Means (M), Standard Deviations (SD) and Range were collected as part of this, alongside tests of normality. Preliminary analysis was carried out on this dataset and all continuous variables showed that they followed the assumptions of normality. The results for all continuous variables are presented below in Table 1 and Figure 1, 2 and 3. Histograms were also obtained and indicated that the data was normally distributed.

Table 1

Descriptive statistics – continuous variables, N=87

Variable	M [95% CI]	SD	Range
Self-Regulation	207.33 [201.88, 212.79]	25.61	111
Self-Esteem	24.74 [23.38, 26.09]	6.35	26
Life Satisfaction	21.31 [19.67, 22.95]	7.69	30

Figure 1

Frequency of Self-Regulation Total Scores

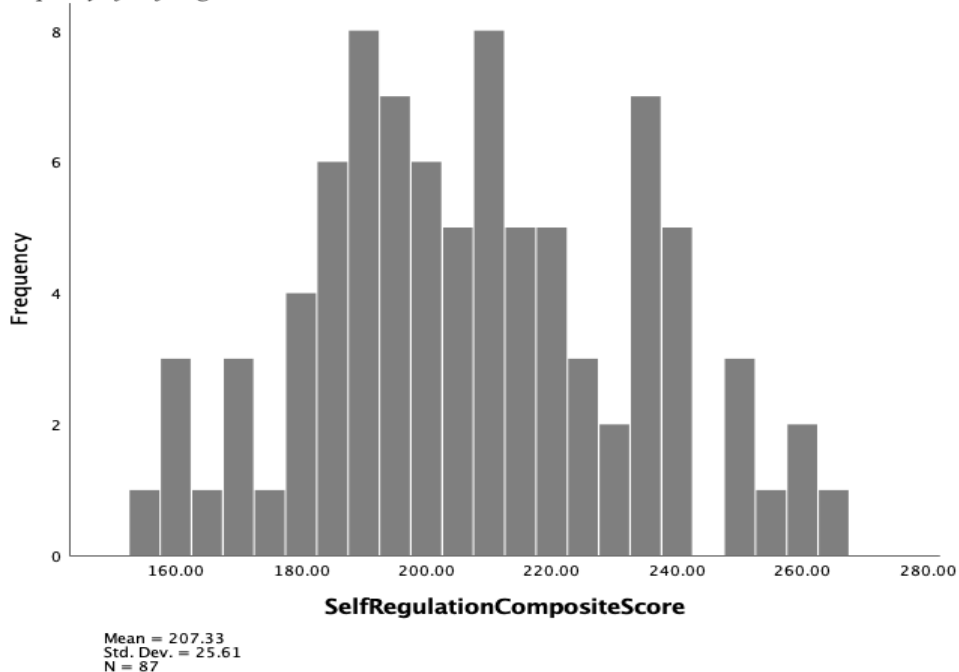


Figure 2

Frequency of Self-Esteem Total Scores

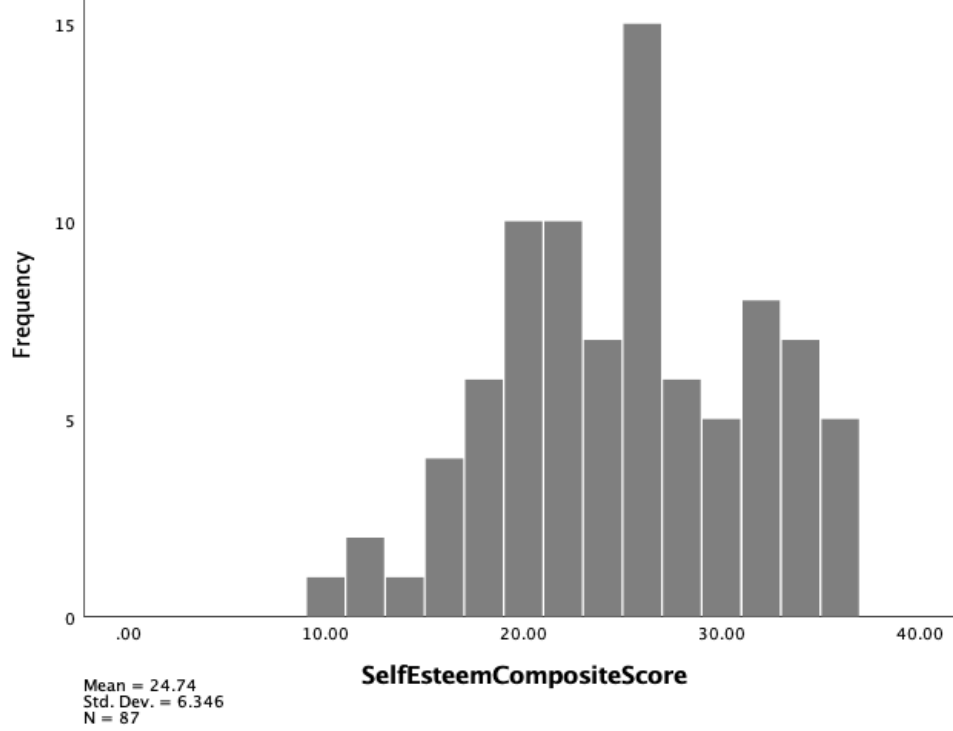
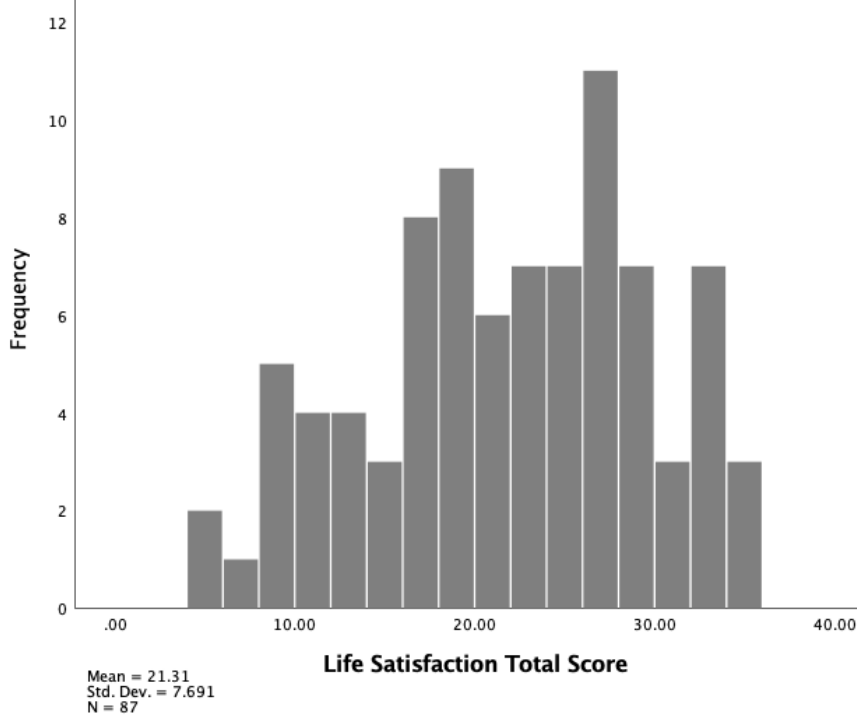


Figure 3

Frequency of Life Satisfaction Total Score



Inferential

A Pearson's correlation coefficient was carried out to determine the relationship between self-regulation and self-esteem. Preliminary analysis were performed to insure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant, strong, positive correlation between self-regulation and self-esteem ($r = .60$, $n = 87$, $p < .001$). This indicated that the two variables share approximately 36% variance. Results indicate that higher levels of self-regulation capacity are associated with higher levels of self-esteem (See Table 2) (See Figure 4).

A Pearson's correlation coefficient was carried out to determine the relationship between self-regulation and life-satisfaction. Preliminary analysis were performed to insure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant, moderate, positive correlation between self-regulation and life satisfaction ($r = .35$, $n = 87$, $p = .001$). This indicated that the two variables share approximately 12% variance. Results indicate that higher levels of self-regulation capacity are associated with higher levels of life-satisfaction (See Table 2) (See Figure 5).

Table 2

Correlations between all continuous variables, N=87

Variable	1	2	3
1. Self-Regulation	1	--	--
2. Self-Esteem	.60***	1	--
3. Life Satisfaction	.36**	--	1

Note. Statistical Significance: ** $p < .01$; *** $p < .001$

Figure 4

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-6.202	4.482		-1.384	.170
	SelfRegulationCompositeScore	.149	.021	.602	6.955	.000

a. Dependent Variable: SelfEsteemCompositeScore

Figure 5

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.829	6.359		-.130	.897
	SelfRegulationCompositeScore	.107	.030	.356	3.508	.001

a. Dependent Variable: LifeSatisfactionCompositeScore

A simple linear regression model was used to predict self-esteem based on self-regulation capacity. A significant regression equation was found ($F(1, 85) = 489.37, p < .000$), with an R^2 of .363. Self-esteem increased .149 for each unit of self-regulation (See Table 3).

Table 3

Regression Coefficients of self-esteem on self-regulation

Variable	B	β	SE
Constant	-6.20***	--	4.48
Self-Esteem	.15***	.60	.02
R^2	.36		

Note. $N=87$

** $p < .01$; *** $p < .001$

A simple linear regression model was used to predict life-satisfaction based on self-regulation capacity. A significant regression equation was found ($F(1, 85) = 12.30, p < .001$), with an R^2 of .116. Life-satisfaction increased .107 for each unit of self-regulation. (See Table 4).

Table 4

Regression Coefficients of Life satisfaction on self-regulation

Variable	B	β	SE
Constant	-.83**	--	6.36
Life satisfaction	.18**	.36	.03
R^2	.13		

Note. N=87

*** $p < .01$; *** $p < .001$*

Discussion

Self-regulation and Self-esteem

In the current study, the association between self-regulation capacity and self-esteem was explored within an adult population, in an Irish context. The current study aimed to provide a more in depth understanding of the effects of self-regulation capacity on levels of self-esteem among the general adult population, by examining the relationship between the two variables. Results accepted the first hypothesis, showing that self-regulation and self-esteem has a strong, positive correlation. This indicates that individuals with higher levels of self-regulation capacity had lower levels of self-esteem.

Findings of this study go against previous research suggesting that high self-regulation capacity has an indirect negative relationship with low self-esteem, as self-regulation was suggested to be related to eating disorders (Katsinas et al., 2003). The statistically significant strong positive correlation found in the current study between self-regulation capacities and self-esteem, clearly go against the previous research and support the hypothesis. Previous researchers linked self-regulation to self-esteem through yoga, yoga improved self-regulation capacities and also improved self-esteem levels, but did not identify if these two were correlated (Janjhua et al., 2020; Tejvani et al., 2016), this lack of research in this specific area was addressed by the current study. The final results showed self-regulation accounted for 36% of the variance in self-esteem levels. Due to the lack of demographic data in the current study it is impossible to relate this to a specific group.

Self-Regulation and Life satisfaction

The second aim of the current study was exploring the association between self-regulation capacity and life satisfaction within an adult population, in an Irish context. The

current study aimed to provide a more in depth understanding of the effects of self-regulation capacity on life-satisfaction among the general adult population, by examining the relationship between the two variables. Results accepted the second hypothesis, showing that self-regulation and life-satisfaction had a moderate, positive correlation. This indicates that individuals with higher levels of self-regulation capacity recorded higher levels of satisfaction in their lives.

These findings contradict previous research that states higher capacity for self-regulation had a negative relationship with life satisfaction (Katsinas et al., 2003), the differences in the studies could be due to only women being used in the sample from the earlier study. The current study did not record demographic information but was open for all genders to participate. The final results showed self-regulation account for 12% of the variance in life satisfaction. The current study was complimentary to a previous study conducted in 2021, where a positive relationship was found between self-regulation capacities and life satisfaction, but this was conducted on a limited sample of college students and was not generalizable to the public hence the need for the current study which does apply to a more generalizable adult population (Castro et al., 2021).

Self-regulation is the capacity an individual has to appropriately balance their emotions, behaviours and thoughts with the aim of achieving a long-term goal (Vohs & Baumeister, 2016). Having a higher capacity for self-regulation means having a better capacity to appropriately manage emotions, this study shows this ability to manage emotions has a positive relationship with life satisfaction and self-esteem. This positive correlation shows the importance of teaching appropriate self-regulation techniques and providing self-regulation support especially within a school environment with children because as we know this is a vital age for learning. Better emotional regulation capacities among children prepare

them for their future in adulthood, leads to higher self-esteem and life satisfaction amongst the general population in the future.

Strengths and limitations

The first limitation of this study is the small sample size in terms of quantitative research but it is important to note, although a small sample size was used, a statistically significant relationship was still found between self-regulation and self-esteem as well as self-regulation and life satisfaction. The second limitation of this study was no demographic information was collected from participants within this study. Consequently, there is no information within this current study about how demographic variables such as age or gender may be associated with self-regulation capacities or levels self-esteem or levels of life satisfaction. In previous studies it was identified that lower self-esteem is more common amongst women (Zeigler-Hill and Myers, 2012; Zuckerman et al., 2016) and due to the prevalence of eating disorders, women's life satisfaction was generally lower (Katsinas et al., 2003). This may mean females life satisfaction is more dependent on self-esteem than males. Collecting demographic information, specifically gender and specific ages, would make the findings of the current study more generalizable and accurate to each group within the population. Nonetheless, demographic information was not collected from participants in this current study as the study aimed to investigate if there was positive, negative or no relationships between each variable, regardless of demographics, within an adult population. To get a more in depth understanding of each variable, their relationships with each other and how that impacts specific groups, I would recommend future research would benefit from including demographics.

To progress from this study I would not only recommend future research includes the addition of demographic information, but I think an experimental or longitudinal intervention

design could better deduce the relationship between the variables. For example, if using a longitudinal interventional design, a group could be given an intervention to enhance their self-regulation capacities. Self-esteem and life-satisfaction levels could be measured and compared throughout the duration of the study. Given the findings from the current study, future research would also benefit from exploring the potential mediation and/or moderation relationship between self-regulation, self-esteem and life satisfaction. Additionally, an experimental or longitudinal intervention design could provide further insight into the relationship between these variables. Overall, the study highlights the importance of promoting appropriate self-regulation techniques and providing support, especially within schools, to prepare children for their future in adulthood and enhance their emotional regulation capacities.

In conclusion, the current study examined the relationship between self-regulation capacity and self-esteem, as well as self-regulation capacity and life satisfaction among adults in an Irish context. The results showed that self-regulation and self-esteem have a strong, positive correlation, contrary to previous research. Furthermore, self-regulation and life satisfaction had a moderate, positive correlation, which also contradicts previous studies. The study suggests that better emotional regulation capacities can lead to higher self-esteem and life satisfaction among the general population. The study recommends future research should include demographic information to understand how different groups within the population are impacted by these variables.

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Appendices

Appendix A

The Self-Regulation Questionnaire

(Brown et al., 1999).

Participant information.

All 63 items are answered on a 5-point Likert scale with 1 meaning Strongly disagree and 5 meaning Strongly Agree.

Items.

1. I usually keep track of my progress toward my goals.

1 2 3 4 5

2. My behaviour is not that different from other people's.

1 2 3 4 5

3. Others tell me that I keep on with things too long.

1 2 3 4 5

4. I doubt I could change even if I wanted to.

1 2 3 4 5

5. I have trouble making up my mind about things.

1 2 3 4 5

6. I get easily distracted from my plans.

1 2 3 4 5

7. I reward myself for progress toward my goals.

1 2 3 4 5

8. I don't notice the effects of my actions until it's too late.

1 2 3 4 5

9. My behaviour is similar to that of my friends.

1 2 3 4 5

10. It's hard for me to see anything helpful about changing my ways.

1 2 3 4 5

11. I am able to accomplish goals I set for myself.

1 2 3 4 5

12. I put off making decisions.

1 2 3 4 5

13. I have so many plans that it's hard for me to focus on any one of them.

1 2 3 4 5

14. I change the way I do things when I see a problem with how things are going.

1 2 3 4 5

15. It's hard for me to notice when I've "had enough" (alcohol, food, sweets).

1 2 3 4 5

16. I think a lot about what other people think of me.

1 2 3 4 5

17. I am willing to consider other ways of doing things.

1 2 3 4 5

18. If I wanted to change, I am confident that I could do it.

1 2 3 4 5

19. When it comes to deciding about a change, I feel overwhelmed by the choices.

1 2 3 4 5

20. I have trouble following through with things once I've made up my mind to do something.

1 2 3 4 5

21. I don't seem to learn from my mistakes.

1 2 3 4 5

22. I'm usually careful not to overdo it when working, eating, drinking.

1 2 3 4 5

23. I tend to compare myself with other people.

1 2 3 4 5

24. I enjoy a routine, and like things to stay the same.

1 2 3 4 5

25. I have sought out advice or information about changing.

1 2 3 4 5

26. I can come up with lots of ways to change, but it's hard for me to decide which one to use.

1 2 3 4 5

27. I can stick to a plan that's working well.

1 2 3 4 5

28. I usually only have to make a mistake one time in order to learn from it.

1 2 3 4 5

29. I don't learn well from punishment.

1 2 3 4 5

30. I have personal standards, and try to live up to them.

1 2 3 4 5

31. I am set in my ways.

1 2 3 4 5

32. As soon as I see a problem or challenge, I start looking for possible solutions.

1 2 3 4 5

33. I have a hard time setting goals for myself.

1 2 3 4 5

34. I have a lot of willpower.

1 2 3 4 5

35. When I'm trying to change something, I pay a lot of attention to how I'm doing.

1 2 3 4 5

36. I usually judge what I'm doing by the consequences of my actions.

1 2 3 4 5

37. I don't care if I'm different from most people.

1 2 3 4 5

38. As soon as I see things aren't going right I want to do something about it.

1 2 3 4 5

39. There is usually more than one way to accomplish something.

1 2 3 4 5

40. I have trouble making plans to help me reach my goals.

1 2 3 4 5

41. I am able to resist temptation.

1 2 3 4 5

42. I set goals for myself and keep track of my progress.

1 2 3 4 5

43. Most of the time I don't pay attention to what I'm doing.

1 2 3 4 5

44. I try to be like people around me.

1 2 3 4 5

45. I tend to keep doing the same thing, even when it doesn't work. 46. I can usually find several different possibilities when I want to change something.

1 2 3 4 5

47. Once I have a goal, I can usually plan how to reach it.

1 2 3 4 5

48. I have rules that I stick by no matter what.

1 2 3 4 5

49. If I make a resolution to change something, I pay a lot of attention to how I'm doing.

1 2 3 4 5

50. Often I don't notice what I'm doing until someone calls it to my attention.

1 2 3 4 5

51. I think a lot about how I'm doing.

1 2 3 4 5

52. Usually I see the need to change before others do.

1 2 3 4 5

53. I'm good at finding different ways to get what I want.

1 2 3 4 5

54. I usually think before I act.

1 2 3 4 5

55. Little problems or distractions throw me off course.

1 2 3 4 5

56. I feel bad when I don't meet my goals.

1 2 3 4 5

57. I learn from my mistakes.

1 2 3 4 5

58. I know how I want to be.

1 2 3 4 5

59. It bothers me when things aren't the way I want them.

1 2 3 4 5

60. I call in others for help when I need it.

1 2 3 4 5

61. Before making a decision, I consider what is likely to happen if I do one thing or another.

1 2 3 4 5

62. I give up quickly.

1 2 3 4 5

63. I usually decide to change and hope for the best.

1 2 3 4 5

Appendix B***The Self-Esteem Scale***

(Rosenberg, 1965).

Participant information.

All 10 items are answered on a 4-point Likert scale with 1= Strongly disagree and 4= Strongly agree

Items.

1. On the whole, I am satisfied with myself.	1	2	3	4
2. At times I think I am no good at all.	1	2	3	4
3. I feel that I have a number of good qualities.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of.	1	2	3	4
6. I certainly feel useless at times.	1	2	3	4
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
8. I wish I could have more respect for myself.	1	2	3	4
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4
10. I take a positive attitude toward myself.	1	2	3	4

Appendix C***Life Satisfaction scale****(Diener et al., 1985).****Participant information.***

All 10 items are marked on a 7-point Likert scale. With 1 meaning strongly disagree and 7 meaning strongly agree.

Items.

1. In most ways my life is close to my ideal.
1 2 3 4 5 6 7
2. The conditions of my life are excellent.
1 2 3 4 5 6 7
3. I am satisfied with my life.
1 2 3 4 5 6 7
4. So far I have gotten the important things I want in life.
1 2 3 4 5 6 7
5. If I could live my life over, I would change almost nothing.
1 2 3 4 5 6 7

Appendix D

Consent form

In agreeing to participate in this research I thoroughly understand the following:

- The method proposed for this research project has been approved in principle by the Departmental Ethics Committee, which means that the Committee does not have concerns about the procedure itself as detailed by the student. It is, however, the above-named student's responsibility to adhere to ethical guidelines in their dealings with participants and the collection and handling of data.
 - If I have any concerns about participation, I understand that I may refuse to participate or withdraw my participation at any stage by exiting the online survey or disposing of the physical copies.
 - I understand that once my participation has ended and my data has been submitted, that I cannot withdraw my data as it will be fully anonymised.
 - I have been informed as to the general nature of the study and agree voluntarily to participate.
 - All data from the study will be treated confidentially. The data from all participants will be compiled, analysed, and submitted in a report to the Psychology Department in the School of Business of the National College of Ireland.
 - I understand that my data will be retained and managed in accordance with the NCI data retention policy, and that my anonymised data may be archived on an online data repository and may be used for secondary data analysis. No participants data will be identifiable at any point.
 - At the conclusion of my participation, any questions or concerns I have will be fully addressed.
 - I am over the age of 18 and currently living in Ireland.
-
- Please tick this box if you have read, and agree with all of the above information.
 - Please tick this box to indicate that you are providing informed consent to participate in this study.

Appendix E

Participant Information Leaflet

Investigating the relationship between self-regulation and self-esteem and life satisfaction in Irish adults

You are being invited to take part in a research study. Before making your decision whether to take part please carefully read this document. This explains why the research is being done and what it would involve for you. If you have any questions about the information provided, please do not hesitate to contact me using the details provided at the end of this sheet.

What is this study about?

I am a final year student in the BA in Psychology programme at National College of Ireland. As part of our degree we must carry out an independent research project in our final year. For my project I aim to investigate whether higher levels of self-regulation in adults have positive/negative or no effect on levels of self-esteem and life-satisfaction. The project is supervised by Dr. Julian Dooley

What will taking part in the study involve?

If you decide to take part in this research, you will be asked to complete three questionnaires, either virtually or written. These questionnaires will be about self-regulation, self-esteem and life-satisfaction. To complete all three questionnaires it will take approximately 2 hours (this can fluctuate for different individuals). Breaks can be had between each questionnaire virtually. On the physical copies breaks can be had at any point if needed, but we ask participants to complete each questionnaire as soon as they are able to.

Who can take part?

You can take part in this study if you are aged over 18, under 85 and are living in Ireland currently. You cannot take part in this study if you are receiving clinical treatment for any mental health issues currently.

Do I have to take part?

Participation in this research is entirely voluntary; you do not have to take part, and a decision not to take part will have no consequences for you. If you do decide to take part, you can withdraw from participation at any time by simply exiting the online survey or disposing of the physical copies. You cannot withdraw your data from the study after the data has been submitted due to data being anonymous. This questionnaire includes items asking about your self-regulation levels, self-esteem levels and general life satisfaction. There is a small risk that these questions may cause some individuals upset or distress. If you feel that these questions may cause you to experience an undue level of distress, you should not take part in the study.

What are the possible risks and benefits of taking part?

There are no direct benefits to you for taking part in this research. However, the information gathered will contribute to research that helps us to understand the importance of teaching and developing self-regulation for children in educational settings.

There is a small risk that some of the questions contained within this survey may cause minor distress for some participants. If you experience this, you are free to discontinue participation and exit the questionnaire. Contact information for relevant support services are also provided at the end of the questionnaire.

Will taking part be confidential and what will happen to my data?

The questionnaire is anonymous, it is not possible to identify a participant based on their responses to the questionnaire. All data collected for the study will be treated in the strictest confidence by myself and my academic supervisor.

What will happen to the results of the study?

The results of this study will be presented in my final dissertation, which will be submitted to National College of Ireland.

Who should you contact for further information?

Ciara Kelly – x20444046@student.ncirl.ie

Academic Supervisor: Dr. Julian Dooley, National College of Ireland-julian.dooley@ncirl.ie

Helplines:

50808- mental health text support helpline, 24/7, anonymous, free

116 123- Samaritans helpline, 24/7

Appendix F

Debrief Sheet

Investigating the relationship between self-regulation and self-esteem and life satisfaction in Irish adults

Thank you for taking part in this study. The following will provide you with entire details of the study that has taken place.

This study was conducted to investigate the relationship between self-regulation and self-esteem and life satisfaction. Self-regulation is a person's ability to understand and appropriately manage their emotions. All people have varying self-regulation levels, we wanted to see if these varying levels in self-regulations among participants, would have positive, negative or no relationship with their self-esteem and life satisfaction.

You were given three questionnaires. Each questionnaire measured something different. One measured self-regulation levels, one measured self-esteem levels and one measured life satisfaction levels. All results from questionnaires are stored anonymously.

I would like to thank you again for taking part and aiding me in my research. If there are any aspects in relation to this study you would like to discuss please do so by contacting myself, the researcher, or my academic supervisor, Dr. Julian Dooley, on the contact details attached below. Unfortunately withdrawing data is not possible from time of data submission due to all data being stored anonymously.

Researcher: Ciara Kelly

Email: x20444046@student.ncirl.ie

Academic Supervisor: Dr. Julian Dooley

Email: julian.dooley@ncirl.ie