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Hubungan antara Resiliensi dan Kelelahan pada Pasien Kanker yang Menjalani Kemoterapi

The Relationship Between Resilience and Fatigue Among Cancer Patients Undergoing Chemotherapy

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ABSTRACT

Cancer is a non-communicable disease that is the leading cause of death in the world, including Indonesia. One of the main treatments for cancer is chemotherapy, which although effective, often causes severe side effects, one of which is fatigue. Fatigue in cancer patients not only affects the physical, but also emotional and mental. In dealing with this condition, resilience plays an important role. Resilience can help patients survive, adapt, and stay enthusiastic about undergoing treatment.

This study is a quantitative study with a cross-sectional approach, using The Connor-Davidson Resilience Scale (CD-RISC) questionnaire on the resilience variable and the Fatigue Assessment Scale (FAS) questionnaire on the Fatigue variable. The sampling technique is non-probability sampling by consecutive sampling. The number of samples is 132 respondents in cancer patients undergoing chemotherapy at Baladhika Husada Hospital, Jember. Data analysis uses univariate analysis with the Spearman rank.

The results of the study showed that respondents who had poor resilience and severe fatigue were 15 (11.4%), moderate resilience and moderate fatigue were 41 (31.1%), and good resilience and mild fatigue were 33 (25%). The results of the Spearman rank test analysis obtained a p value of 0.000 <α (0.05) and the contingency value was equal to -0.465, meaning a moderate relationship with a negative correlation direction.

There is a significant relationship between resilience and fatigue in cancer patients undergoing chemotherapy at Baladhika Husada Hospital, Jember.

Keywords: *Cancer; Chemotherapy; Fatigue; Resilience; Psychological*

ABSTRAK

Kanker merupakan penyakit tidak menular yang menjadi salah satu penyebab utama kematian di dunia, termasuk di Indonesia. Salah satu terapi utama pada kanker adalah kemoterapi yang, meskipun efektif, sering menimbulkan efek samping berat, salah satunya adalah kelelahan. Kelelahan pada pasien kanker tidak hanya berdampak pada kondisi fisik, tetapi juga pada aspek emosional dan mental. Dalam menghadapi kondisi tersebut, resiliensi memiliki peran penting. Resiliensi dapat membantu pasien untuk bertahan, beradaptasi, dan tetap memiliki semangat dalam menjalani pengobatan.

Penelitian ini merupakan penelitian kuantitatif dengan pendekatan cross-sectional. Instrumen yang digunakan adalah Connor-Davidson Resilience Scale (CD-RISC) untuk mengukur variabel resiliensi dan Fatigue Assessment Scale (FAS) untuk mengukur variabel kelelahan. Teknik pengambilan sampel menggunakan non-probability sampling dengan metode consecutive sampling. Jumlah sampel sebanyak 132 responden pada pasien kanker yang menjalani kemoterapi di RS Tingkat III Baladhika Husada Jember. Analisis data dilakukan secara univariat dan bivariat menggunakan uji korelasi Spearman rank.

Hasil penelitian menunjukkan bahwa responden dengan resiliensi rendah dan kelelahan berat sebanyak 15 orang (11,4%), resiliensi sedang dan kelelahan sedang sebanyak 41 orang (31,1%), serta

resiliensi tinggi dan kelelahan ringan sebanyak 33 orang (25%). Hasil uji korelasi Spearman rank menunjukkan nilai p = 0,000 (< α = 0,05) dengan nilai koefisien korelasi sebesar -0,465, yang menunjukkan hubungan sedang dengan arah korelasi negatif.

Terdapat hubungan yang signifikan antara resiliensi dan kelelahan pada pasien kanker yang menjalani kemoterapi di RS Tingkat III Baladhika Husada Jember.

Kata Kunci: Kanker, Kemoterapi, Fatigue; Resiliensi, Psychological

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Key Findings

- ⇒ Resilience is significantly associated with fatigue levels among cancer patients undergoing chemotherapy.
- ⇒ Higher resilience is related to lower perceived fatigue, indicating a negative relationship between psychological adaptation and treatment-related exhaustion.
- ⇒ Strengthening resilience may be an important psychosocial strategy to reduce fatigue and improve overall well-being in patients receiving chemotherapy.

Introduction

Cancer is a non-communicable disease and remains one of the leading causes of mortality worldwide, including in Indonesia (Azmi et al., 2020). It is characterized by the uncontrolled growth of abnormal cells that may form malignant tumors and disrupt normal body functions. Chemotherapy is one of the most commonly used treatment modalities for cancer, administered either intravenously or orally using cytostatic agents. Although chemotherapy has been shown to improve survival outcomes, it is frequently associated with various adverse effects that can significantly impair patients' physical, psychological, and functional well-being (Wahyu et al., 2022).

According to the International Agency for Research on Cancer (IARC), global cancer incidence reached approximately 20 million cases in 2022, with 9.7 million cancer-related deaths. Lung cancer accounted for the highest proportion of cases (12.4%), followed by breast cancer in women (11.6%), colorectal cancer (9.6%), prostate cancer (7.3%), and colon cancer (4.9%). In Indonesia, data from GLOBOCAN 2020 indicated that breast cancer ranked first (16.6%), followed by cervical cancer (9.2%) and lung cancer (8.8%). In East Java, cancer prevalence reached 22.2%, while Jember Regency reported a prevalence of 7.8% (Globocan, 2020; East Java Health Office, 2023; Harris et al., 2024). Preliminary interviews conducted at Baladhika Husada Level III Hospital, Jember, revealed that cancer patients undergoing chemotherapy commonly experienced side effects such as nausea, vomiting, alopecia, anemia, oral ulcers, pain, and fatigue.

Among the various side effects of chemotherapy, fatigue is one of the most prevalent and distressing symptoms. Chemotherapy-induced fatigue has been

reported to affect between 25% and 99% of patients during treatment, with approximately 75% of patients receiving chemotherapy as an initial treatment reporting moderate to severe fatigue (Weis et al., 2017). Cancer-related fatigue (CRF) is defined as a persistent, subjective sense of physical, emotional, and cognitive exhaustion related to cancer or its treatment, which is not proportional to recent activity and interferes with usual functioning (Baky et al., 2017). If not adequately managed, fatigue may negatively impact cognitive performance, emotional stability, social interaction, and the ability to perform daily activities, thereby reducing overall quality of life (Menga et al., 2021; Suwardianto et al., 2025).

Fatigue in cancer patients is a multifactorial phenomenon influenced not only by physical factors but also by psychological conditions. Psychological factors such as anxiety, stress, emotional distress, depression, insomnia, reduced physical activity, and decreased resilience have been identified as significant contributors to fatigue among patients undergoing chemotherapy (Amelia et al., 2022). Resilience, in particular, plays a crucial role in determining how patients adapt to the physical and emotional challenges associated with cancer and its treatment.

Resilience refers to an individual's capacity to cope effectively with stress, adversity, and life challenges while maintaining or improving psychological well-being (Wu et al., 2020). Patients with higher levels of resilience tend to demonstrate better emotional regulation, optimism, self-efficacy, and adaptive coping strategies, which enable them to endure treatment-related stressors without prolonged negative emotional responses (Herninalndalri et al., 2023). Resilience is influenced by both internal factors—such as spirituality, self-esteem, optimism, and self-acceptance—and external factors, including social support (Safitri et al., 2024).

Despite the high prevalence of fatigue among cancer patients undergoing chemotherapy, research examining the relationship between resilience and fatigue, particularly in the Indonesian context, remains limited. Understanding this relationship is essential for developing holistic nursing interventions aimed at enhancing psychological resilience and reducing fatigue, thereby improving patient outcomes and quality of life. Therefore, this study aims to examine the relationship between resilience and fatigue among cancer patients undergoing chemotherapy.

Methods

Design, Participants, and Setting

This study employed a quantitative research method. The study utilized a correlational research design with a cross-sectional approach to examine the relationship between resilience and fatigue among cancer patients undergoing chemotherapy. The population of this study consisted of 211 cancer patients undergoing chemotherapy at Baladhika Husada Hospital, Jember. The sample size was determined using the Slovin formula with a margin of error of 5% (d = 0.05), resulting in a total of 132 respondents. Participants were selected using a non-probability sampling technique with consecutive sampling. The inclusion criteria were cancer patients who had

undergone at least one chemotherapy session, were aged over 18 years, had full mental awareness (*compos mentis*), and were willing to participate by completing the questionnaire. The exclusion criteria included cancer patients with physical disabilities that could interfere with questionnaire completion, such as hearing impairment, deafness, or severe physical disabilities.

Instruments

Resilience was measured using the Connor–Davidson Resilience Scale (CD-RISC), which has demonstrated good validity and reliability. The validity test showed a calculated r value of 0.539, while internal consistency reliability yielded a Cronbach's alpha coefficient of 0.917. The questionnaire consists of 25 items, with total scores categorized as poor (1–41), moderate (42–83), and high (84–125). Fatigue was assessed using the Fatigue Assessment Scale (FAS), which has been tested for validity and reliability with a significance value of <0.05 and a Cronbach's alpha coefficient of 0.880, indicating good reliability. The FAS consists of 10 items, with total scores classified as low (10–16), moderate (17–33), and high fatigue (34–50 (**Table 1**, **Table A1 and Table A2**).

Table 1. Instrumen, Indikator, Butir, dan Interpretasi Skor

Instruments	Indicator	Item	Interpretation
Connor–Davidson Resilience Scale (CD-RISC)	1. Personal competence, high standards, and tenacity 2. Trust in one's instincts and tolerance of negative affect 3. Positive acceptance of change and secure relationships with others 4. Control and spiritual influences	The questionnaire consists of 25 items	1. poor (1–41), 2. moderate(42–83), and 3. high (84–125).
Fatigue Assessment Scale (FAS),	1. Frequency of fatigue 2. Intensity of fatigue 3. Duration of fatigue 4. Impact of fatigue on daily activities	The questionnaire consists of 10 items	1. 10–21 = No fatigue 2. 22–34 = Moderate fatigue 3. ≥35 = Severe fatigue

Data Collection and Analysis

Data were analyzed using the Spearman rank correlation test to determine the relationship between resilience and fatigue among the respondents. The study was conducted from March to April 2025 at Baladhika Husada Hospital, Jember.

Ethical Approval

Ethical approval for this study was obtained from the Health Research Ethics Committee, and the study was declared ethically appropriate under approval number 736/KEPK/UDS/II/2025. Institutional permission was granted by the Head of Baladhika Husada Level III Hospital with reference number B/251/III/2025.

Results

Table 2. Responden Characteristic

Category	Frequency(n)	(%)
Age		
Early Adulthood (18-40)	18	13,6%
Middle Adulthood (41-60)	79	59,8%
Older Adulthood (>60)	35	26,5%
Gender		
Male	31	23,5%
Female	101	76,5%
Education Background		
Not School	14	10,6%
Elementery School	54	40,9%
Junior High School	30	22,7%
Senior High School	22	16,7%
University	12	9,1%
Status		
Single	4	3%
Married	113	85,6%
Widowed/Widower	15	11,4%
Frequency Kemotherapy		
1 – 3x	75	56,8%
4 – 6x	49	37,1%
>6x	8	6,1%
Cancer Stages		
Stage 1	19	14,4%
Stage 2	66	50%
Stage 3	44	33,3%
Stage 4	3	2,3%
Duration of Suffering		
< 1 Year	98	74,2%
> 1 Year	34	25,8%

Table 2. Respondent characteristics above can be seen that of the 132 respondents, the majority are aged 41-60 (Middle Adults) as many as 79 people (59.8%). In terms of gender, the majority of respondents are female as many as 101 people (76.5%). Based on the level of the last education level, the majority of respondents had elementary school education as many as 54 people (40.9%). In terms of marital status, the majority of respondents were married as many as 113 people (85.6%). The frequency of chemotherapy for respondents, the majority of respondents underwent 1-4x chemotherapy with a total of 85 people (64.4%). Based on the stage of cancer, the majority of respondents were diagnosed with stage 2, as many as 66 people (50%), and the majority of respondents had suffered from cancer for <1 year as many as 98 people (74.2%).

Table 3 Distribution of Cancer Patients Based on Resilience and Fatigue Variables

Variable Categories	**Frequency(n)**	**(%)**
Resilience		
Poor	20	15,2%
Moderate	55	41,7%
Good	57	43,2%
Fatigue		
Mild	38	28,8%
Moderate	55	41,7%
Severe	39	29,5%

Table 3 In the distribution data of the resilience variable, the majority of respondents had good resilience, as many as 57 people (43.2%), while in the fatigue variable, the majority of respondents experienced moderate fatigue, as many as 55 people (41.7%).

Table 4 Cross-tabulation between resilience and fatigue in cancer patients undergoing chemotherapy

	Fatigue							
Resilience	Mild		Moderate		Severe		Total	
	N	%	N	%	N	%	N	%
Poor	3	2,3%	2	1,5%	15	11,4%	27	15,2%
Moderate	2	1,5%	41	31,1%	12	9,1%	55	41,7%
Good	33	25%	12	9,1%	12	9,1%	20	43,2%
Total	38	28,8%	55	41,7%	39	29,5%	132	100%
Spearman Rank				**Asymp. Sig. =.000**				
Symmetric Measures				***Contingency Coefficient* = - 0,465**				

Table 4. Cross tabulation between Resilience and fatigue in cancer patients undergoing chemotherapy can be seen that out of 132 respondents, 15 (11.4%) had poor resilience and severe fatigue, 41 (31.1%) had moderate resilience and moderate fatigue, and 33 (25%) had good resilience and mild fatigue. The Spearman rank test results obtained a p value (0.000) ≤ α (0.05) so H0 was rejected with a correlation coefficient value of -0.465 which means there is a significant relationship between resilience and fatigue with a negative correlation direction, which means the better a person's resilience level, the fatigue level will tend to decrease.

Discussion

Resilience in Cancer Patients Undergoing Chemotherapy

The findings of this study indicate that the majority of respondents demonstrated good resilience. This was reflected in participants' responses to the resilience questionnaire, in which most respondents agreed or strongly agreed with statements related to perseverance, optimism, self-efficacy, emotional regulation, and the ability to adapt to change. These characteristics suggest that patients were able to exert maximal effort, maintain confidence in their abilities, manage stress effectively, and recover from adversity during chemotherapy.

These findings are consistent with previous studies reporting high levels of resilience among cancer patients undergoing chemotherapy. Baraqbah and Hatta (2017) found that most respondents exhibited good resilience, indicating effective adaptation to stressors and treatment-related challenges. Similarly, a study conducted at Ulin Regional Hospital, Banjarmasin, reported that 75% of cancer patients demonstrated high resilience (Eka et al., 2017). Resilience is widely recognized as an individual's capacity to recover and grow following exposure to adversity, playing a critical role in buffering the negative effects of stress and illness (Kadek et al., 2023).

Research conducted at Sanglah General Hospital, Denpasar, further supports these findings, showing that cancer patients undergoing

chemotherapy were able to maintain a balance between individual and environmental protective factors. Individual factors, such as positive attitudes and self-control, combined with environmental support, contributed to adaptive coping and enhanced resilience during treatment (Dwi et al., 2017). This adaptive capacity reflects the patients' ability to maintain psychological stability despite prolonged physical stress.

In the present study, most respondents were married, indicating the presence of family support during the treatment process. Family support has been identified as a key determinant of resilience in cancer patients, as it provides emotional encouragement, motivation, and practical assistance during chemotherapy. Firdaus (2024) reported that 91.8% of patients with strong family support demonstrated good resilience. Support from family members enhances patients' motivation to persist with treatment and mitigates emotional distress, thereby promoting psychological well-being (Chandra et al., 2024).

Individuals with high resilience generally possess effective coping strategies, emotional stability, and optimism, allowing them to manage stress without prolonged negative emotional responses. Based on these findings, it can be concluded that cancer patients undergoing chemotherapy at Baladhika Husada Hospital, Jember, generally exhibited good resilience, reflecting a strong ability to adapt to both physical and emotional stressors during treatment. Self-confidence and emotional maturity appear to play essential roles in strengthening psychological resilience, enabling patients to maintain a positive outlook despite challenging circumstances.

Fatigue in Cancer Patients Undergoing Chemotherapy

The results of this study revealed that the majority of respondents experienced moderate to severe fatigue. Specifically, 41.7% of patients reported moderate fatigue, while 29.5% experienced severe fatigue. These findings indicate that fatigue is a prevalent and clinically significant symptom among patients undergoing chemotherapy, often interfering with daily activities and functional capacity. Severe fatigue, in particular, was associated with substantial limitations in physical and mental functioning, reflecting the cumulative burden of prolonged cancer treatment.

These findings are consistent with previous studies. Dahlia (2019) reported that 50% of respondents experienced moderate fatigue and 42.4% experienced severe fatigue during chemotherapy. Nugroho (2017) similarly found a high prevalence of moderate fatigue among cancer patients. Moderate to severe fatigue has been identified as a major factor contributing to treatment discontinuation, particularly among breast cancer patients undergoing chemotherapy (Muthanna et al., 2021).

In this study, a smaller proportion of respondents (28.8%) reported mild fatigue, suggesting that some patients were able to manage treatment-related fatigue without significant disruption to daily activities. This variation in fatigue severity may be influenced by individual characteristics and coping mechanisms. Age was identified as a potential contributing factor, with most respondents aged between 41 and 60 years. According to Fitriani et al. (2024),

age independently influences fatigue levels, as individuals in this age group often experience additional social and familial responsibilities that may exacerbate physical and emotional exhaustion. Additionally, most respondents were diagnosed with stage II cancer, which aligns with findings by Savina and Zaydine (2019) indicating that cancer stage significantly influences the intensity of cancer-related fatigue, with higher stages associated with greater fatigue severity.

Beyond physical factors, psychological conditions play a substantial role in the development of fatigue. Emotional distress, anxiety, depression, and stress have been shown to intensify fatigue among cancer patients undergoing chemotherapy (Amelia et al., 2022). Although family support can enhance coping, severe fatigue may still occur due to other contributing factors such as comorbidities, genetic predisposition, and cumulative psychological stress (Agustina et al., 2020). These findings highlight the need for comprehensive management strategies addressing both physical and psychological aspects of fatigue.

The Relationship between Resilience and Fatigue

The results of the Spearman rank correlation analysis demonstrated a statistically significant relationship between resilience and fatigue among cancer patients undergoing chemotherapy ($p < 0.005$). Patients with higher resilience tended to experience lower levels of fatigue, whereas those with lower resilience were more likely to report moderate to severe fatigue. This finding supports the hypothesis that psychological resilience plays a protective role against cancer-related fatigue.

Cancer treatment often prioritizes physical outcomes, while psychological well-being receives less attention. However, psychological health is a critical determinant of patients' ability to cope with treatment-related stress and fatigue (Antari et al., 2023). Chemotherapy not only affects physical functioning but also significantly influences emotional and psychological responses, including stress, anxiety, and emotional exhaustion (Yunita et al., 2017). Similar findings have been reported in previous studies, indicating that cancer patients commonly experience concurrent physical and psychological distress during chemotherapy (Agustina et al., 2020).

Resilience enables individuals to reinterpret adverse experiences, manage stress effectively, and maintain emotional balance during illness (Ulfah et al., 2018). Patients with low resilience often struggle to cope with pain, emotional distress, and treatment-related stressors, resulting in increased physical and psychological fatigue. In contrast, higher resilience facilitates adaptive coping, emotional regulation, and sustained motivation, thereby reducing fatigue severity and supporting recovery (Hayuningrum et al., 2022).

Fatigue in cancer patients is a persistent condition that does not resolve with rest and is closely linked to both physical exhaustion and psychological distress (Supriyanti et al., 2024). Prolonged fatigue can lead to decreased motivation, increased anxiety and depression, and reduced quality of life (Amelia et al., 2022). Resilience plays a crucial role in mitigating these

effects by enhancing patients' capacity to manage stress, regulate emotions, and remain engaged in daily activities (Öcalan et al., 2022).

In the present study, most respondents demonstrated good resilience, suggesting that psychological adaptation contributed to lower fatigue levels among this group. These findings indicate that strengthening resilience may serve as an effective strategy to reduce fatigue, improve quality of life, and support overall well-being in cancer patients undergoing chemotherapy. Therefore, resilience-based interventions should be considered an integral component of comprehensive cancer care.

Conclusion

This study concludes that there is a significant moderate relationship between resilience and fatigue in cancer patients undergoing chemotherapy. Patients with lower levels of resilience tend to experience greater physical and psychological fatigue. Conversely, better resilience is associated with lower fatigue levels, indicating its important role in helping patients cope with the physical and emotional effects of chemotherapy. Therefore, strengthening resilience may contribute to reducing fatigue and improving the overall well-being of cancer patients undergoing chemotherapy.

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Conflict of Interest

There is no conflict of interest.

Author Contribution

Maylafasta Rismawanti: Conceptualization, Methodology, Investigation, Data Collection, Data Analysis, Writing – Original Draft.

Hendra Dwi Cahyono: Supervision, Methodology Review, Validation, Writing – Review & Editing, Final Approval.

Anita Fatarona: Data Curation, Visualization, Interpretation of Results, Writing – Review & Editing.

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Appendix

Table A1. Instrumen Kuesioner Resiliensi-The Connor Davidson Resilience Scale (CD-RISC)

Petunjuk Pengisian

1. Isilah dan berilah tanda centang (✓) jawaban yang menurut anda paling tepat
2. Jawablah pertanyaan-pertanyaan berikut dengan benar dan jujur.
3. Jawaban yang anda berikan tidak akan dipakai untuk kepentingan diluar penelitian ini. Jawaban yang anda berikan bersifat rahasia.

   Keterangan :

   1. Sangat Tidak Benar (STB)
   2. Hampir Tidak Benar (HTB)
   3. Kadang – kadang Benar (KB)
   4. Hampir Seringkali Benar (HSB)
   5. Seringkali Benar (SB)

No	Pernyataan	STB	HTB	KB	HSB	SB
1	Saya mampu menyesuaikan diri terhadap berbagai perubahan					
2	Saya menjalin hubungan yang dekat dan nyaman bersama orang lain					
3	Saya merasa takdir tuhan dapat menolong					
4	Saya dapat menghadapi berbagai hal yang terjadi					
5	Keberhasilan saya di masa lalu memberikan kepercayaan diri pada tantangan yang baru					
6	Saya dapat melihat sisi humor dari segala sesuatu					
7	Berhadapan dengan masalah membuat diri saya menjadi kuat					
8	Saya cenderung untuk bangkit Kembali setelah mengalami sakit atau kesulitan					
9	Ada alasan dibalik segala sesuatu yang terjadi kepada saya					
10	Apapun yang terjadi saya melakukan usaha yang terbaik					
11	Saya yakin dapat meraih tujuan					
12	Saya pantang menyerah ketika segala sesuatu tampak tidak ada harapan					
13	Saya tahu dimana harus meminta tolong					

No	Pernyataan	STB	HTB	KB	HSB	SB
14	Ketika dalam situasi yang menekan saya mampu tetap fokus dan berfikir jernih					
15	Saya memilih berinisiatif dalam menyelesaikan berbagai masalah					
16	Saya tidak mudah putus asa					
17	Saya memandang diri sendiri sebagai pribadi yang kuat					
18	Saya mampu membuat keputusan yang sulit					
19	Saya dapat mengatasi perasaan yang tidak menyenangkan					
20	Saya harus mampu bertidak sesuai dengan firasat					
21	Saya memili keyakinan yang kuat dalam mencapai tujuan					
22	Saya dapat mengendalikan hidup					
23	Saya menyukai tantangan					
24	Saya bekerja untuk mencapai tujuan					
25	Saya bangga akan prestasi yang dicapai					

Interpretasi Skor :

1) Skor 1 – 41 : Buruk
2) Skor 42 – 83 : Sedang
3) Skor 84 – 125 : Baik

Table A2 Kuesioner *Fatigue* Menggunakan FAS (*Fatigue Asessment Scale*)

Petunjuk Pengisian

1. Isilah dan berilah tanda centang (✓) jawaban yang menurut anda paling tepat
2. Jawablah pertanyaan-pertanyaan berikut dengan benar dan jujur.
3. Jawaban yang anda berikan tidak akan dipakai untuk kepentingan diluar penelitian ini. Jawaban yang anda berikan bersifat rahasia.

No	Pernyataan	Tidak Pernah (1)	Kadang-kadang (2)	Dirasakan secara teratur (3)	Sering dialami (4)	Selalu dialami (5)
1	Saya sangat terganggu dengan rasa lelah yang saya rasakan					
2	Saya mudah merasa lelah					
3	Saya tidak banyak menggunakan kegiatan disiang hari					
4	Saya merasa memiliki energi yang cukup untuk melakukan aktivitas harian saya					
5	Secara fisik saya merasa lelah					
6	Saya merasa sulit untuk memulai mengerjakan sesuatu					
7	Saya merasa kesulitan untuk berpikir secara jernih					
8	Saya merasa malas untuk melakukan berbagai kegiatan					
9	Secara mental saya merasa lelah					
10	Ketika saya sedang melakukan kegiatan, saya dengan mudah berkonsentrasi					

Interpretasi skor:

1. Skor 1 – 16 : Baik
2. Skor 17 – 33 : Sedang
3. Skor 34 – 50 : Buruk