

Impact of Psychological Distress on Clinical and Patients' Reported Outcomes and its Associated Drug-Related Problems among Warfarin Patients

Muhammad Zahid IQBAL¹, Saad Saeed ALQAHTANI², Salah-Ud-Din KHAN³, Saeed VOHRA⁴, Rafiuddin MOHAMMED⁵, Naeem MUBARAK¹, Sadaf FAROOQUI⁶, Yaman Walid KASSAB⁷, Abdullah K. ALAHMARI⁸, Saad ALDOSARI⁸, Yahya Mansour SHAFIE⁹, Arwa HUDA¹⁰, Amra SALAHUDDIN¹¹, Ragdah Talal KABLI¹², Mohd Faiyaz KHAN⁸, & Muhammad Shahid IQBAL^{8*}

¹ Department of Pharmacy Practice, Lahore Pharmacy College, Lahore Medical & Dental College, University of Health Sciences, Lahore, Pakistan. ² Department of Clinical Pharmacy, College of Pharmacy, King Khalid University, Abha, Saudi Arabia. ³ Department of Biochemistry, College of Medicine, Imam Mohammad Ibn Saud Islamic University, 11432 Riyadh, Saudi Arabia. ⁴ Department of Anatomy, College of Medicine, Imam Mohammad Ibn Saud Islamic University, 11432 Riyadh, Saudi Arabia. ⁵ Department of Health Informatics, College of Health Sciences, Saudi Electronic University, Riyadh, Saudi Arabia. ⁶ Department of Clinical Pharmacy, College of Dentistry and Pharmacy, Buraydah Private College, Buraydah, Qaseem, Saudi Arabia. ⁷ Faculty of Pharmacy, Syrian Private University, Damascus, Syria. ⁸ Department of Clinical Pharmacy, College of Pharmacy, Prince Sattam bin Abdulaziz University, 11942 Alkharj, Saudi Arabia. ⁹ Outpatient Pharmacy Department, Prince Sattam bin Abdulaziz University Hospital, Prince Sattam bin Abdulaziz University, Alkharj, Saudi Arabia. ¹⁰ Jinnah Medical and Dental College, Karachi, Sindh, Pakistan. ¹¹ Jinnah Sindh Medical University, Karachi, Sindh, Pakistan. ¹² Inpatient Pharmacy Department, King Fahad Medical City, Riyadh, Saudi Arabia

SUMMARY. Psychological distress often factors into severe undesirable feelings and results in prolonged negative outcomes among patients with chronic cardiac diseases particularly when they are on warfarin. The main objective of the current study was to assess psychological distress among warfarin patients and its association to various clinical and patients' reported outcomes and drug-related problems. A cross-sectional study using Perceived Stress Scale 10 (PSS 10) was performed among patients taking warfarin. Numerous clinical, sociodemographic and patients reported clinical data were collected. Univariate and multivariate analyses were performed to determine various factors affecting patients' diseases state regarding psychological distress, clinical and patients' reported outcomes and observed drug-related problems among warfarin patients diagnosed with various cardiac diseases. Descriptive and inferential statistics were applied using the Statistical Package for Social Sciences (SPSS) version 24.0. A p -value < 0.05 was considered statistically significant. There were more female patients ($n = 238, 65.9\%$) than the male patients ($n = 123, 34.1\%$) in total of 361 studied patients. The mean psychological distress of 14.00 ± 6.87 was reported among the current studied cohort of warfarin patients. Multiple logistic regression revealed that a statistically significant difference ($p < 0.05$) was present in the age variable among the studied warfarin patients. The present study evaluated that age was a pure contributor of severe psychological distress among warfarin patients. Major drug-related problems observed were drug choice, high dose, low dose, drug usage, contraindications and miscellaneous types. Healthcare professionals can play a vital role in decreasing psychological distress among cardiac patients on warfarin.

RESUMEN. La angustia psicológica a menudo influye en los sentimientos indeseables graves y da como resultado resultados negativos prolongados entre los pacientes con enfermedades cardíacas crónicas, especialmente cuando toman warfarina. El objetivo principal del estudio actual fue evaluar el malestar psicológico entre los pacientes con warfarina y su asociación con varios resultados clínicos y los informes de los pacientes y los problemas relacionados con los medicamentos. Se realizó un estudio transversal utilizando la Escala de Estrés Percibido 10 (PSS 10) entre pacientes que tomaban warfarina. Se recogieron numerosos datos clínicos, sociodemográficos y clínicos informados por los pacientes. Se realizaron análisis univariados y multivariados para determinar varios factores que afectan el estado de las enfermedades de los pacientes con respecto a la angustia psicológica, los resultados clínicos e informados por los pacientes y los problemas relacionados con los medicamentos observados entre los pacientes con warfarina diagnosticados con diversas enfermedades cardíacas. Se aplicó estadística descriptiva e inferencial utilizando el Paquete Estadístico para Ciencias Sociales (SPSS) versión 24.0. Un valor de $p < 0,05$ se consideró estadísticamente significativo. Hubo más pacientes mujeres ($n = 238, 65,9\%$) que pacientes hombres ($n = 123, 34,1\%$) en un total de 361 pacientes estudiados. La angustia psicológica media de $14,00 \pm 6,87$ se informó entre la cohorte estudiada actual de pacientes con warfarina. La regresión logística múltiple reveló que hubo una diferencia estadísticamente significativa ($p < 0,05$) en la variable edad entre los pacientes de warfarina estudiados. El presente estudio evaluó que la edad era un contribuyente puro de angustia psicológica severa entre los pacientes de warfarina. Los principales problemas relacionados con los medicamentos observados fueron la elección del fármaco, la dosis alta, la dosis baja, el uso del fármaco, las contraindicaciones y los tipos misceláneos. Los profesionales de la salud pueden desempeñar un papel vital en la disminución de la angustia psicológica entre los pacientes cardíacos que toman warfarina.

KEY WORDS: cardiac patients, chronic, psychological distress, PSS 10, warfarin,

* Author to whom correspondence should be addressed. E-mail: m.javed@psau.edu.sa