Habibie, T. A., & Nashori, F. (2024). Cognitive flexibility as a moderating role for gratitude and depression in individuals who lost their jobs. *Indigenous: Jurnal Ilmiah Psikologi*, *9*(3). 258-274. https://doi.org/10.23917/indigenous.v9i3.6753

Cognitive Flexibility as a Moderating Role for Gratitude and Depression in Individuals Who Lost Their Jobs

Temmy Andreas Habibie[1]*, Fuad Nashori[2]
Universitas Islam Indonesia[1,2]

Submitted: 28 September 2024	Accepted: 29 September 2024	Published: 30 November 2024

Abstract. *This study aims to examine the moderating role of cognitive flexibility in the effect of gratitude on depression in individuals who have lost their jobs. A total of 216 respondents (male = 188, female = 28) from various regions in Indonesia participated in this study through purposive sampling technique. In this study, three psychological scales were used including gratitude scale (a = 0.947), depression subtest of the DASS-42 (a = 0.933), and cognitive flexibility inventory (a = 0.794). Moderation analysis revealed that cognitive flexibility played an important role in reducing depression (B = -0.121; p = 0.041), while gratitude did not show a significant role in reducing depression (B = 0.005; p = 0.947). Cognitive flexibility plays a role in reducing depression, regardless of the level of gratitude of individuals who have lost their jobs.*

Keywords*: Cognitive flexibility; depression; gratitude; involuntary jobloss.*

INTRODUCTION

Currently, many individuals are losing their jobs due to the effects of the covid 19 pandemic, economic uncertainty, technological advancements, and the impact of global wars. Olesiuk (2023) reported that the number of unemployment data due to job loss in Spain from January to June 2023 increased by 603,900, bringing the unemployment rate in Spain to +21,100,000 people. Pakistan has also experienced a decline in employment due to COVID-19, which has increased unemployment by +1,500,000 since 2021 (Ani, 2023). If observed globally, the order of the countries with the highest unemployment rate is South Africa, followed by Spain, Turkey, India, and Brazil, while Indonesia is ranked 11th in the world (Annur, 2023).

The Ministry of Manpower of the Republic of Indonesia released data during the January-September 2022 period in Indonesia. Namely, around 10,765 people experienced termination of employment (PHK). During this period, the most dismissals occurred in Banten, with 34.40 percent of presentations, while the least was found in West Sulawesi Province at around 0.009 percent (Kementerian Tenaga Kerja, 2023). In the startup business sector, the number of layoffs in Indonesia was recorded at 2066 workers (Mutia, 2022). Meanwhile, data from the Ministry of Manpower of the Republic of Indonesia shows that from January to May 2024, 27,222 people were laid off (Kementerian Tenaga Kerja, 2024).

Job loss impacts individuals both psychologically, socially, and economically. Job loss impacts individual support matters related to work, such as life goals, use of productive time, contact and social status, identity, and financial security (van Eersel et al., 2019). However, psychologically,

***Corresponding author: temmy.psycho@gmail.com**

some studies show that job loss can cause symptoms of sadness, depression, and anxiety (Archer & Rhodes, 1993; Blomqvist et al., 2023; de Miquel et al., 2022; Papa & Maitoza, 2013).

Depression is one of the most common psychological disorders. Depression is characterized by persistent negative moods that may significantly interfere with the functioning of the individual and is a common mental health problem globally (Başaran et al., 2022). Individuals with high depression are generally withdrawn, have difficulty concentrating on tasks, procrastinate on completing work, and feel easily tired to do things. In contrast, individuals who have low depression are generally able to adjust to the demands of their environment well.

Some factors that are effective in reducing depression include exercise (Kulbat et al., 2023), antidepressants (Cipriani et al., 2018), and various psychotherapy approaches such as gratitude therapy (Fahtoni & Listiyandini, 2021; Mutia et al., 2010; Wongpy et al., 2019). According to Al-Ghazali (2013), gratitude is interpreted as an expression of the favor of Allah SWT through verbal praise, sincere gratitude, and physical acts of obedience. Al-Fauzan (Safitri et al., 2019) explains that gratitude can be expressed in three ways: first, through the heart, namely acknowledging and acknowledging that all blessings come from Allah SWT; second, through words, namely praising and glorifying the Giver of Goodness; and third, through actions, namely by performing worship or prostration as a form of gratitude. Nashori (2013) states the difference between gratitude in Islamic and Western psychology. Islamic psychology emphasizes an appreciative act of appreciative of the blessings obtained from God in heart, speech, and deed.

Gratitude did not consistently affect depression in various samples. Some studies identified that gratitude did not affect depression (Cregg & Cheavens, 2021; Jung & Han, 2017). On the one hand, the results of the study show that gratitude can increase peace of mind (Tomczyk et al., 2022), improve quality of life (Jung & Han, 2017) and psychological well-being (Rahman et al., 2022) which is linked to a decrease in depression rates in individuals (Diniz et al., 2023) because depression is also connected to cognitive structures that affect an individual's interpretation of the situation (Aguilera et al., 2019).

Gratitude as a positive emotion can expand the scope of attention and cognitive flexibility by broadening an individual's focus on processing various information. This issue increases the likelihood of thinking and acting beyond the individual's initial capabilities and increases access to new ideas and thoughts (Hartanto et al., 2020). Cognitive aspects such as cognitive flexibility can affect depression (Huang et al., 2024; Yu et al., 2020). Cognitive flexibility can encourage an individual's ability to use emotional-cognitive regulation strategies (Min et al., 2013). Cognitive flexibility can also refocus on planning, positive reassessment, reflection, and reconfiguring the response sequence (Dajani & Uddin, 2015). As a result, cognitive flexibility can improve resilience and lower depression (Zarei et al., 2018) and anxiety disorders.

The cognitive perspective views depression as the result of a person's thoughts, conclusions, attitudes, and interpretations, as well as how a person notices and remembers events. Cognitive theory proposes the stress-vulnerability hypothesis, which states that the development of depression is the result of an interaction between psychological vulnerability (e.g., certain cognitive styles or methods of information processing) and stressors (e.g., negative life events or environmental factors) (Gotlib & Joormann, 2010). Cognitive flexibility is important in a person's ability to adapt to a changing environment (Gabrys et al., 2018). It has been identified as a significant predictor of depressive symptoms, especially in those who have experienced trauma (Palm & Follette, 2011).

It explains that good cognitive flexibility accompanied by gratitude can effectively lower depression by allowing individuals to view situations from various perspectives more optimistically and constructively. Conversely, low cognitive flexibility or rigidity of thinking causes gratitude to

be ineffective in lowering depression rates. This condition is in line with the findings of Dennis and Vander Wal (2010), who stated that cognitive rigidity gives rise to the acceptance of maladaptive beliefs and causes these beliefs to become a fixed mechanism, thus maintaining a state of depression in individuals.

Research examining cognitive flexibility as a moderator regarding the effect of gratitude on depression in individuals who have lost their jobs has never been conducted in Indonesia. In addition, this research is planned to be carried out when Indonesia is recovering from both the pandemic and the global crisis, so this research is expected to be a reference for the government to develop assistance or intervention services for individuals who have lost their jobs.

METHOD

Respondent Characteristics

The characteristics of the respondents in this study are related to individuals classified as the labor force category, as defined by Badan Pusat Statistik (2022). This category includes individuals in the working-age population who fall into two groups: the labor force and those who are not in the labor force. Following international standards, the working-age population in Indonesia includes individuals aged 15 years and above. The labor force is made up of individuals who are currently employed as well as those who are looking for work, with the latter classified as open unemployed. In contrast, individuals not in the labor force include college students, housewives, retirees, and others.

Badan Perencanaan Pembangunan Nasional (2018) further categorized Indonesia's population into seven age groups in the Integrated Poverty Analysis and Evaluation Budgeting Planning System [SEPAKAT], with the workforce specifically covering the age 15 to 54 years, ranging from young adults to pre-retirement age. The sample for this study was obtained through purposive sampling technique, consisting of 216 respondents (Barbeau et al., 2019), which were characterized as follows: 1) Indonesian citizens; 2) Male or female; 3) Aged 18 years or older who are actively looking for work; 4) Individuals who have previous work experience in Indonesia or abroad; and 5) Those who have experienced job loss or involuntary dismissal that is not of their own volition and haven't gotten a new job.

Data Collection

This study examines gratitude's impact on depression, with cognitive flexibility as a moderator variable. Data for the three research variables were collected using a scale or psychological questionnaire adapted to Indonesian. The data collection process began with the collection of sociodemographic information, including the respondents' age, gender, marital status (e.g., unmarried, married, widowed/widower), and education level. Depression measurement was carried out using the Depression Anxiety Stress Scale-42 (DASS-42) compiled by Lovibond and Lovibond (1995). This scale was adopted by Damanik (2006) and it has a depression subscale consisting of 14 items. The subscales are dysphoria, despair, life devaluation, low self-esteem, lack of interest/engagement, anhedonia, and inertia. The DASS-42 scale has a reliability coefficient 0.948 (Damanik, 2006). An example of a DASS statement item on the depression subscale would be "I can't feel positive feelings at all". Each scale has a score range of 0 to 3, represented by a choice of 'never, sometimes, often, and very often' answers. The results of the scale test showed that the seven factor-correlated model (Figure 1) was fit according to the data (X^2 = 111, df = 52, p < 0.001, RMSEA = 0.077 [95% CI = 0.055 – 0.099], SRMR = 0.039, CFI = 0.966, TLI = 0.941), with a

loading factor value of $p < 0.001$ (Table 1).

Table 1.
Aitem fit statistic scale DASS 14

Item	Standardized Loading Factor	Standard Error	95% CI	z-value	p-value
Dysphoria					
D4	0.771	0.0000	-	-	-
D9	0.819	0.0826	0.791-1.11	11.53	<0.001
Despair					
D3	0.621	0.0000	-	-	-
D12	0.923	0.1355	0.892-1.42	8.55	<0.001
The Devaluation of Life					
D7	0.847	0.0000	-	-	-
D13	0.903	0.1091	0.788-1.22	9.18	<0.001
Self-Denial					
D6	0.837	0.0000	-	-	-
D11	0.887	0.0948	0.858-1.23	11.00	<0.001
Lack of Interest					
D5	0.775	0.0000	-	-	-
D10	0.726	0.0945	0.686-1.06	9.21	<0.001
Anhedonia					
D1	0.299	0.0000	-	-	-
D8	0.521	0.4265	0.977-2.65	4.25	<0.001
Inertia					
D2	0.606	0.0000	-	-	-
D14	0.642	0.1491	0.774-1.36	7.15	<0.001

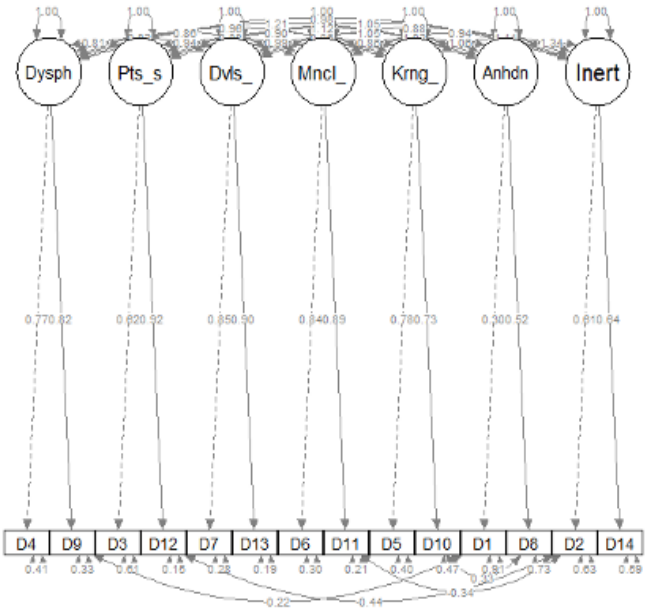

Figure 1.
Seven Factor-Correlated Model

Data on cognitive flexibility were collected using the Cognitive Flexibility Inventory (CFI) developed by Dennis and Vander Wal (2010). Rahayu et al. (2022) adapted this scale to Indonesian, comprising 15 items. This scale shows a reliability coefficient of 0.866 and a validity coefficient of 0.70, focusing on two aspects of cognitive flexibility: the alternative and control subscale.

Table 2.
Item fit statistic scale Cognitive Flexibility Inventory (CFI)

Item	Standardized Loading Factor	Standard Error	95% CI	z-value	p-value
Alternative					
FC3	0.780	0.0000	-	-	-
FC5	0.640	0.0856	0.669-1.004	9.77	<0.001
FC8	0.754	0.0929	0.842-1.206	11.03	<0.001
FC9	0.835	0.0905	0.940-1.295	12.35	<0.001
FC10	0.816	0.0865	0.943-1.282	12.86	<0.001
FC11	0.862	0.0968	0.943-1.323	11.71	<0.001
FC13	0.708	0.1123	0.675-1.115	7.97	<0.001
FC14	0.679	0.0949	0.644-1.016	8.74	<0.001
FC15	0.661	0.0965	0.580-0.959	7.97	<0.001
Control					
FC1	0.679	0.0000	-	-	-
FC2	0.744	0.1282	0.831-1.334	8.44	<0.001
FC4	0.870	0.1448	1.033-1.601	9.09	<0.001
FC6	0.720	0.1112	0.773-1.209	8.91	<0.001
FC7	0.776	0.1149	0.827-1.278	9.16	<0.001
FC12	0.647	0.1216	0.653-1.130	7.33	<0.001

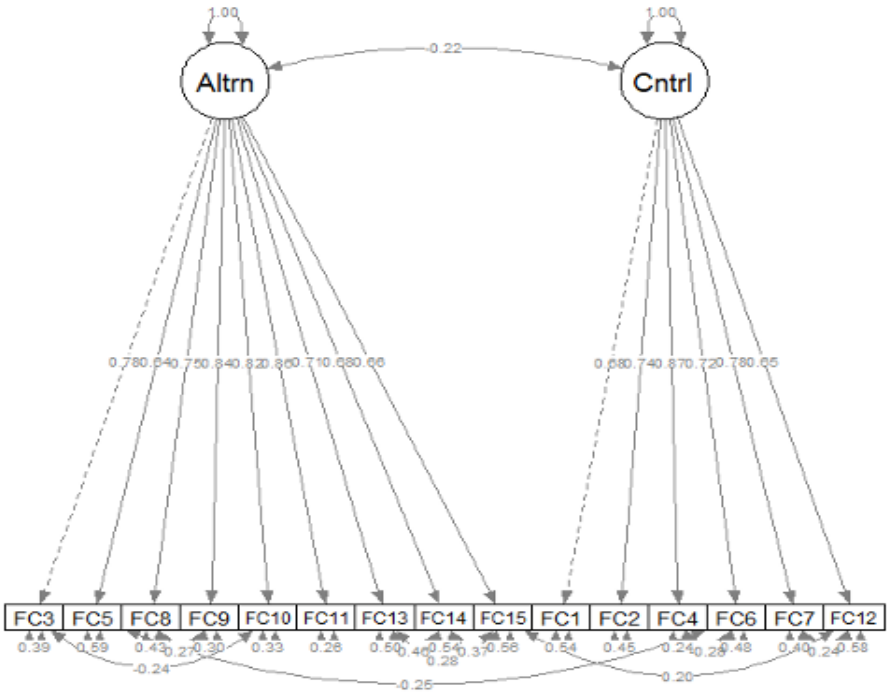

Figure 2.
Two factor-correlated model

Alternative subscales measure the capacity to consider various explanations for life events and human behavior and develop diverse solutions to challenging situations. In contrast, the control subscale assesses the tendency to view difficult situations as controllable. For example, item 3 on the alternate subscale states, "I seek additional information before determining the cause of the behavior." In contrast, item number 1 on the control subscale states, "I have difficulty making decisions when faced with difficult situations." The CFI scale uses a Likert-type response format ranging from strongly disagree (score 1) to agree strongly (score 5). The results of the scale trial showed that the two factor-correlated models (Figure 2) fit very well with the data (X^2 = 99.3, df = 80, p = 0.071, RMSEA = 0.074 [95% CI = 0.055 – 0.093], SRMR = 0.069, CFI = 0.944, TLI = 0.934), with the loading factor significance (p < 0.001, (Table 2), which confirmed the validity of all scale items. Furthermore, the cognitive flexibility scale showed strong internal consistency, both in individual factors (alternatives: *a* = 0.925, *w* = 0.902; controls: *a* = 0.881, *a* = 0.880) and across the total scale (*a* = 0.887, *w* = 0.893). These findings suggest that the scale has strong item-level reliability (*a*) and construct-level reliability (*w)*, effectively measuring the concepts in question.

Other scale used in this study is the Gratitude Scale in Indonesia, developed by Rusdi et al. (2021), to determine Gratitude. This scale evaluates two dimensions of gratitude: al-shukr al-dakhilliyah (internal factors) and al-shukr al-kharijiyah (external factors). This scale shows high reliability, with Cronbach's alpha of 0.863. The scale consists of 10 items that are positively framed, such as "When I receive a blessing from someone, I repay it with good deeds" or "I always praise God/God during worship." Respondents rated each statement on a 7-point scale, ranging from "strongly disagree" (score 1) to "strongly agree" (score 7). The results of the scale factor analysis support the two factor-correlated fit model, which shows good compatibility with the data (X^2 = 61.4, df = 30, p < 0.001, RMSEA = 0.078 [95% CI = 0.034 – 0.117], SRMR = 0.034, CFI = 0.980, TLI = 0.970), with a significant loading factor value at p < 0.001. In addition, the scale showed strong internal consistency, with Cronbach's alpha and omega values showing reliability on both intrinsic factors (*a* = 0.871, *w* = 0.871) and extrinsic factors (*a* = 0.946, *w* = 0.921), as well as for total scales (*a* = 0.947, *w* = 0.950). Cronbach's alpha value reflects excellent internal reliability, which signifies that the items reliably measure the same construct. In contrast, the omega value indicates construct-level reliability, which indicates the consistency of the scale in measuring the overall gratitude construct.

Table 3.
Item fit statistic Gratitude scale

Item	Standardized Loading Factor	Standard Error	95% CI	z-value	p-value
Intrinsic					
K8	0.845	0.0000	-	-	-
K9	0.860	0.0587	0.889-1.12	17.12	<0.001
K10	0.793	0.0665	0.851-1.11	14.75	<0.001
Extrinsic					
K1	0.740	-	-	-	-
K2	0.804	0.0789	0.868-1.18	12.96	<0.001
K3	0.821	0.1155	0.813-1.27	9.00	<0.001
K4	0.849	0.1098	0.877-1.31	9.95	<0.001
K5	0.882	0.1095	0.929-1.36	10.44	<0.001
K6	0.857	0.1420	0.802-1.36	7.61	<0.001
K7	0.894	0.1413	0.887-1.44	8.23	<0.001

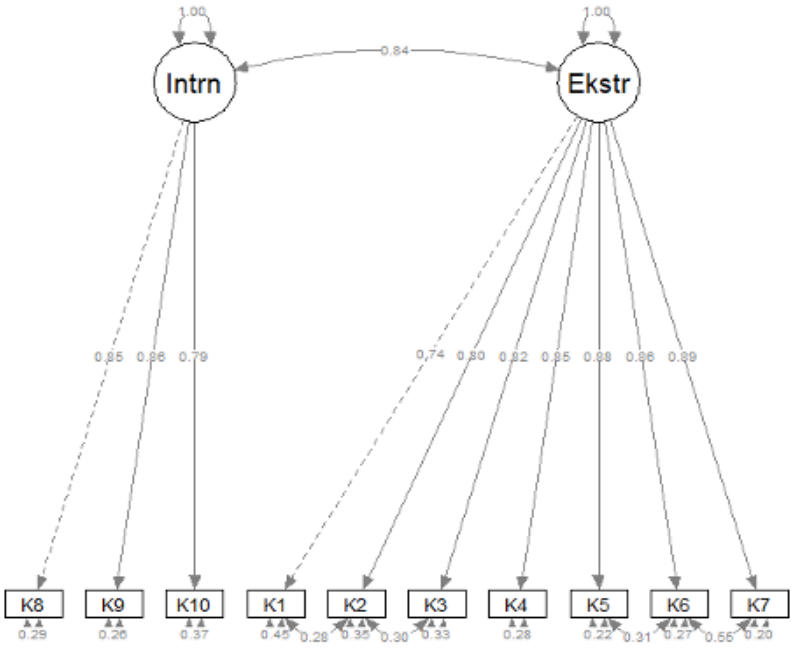

Figure 3.
Two factor-correlated model

Procedure

This research process is divided into several stages. First, the research problem is identified, and the relevant variables are determined. In this study, depression was established as the main research problem, while cognitive flexibility was identified as a moderate variable that influenced the relationship between gratitude and depression.

The selection of these variables follows the analysis of the phenomenon and the development of a research framework. Second, the research proposal is prepared to outline the problem, review theoretical perspectives, and detail methodological measures to ensure objective data acquisition. Third, measurement instruments are developed for data collection, usually in scales or questionnaires. It involves identifying or creating tools that effectively capture the specified variables. Fourth, approval to conduct research was obtained from the Research Ethics Committee of the Faculty of Psychology and Socio-Cultural Sciences, Islamic University of Indonesia, with certificate number 890/DEK/70/DURT/III/2024. Fifth, measurement instruments are distributed to research participants through cooperation with organizations such as political parties with access to labor groups, Legal Aid Institutions that deal with labor issues, and labor unions. In addition, the instruments are disseminated through social media platforms such as Facebook, Twitter, and WhatsApp to reach a wider base of respondents. The collected data is then analyzed to obtain results. Finally, research reports are prepared and presented by the standards set by the Faculty of Psychology and Socio-Cultural Sciences, Islamic University of Indonesia, and manuscripts are prepared to be submitted to scientific journals for publication.

The study began with a descriptive statistical analysis to characterize the participants and examine the main tendencies to understand the distribution of the research data. The next step includes testing the normality of the data and multicollinearity, which are prerequisites for inferential analysis. After this test, the correlation and difference between the main variables were assessed. This study answers the research hypothesis through moderation analysis using structural equation modeling. All statistical analyses were performed using the Jamovi software, version 2.3.21.

RESULTS AND DISCUSSION

Descriptive Statistical Test

The study examined three variables: gratitude, cognitive flexibility, and depression among all respondents, as summarized in Table 4. In terms of gratitude variables, participants (N = 216) achieved an average score (M) of 4.977 with a standard deviation (SD) of 0.931, indicating a high level of gratitude. Participants (N = 216) reported a mean score of 3.441 with an SD of 0.527 for the cognitive flexibility variable, indicating relatively strong and stable cognitive flexibility. Regarding the depression variable, the average score was 0.598, with an SD of 0.524, reflecting generally low and consistent levels of depression among respondents. However, due to insufficient female respondents (N = 28), descriptive statistical analysis did not perform a comparative test based on gender. As a result, more research is needed to explore trends related to differences between the genders in these variables.

Table 4.
Descriptive statistics by gender

Variable	N	M	SD
Gratitude	216	4.977	0.931
Cognitive flexibility	216	3.441	0.527
Depression	216	0.598	0.524

Moderation analysis is performed after testing key assumptions, including normality and multicollinearity, to ensure data quality and minimize measurement bias. The results of the normality test (table 5) showed that the data were normally distributed (KS = 0.089; p = 0.066 > 0.050), with slope values in the acceptable range from -3 to 3 (Heidary et al., 2022). The results of the multicollinearity test (table 6) showed no significant measurement bias in the study variables, particularly between gratitude and cognitive flexibility about depression (VIF = 1.10; Tolerance = 0.910).

Table 5.
Normality Test

Test	Statistics	p
Kolmogorov-Smirnov	0.0890	0.066
Sapphiro-Wilk	0.9226	<.001

Table 6.
Multicollinearity Test

	VIVID	Tolerance
Gratitude	1.10	0.910
Cognitive flexibility	1.10	0.910

Further, the relationships between variables were examined using Pearson correlation analysis (Table 7). The results revealed a positive and significant correlation between gratitude and cognitive flexibility (r = 0.301; p < 0.001), while no significant correlation was found between gratitude and depression (r = -0.008; p = 0.906). In addition, cognitive flexibility was found to have a significant negative correlation with depression (r = -0.276; p < 0.001).

Table 7.
Correlation test between variables

Variable	Skew	Kurt	M	SD	1	2	3
Gratitude	-2.423	7.797	4.977	0.931	—		
Cognitive flexibility	0.143	0.507	3.441	0.527	0.301***	—	
Depression	1.505	2.882	0.598	0.524	-0.008	-0.276***	—

*p < 0.05, **p < 0.01, ***p < 0.001

The research hypothesis was examined using moderation analysis to test the effects of gratitude and cognitive flexibility interactions on depression. As presented in Table 7, gratitude alone had no significant impact on depression (*B* = 0.005, p = 0.947), leading to the rejection of the first hypothesis. However, further analysis showed a significant interaction effect between gratitude and cognitive flexibility on depression (*B* = -0.121, p = 0.041), thus supporting the second hypothesis. The interaction plot further corroborates these findings, describing the relationship dynamics between variables. Figure 4. showed that respondents who showed high levels of gratitude but low cognitive flexibility still experienced increased levels of depression. In contrast, respondents with high gratitude and high cognitive flexibility showed a decrease in depression. This interaction suggests that cognitive flexibility may play a role in moderation in the relationship between gratitude and depression.

The results of the tests presented in Table 8 show that gratitude (K) has no significant effect on depression (D) (*B* = 0.005, p = 0.947), so the first hypothesis is rejected. However, the analysis of moderation with the General Linear Model (GLM) showed interesting results, where the stages in the test used the interaction between Gratitude (K) and Cognitive Flexibility (FK) incorporated into the model to test how much FK moderated the relationship between K and D (Aiken & West, 1991; Hayes, 2018). The model uses the Enter method in multiple regression, which allows direct analysis of the effects of moderation without automatic variable selection. The test results showed that the interaction of K and FK was significant (*B* = -0.121, p = 0.041), thus confirming the role of FK as a moderator in the relationship, or it could be interpreted that the effect of gratitude on depression depends on the level of cognitive flexibility. This approach is in line with Aiken and West (1991), who emphasized the importance of understanding the combined effects between independent and moderate variables, and Hayes (2018), who recommended regression with interactions as a valid method in moderation analysis.

Table 8.
Hypothesis test results

Variable	B	ONE	*B*	t	p	n^2p
Full Sample						
Gratitude (K) -> Depression	0.002	0.043	0.005	0.066	0.947	0.000
Cognitive Flexibility (FK) -> Depression	-0.287	0.068	-0.289	-4.222	< 0.001	0.078
K*FK -> Depression	-0.130	0.063	-0.121	-2.058	0.041	0.020

The interaction plot further corroborates these findings, describing the relationship dynamics between variables. Figure 4. showed that respondents who showed high levels of gratitude but low cognitive flexibility still experienced increased levels of depression. In contrast, respondents with high gratitude and high cognitive flexibility showed a decrease in depression. This interaction

suggests that cognitive flexibility may play a role in moderation in the relationship between gratitude and depression.

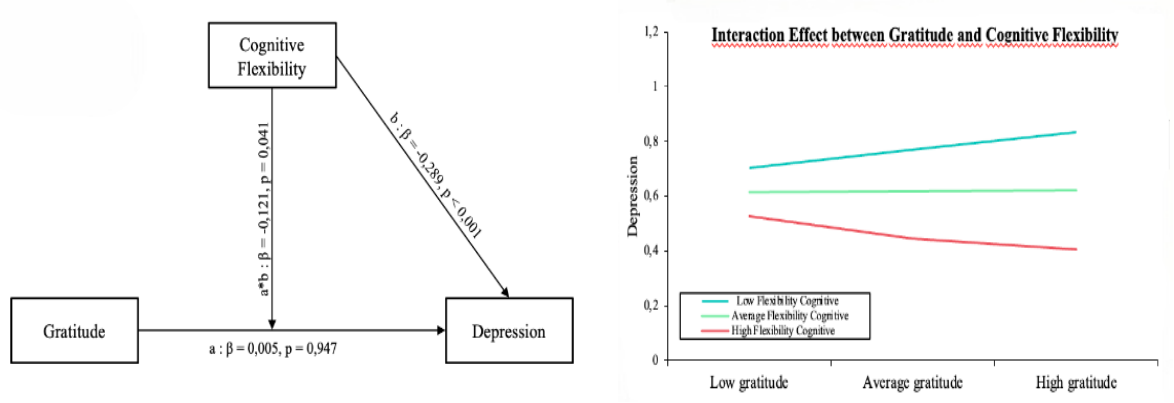

Figure 4.
Effects of the interaction of gratitude and cognitive flexibility on depression with the overall sample

This study aimed to examine the role of cognitive flexibility as a moderator in the relationship between gratitude and depression among individuals who experienced job loss. Before testing the main hypothesis, several minor hypotheses were tested by the researchers: 1) there were no significant negative effects of gratitude on depression; 2) cognitive flexibility has a significant negative effect on depression; and 3) cognitive flexibility moderates the relationship between gratitude and depression, potentially influencing the strength or direction of gratitude's impact on depressive symptoms.

Regarding the effect of gratitude on depression, some previous studies have given mixed results. In general, many studies show a negative influence of gratitude on depression (Hao et al., 2022; Lambert et al., 2012). However, some studies have found that gratitude does not significantly influence depression (Iodice et al., 2021; Kerry et al., 2023; Wood & Tarrier, 2010). The study found that gratitude had no significant effect on depression, so the first hypothesis in this study was rejected. Thus, the results of this study are in line with the research of Wood and Tarrier (2010), Iodice et al. (2021), and Kerry et al. (2023)

Gratitude can improve a person's quality of life (Cahyandari, 2015; Jung & Han, 2017) and psychological well-being (Rahman et al., 2022), as well as providing peace of mind (Tomczyk et al., 2022). Some effects of gratitude suggest that it only acts as a protective factor against negative risks of depression, such as suicide (Sánchez-Álvarez et al., 2020) and work stress (Leguminosa et al., 2017) and can strengthen self-love (Petrocchi & Couyoumdjian, 2016).

The study found that gratitude did not have a significant effect on reducing depression in individuals who experienced job loss. This result may be due to the huge impact of losing a job as an important event in life, where gratitude alone may not be enough to relieve symptoms of depression. While gratitude has the potential to evoke positive emotions, gratitude does not seem to be enough to relieve the symptoms of depression that arise due to uncertainty surrounding financial stability and social status. The complexity of these stressors likely reduces gratitude's effectiveness in coping with the psychological distress associated with unemployment.

This study further shows that cognitive flexibility is inversely related to depression. In particular, cognitive flexibility significantly alleviates depressive symptoms in individuals who have lost their jobs. This ability allows individuals to alter their cognitive strategies when faced with new and unexpected circumstances associated with psychopathology, such as depressive symptoms

(Clarke & Kiropoulos, 2021; Yazar & Meterelliyoz, 2019). Stange et al. (2016) state that cognitive rigidity, or inflexibility, contributes to depression by impairing an individual's capacity to solve problems and adapt to the demands of changing situations. This cognitive rigidity often manifests as contemplation, a cognitive vulnerability to depression that reduces the ability to solve problems and maintain a depressed mood.

Cognitive flexibility allows individuals to adopt new perspectives and consider various alternatives. This ability is also an important foundation that enables cognitive restructuring. Cognitive flexibility is an important skill in cognitive restructuring, as cognitively flexible individuals can abandon rigid or negative beliefs and replace them with more adaptive views. Even cognitive flexibility can also encourage an individual's ability to use emotional-cognitive regulation strategies (Min et al., 2013), such as refocusing on planning, conducting positive reassessments, reflection and reconfiguring response sequences (Dajani & Uddin, 2015), so that it can increase resilience and reduce depression (Zarei et al., 2018).

Individuals who experience depression have negative perceptions of themselves, their environment, and their future. They often perceive their environment as an insurmountable obstacle, leading to a constant feeling of failure and loss. This view fosters a sense of hopelessness about the future and a belief that their efforts to improve their circumstances will be futile. Such negative and rigid mindsets distort events and reinforce unhealthy beliefs about oneself, the surrounding environment, and one's prospects (Aslan & Turk, 2022). When these thoughts are critically evaluated and modified with a realistic and flexible approach, they can improve emotional and behavioral responses, thereby reducing depressive symptoms.

The findings of this study suggest that cognitive flexibility serves as a moderation factor in the relationship between gratitude and reduced depression. In particular, gratitude, in the absence of adequate cognitive flexibility, does not significantly alleviate depressive symptoms. However, when gratitude is combined with high cognitive flexibility, it allows individuals to better cope with stress and reframe negative situations from a more constructive perspective. This adaptive response facilitates more effective management of emotions and challenges, leading to a greater reduction in depressive symptoms.

The interaction of gratitude with cognitive flexibility expands a more dynamic understanding of gratitude, particularly in Islamic Psychology. With high cognitive flexibility, individuals can interpret gratitude more broadly and flexibly. Individuals not only see gratitude as an effort to accept a situation but can also relate it to other behaviors, such as an attempt to recover from the condition, which in turn can protect against the risk of depression, especially in job loss situations. Individuals with low cognitive flexibility tend to associate gratitude narrowly with purely religious aspects. In difficult circumstances, individuals may view the situation as something to be accepted without seeking other solutions, which can hinder their ability to cope with depression, especially when experiencing a loss of source of income.

The study's findings underscore the need to adopt a holistic approach when designing interventions to improve the mental well-being of individuals facing job loss. While fostering gratitude is beneficial, developing cognitive flexibility should also be considered an important component of such interventions. Improving cognitive flexibility can facilitate more effective adaptation to the changes and challenges associated with job loss.

This study has some limitations. Notably, the study did not consider variables related to sources of financial support or other financial reserves that respondents might have in response to job loss. Additional financial resources, such as spousal support or income from a side business before losing a job, are thought to be able to affect the level of negative impact experienced significantly.

Including these variables as moderators can provide a more comprehensive understanding of the impact on depression. Furthermore, the study had another limitation: the small number of female respondents (n < 30), which precludes parametric statistical tests. As a result, this study was unable to adequately explore potential gender differences in the role of cognitive flexibility as a moderator of the association between gratitude and depression after job loss.

CONCLUSION

This study aims to explore the role of cognitive flexibility interactions related to the effect of gratitude on depression in individuals who have experienced job loss. Based on the results of statistical tests, it can be concluded that gratitude does not affect depression, in contrast to cognitive flexibility, which has a negative influence on depression. In addition, flexibility plays a significant moderator role in reducing depression. It means that participants who had high gratitude but low cognitive flexibility still experienced increased depression, while participants who had high cognitive gratitude and flexibility experienced decreased depression.

Gratitude is a protective factor that can reduce risky behaviors associated with depressive disorders. However, gratitude is not enough as a standalone intervention for depression. To more effectively address depressive symptoms, it is important to combine therapies such as cognitive therapy or cognitive behavioral therapy (CBT) to improve cognitive flexibility in individuals who have experienced job loss. Such therapeutic approaches are expected to reduce significant depressive symptoms by equipping individuals with the necessary skills to manage and change their mindset when faced with stressful situations.

REFERENCES

Aguilera, M., Paz, C., Compañ, V., Medina, J. C., & Feixas, G. (2019). Cognitive rigidity in patients with depression and fibromyalgia. *International Journal of Clinical and Health Psychology*, *19*(2), 160–164. https://doi.org/10.1016/j.ijchp.2019.02.002

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.

Al-Ghazali, M. A. H. (2013). *Ihya 'ulumuddin.* Republika.

Ani. (2023). P*akistan's unemployment figure to reach 5.6 million this year.* The Times of India. retrieved from https://timesofindia.indiatimes.com/world/pakistan/pakistans-unemployed-figure-to-reach-5-6-million-this-year/articleshow/103699191.cms?from=mdr.

Annur, C. M. (2023). *10 negara dengan tingkat pengangguran tertinggi dunia, Afrika Selatan di puncak.* Databoks. retrieved from https://databoks.katadata.co.id/datapublish/2023/09/27/10-negara-dengan-tingkat-pengangguran-tertinggi-dunia-afrika-selatan-di-puncak

Archer, J., & Rhodes, V. (1993). The grief process and job loss: A cross-sectional study. *British Journal of Psychology, 84*(3), 395–410. https://doi.org/10.1111/j.2044-8295.1993.tb02491.x

Aslan, Ş., & Turk, F. (2022). Comparison of concepts of cognitive flexibility and psychological flexibility. P*sikiyatride Güncel Yaklaşımlar, 14*(1), 119–130. https://doi.org/10.18863/pgy.917360

Badan Perencanaan Pembangunan Nasional. (2018). *Sistem perencanaan, penganggaran, analisis, & evaluasi kemiskinan terpadu: kelompok usia.* Sepakat Wiki. retrieved from https://sepakat.bappenas.go.id/wiki/Kelompok_Usia#:~:text=15-24tahun%3A Kelompok usia,tahun%3A Kelompok usia pra-pensiun.

Badan Pusat Statistik. (2022). *Istilah statistik. Badan Pusat Statistik*. https://sensus.bps.go.id/metadata_statistik/index/sp2020?page=5&per-page=10

Barbeau, K., Boileau, K., Sarr, F., & Smith, K. (2019). Path analysis in Mplus: A tutorial using a conceptual model of psychological and behavioral antecedents of bulimic symptoms in young adults. *The Quantitative Methods for Psychology, 15*(1), 38–53. https://doi.org/10.20982/tqmp.15.1.p038

Başaran, S. K., Gökdağ, C., & Yıldırım, Z. E. (2022). How does cognitive flexibility associate with depressice symtoms? A multiple mediation model including emotion dysregulation and problem solving. *Yaşam Becerileri Psikoloji Dergisi, 6*(11), 23–37. https://doi.org/10.31461/ybpd.1110174

Blomqvist, S., Högnäs, R. S., Virtanen, M., LaMontagne, A. D., & Hanson, L. L. M. (2023). Job loss and job instability during the covid-19 pandemic and the risk of depression and anxiety among Swedish employees. *SSM - Population Health, 22*(5), 1–9. https://doi.org/10.1016/j.ssmph.2023.101424

Cahyandari, R. (2015). Efektivitas pelatihan kebersyukuran untuk meningkatkan kualitas hidup pasien penyakit paru obstruktif kronik (PPOK). *Jurnal Intervensi Psikologi (JIP), 7*(1), 1–14. https://doi.org/10.20885/intervensipsikologi.vol7.iss1.art1

Cipriani, A., Furukawa, T. A., Salanti, G., Chaimani, A., Atkinson, L. Z., Ogawa, Y., Leucht, S., Ruhe, H. G., Turner, E. H., Higgins, J. P. T., Egger, M., Takeshima, N., Hayasaka, Y., Imai, H., Shinohara, K., Tajika, A., Ioannidis, J. P. A., & Geddes, J. R. (2018). Furukawa, T. A., Salanti, G., Chaimani, A., Atkinson, L. Z., Ogawa, Y., … Geddes, J. R. (2018). Comparative efficacy and acceptability of 21 antidepressant drugs for the acute treatment of adults with major depressive disorder: A systematic review and net. *Focus, 16*(4), 420–429. https://doi.org/10.1176/appi.focus.16407

Clarke, E., & Kiropoulos, L. A. (2021). Mediating the relationship between neuroticism and depressive, anxiety and eating disorder symptoms: The role of intolerance of uncertainty and cognitive flexibility. *Journal of Affective Disorders Reports*, *4*(1), 1–8. https://doi.org/10.1016/j.jadr.2021.100101

Cregg, D. R., & Cheavens, J. S. (2021). Gratitude interventions: Effective self-help? A meta-analysis of the impact on symptoms of depression and anxiety. *Journal of Happiness Studies, 22*(1), 413–445. https://doi.org/10.1007/s10902-020-00236-6

Dajani, D. R., & Uddin, L. Q. (2015). Demystifying cognitive flexibility: Implications for clinical and developmental neuroscience. *Trends in Neurosciences, 38*(9), 571–578. https://doi.org/10.1016/j.tins.2015.07.003

Damanik, E. D. (2006). *Pengujian reliabilitas, validitas, analisis item dan pembuatan norma Depression Anxiety Stress Scale (DASS): Berdasarkan penelitian pada kelompok sampel Yogyakarta dan*

Bantul yang mengalami gempa bumi dan kelompok sampel Jakarta dan sekitarnya yang tidak [Universitas Indonesia]. retrieved from https://lib.ui.ac.id/detail.jsp?id=94859

de Miquel, C., Domènech-Abella, J., Felez-Nobrega, M., Cristóbal-Narváez, P., Mortier, P., Vilagut, G., Alonso, J., Olaya, B., & Haro, J. M. (2022). The mental health of employees with job loss and income loss during the covid-19 pandemic: The mediationg role of perceived financial stress. *International Journal of Environmental Research and Public Health, 19*(6), 1–14. https://doi.org/10.3390/ijerph19063158

Dennis, J. P., & Vander Wal, J. S. (2010). The cognitive flexibility inventory: Instrument development and estimates of reliability and validity. *Cognitive Therapy and Research, 34*(3), 241–253. https://doi.org/10.1007/s10608-009-9276-4

Diniz, G., Korkes, L., Tristão, L. S., Pelegrini, R., Bellodi, P. L., & Bernardo, W. M. (2023). The effects of gratitude interventions: A systematic review and meta-analysis. *Einstein (São Paulo), 21*(7), 1–9. https://doi.org/10.31744/einstein_journal/2023RW0371

Fahtoni, A. B., & Listiyandini, R. A. (2021). Kebersyukuran, kesepian dan distres psikologis pada mahasiswa di masa pandemi covid-19. *Jurnal Psikologi Sains Dan Profesi (Journal Psychology of Science and Profession), 5*(1), 11 – 19. https://jurnal.unpad.ac.id/jpsp/article/view/29212/15318

Gabrys, R. L., Tabri, N., Anisman, H., & Matheson, K. (2018). Cognitive control and flexibility in the context of stress and depressive symptoms: The cognitive control and flexibility questionnaire. *Frontiers in Psychology, 9*(4). https://doi.org/10.3389/fpsyg.2018.02219

Gotlib, I. H., & Joormann, J. (2010). Cognition and depression: Current status and future directions. *Annual Review of Clinical Psychology, 6*(1), 285–312. https://doi.org/10.1146/annurev.clinpsy.121208.131305

Hao, Y., Zhang, L., Bai, C., Li, W., Li, C., & Kong, F. (2022). Gratitude and depressive symptoms in Chinese nurses: A longitudinal cross-lagged study. *Applied Psychology: Health and Well-Being, 14*(1), 329–343. https://doi.org/10.1111/aphw.12305

Hartanto, A., Ong, N. C. H., Ng, W. Q., & Majeed, N. M. (2020). The effect of state gratitude on cognitive flexibility: A within-subject experimental approach. *Brain Sciences, 10*(7), 413–423. https://doi.org/10.3390/brainsci10070413

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). The Guilford Press.

Heidary, S., Abdollahi, A., Jarrahi, E., & Ahmed, A. A. A. (2022). Psychometric Assessment of the Persian Version of Compassion Scale for Adolescents. *Evaluation & the Health Professions, 45*(3), 297–302. https://doi.org/10.1177/01632787211053855

Huang, W., Fang, Y., Tan, X., & Zhao, J. (2024). Childhood trauma, stressful life events, and depression: Exploring the mediating effect of cognitive flexibility. *Psychological Trauma: Theory, Research, Practice, and Policy, 16*(1), 45–52. https://doi.org/10.1037/tra0001337

Iodice, J. A., Malouff, J. M., & Schutte, N. S. (2021). The association between gratitude and depression: A meta-analysis. *International Journal of Depression and Anxiety, 4*(1), 1–12.

https://doi.org/10.23937/2643-4059/1710024

Jung, M., & Han, K. (2017). Effectiveness of gratitude disposition promotion program on depression and quality of life of chronic schizophrenic patients. *Indian Journal of Psychiatry, 59*(2), 189–195. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_227_16

Kementerian Tenaga Kerja. (2023). *Tenaga kerja ter-PHK tahun 2022.* Satu Data. retrieved from https://satudata.kemnaker.go.id/data/kumpulan-data/954

Kementerian Tenaga Kerja. (2024). *Tenaga kerja ter-PHK tahun 2023*. Satu Data. retrieved from https://satudata.kemnaker.go.id/data/kumpulan-data/1659#:~:text=Satudata Kemnaker %7C Portal Data Ketenagakerjaan RI&text=Pada periode Januari-Desember 2023,PHK (Pemutusan Hubungan Kerja).

Kerry, N., Chhabra, R., & Clifton, J. (2023). Being thankful for what you have: A systematic review of evidence for the effect of gratitude on life satisfaction. *Psychology Research and Behavior Management, 16*(11), 4799–4816. https://doi.org/10.2147/PRBM.S372432

Kulbat, A., Karwańska, A., Kulbat, M., Brzychczy, P., Majcher, M., Górska, D., Sierpień, M., Majcher, M., Świercz, K., & Pikulicka, A. (2023). Impact of physical activity and health education on the development of depression. *Journal of Education, Health and Sport, 13*(4), 188–195. https://doi.org/10.12775/JEHS.2023.13.04.021

Lambert, N. M., Fincham, F. D., & Stillman, T. F. (2012). Gratitude and depressive symptoms: The role of positive reframing and positive emotion. *Cognition & Emotion, 26*(4), 615–633. https://doi.org/10.1080/02699931.2011.595393

Leguminosa, P., Nashori, F., & Rachmawati, M. A. (2017). Pelatihan kebersyukuran untuk menurunkan stres kerja guru di sekolah inklusi. *JIPT: Jurnal Ilmiah Psikologi Terapan, 5*(2), 186–201. https://doi.org/10.22219/jipt.v5i2.4563

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the beck depression and anxiety inventories. *Behaviour Research and Therapy, 33*(3), 335–343. https://doi.org/10.1016/0005-7967(94)00075-U

Min, J. A., Yu, J. J., Lee, C. U., & Chae, J. H. (2013). Cognitive emotion regulation strategies contributing to resilience in patients with depression and/or anxiety disorders. *Comprehensive Psychiatry, 54*(8), 1190–1197. https://doi.org/10.1016/j.comppsych.2013.05.008

Mutia, A. (2022). *Gelombang PHK startup, ini 7 perusahaan teknologi RI yang lakukan PHK pada tahun 2022*. Databoks. retrieved from https://databoks.katadata.co.id/datapublish/2022/11/21/gelombang-phk-startup-ini-7-perusahaan-teknologi-ri-yang-lakukan-phk-pada-2022

Mutia, E., Subandi, & Mulyati, R. (2010). Terapi kognitif perilaku bersyukur untuk menurunkan depresi pada remaja. *Jurnal Intervensi Psikologi (JIP), 2*(1), 53–68. https://journal.uii.ac.id/intervensipsikologi/article/download/8114/7039/15067

Nashori, F. (2013). Syukur dalam wacana psikologi. *Jurnal Intervensi Psikologi (JIP), 5*(2), 1–2. https://journal.uii.ac.id/intervensipsikologi/article/view/3953

Olesiuk, J. (2023). *Spains unemployment rate fells to 15-year low of 11,60% in Q2*. Reuters. retrieved from https://www.reuters.com/markets/europe/spains-unemployment-rate-falls-15-year-low-1160-q2-2023-07-27/.

Palm, K. M., & Follette, V. M. (2011). The roles of cognitive flexibility and experiential avoidance in explaining psychological distress in survivors of interpersonal victimization. *Journal of Psychopathology and Behavioral Assessment, 33*(1), 79–86. https://doi.org/10.1007/s10862-010-9201-x

Papa, A., & Maitoza, R. (2013). The role of loss in the experience of grief: The case of job loss. *Journal of Loss and Trauma, 18*(2), 152–169. https://doi.org/10.1080/15325024.2012.684580

Petrocchi, N., & Couyoumdjian, A. (2016). The impact of gratitude on depression and anxiety: The mediating role of criticizing, attacking, and reassuring the self. *Self and Identity, 15*(2), 191–205. https://doi.org/10.1080/15298868.2015.1095794

Rahayu, M. N. M., Aprodita, N. P., & Rasyida, A. (2022). Adapting and testing the Indonesian version of the psychometric properties of the cognitive flexibility inventory (CFI) measuring tool. *Indigenous: Jurnal Ilmiah Psikologi, 7*(3), 246–262. https://doi.org/10.23917/indigenous.v7i3.18851

Rahman, N. N., Nashori, F., & Rumiani. (2022). Pelatihan kebersyukuran untuk meningkatkan kesejahteraan subjektif pada remaja yang orang tuanya bercerai. *Proyeksi, 17*(1), 100–111.

Rusdi, A., Sakinah, S., Bachry, P. N., Anindhita, N., & Hasibuan, M. A. I. (2021). The development and validation of the Islamic Gratitude Scale (IGS-10). *Psikis : Jurnal Psikologi Islami, 7*(2), 120–142. https://doi.org/10.19109/psikis.v7i2.7872

Safitri, N., Rachmadi, A. G., & Aini, T. Q. (2019). Kebersyukuran: Studi komparasi antara perspektif psikologi barat dan psikologi Islam. *Psikologika: Jurnal Pemikiran Dan Penelitian Psikologi, 24*(2), 115–128. https://journal.uii.ac.id/Psikologika/article/view/14095

Sánchez-Álvarez, N., Extremera, N., Rey, L., Chang, E. C., & Chang, O. D. (2020). Optimism and gratitude on suicide risk in Spanish adults: Evidence for doubling up or doubling down? *Journal of Clinical Psychology, 76*(10), 1882–1892. https://doi.org/10.1002/jclp.22962

Stange, J. P., Connolly, S. L., Burke, T. A., Hamilton, J. L., Hamlat, E. J., Abramson, L. Y., & Alloy, L. B. (2016). Inflexible cognition predicts first onset of major depressive episodes in adolescence. *Depression and Anxiety, 33*(11), 1005–1012. https://doi.org/10.1002/da.22513

Tomczyk, J., Nezlek, J. B., & Krejtz, I. (2022). Gratitude can help women at-risk for depression accept their depressive symptoms, which leads to improved mental health. *Frontiers in Psychology, 13*(4), 1–17. https://doi.org/10.3389/fpsyg.2022.878819

van Eersel, J. H. W., Taris, T. W., & Boelen, P. A. (2019). Development and initial validation of the job loss grief scale. *Anxiety, Stress, & Coping, 32*(4), 428–442. https://doi.org/10.1080/10615806.2019.1619703

Wongpy, N., Hartanti, & Danovinina, K. (2019). Studi kasus: Pengaruh gratitude terapi terhadap

penurunan simtom depresi pada perempuan yang hamil di luar nikah. *Jurnal Ilmiah Mahasiswa Universitas Surabaya, 7*(2), 3634–3643. https://journal.ubaya.ac.id/index.php/jimus/article/download/3607/2739/

Wood, A. M., & Tarrier, N. (2010). Positive clinical psychology: A new vision and strategy for integrated research and practice. *Clinical Psychology Review, 30*(7), 819–829. https://doi.org/10.1016/j.cpr.2010.06.003

Yazar, M., & Meterelliyoz, K. (2019). Examination of relationship between depressive symptoms, cognitive flexibility, and hopelesness in non clinic population. *Journal of Cognitive-Behavioral Psychotherapy and Research, 8*(2), 155–163. https://doi.org/10.5455/JCBPR.24354

Yu, Y., Yu, Y., & Lin, Y. (2020). Anxiety and depression aggravate impulsiveness: The mediating and moderating role of cognitive flexibility. *Psychology, Health & Medicine, 25*(1), 25–36. https://doi.org/10.1080/13548506.2019.1601748

Zarei, M., Momeni, F., & Mohammadkhani, P. (2018). The mediating role of cognitive flexibility, shame, and emotion dysregulation between neuroticism and depression. *Iranian Rehabilitation Journal, 16*(1), 61–68. https://doi.org/10.29252/nrip.irj.16.1.61