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# The Relationship Between Self-Regulation, Self-Efficacy, and Psychological Well-Being Among the Salahaddin University Undergraduate Students in Kurdistan

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**ABSTRACT**

The relationship between self-regulation, self-efficacy, and psychological well-being has become a hot topic in recent years. This research objective examines the prevalence level, self-regulation, self-efficacy, and psychological well-being among Salahaddin University undergraduate students in Kurdistan. Quota sampling was used in the study, and 407 respondents were chosen for it. Descriptively, Pearson correlation and multiple regression analysis approaches were applied. The research showed a low level of self-regulation and self-efficacy among the sample students. However, psychological well-being was found to be high. The study also found that self-regulation, self-efficacy, and psychological well-being are positively correlated and statistically significant. This study concluded that self-regulation was the only factor influencing psychological well-being. Therefore, this research recommends emphasizing students' self-regulation to enhance their well-being.

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## INTRODUCTION

Academic institutions play a significant part in students' lives. Educational institutions assist pupils in growing and developing suitably based on their aptitudes and capacities as members of the educational sector. As a result, university students are given the right chance to understand their skills and potential, take charge of their own lives, and develop effective strategies for achieving their goals.

Self-regulation improves goal-setting and enables students to get along with others. Low self-regulation in students can lead to behavioral and mental health problems as well as academic difficulties. On the other hand, having self-regulation increases academic success, social competence, and positive development (Zimmerman, 2000). Self-regulation is defined as a strategy of beliefs, feelings, and behaviors that inspire individual objectives (Ghonsooly & Ghanizadeh, 2013). High self-regulation evaluates self-control and accelerates academic achievement across the learning process (Montroy, 2014). Self-regulation from an Islamic perspective can be found in the Quran verses Al-'Ashar 1-3 and Surah Ar-Ra'd (11). Self-regulation is advocated in Islam because Muslims are commanded to always strive with a manner of devotion and prayer, and the students are required to be able to control and regulate time and activities according to their abilities and purpose in life.

Furthermore, self-regulation—which involves making plans for activities, prioritizing work, and keeping track of progress—has an impact on an individual's performance (Beeftink et al., 2012). The process of improving learners' interpersonal, motivational, cognitive, and metacognitive skills is referred to as self-regulation. Students who have better self-regulation are better able to weigh many experiences in a variety of contexts, including personality, social skills, academic performance, and psychological well-being (McMillan, 2010; Pintrich, 2004). According to Los (2014), self-regulation is incorporated into cognitive strategies, thinking skills, and resource management, which leads to students' academic performance.

As per Bandura (1996), self-efficacy pertains to the comprehension of one's own ability to devise tactics for managing present situations. He clarified that capacity has an impact on life goals that are closely related to attitudes, feelings, and emotions (Howatt, 2012). Bandura identified the gap in the developmental theory that required confidence or willingness to continue performing tasks and developing skills (Pajares & Schunk, 2002). Additionally, the essential tenet of this philosophy was the notion of personal self-efficacy (Behjoo, 2013). Bandura defines self-efficacy as people's beliefs about their capacity to operate at a level appropriate to enhance human production and personal well-being (Pajares & Schunk, 2002).

Moreover, people approach their goals because of their beliefs (Ghonsooly & Ghanizadeh, 2013). In addition, people will be more willing to tackle challenging

tasks if their skills are assumed rather than threatened or avoided (Bandura, 1994). According to Pajares, those who have a strong sense of their own abilities also attempt more challenging jobs (Motlagh et al., 2011).

Bandura (1994) identified four factors that lead to self-efficacy. They are verbal persuasions, affective mastery, physiological entities, and vicarious experiences (Feist et al., 2013). It is asserted that students with high levels of self-efficacy are a stronger indicator of academic success than prior accomplishments or intrinsic aptitude without conscious comprehension of skills (Los, 2010). High levels of self-efficacy encourage trust in representatives and consistent, standard performance, which pave the way for thinking about the capacity to control an individual's behavior. From Bandura's perspective, self-efficacy is distinguished from other comparable conceptions like self-esteem and self-concept. Self-concept considers individualism, such as having a distinct identity from others, while self-esteem is the evaluation of oneself. Self-esteem and self-concept, then, are internal sensations experienced by an observer of oneself. Self-efficacy, however, captures people's expectations or ideas about their capacity to complete particular activities (Los, 2010). Thus, having knowledge is essential, particularly for university students, in order to improve social contraction and fundamental psychological well-being. Furthermore, high self-efficacy leads to high communication competency levels (Wildauer, 2017). The efficacy expectations ask people to decide what steps to take to make their activities stronger (Bandura, 1994b). It has a significant impact on students' actual duties and academic success rather than just their imagination. In addition, students will forecast and plan tasks depending on special abilities. Advanced functions that estimate students' activities to boost academic motivation are influenced by self-efficacy (Zimmerman, 2000). Moreover, self-efficacy reduces stress and encourages academic success (Siddiqui, 2015).

In the latter half of the 20th century, the word psychological well-being has gained controversy as it has grown to focus on human development, obstacles faced in life, and the role that each individual plays in their overall growth and development. Furthermore, in order to characterize the expansion of an individual's growth and development, psychologists were interested in discourses on individualization (Jung, 1931; Ryff & Singer, 1996; and Zappala, 2007), fully functioning (Rogers, 1961) and self-actualization (Maslow, 1968). Diener (2000) defined psychological well-being as the cognitive and affective evaluations of an individual's existence, encompassing pleasant reactions to situations with decisions about fulfillment and cognitive happiness (Zappala, 2007). (Masyhuri et al., 2020). Happiness, self-actualization, vitality, self-acceptance, existence with meaning, optimal functioning, and life satisfaction are typically necessary concepts for psychological well-being. The meaning of life, self-development, mastery, autonomy, happiness with life, positive impacts, consistency, and hopefulness are all correlated with psychological well-being (Claudia et al., 2019). A person's psychological health can alter their current situation. People who do not have psychological well-being become dependent

on outside factors, blaming themselves for everything and perceiving their circumstances as permanent (Zappala, 2007).

The Social Cognitive Theory (SCT) developed by Bandura incorporates elements of self-efficacy and self-regulation. When it comes to self-regulation, people control their behavior through internal rewards or penalties. Simultaneously, self-efficacy describes a person's conviction that their efforts will enable them to achieve desired goals (Zhou & Brown, 2015). According to SCT, environmental factors impact human functions, proving that internal or external factors do not solely impact people. However, that person, environment, and behavior are all influenced in tandem. Students' learning, achievement, and psychological well-being are significantly impacted by their sense of self and awareness of others' expectations. This is especially true throughout their college years (Saroughi, 2019). The theory is focused on developing a sense of self and adjusting to life's everyday situations (Roberts, 2007). According to Bandura, behavioral adjustment and perceived self-efficacy are causally linked (Zhou & Brown, 2015). According to social cognitive theory, self-regulation is crucial for controlling people's attitudes and external circumstances so that they can control their ideas, behaviors, and actions (Saroughi, 2019). Self-efficacy can potentially enhance the learning capacities, overall well-being, and life satisfaction of the student population. In addition, these self-efficacy and self-regulation techniques can enable students to master control over their feelings, ideas, and actions (Saroughi, 2019).

University students must deal with issues including living in dorms, selecting their specializations, planning for the future, and experiencing academic stress as they ponder their future academic and extracurricular activities (Dierkes, 2020). These issues also include getting good grades and finding employment after graduation. These are some troubling dilemmas since they could impact undergraduate university students' psychological well-being through self-efficacy and self-regulation. This issue is made more difficult by the ongoing influenza, which is causing fewer classes to meet in person and requiring students to avoid social situations because of the possibility of infection (Abdulkarim & Suud, 2020). World governments are more concerned with immunizations and healthcare than the psychological portion of the COVID-19 pandemic, given its psychological component.

Additionally, if children are unable to control their decision-making and achieve psychological well-being, they may struggle academically. They are easily able to deal with any psychological symptoms since they lack a proper understanding of their skills. Self-efficacy was presented by Klassen and Usher (2010) as a crucial component in educational environments for students to predict their future success in their roles and academic endeavors. Students who feel that they can succeed in a certain subject and choose to specialize in it will find that their level of self-efficacy in the learning process is a positive experience for their academic challenge (Los, 2010). Studies that look at Kurdish students'

psychological well-being, self-efficacy, and self-regulation still need to be improved, as the literature has demonstrated. The self-efficacy and self-regulation of university students were the subject of even less research. Since self-efficacy can also be used to improve psychological well-being (Taştan, 2014), finding a novel way to help students become more self-reliant will help them feel less stressed and have better psychological health (Dierkes, 2020). The relationship between self-efficacy and self-regulation and the psychological well-being dimensions of environmental mastery, positive interpersonal relationships, personal progress, and positive relationships with others among university students is not widely studied. Ghonsooly & Ghanizadeh (2013) demonstrated how psychological well-being, self-efficacy, and self-regulation are dynamically and reciprocally related.

The study aims to investigate (1) the prevalence level of self-regulation, self-efficacy, and psychological well-being, (2) the relationship between self-regulation and self-efficacy with psychological well-being, and (3) the effect of self-regulation and self-efficacy on psychological well-being among the Salahaddin University undergraduate students.

**Self-Regulation, Self-Efficacy and Psychological Well-being**

Hedonia and eudaimonia are the two main views that makeup well-being. Hedonia is reaching emotional and environmental contentment, producing pleasurable effects, and avoiding unpleasant ones. Hedonia refers to general contentment (subjective well-being). The eudaimonia perspective, on the other hand, suggests making an effort to develop oneself in accordance with one's ideals and achieve complete psychological actualization (objective well-being) (Giuntoli et al., 2020; Vázquez et al., 2009). Ryff's framework was used to thoroughly study the objective knowledge of psychological well-being (Ryff & Singer, 1996). The six pillars of psychological health were defined by Carol Ryff (Howatt, 2012). The six elements of psychological well-being, in Ryff's opinion, are multifaceted since they include self-acceptance, good relationships with others, autonomy, environmental mastery, a purpose in life, and personal development (Ryff, 2013). Based on these six criteria, Ryff created a questionnaire to measure psychological well-being. The elements of this scale, which academics have widely used to assess psychological well-being, strongly correlate with other indicators that highlight feelings of health, happiness, optimism, or contentment with life (Ryff, 2013). Abraham Maslow's theories of self-actualization, Roger's complete function, Allport's maturation, Erick Erikson's stages of development, Carel Jung's formation, Buhler's theories of human basic tendencies, Newgarten's executive personality process, and Jahoda's mental health were among the sources Ryff cited (Ramli, 2017).

Nowadays, mental well-being and self-actualization depend critically on self-acceptance. It describes a positive psychological trait centered on acceptance, such as feeling good about a previous life and maintaining an optimistic view of oneself and one's past (Durand-Bush et al., 2015). Self-acceptance has a major

impact on one's criteria for improving maturity, self-actualization, mental health, and optimal functioning. The foundation of positive psychological functioning is self-acceptance as a necessary state (Mongiovi, 2018). Self-acceptance means evaluating oneself in relation to other facets of life. Ryff and Singer (2006) believe that an optimistic perspective will offer self-acceptance of positive aspects and even feeling healthy about previous life experiences; Maslow's self-actualization, Roger's optimum functioning, Allport's maturity, and Erikson's acceptance of life are the philosophies that support this scale of psychological well-being (Howatt, 2012). Self-acceptance promotes introspection, which in turn affects awareness and acceptance of one's own strengths and flaws. Furthermore, self-acceptance pertains to an individual's perception of themselves regarding past and present experiences, which might modify behaviors, incentives, and emotions.

A meaningful source of connection with others is a positive relationship (Ryff, 2013). Achieving social well-being requires having meaningful interpersonal contact with other people. In order to mature socially and cultivate deep empathy, love, and closeness, people require pleasantness and relationships. Positive relationships with others are made possible by warmth, friendship, looking out for one another, and providing consistent attention. This dimension arises from the theories of Erickson's development stage theory, Allport's maturity, Russell's work on affection, and Aristotle's ethics (Howatt, 2012). The number of friends, length of meetings, attendance at social events, and the relationship between membership in social groups and satisfaction (Roberts, 2007). A powerful display of empathy can impact love, enduring friendships, and future interactions with people (Ryff & Singer, 1996).

Seeking people's values is what is meant by autonomy (Ryff, 2013). In order to ascertain self-confidence and self-regulation, the self-determination theory emphasizes autonomy as a component of psychological well-being. Furthermore, Black and Ryan believe that during the semester, anxiety levels can be lowered by students' capacity for autonomous self-regulation (Mongiovi, 2018). (Ryff & Singer, 1996) define autonomy as individualism, the capacity to reject peer and social pressure, think and act following one's desires, and make choices consistent with one's values and aspirations. Maslow's autonomous functioning highlights this capacity, Jung's individuation, Sartre's self-determination, and Erikson's attainment of a sense of liberation (Howatt, 2012). Autonomy orientation affects effective behavioral consequences and psychological well-being (Deci & Ryan, 2008).

The ability of an individual to control environmental activities to achieve a positive psychological goal is referred to as environmental mastery. It allows people to put into practice or create ideal circumstances for handling and controlling challenging dynamic situations (Mongiovi, 2018). The ability of an individual to control environmental activities to achieve a positive psychological goal is referred to as environmental mastery. It allows people to put into practice

or create ideal circumstances for handling and controlling challenging dynamic situations (Mongiovi, 2018).

The aspect of purpose in life pertains to an individual's perception or approach to purpose and direction in life (Ryff, 2013). Because of the path that life is taking, psychological well-being will be high (Mongiovi, 2018). A person with a purpose also finds inner energy to act as a support system in all facets of life and pursue goals. Those with a purpose in life can plan and execute their strategy in a way that will yield a satisfactory outcome. Developing personal objectives increases psychological well-being and gives one a sense of control over life (Roberts, 2007).

A sense of betterment that is compatible with new experiences in life that are required to ascertain a person's potential is known as personal growth. Personal growth toward self-actualization results in a fully realized person who can function in their family, workplace, and social interactions (Ryff, 2013). Personal development includes self-realization and the ability to take charge of every element of life (Ryff & Singer, 1996). Numerous studies have demonstrated a correlation between productivity, improved health, and psychological well-being and concentrating on both intrinsic and extrinsic goals (Deci & Ryan, 2008).

## METHODS

The research employed a survey method. Data for the field study was collected using a questionnaire. According to Coghlan and Brydon-Miller (2014), a survey, which is a type of quantitative research methodology, can offer an anonymous platform for people to divulge personal information that they might be reluctant to disclose to an interviewer. For this experiment, the non-probability quota sampling method was chosen. The questionnaires were filled out by volunteer students at Salahaddin University, allowing the researchers to gather 413 responses from 15 different colleges (n=413) during the academic year of (2020-2021). The respondents were undergraduate students from fifteen colleges, spanning all academic divisions and genders.

### Instrumentations

The research employed the 63-item Self-Regulation Questionnaire (SRF), which was developed by Brown, Miller, and Lewandowski (1999). Numerous studies revealed that the scale has a high level of internal and external consistency. This survey comprised seven 5-point Likert-type subscales: 1- Receiving pertinent information; 2- Evaluating the information and comparing it to norms; 3- Triggered change; 4-Looking for options; 5- Formulating a strategy; 6- Implementing the plan; and 7- Assessing the efficacy of the plan (strongly disagree, disagree, uncertain or unsure, agree, and strongly agree). The alpha coefficient of the questionnaire, which is 0.82, indicates its reliability. The scale's

internal consistency (α = 0.83) was sufficient when verified among university students (De la Fuente et al., 2020).

The second tool used was the 4-point Likert scale Self-Efficacy Questionnaire (SEQ), which Jerusalem and Schwarzerin developed (Scholz et al., 2002). (not at all true, hardly true, moderately true, and exactly true). This instrument contained 20 items in 1981 but was reduced to 10 items. It has been translated into 28 languages.

The Psychological Well-Being (PWB) questionnaire, which has 42 items, was the third tool used (Ryff & Keyes, 1995). The Likert scale included seven points (strongly agree, somewhat agree, a little agree, neither agree nor disagree, a little disagree, somewhat disagree, and strongly disagree). Six sub-scales are measured by the PWB scale: self-acceptance, positive relationships with others, environmental mastery, personal growth, autonomy, and purpose in life. Viejo et al. (2018) used confirmatory factor analysis (CFA) to demonstrate the validity of this instrument. The PWB scale has been translated into several languages and utilized with college students in numerous nations. The sub-scales of the Spanish version of the Morales-Rodríguez et al. (2020) study, which involved university students, had internal consistency coefficients of 0.88 for self-acceptance, 0.72 for positive relationships with others, 0.90 for autonomy, 0.89 for environmental mastery, 0.88 for purpose in life, and 0.94 for personal growth.

The reliability of all three questionnaires was measured using Cronbach's Alpha, which measures internal consistency that shows how closely related a set of items are as a group. The reliability of self-regulation was 0.829, the reliability of self-efficacy was 0.770, and the reliability of psychological well-being was 0.759. Hence, the validity was then assumed adequate as previous studies have applied the instruments of self-regulation, self-efficacy, and psychological well-being (Carey et al., 2004), (Scholz et al., 2002), and (Alias et al., 2020), respectively.

**Procedure and Data Analysis**

The formal procedures were followed during the data collection in the fieldwork. First, permission was requested from the Rectory of the Salahaddin University to administer the survey at the university. Following consent and approval, the questionnaire was distributed among undergraduate students at Salahaddin University. The researchers obtained the students' contact information from each department to answer the questionnaire and conveniently sent the Google Form link.

Once the participants answered the questionnaire, they were ensured that all responses were confidential and that they had filled out the survey and answered all questions. The data was then analyzed using a statistical procedure for descriptive analysis, correlation analysis, and Multiple Regression Analysis (MRA). The collected data were computed and analyzed statistically using The Package for Social Sciences (SPSS 0.22) software. Descriptive statistics utilizes the data to provide descriptions of the population, and inferential statistics

provide inferences and predictions about a population based on a sample of the population in the study. For the analysis, descriptive analysis was presented as a mean, frequency distribution, percentage, and standard deviation in this study.

Furthermore, Multiple Regression Analysis (MRA) was run to analyze the effect of self-regulation and self-efficacy on psychological well-being. A Pearson correlation was used to determine the relationship between self-regulation and self-efficacy and students' psychological well-being at Salahuddin University.

## RESULTS AND DISCUSSION

### Descriptive statistics

The study employed a median to classify participants from high to low levels, as shown in Table 1. More than half of the participants indicated a low level of self-regulation and self-efficacy, which was arranged between the mean of m=3.2-3.5 Sd=0.31-0.50, respectively. However, more than half of the students showed a higher level of psychological well-being (m=4.1, Sd=0.30). Therefore, the Salahaddin undergraduate students need more self-regulation and self-efficacy.

**Table 1.** Mean, SD, and Median

| Levels / Constructs | Mean SD | High | Low | Total |
|---|---|---|---|---|
| Self-regulation | Mean=3.5 Sd=0.31 | (n=198) 48.8% | (n=209) 51.4% | (n=407) 100% |
| Self-efficacy | Mean=3.2 Sd=0.50 | (n=186) 45.7% | (n=221) 54.3% | (n=407) 100% |
| Psychological well-being | Mean=4.1 Sd=0.30 | (n=207) 50.9% | (n=200) 49.1% | (n=407) 100% |

### Correlation Analysis for the Relationship Between Self-Regulation and Psychological Well-Being

The Pearson Product Moment Correlation analysis was applied to the relationship between self-regulation and psychological well-being. The study checked for normality assumptions of data distributions, as shown in Table 2.

Furthermore, all constructs used continuous data. Table 2 shows a positive and statistically significant link between self-regulation and psychological well-being among the Salahaddin undergraduate students (r=0.43, P=.000). Thus, there is a medium-size effect or correlation, as suggested by Cohen (1988).

**Table 2.** Person Correlation

| No | Constructs | 1 | 2 | Mean | SD | N |
|---|---|---|---|---|---|---|
| 1 | Self-regulation | __ | 0.43** | 3.46 | 0.32 | 407 |
| 2 | Psychological well-being | 0.43** | ___ | 4.08 | 0.30 | 407 |

** P<.00

**Correlation analysis for self-efficacy and psychological well-being among the Salahaddin undergraduate students?**

Again, the study examined for assumptions of normality of data distributions, as shown in Table 3, and the constructs used continuous data. Table 3 displayed a positive and statistically significant relationship between self-efficacy and psychological well-being among the Salahaddin undergraduate students (r=0.32, P=.000). Hence, there is a medium-size effect or correlation, as suggested by Cohen (1988).

**Table 3.** Person Correlation

| No | Constructs | 1 | 2 | Mean | SD | N |
|---|---|---|---|---|---|---|
| 1 | Self-efficacy | __ | 0.32** | 3.21 | 0.50 | 407 |
| 2 | Psychological well-being | 0.32** | ___ | 4.08 | 0.30 | 407 |

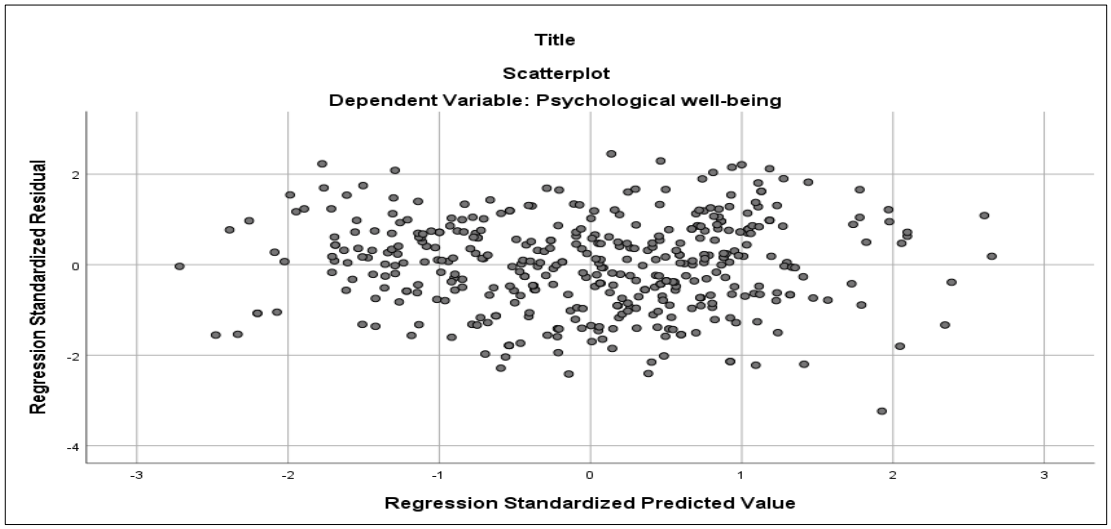
**P<.00

**Multiple Regression Analysis (MRA) indicates that self-regulation and self-efficacy affect psychological well-being**

A multiple regression analysis was run to investigate the effect of self-regulation and self-efficacy on the psychological well-being of Salahaddin undergraduate students. Before running the analysis, fundamental assumptions (i.e., homoscedasticity, normality of residual error, multi-collinearity, and correlations).

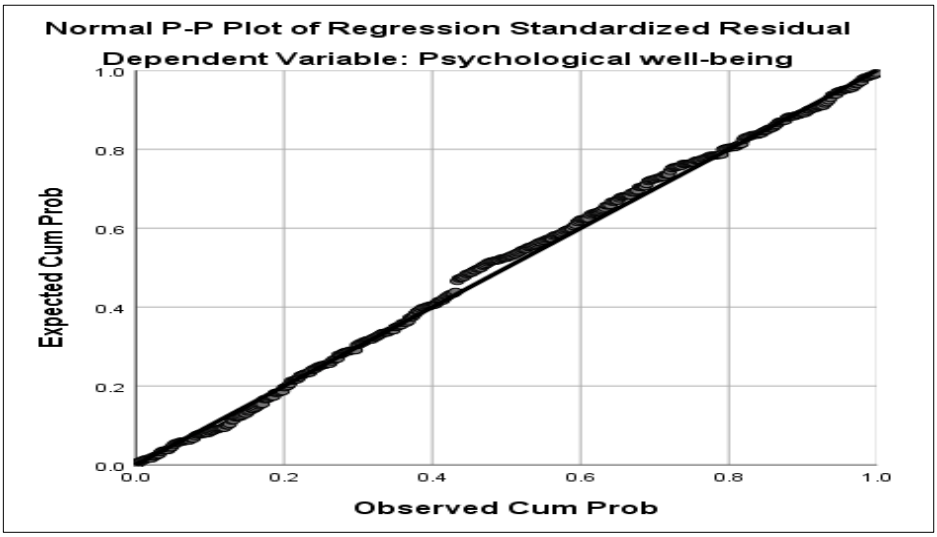
Firstly, data were checked for the assumption of homoscedasticity to ascertain that the variance of errors was the same across all the predictors. The assumption of homoscedasticity was checked by analyzing the scatterplot of standardized residuals (ZRESID) along the Y-axis against the predicted values (ZPRED) along the X-axis. A visual inspection (see Figure 1) suggests that the residuals are scattered quite randomly, indicating a non-violation of the homoscedasticity assumption.

**Figure 1.** Regression Standardized Predicted Value




Secondly, the normality assumption of residual error was examined using the normal probability plot (see Figure 2). The plotted output did not indicate a serious deviation from the diagonal rule that represented normal distribution. These inspections show that this assumption of MRA was not violated. Figure 2 shows the P-P plot that contains the cumulative theoretical distribution (straight line) and the cumulative distribution of the observed data.

**Figure 2.** Observed Cum Prob




The above plot indicates the degree to which the theoretical distribution fits the observed data. The dotted line representing the cumulative distribution of the empirical data fits perfectly with the straight line.

Thirdly, the collinearity problem occurs when the independent variables are highly correlated. Two indicators were checked to assess this assumption. They

are the Variance Inflation Factor (VIF) and tolerance statistics. Table 4 shows a low tolerance value of < 0.1, and the value of VIF for both constructs is 1.607. Hence, VIF did not exceed 3. As such, there was no multi-collinearity problem among the predictors.

**Table 4.** Value of VIF and Tolerance

| Constructs | VIF | Tolerance |
|---|---|---|
| Self-regulation | 1.607 | 0.622 |
| Self-efficacy | 1.607 | 0.622 |

Fourthly, the inter-correlations table 5 shows the correlations between the criterion and predictor variables. The results indicate that the criterion (psychological well-being) correlates positively with two predictor variables (self-regulation and self-efficacy). Therefore, all assumptions of MRA have been achieved in this study.

**Table 5** Inter-correlations between Constructs

| No | Constructs | 1 | 2 | 3 |
|---|---|---|---|---|
| 1 | Self-regulation | 1 | _ | - |
| 2 | Self-efficacy | 0.61** | 1 | - |
| 3 | Psychological well-being | 0.43** | 0.32** | 1 |

Based on Table 6, this study's parameter between self-regulation self-efficacy and psychological well-being is moderated (r= 0.44) (Cohen, 1988). The independent variables accounted for 19% of variances in psychological well-being with a standard error of 0.27. In comparison, the other 81% can be explained by another possible variable that is not studied in this research.

**Table 6** Model Summary

| Model | R | R square | Adjusted R square | Std. Error of the estimate |
|---|---|---|---|---|
| 1 | .435 | .189 | .185 | .2714461 |

Table 7 shows the results of the ANOVA test, which illustrate that the model is significant, or in other words, at least one of the predictors is statistically significant (F= (2,404) 47.027, P= 0.00).

**Table 7.** ANOVA

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 6.930 | 2 | 3.465 | 47.027 | .000[b] |
| | Residual | 29.768 | 404 | .074 | | |
| | Total | 36.698 | 406 | | | |
| a. Dependent Variable: psychological well-being | | | | | | |
| b. Predictors (constant): self-efficacy, self-regulation | | | | | | |

Table 8 shows that only one of the two predictors significantly affects psychological well-being: self-regulation (Beta=0.0.36, t=6.668, and P=.000). Based on the results of beta weight, one unit of students' self-regulation could increase the students' psychological well-being by 0.357.

**Table 8.** Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.686 | .147 | | 18.305 | .000 |
| | Self-regulation | .357 | .054 | .379 | 6.668 | .000 |
| | Self-efficacy | .049 | .034 | .083 | 1.459 | .145 |

Dependent variable: psychological well-being

Thus, based on the results, the predicted equation can be stated as follows:

Y (psychological well-being) = 2.686+ 0.357*(self-regulation) +0.049*(self-efficacy)

## DISCUSSION

The following discussion was drawn based on the obtained data from the respondents from the questionnaire. The result showed that more than half of the participants had a low level of self-regulation and self-efficacy (m=3.2-3.5, Sd=0.31-0.50, respectively). In other words, self-regulation and self-efficacy were low among the Salahaddin undergraduate students. This result contrasts with most of the earlier research (Durand-Bush et al., 2015; Short et al., 2016; Gagnon et al., 2016), which showed that undergraduate students had a high degree of self-regulation. A significant degree of self-efficacy was also found in the participants in other studies (Gielnik, 2020; Eliyan et al., 2020). (Alhadabi & Karpinski, 2020). Additionally, (Ersöz, 2017) demonstrated the high psychological well-being and self-efficacy of university students.

Experts regard self-control and self-efficacy as the most crucial components in academics. Academic performance, social competence, and good growth are all enhanced by self-regulation (Zimmerman, 2000b). Self-regulation connects individuals' performance by setting priorities, planning activities, and monitoring progress (Beeftink et al., 2012). Students with a high level of self-efficacy will be better predictors of academic outcomes than previous achievements or mental ability (Los, 2010). High self-efficacy also allows a high level of communication ability (Wildauer, 2017). However, the findings of this study could be more harmonious with the results of previous studies due to the different sets of academic programs and students' backgrounds. Also, there could be some things that could be more consistent between students' expectations and their actual actions throughout the study. Their motivation and

their degree of self-regulation and self-efficacy may be strong, but they are unaware of it.

Conversely, the undergraduate students at Salahaddin had a high degree of psychological well-being. In line with the findings of the study conducted by Viejo et al. (2018), which also revealed a high degree of psychological well-being among participants, the results showed that over half of the students had a higher level of psychological well-being (m=4.1, Sd=0.30). An additional examination revealed a high degree of psychological health (Oravecz et al., 2020). The results of this study, however, differ from those of (Dodd et al., 2021), who discovered that the pandemic hurt psychological well-being, with roughly 33.8% of participants reporting low psychological well-being and 31.5% of students reporting extremely low psychological well-being. Additionally, college students who experienced high levels of stress and low levels of optimism during the coronavirus had low psychological well-being (Genç & Arslan, 2021).

There are two significant findings from this study that point to the connection between psychological well-being, self-efficacy, and self-regulation. The result demonstrated a positive and statistically significant relationship between self-regulation and psychological well-being (r=0.43, P=.000) and self-efficacy and psychological well-being (r=0.32, P=.000) among undergraduate students at Salahaddin University. In other words, the current research has shown that if students have strong self-regulation and self-efficacy, their psychological well-being will also be high. This finding is consistent with previous studies. Students' self-regulation was significantly related to physicians and medical students (Gagnon et al., 2016). Describing, acting, awareness and psychological well-being were most strongly related to self-regulation (Short et al., 2016).

Furthermore, a special relationship between self-regulation, general externalizing behavior issues, and particular attentional problems was discovered (Lonigan et al., 2017). Additionally, there was a correlation between students' psychological well-being and their level of self-efficacy (Siddiqui, 2015). Additionally, a correlation has been observed between self-efficacy, interpersonal contact, closeness, commitment, and marriage satisfaction on social media platforms (Ruggieri et al., 2021). Another study revealed a relationship between students' scientific knowledge and self-efficacy (Beck & Blumer, 2021).

Additionally, the connections between social experiences and environmental elements and students' learning and well-being were emphasized, with a theoretical foundation in Social Cognitive Theory. The dynamic relationship between an individual, their behavior, and their environment is included in the social cognitive theory. This theory illustrates the connection between students' well-being, self-efficacy, and self-regulation (Saroughi & Kitsantas, 2020). Islamic well-being is defined by literature, which includes the Qur'an and

research findings. Islamic well-being relates to faith, performing duties, and abstaining from sin. Faith can be a tool for achieving life fulfillment since it includes a wider and more cerebral component. Avoiding sin can be compared to avoiding negative feelings and fulfilling the Fardh (obligatory activities) to cultivate happy emotions (Eryilmaz & Kula, 2020).

The current study also found that while self-efficacy was not able to impact psychological well-being, self-regulation was able to. Put differently, the psychological well-being of Salahaddin University students was shown to be 0.357 higher when they exhibited self-regulation. The results of the current study lead to the conclusion that, in contrast to self-efficacy, self-regulation impacts psychological well-being. Most prior studies have demonstrated the effect of self-regulation on psychological well-being, and the ability to regulate oneself can have a considerable influence on stress levels, psychological well-being, and mental health functioning (Durand-Bush et al., 2015). Furthermore, two aspects of psychological well-being, environmental mastery and life purpose, are influenced by self-regulation, and self-regulation ability is a good predictor of psychological well-being (Gagnon et al., 2016). An additional finding indicated that university students' psychological well-being was impacted by planning, monitoring, controlling, and reflecting as self-regulation traits to improve academic accomplishment (Wang et al., 2021). Furthermore, self-regulation continued to be a strong predictor of students' psychological health even as they advanced in their studies (Fomina et al., 2020). An additional discovery indicated that self-regulation had a noteworthy impact on student's engagement with learning (Bonk, 2020).

Theoretically, self-regulation enables students to take into account a variety of experiences in a range of areas, including personality, social skills, academic performance, and psychological well-being (McMillan, 2010; Pintrich, 2004). This result is in line with both the study's conclusions and earlier research. At the same time, multiple other studies have suggested that self-efficacy impacts psychological well-being; the current study's findings indicate that self-efficacy cannot affect psychological well-being. Numerous scholars have discussed the reverse of the current discovery. For instance, Siddiqui (2015) discovered that among undergraduate students, both male and female, self-efficacy had a significant impact on psychological well-being. Bandura distinguishes self-efficacy as people's perceptions about their capacity to achieve at a level appropriate for enhancing human productivity and well-being (Pajares & Schunk, 2002). While some research has suggested that self-efficacy impacts psychological well-being, this study found no such impact, concluding pupils lack self-discipline and attention. Nonetheless, various factors could have affected the responders, such as a lack of drive, the academic setting, the teaching style, a lack of support, the parenting style, and the student's ignorance of their abilities or sensibility in various contexts.

## CONCLUSION

The current study was motivated by a need for more research on the connection between psychological well-being, self-efficacy, and self-regulation among Salahaddin University's Kurdish undergraduate population. The outcome revealed that psychological well-being was high, while self-efficacy and self-regulation were poor. Moreover, there was a statistically significant correlation between psychological well-being and, self-efficacy and self-regulation. In addition, the study indicated that undergraduates' psychological well-being was influenced by their ability to self-regulate but not by their level of self-efficacy.

The results have offered valuable direction for implementing additional methods to improve self-regulation, impacting psychological welfare and the relationship between important concepts. Additionally, the findings indicated a low level of self-efficacy and self-regulation, which raised concerns and helped pinpoint the causes. The findings have been reviewed and contrasted with earlier studies, and the views of a few subject-matter experts have been recorded.

This research, of course, has its limitations. The study is quantitative, focusing solely on the levels of self-regulation, self-efficacy, and psychological well-being and their respective influences. Consequently, it has yet to be possible for us to investigate these three variables' high and low levels in depth. More study is recommended, especially qualitative investigations that look at psychological well-being, self-efficacy, and self-regulation at the senior high school and school levels.

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