



## Relationship Between Self-Effeciacy and Parenting Burnout in Working Mothers With Young Children (0-6 Years Old)

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### Abstract

The increasing demands of multiple roles on working mothers who have young children have the potential to trigger parenting burnout due to ongoing pressure. This study aims to determine the relationship between self-efficacy and parenting burnout in working mothers who have children aged 0-6 years. The research method uses a non-experimental quantitative approach. The population in this study were working mothers who had children aged 0-6 years) in Beji Krajan Village, Semarang Regency. The total sample was 95 working mothers who were determined through random sampling techniques using the Slovin formula. Caregiving burnout can be measured through the aspects of physical fatigue, mental fatigue, emotional exhaustion, depersonalization, and decreased personal achievement. Meanwhile, the self-efficacy aspect can be measured through the aspects of magnitude, generality and strength. The results of data analysis in this study show a correlation coefficient of -0.716, with  $p = 0.00$ , which indicates that the relationship between the two variables is significantly negative. Based on data analysis, it can be concluded that there is a significant negative relationship between self-efficacy and parenting burnout in working mothers who have children aged 0-6 years, which means that if self-efficacy is high, then parenting burnout in working mothers who have children aged 0-6 years) decreases. On the other hand, the lower the self-efficacy, the higher the parenting burnout for working mothers who have children aged 0-6 years.

**Keywords:** *Burnout, Self Efficacy, Working Mothers, Parenting, Early Childhood.*

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## INTRODUCTION

In the era of globalization, women have the same opportunities as men to be involved in national development (Kameli & Julisatuna, 2023). The shift in women's roles from the domestic sphere to the public sphere, including involvement in the world of work, is becoming an increasingly real phenomenon (Sukanti, 2022). Based on data from the Central Statistics Agency (BPS) in February 2024, 56.42% of the workforce is female in Indonesia (Badan Pusat Statistik, 2024). These data and facts illustrate that women's self-actualization in the world of work has become a new norm that has significantly changed the social structure of Indonesian society. However, the involvement of women in work has the consequence of demanding dual roles, where women are not only responsible for professional careers, but still have primary responsibility for domestic affairs and childcare. This condition creates more complex challenges for working mothers in balancing two different roles.

Women's motivation to work is not only driven by the family's economic needs, but also by the desire to develop their potential, gain financial independence, and improve their social status (Aeni et al., 2024). However, women's involvement in two realms at once, the domestic realm and the professional realm, creates dual role demands. Working mothers must be able to carry out their work responsibilities as well as their roles as wife and mother. For mothers who have children aged 0-6 years, these challenges are increasingly complex because this period is an important period of child growth and development that requires parental attention and involvement (Karimah & Afriannisyah, 2024). Therefore, if multiple role conflicts are not managed well there can be a risk of parenting failure at a crucial period of a child's growth. This happens because of the impact of the domestic and public roles that working mothers play while caring for them.

An imbalance between work demands and caregiving responsibilities can trigger lasting psychological stress. One impact that can arise is burnout. Burnout is a condition of physical, emotional and mental exhaustion which is characterized by feelings of being unable to complete tasks or work, as well as a feeling of helplessness and loss of control (Setyoroso & Astuti, 2021). In the context of parenting, burnout is defined as a condition of exhaustion experienced by parents due to continuous parenting pressure and is directly related to their role as caregivers. This condition is characterized by the emergence of emotional distance from the child and the loss of a sense of satisfaction in carrying out the role as a parent (Bogdán et al., 2025).

Burnout was first introduced by Freudenberg who explained burnout as physical and mental exhaustion due to work pressure. Furthermore, Christina Maslach developed the concept of burnout with three main aspects, namely emotional exhaustion, depersonalization, and decreased personal achievement (Edú-valsania et al., 2022). Symptoms of parenting burnout include emotional and physical exhaustion, low satisfaction in the parent role, increased stress and irritability, a tendency to avoid parenting responsibilities, and social isolation (Kafidhoh et al., 2024). Burnout is influenced by internal and external factors, such as lack of social support, role conflict, and individual self-concept (Christiana et al., 2020).

Initial observation results in Beji Krajan Village, East Ungaran District show that several working mothers with young children have difficulty dividing their time between work and care, feel overwhelmed by their daily routines, and experience physical and emotional fatigue. This condition shows an indication of caregiving burnout due to the pressure of multiple roles. This location was chosen because the village is located close to an industrial area where most of the population, especially mothers, work as factory workers or in other informal sectors.

Most of the working mothers in Beji Krajan Village work as factory workers with a shift system and long working hours. Apart from that, there are mothers who work in the informal sector such as trading, daily workers with irregular working hours. These job characteristics cause limited parenting time and increase psychological pressure due to multiple role demands. The criteria for selected respondents were mothers who had dual roles as caregivers and workers, lived in Beji Krajan Village, and had children aged 0-6 years.

Caregiving burnout is not only influenced by role demands and environmental conditions, but is also related to several internal factors that the individual has. Research by Mikolajczak et al., (2019) shows that parents are at risk of experiencing burnout when they have limitations in emotional regulation, stress coping strategies, social support, and self-confidence in their ability to face demands. Among these internal factors, one factor that is thought to reduce the risk of burnout is self-efficacy.

This is in line with the social cognitive theory put forward by Bandura (2001) which states that strong self-confidence can reduce vulnerability to stress and depression in demanding situations, as well as strengthen individual resilience in facing difficulties. Self-efficacy is an individual's belief in his or her ability to complete tasks to achieve certain results. Self-efficacy has three main aspects, namely magnitude which includes the level of difficulty of tasks that are believed to be able to be completed, generality which is the scope of beliefs in various situations, and strength which is the steadfastness of beliefs in facing obstacles (Bandura, 1982).

Working and studying from home have been widely reported to cause excessive fatigue among parents due to the increased burden of child care, particularly during the implementation of work-from-home and remote learning policies throughout the COVID-19 pandemic. Although work and school activities have now returned to normal, with in-person activities resuming at educational institutions, the possibility of a resurgence of the pandemic in the future cannot be ruled out; therefore, parents need to learn how to anticipate parental burnout. Research conducted by (Nurillah & Herdiana, 2024) aims to explore the concept of parental burnout, which has become a popular research topic in family studies, particularly during the pandemic. The findings of this conceptual review highlight the characteristics of parental exhaustion that can disrupt parents' mental health, as well as the potential risks children may face due to their parents' exhaustion during the pandemic.

Research conducted by Muliasari & Amalia (2024) shows that parenting self-efficacy contributes to reducing parenting burnout. However, research that specifically examines the relationship between self-efficacy and parenting burnout in working mothers who have children aged 0–6 years is still limited. Working mothers with young children face more intensive caregiving demands as well as dual role pressures between work and caregiving which can increase the risk of caregiving burnout. Therefore, this study aims to determine whether there is a relationship between self-efficacy and parenting burnout in working mothers who have young children.

## **METHODS**

In its implementation, this research uses a quantitative research approach with a non-experimental design, namely correlation research. Correlation analysis aims to measure the relationship between two variables. This research has two variables, namely self-efficacy and

parenting burnout. The research location was carried out in Beji Krajan Village, East Ungaran District, Semarang Regency. The subjects in this study were working mothers who had children aged 0-6 years with a population consisting of 122 respondents. The number of samples in this study was 95 respondents obtained from random sampling techniques using the Slovin formula.

Data collection techniques were carried out through interviews, observation and questionnaires. Interviews were conducted with working mothers who have children aged 0–6 years to explore their experiences of carrying out multiple roles, especially regarding self-efficacy and burnout in parenting. Observations are carried out to observe parenting practices and environments that can influence these two variables. The main data was obtained through a questionnaire with a 4-point Likert scale, namely very suitable, suitable, not suitable, and very not suitable to measure the level of self-efficacy and burnout in respondents. The instrument in this research is the result of a synthesis of several relevant theories. Researchers develop instruments through several stages, namely determining operational definitions of variables, identifying aspects of each variable, compiling indicators, and developing question items according to the indicators that have been determined.

The parenting burnout measuring tool was developed based on two main theoretical sources. First, Pines and Aronson's theory in Kastanya et al., (2022) which focuses on physical fatigue with indicators of decreased energy and physical disturbances, mental fatigue related to looking down on and having negative prejudices, and emotional fatigue related to hopelessness and irritability. Second, Maslach and Jackson's theory in Edú-valsania et al., (2022), which includes depersonalization with indicators of cynicism and withdrawing from responsibility, and a decrease in personal achievement with indicators of low self-esteem and pessimism. The combination of these two theories aims to measure childcare burnout, resulting in 25 statement items based on the results of validity tests. The measurement of self-efficacy in this research was developed based on Bandura's theory (1982) with 3 main aspects. First, the magnitude aspect is measured through the individual's confidence in completing the task. Second, the generality aspect which relates to individual abilities in various situations. Third, the strength aspect which emphasizes individual steadfastness and resilience when facing obstacles. Based on the results of the validity test, it produces 11 statement items that represent the self-efficacy variable.

Data analysis techniques include validity tests and reliability tests to ensure the suitability of the instrument, as well as prerequisite tests using normality tests before hypothesis testing is carried out. Next, test the hypothesis using the Pearson correlation test to determine the relationship between self-efficacy and parenting burnout in working mothers with the help of the SPSS 28.0 for Windows application.

## **RESULT AND DISCUSSION**

### **Result**

The results of the validity test of the parenting self-efficacy and burnout scales were obtained using the SPSS 28.0 for Windows application. An item is considered valid if it shows a calculated  $r$  value  $> r$  table. The number of respondents in this study consisted of 30 people,  $\alpha = 5\%$ , so the  $r$  table was 0,361. The results of the validity test of the parenting burnout scale items consisted of 30 statements, there were 25 statements which were declared valid with a score range of 0,380 to 0,804 and there were 5 statement items which were declared invalid with a score range of 0,026-0,332. Meanwhile, the self-efficacy variable consists of 12

statement items, a valid statement with a score range of 0,386-0,838 which consists of 11 statement items and there is 1 invalid statement with a score of 0,319.

The reliability test results refer to the threshold set by Darma, (2021) on the basis of decision making if the Cronbach's Alpha coefficient value is  $> 0.60$  then the instrument is declared reliable. The reliability test results of the Cronbach's Alpha value were 0,894 on the parenting burnout variable and the value was 0,859 on the self-efficacy variable, so both variables were declared reliable.

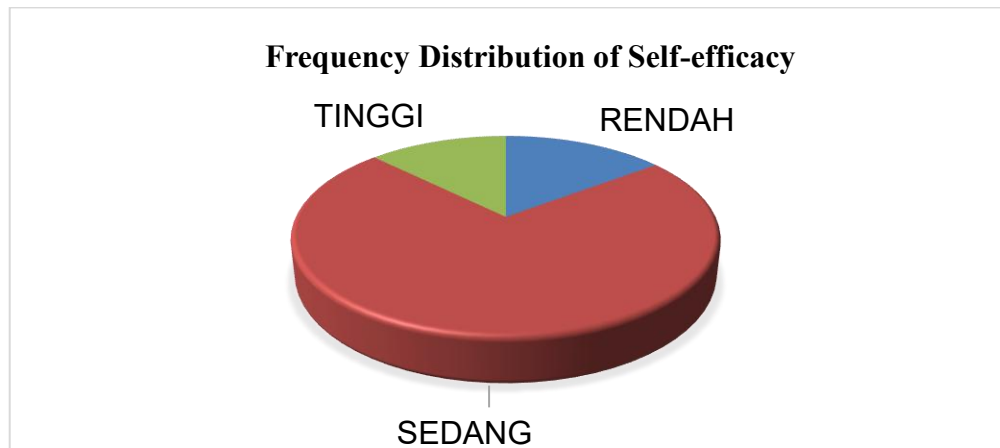


Figure 1. Frequency Distribution Diagram of Self-Efficacy

Next, the researcher carried out a prerequisite test, namely the normality test, to determine whether the data obtained had a normal distribution. In this study, the normality test was carried out using the Kolmogorov-Smirnov test with the condition that if the significance value is greater than 0,05 the data is declared to be normally distributed, and vice versa (Aditiya et al., 2023). Based on the results of the normality test, it shows a significant value of 0,106 for the self-efficacy variable, while the significant value for the parenting burnout variable is 0,098. The results of the normality test using Kolmogorov Smirnov on the self-efficacy and parenting burnout variables showed normal data distribution.

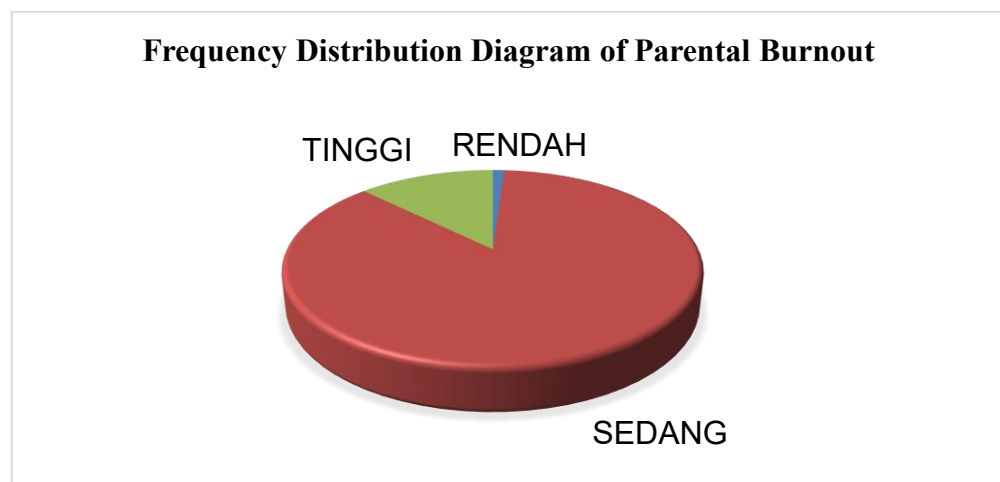


Figure 2. Frequency Distribution Diagram of Parental Burnout

Meanwhile, based on the frequency distribution data for the parental burnout variable, it was found that 86% of the study subjects fell into the moderate category. 13% of subjects

experienced high burnout and 1% experienced low burnout. This indicates that the majority of the study subjects exhibited symptoms of caregiving burnout due to their dual roles.

Next, hypothesis testing was carried out using the Pearson correlation test to measure the strength of the relationship between two variables. The relationship between the self-efficacy variable and the parenting burnout variable can be positive or negative. Decision making is based on the Pearson correlation test. If a significance value  $<0.05$  is obtained then there is a significant relationship between the two variables, and vice versa (Jabnabillah, F., & Margina, 2022).

Table 1. Correlation test results

		Self Efficacy	Burnout Pengasuhan
Self Efficacy	Pearson Correlation	1	-.716
	Sig. (2-tailed)		0,000
	N	95	95
Parenting Burnout	Pearson Correlation	-.716	1
	Sig. (2-tailed)	0,000	
	N	95	95

Based on the table above, it is known that the results of the analysis produce a correlation coefficient showing a sig (2-tailed) value of 0,000 with a Pearson correlation coefficient of -0,716 for 95 respondents. The correlation coefficient value shows that the degree of relationship between the two variables is strongly correlated with a negative relationship direction. Then a decision can be made that the hypothesis is accepted.

## DISCUSSION

Based on data analysis, it can be concluded that there is a significant negative relationship between self-efficacy and parenting burnout in working mothers who have children aged 0-6 years. Which means that the higher the working mother's self-efficacy, the lower the parenting burnout, and vice versa, if the working mother's self-efficacy is low, the higher the parenting burnout. Working mothers who have high self-confidence tend to view challenges as something that can be overcome, not as a burden. This self-confidence ability helps working mothers manage their time, manage their emotions, and find solutions when facing difficulties in parenting. On the other hand, working mothers who have low self-efficacy feel unable to face the demands of multiple roles simultaneously, so they are more likely to experience emotional exhaustion, prolonged stress, and potentially experience parenting burnout.

Self-efficacy acts as a psychological resource that helps working mothers face the stress of parenting. Mothers with high self-efficacy tend to have good emotional regulation skills and effective problem solving skills. This condition makes working mothers better able to face the demands of work and caregiving simultaneously without experiencing excessive fatigue. In addition, mothers with high self-efficacy are also more optimistic in facing parenting obstacles and have the perception that the difficulties they experience are temporary and can be overcome, so that the risk of parenting burnout can be minimized.

These findings are supported by the social cognitive theory of Bandura (2001) which states that strong self-confidence can reduce vulnerability to stress and depression in demanding situations, as well as strengthen individual resilience in facing difficulties. Furthermore Aktu

(2024) explained that self-confidence in parenting can reduce the negative effects of parenting stress on fatigue experienced. This shows that the greater the stress felt in parenting, the higher the possibility of parents experiencing burnout, but this can be overcome if they have a strong belief in their abilities in the parenting role. On the other hand, according to Sugiana et al., (2020) low self-efficacy is closely related to increased parenting stress, which is the main trigger for decreased physical and mental energy in parents accompanying young children.

Research conducted by Mikolajczak et al., (2023) explains that parenting burnout is related to a loss of satisfaction in the parental role and emotional distance from children. This is reinforced by the low generality aspect, where mothers feel incompetent in facing obstacles in various parenting situations. Parenting burnout is not only influenced by high parenting demands, but also by the limited psychological resources that parents have. Self-efficacy is an important psychological resource that can protect mothers from parenting fatigue. When mothers have confidence in their parenting abilities, they tend to be better able to manage role conflicts, set priorities, and maintain emotional involvement with their children. On the other hand, mothers with low self-efficacy are more susceptible to experiencing emotional exhaustion, withdrawing from interactions with their children, and losing satisfaction in carrying out their role as parents.

According to Seetharaman et al., (2022) an individual's inability to carry out parenting routines can trigger a negative view of themselves, which ultimately results in a decrease in psychological well-being. Apart from that, parenting burnout is also influenced by external factors and role conflicts faced by working mothers. This is in line with the initial findings of research based on interviews and observations in Beji Krajan Village, East Ungaran District, which showed that several working mothers with young children experienced difficulty dividing their time between work and care, felt overwhelmed by daily routines, and experienced physical and emotional fatigue due to the demands of multiple roles. This condition shows that pressure from parenting and work can increase the risk of burnout, especially for working mothers who have low self-efficacy.

Apart from internal factors, social support from the work environment and family also acts as a factor that can mediate the relationship between self-efficacy and parenting burnout. Support from partners, family and co-workers can help working mothers reduce the burden of caregiving thereby increasing their confidence in carrying out their role as mothers. When mothers get help in parenting, flexibility in working hours, and emotional support from the surrounding environment, the pressure of multiple roles can be reduced and the risk of burnout becomes lower. On the other hand, a lack of social support can worsen working mothers' conditions, so that even though they have sufficient self-efficacy, continuous pressure can still trigger parenting burnout.

Apriani & Risnawaty, (2020) highlight that the existence of social support can determine the level of self-confidence of working mothers. When mothers experience severe role conflict and lack social support, this will erode their self-concept and beliefs. In conditions of weakened efficacy, small obstacles in parenting can be perceived as a very heavy burden, thus triggering a tendency to withdraw from parenting responsibilities and experience social isolation. These results support the view that parenting self-efficacy not only influences behavior, but also serves as a critical psychological resource. In the context of working mothers,

self-confidence in carrying out their parenting role helps them overcome the pressures of two different roles. Therefore, increasing confidence in parenting may be an important strategy to reduce the risk of parental burnout.

## CONCLUSION

The results of this study show that there is a relationship between self-efficacy and parenting burnout in working mothers who have children aged 0-6 years. Working mothers who have a high level of self-efficacy tend to show strong confidence in their competence in caring for, guiding and making decisions regarding child care. This belief allows individuals to manage the pressure of multiple roles so that the risk of experiencing caregiving burnout can be minimized.

Conversely, low self-efficacy has the potential to contribute to increased caregiving burnout. Lack of confidence in one's own ability to carry out caregiving duties can give rise to feelings of doubt, uncertainty, and ongoing perceptions of inadequacy. Apart from that, there is a lack of social support from family or partner, high job demands, and a lack of information and skills in caring for children. This condition can increase the psychological pressure felt, thereby increasing the possibility of burnout in carrying out the dual role of mother.

The findings in this study show that working mothers who have low self-efficacy tend to be more susceptible to emotional exhaustion, feel incompetent in parenting, and experience difficulty in managing the demands of multiple roles. This shows that self-efficacy not only plays a role in increasing self-confidence, but also functions as an internal factor that can reduce the risk of parenting burnout in working mothers who have children aged 0–6 years. Thus, increasing self-efficacy is an important aspect that needs to be considered in efforts to prevent parenting burnout in working mothers. For future researchers, it is recommended to study on a larger number of subjects, other factors that can influence parenting burnout in working mothers, and use different research methods.

## REFERENCES

- Aditiya, N. Y., Evani, E. S., & Maghfiroh, S. (2023). Konsep uji asumsi klasik pada regresi linier berganda. *Jurnal Riset Akuntansi Soedirman*, 2(2), 102–110. <https://doi.org/10.32424/1.jras.2023.2.2.10792>
- Aeni, R., Sholihah, W. M., Aphrodiety, M., & Arsyad, A. (2024). Implikasi Peran Ganda Istri terhadap Keharmonisan Keluarga. *Qadauna: Jurnal Ilmiah Mahasiswa Hukum Keuangan Islam*, 5(1), 419–437.
- Aktu, Y. (2024). The role of parenting stress on parenting self-efficacy and parental burnout among Turkish parents : a moderated mediation model. *BMC Psychology*, 12(475). <https://doi.org/https://doi.org/doi.org/10.1186/s40359-024-01980-7>
- Apriani, I., & Risnawaty, W. (2020). *Parenting Self-Efficacy Among Full-Time Working Mothers in Jabodetabek*. 478(Ticash), 508–513. <https://doi.org/10.2991/assehr.k.201209.078>
- Badan Pusat Statistik. (2024). *Tingkat Partisipasi Angkatan Kerja Menurut Jenis Kelamin*.
- Bandura, A. (1982). *Self-Efficacy Mechanism in Human Agency*. 37(2), 122–147.
- Bandura, A. (2001). Social cognitive theory : An agentic perspective. *Annual Review of Psychology*, 52, 1–26.
- Bogdán, P. M., Varga, K., Tóth, L., Gróf, K., & Pakai, A. (2025). Parental Burnout : A

- Progressive Condition Potentially Compromising Family Well-Being — A Narrative Review. *Healthcare*, 13(13), 1603. <https://doi.org/10.3390/healthcare13131603>
- Christiana, E., Surabaya, N., Lidah, J., Surabaya, W., Timur, J., & Penulis, I. \*. (2020). *Burnout Akademik Selama Pandemi Covid 19. Prosiding Seminar Nasional Bimbingan Dan Konseling Mengukuhkan Eksistensi Peran BK Pasca Pandemi Covid-19*.
- Darma, B. (2021). *Statistika Penelitian Menggunakan SPSS*. Guepedia.
- Edú-valsania, S., Laguía, A., & Moriano, J. A. (2022). Burnout: A Review of Theory and Measurement. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/https://doi.org/10.3390/ijerph19031780>
- Edú-valsania, S., Laguía, A., & Moriano, J. A. (2022). Burnout: A Review of Theory and Measurement. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/10.3390/ijerph19031780>
- Jabnabillah, F., & Margina, N. (2022). Analisis korelasi pearson dalam menentukan hubungan antara motivasi belajar dengan kemandirian belajar pada pembelajaran daring. *Jurnal Sintak*, 1(1), 14–18. <https://journal.iteba.ac.id/index.php/jurnalsintak/article/view/23>
- Kafidhoh, S., Zahra, S., & Ade Mela, D. (2024). Parental Burnout dan Peran Spiritual dalam Perspektif Al-qur'an (Pendampingan Kelompok Arisan Taman Melati Sawangan Depok). *Journal.Stai-Nuruliman.Ac.Id*, 2(2).
- Kameli, E., & Julisatuna, I. (2023). Faktor-Faktor yang Memotivasi Partisipasi Kerja Ibu Rumah Tangga dalam Meningkatkan Ekonomi Keluarga 12. *Jurnsl Ekonomi & Bisnis*, 11, 9–19. <https://doi.org/https://doi.org/10.58406/jeb.v11i1.1149>
- Karimah, N., & Afriannisyah, E. (2024). Pengaruh Ibu Bekerja terhadap Pertumbuhan Anak. *Jurnal Kebidanan Besurek*, 9(2), 10–18. <https://doi.org/https://doi.org/10.51851/jkb.v9i2.614>
- Kastanya, L., & , Putu Aninditha Veera Lakshmi, S. C. (2022). Kepribadian (Big Five Personality) dan Burnout Pada Karyawan Bekerja dari Rumah (Working From Home/WFH) Era Pandemi Covid-19. *PSIKODIMENSIA Kajian Ilmiah Psikologi*, 21(2). <https://doi.org/10.24167/psidim.v21i2.4605>
- Mikolajczak, M., Aunola, K., Sorkkila, M., & Roskam, I. (2023). 15 years of parental burnout research : Systematic review and agenda. In: *Current Directions in Psychological Science*, 32(4), 276–283.
- Mikolajczak, M., James, J. G., & Isabelle, R. (2019). *Running head: Parental Burnout: What Is It and Why Does It Matter?* 1–32.
- Muliasari, A., & Amalia, S. (2024). Pengaruh dukungan sosial dan parenting self-efficacy terhadap parental burnout pada ibu bekerja. *Cognicia*, 12(1), 60–66. <https://doi.org/10.22219/cognicia.v12i1.30450>
- Nurillah, A. H., & Herdiana, I. (2024). *The Pandemic and Parental Mental Health : A Conceptual Review of Parental Burnout Pandemi dan Kesehatan Mental Orang Tua : Tinjauan konsep mengenai Parental Burnout*. 12(2), 244–252.
- Seetharaman, M., Benjamin, A., Mcgrath, J. M., & Vance, A. J. (2022). International Journal of Nursing Studies Advances Parenting self-efficacy instruments for parents of infants and toddlers : A review. *International Journal of Nursing Studies Advances*, 4. <https://doi.org/10.1016/j.ijnsa.2022.100082>
- Setyoroso, H. P., & Astuti, H. P. (2021). The Effect of Self-Regulations of Housewife on the Burnout in Child Care. *Early Childhood Education Papers*, 10(2), 132–138. <https://doi.org/http://dx.doi.org/10.15294/belia.v10i2.37093>
- Sugiana, S., Sasmiasi, S., & Yulistia, A. (2020). *Indonesian Journal of Early Childhood Relationship Between Parenting Self Efficacy and Parenting Stress on Parents to Support Early Children Playing at Home*. 9(2), 124–129.
- Sukanti, N. D. (2022). Perempuan dengan Peran Ganda dalam Rumah Tangga. *Saree: Research*

*in Gender Studies*, 4(1), 25–37. <https://doi.org/https://doi.org/10.47766/saree.v3i2.632>