

**LITERATURE REVIEW**  
**PROGRESSIVE MUSCLE RELAXATION ON STRESS RESPONSE IN**  
**PATIENT WITH TYPE II DIABETES MELLITUS**

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**ABSTRACT**

**Background:** Diabetes Mellitus is a chronic disease that occurs because the body cannot produce insulin or cannot use insulin effectively. Patients with diabetes mellitus are very susceptible to stress, persistent stress causes a stress response in the form of activation of the sympathetic nervous system and an increase in cortisol. This cortisol will increase the conversion of amino acids, lactate, and pyruvate in the liver to glucose through the process of gluconeogenesis, thus stress will increase blood glucose levels. This study literature review aims to determine the effect of progressive muscle relaxation on the stress response of type 2 diabetes mellitus sufferers

**Method:** This type of research is a literature review with a literature study research design. The search was carried out using a health research database through Pubmed, Science Direct, Portal Garuda, and Google Scholar from 2015 to 2020.

**Results:** In this literature review, it was found that there was a significant effect of progressive muscle relaxation on the stress response of type 2 diabetes mellitus sufferers with an average p value of 13 journals, namely 0.002 ( $P < 0.05$ ). At the stress level of type 2 diabetes mellitus patients, an average p value of 3 journals is 0.005, which means that there is an effect of PMR techniques on the stress of type 2 DM patients.

**Conclusion:** Progressive Muscle Relaxation (PMR) is a relaxation that focuses on the patient's attention in differentiating muscle activity when relaxing from the condition of the muscles during contraction. PMR exercises that are carried out 25-30 minutes 3 times a day for 3 consecutive days can reduce the stress response in type 2 DM patients

**Keywords:** Progressive Muscle Relaxation, Stress, and Diabetes Mellitus

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**REVIEW LITERATURE**  
**PROGRESSIVE MUSCLE RELAXATION TERHADAP RESPON STRES**  
**PASIE DIABETES MELLITUS TIPE 2**

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**ABSTRAK**

**Latar Belakang:** Diabetes Mellitus adalah penyakit kronis yang terjadi karena tubuh tidak dapat memproduksi insulin atau tidak dapat menggunakan insulin secara efektif. Penderita diabetes mellitus sangat rentan akan stress, stress yang menetap menimbulkan respon stress berupa aktivasi system saraf simpatis dan peningkatan kortisol. Kortisol ini akan meningkatkan konversi asam amino, laktat, dan piruvat di hati menjadi glukosa melalui proses gluconeogenesis, dengan demikian stress akan meningkatkan kadar glukosa darah. Studi *review literature* ini bertujuan untuk mengetahui pengaruh *progressive muscle relaxation* terhadap respon stress penderita diabetes mellitus tipe 2.

**Metode:** Jenis penelitian ini adalah *review literature* dengan desain penelitian studi pustaka. Penelusuran dilakukan menggunakan database penelitian kesehatan melalui *Pubmed*, *Science Direct*, *Portal Garuda*, dan *Google Scholar* dari tahun 2015 sampai 2020.

**Hasil:** Dalam literature review ini didapatkan hasil bahwa terjadi pengaruh yang signifikan *progressive muscle relaxation* terhadap respon stress penderita diabetes mellitus tipe 2 dengan rata-rata nilai *p value* 13 jurnal yaitu 0,002 ( $P < 0,05$ ). Pada tingkat stress penderita DM tipe 2 juga didapatkan rata-rata *p value* 3 jurnal yaitu 0,005 dapat diartikan bahwa terdapat pengaruh teknik PMR terhadap stress pasien DM tipe 2.

**Kesimpulan:** *Progressive Muscle Relaxation* (PMR) adalah relaksasi yang berfokus pada perhatian pasien dalam membedakan aktivitas otot ketika bersantai dibandingkan kondisi otot saat kontraksi. Latihan PMR yang dilakukan 25-30 menit 3 kali sehari selama 3 hari berturut-turut dapat menurunkan respon stress pada pasien DM tipe 2.

**Kata Kunci:** *Progressive Muscle Relaxation*, Stress, dan Diabetes Mellitus

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