



REFERENCES

- Aksoy, N., Ozturk, N., Okuyan, B., & Sancar, M. (2023). Validation of the Arabic Version of Medication Regimen Complexity Index Among Older Patients—Validation of the “MRCI-Arabic.” *Sudan Journal of Medical Sciences*, 18(3), Article 3.
- Alansi, A. M. N., & Almotarred, A. (2014). The dilemma of Congestive Heart Failure (CHF) among Yemeni patients presented with acute Coronary Syndrome (ACS), data from phase one the Gulf Registry of Acute Coronary Events (GULF RACE I). *Eur. J. Heart Fail.*, 16, 227. Scopus.
- Al-Hassany, L., Kloosterboer, S. M., Dierckx, B., & Koch, B. C. (2019). Assessing methods of measuring medication adherence in chronically ill children—a narrative review. *Patient Preference and Adherence*, 13, 1175–1189. <https://doi.org/10.2147/PPA.S200058>
- Al-Qerem, W., Al Bawab, A. Q., Abusara, O., Alkhattib, N., & Horne, R. (2022). Validation of the Arabic version of medication adherence report scale questionnaire and beliefs about medication -specific questionnaire: A factor analysis study. *PloS One*, 17(4), e0266606. <https://doi.org/10.1371/journal.pone.0266606>
- Alsous, M., Alhalaiqa, F., Abu Farha, R., Abdel Jalil, M., McElnay, J., & Horne, R. (2017). Reliability and validity of Arabic translation of Medication Adherence Report Scale (MARS) and Beliefs about Medication Questionnaire (BMQ)-specific for use in children and their parents. *PloS One*, 12(2), e0171863. <https://doi.org/10.1371/journal.pone.0171863>
- Al-Zaazaai, A.-Z. E. A. A. M., Al-Amrani, M. A., Alakhali, K. M., & Aljaber, N. (2019). EVALUATION OF MEDICATION COMPLIANCE IN PATIENTS WITH CONGESTIVE HEART FAILURE IN YEMEN. *International Journal of Pharmacy and Pharmaceutical Sciences*, 93–97. <https://doi.org/10.22159/ijpps.2019v11i4.29988>
- Amininasab, S., Lolaty, H., Moosazadeh, M., & Shafipour, V. (2018). Medication adherence and its predictors among patients with heart failure. *Nursing and Midwifery Studies*, 7, 81. https://doi.org/10.4103/nms.nms_9_17
- Amininasab, S. S., Azimi Lolaty, H., Moosazadeh, M., & Shafipour, V. (2017). The relationship between human dignity and medication adherence in patients with heart failure. *Journal of Medical Ethics and History of Medicine*, 10, 5.
- Annema, C., Luttik, M.-L., & Jaarsma, T. (2009). Reasons for readmission in heart failure: Perspectives of patients, caregivers, cardiologists, and heart failure



- nurses. *Heart & Lung*, 38(5), 427–434. <https://doi.org/10.1016/j.hrtlng.2008.12.002>
- Aronson, J. K. (2007). Compliance, concordance, adherence. *British Journal of Clinical Pharmacology*, 63(4), 383–384. <https://doi.org/10.1111/j.1365-2125.2007.02893.x>
- Ayele, A. A., Tegegn, H. G., Ayele, T. A., & Ayalew, M. B. (2019). Medication regimen complexity and its impact on medication adherence and glycemic control among patients with type 2 diabetes mellitus in an Ethiopian general hospital. *BMJ Open Diabetes Research & Care*, 7(1), e000685. <https://doi.org/10.1136/bmjdrc-2019-000685>
- Bai, H.-H., Nie, X.-J., Chen, X.-L., Liang, N.-J., Peng, L.-R., & Yao, Y.-Q. (2022). Beliefs about medication and their association with adherence in Chinese patients with non-dialysis chronic kidney disease stages 3-5. *Medicine*, 101(2), e28491. <https://doi.org/10.1097/MD.00000000000028491>
- Baker, D. W., Wolf, M. S., Feinglass, J., Thompson, J. A., Gazmararian, J. A., & Huang, J. (2007). Health literacy and mortality among elderly persons. *Archives of Internal Medicine*, 167(14), 1503–1509. <https://doi.org/10.1001/archinte.167.14.1503>
- Balkrishnan, R. (2005). The importance of medication adherence in improving chronic-disease related outcomes: What we know and what we need to further know. *Medical Care*, 43(6), 517–520. <https://doi.org/10.1097/01.mlr.0000166617.68751.5f>
- Barber, N., Parsons, J., Clifford, S., Darracott, R., & Horne, R. (2004). Patients' problems with new medication for chronic conditions. *Quality & Safety in Health Care*, 13(3), 172–175. <https://doi.org/10.1136/qhc.13.3.172>
- Baymot, A., Gela, D., & Bedada, T. (2022). Adherence to self-care recommendations and associated factors among adult heart failure patients in public hospitals, Addis Ababa, Ethiopia, 2021: Cross-sectional study. *BMC Cardiovascular Disorders*, 22(1), 275. <https://doi.org/10.1186/s12872-022-02717-3>
- Bernell, S., & Howard, S. W. (2016). Use Your Words Carefully: What Is a Chronic Disease? *Frontiers in Public Health*, 4, 159. <https://doi.org/10.3389/fpubh.2016.00159>
- Bosch, L., Assmann, P., de Grauw, W. J. C., Schalk, B. W. M., & Biermans, M. C. J. (2019). Heart failure in primary care: Prevalence related to age and comorbidity. *Primary Health Care Research & Development*, 20, e79. <https://doi.org/10.1017/S1463423618000889>
- Cacciattolo, K. (2015). *A Comparison of Depth Interviews and Observations as Methods of Data Collection*. <https://doi.org/10.13140/RG.2.1.1377.4564>



- Care (UK), N. C. C. for P. (2009). Assessment of adherence. In *Medicines Adherence: Involving Patients in Decisions About Prescribed Medicines and Supporting Adherence [Internet]*. Royal College of General Practitioners (UK). <https://www.ncbi.nlm.nih.gov/books/NBK55447/>
- Chakrabarti, S. (2014). What's in a name? Compliance, adherence and concordance in chronic psychiatric disorders. *World Journal of Psychiatry*, 4(2), 30–36. <https://doi.org/10.5498/wjp.v4.i2.30>
- Checchi, K. D., Huybrechts, K. F., Avorn, J., & Kesselheim, A. S. (2014). Electronic medication packaging devices and medication adherence: A systematic review. *JAMA*, 312(12), 1237–1247. <https://doi.org/10.1001/jama.2014.10059>
- Chia, L. R., Schlenk, E. A., & Dunbar-Jacob, J. (2006). Effect of personal and cultural beliefs on medication adherence in the elderly. *Drugs & Aging*, 23(3), 191–202. <https://doi.org/10.2165/00002512-200623030-00002>
- Choo, P. W., Rand, C. S., Inui, T. S., Lee, M. L., Cain, E., Cordeiro-Breault, M., Canning, C., & Platt, R. (1999). Validation of patient reports, automated pharmacy records, and pill counts with electronic monitoring of adherence to antihypertensive therapy. *Medical Care*, 37(9), 846–857. <https://doi.org/10.1097/00005650-199909000-00002>
- Clatworthy, J., Bowskill, R., Parham, R., Rank, T., Scott, J., & Horne, R. (2009). Understanding medication non-adherence in bipolar disorders using a Necessity-Concerns Framework. *Journal of Affective Disorders*, 116(1–2), 51–55. <https://doi.org/10.1016/j.jad.2008.11.004>
- Cobretti, M. R., Page, R. L., Linnebur, S. A., Deininger, K. M., Ambardekar, A. V., Lindenfeld, J., & Aquilante, C. L. (2017). Medication regimen complexity in ambulatory older adults with heart failure. *Clinical Interventions in Aging*, 12, 679–686. <https://doi.org/10.2147/CIA.S130832>
- Costello, K., Kennedy, P., & Scanzillo, J. (2008). Recognizing nonadherence in patients with multiple sclerosis and maintaining treatment adherence in the long term. *Medscape Journal of Medicine*, 10(9), 225.
- Czepluch, F. S., Wollnik, B., & Hasenfuß, G. (2018). Genetic determinants of heart failure: Facts and numbers. *ESC Heart Failure*, 5(3), 211–217. <https://doi.org/10.1002/ehf2.12267>
- da Silva, A. F., Cavalcanti, A. C. D., Malta, M., Arruda, C. S., Gandin, T., da Fé, A., & Rabelo-Silva, E. R. (2015). Treatment adherence in heart failure patients followed up by nurses in two specialized clinics. *Revista Latino-Americana de Enfermagem*, 23(5), 888–894. <https://doi.org/10.1590/0104-1169.0268.2628>



- Daniels, T., Goodacre, L., Sutton, C., Pollard, K., Conway, S., & Peckham, D. (2011). Accurate assessment of adherence: Self-report and clinician report vs electronic monitoring of nebulizers. *Chest*, 140(2), 425–432. <https://doi.org/10.1378/chest.09-3074>
- Danielson, E., Melin-Johansson, C., & Modanloo, M. (2019). Adherence to Treatment in Patients with Chronic Diseases: From Alertness to Persistence. *International Journal of Community Based Nursing and Midwifery*, 7(4), 248–257. <https://doi.org/10.30476/IJCBNM.2019.81303.0>
- Dassanayaka, S., & Jones, S. P. (2015). Recent Developments in Heart Failure. *Circulation Research*, 117(7), e58–e63. <https://doi.org/10.1161/CIRCRESAHA.115.305765>
- de Almeida Neto, A. C., & Aslani, P. (2008). Medicines concordance in clinical practice. *British Journal of Clinical Pharmacology*, 66(4), 453–454. <https://doi.org/10.1111/j.1365-2125.2008.03241.x>
- Desai, A. S., & Stevenson, L. W. (2012). Rehospitalization for heart failure: Predict or prevent? *Circulation*, 126(4), 501–506. <https://doi.org/10.1161/CIRCULATIONAHA.112.125435>
- DiBenedetti, D. B., Brown, T. M., Romano, C., Ervin, C., Lewis, S., & Fehnel, S. E. (2018). *Conducting Patient Interviews Within a Clinical Trial Setting*. RTI Press. <http://www.ncbi.nlm.nih.gov/books/NBK542736/>
- Díez-Villanueva, P., Jiménez-Méndez, C., & Alfonso, F. (2021). Heart failure in the elderly. *Journal of Geriatric Cardiology: JGC*, 18(3), 219–232. <https://doi.org/10.11909/j.issn.1671-5411.2021.03.009>
- Dillon, P., Smith, S. M., Gallagher, P., & Cousins, G. (2018). Impact of financial burden, resulting from prescription co-payments, on antihypertensive medication adherence in an older publically insured population. *BMC Public Health*, 18(1), 1282. <https://doi.org/10.1186/s12889-018-6209-8>
- DiMatteo, M. R. (2004a). Social support and patient adherence to medical treatment: A meta-analysis. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 23(2), 207–218. <https://doi.org/10.1037/0278-6133.23.2.207>
- DiMatteo, M. R. (2004b). Variations in patients' adherence to medical recommendations: A quantitative review of 50 years of research. *Medical Care*, 42(3), 200–209. <https://doi.org/10.1097/01.mlr.0000114908.90348.f9>
- DiMatteo, M. R., Haskard, K. B., & Williams, S. L. (2007). Health beliefs, disease severity, and patient adherence: A meta-analysis. *Medical Care*, 45(6), 521–528. <https://doi.org/10.1097/MLR.0b013e318032937e>



- DiMatteo, M. R., Lepper, H. S., & Croghan, T. W. (2000). Depression is a risk factor for noncompliance with medical treatment: Meta-analysis of the effects of anxiety and depression on patient adherence. *Archives of Internal Medicine*, 160(14), 2101–2107. <https://doi.org/10.1001/archinte.160.14.2101>
- Dong, R., Sun, S., Sun, Y., Wang, Y., & Zhang, X. (2024). The association of depressive symptoms and medication adherence in asthma patients: The mediation effect of medication beliefs. *Research in Social and Administrative Pharmacy*, 20(3), 335–344. <https://doi.org/10.1016/j.sapharm.2023.12.002>
- Dusetzina, S. B., Besaw, R. J., Whitmore, C. C., Mattingly, T. J., Sinaiko, A. D., Keating, N. L., & Everson, J. (2023). Cost-Related Medication Nonadherence and Desire for Medication Cost Information Among Adults Aged 65 Years and Older in the US in 2022. *JAMA Network Open*, 6(5), e2314211. <https://doi.org/10.1001/jamanetworkopen.2023.14211>
- Eisele, M., Harder, M., Rakebrandt, A., Boczor, S., Marx, G., Blozik, E., Träder, J.-M., Störk, S., Herrmann-Lingen, C., & Scherer, M. (2020). Association of depression and anxiety with adherence in primary care patients with heart failure—Cross-sectional results of the observational RECODE-HF cohort study. *Family Practice*, 37(5), 695–702. <https://doi.org/10.1093/fampra/cmaa042>
- Ekman, I., Andersson, G., Boman, K., Charlesworth, A., Cleland, J. G. F., Poole-Wilson, P., & Swedberg, K. (2006). Adherence and perception of medication in patients with chronic heart failure during a five-year randomised trial. *Patient Education and Counseling*, 61(3), 348–353. <https://doi.org/10.1016/j.pec.2005.04.005>
- Emilsson, M., Berndtsson, I., Gustafsson, P. A., Horne, R., & Marteinsdottir, I. (2020). Reliability and validation of Swedish translation of Beliefs about Medication Specific (BMQ-Specific) and Brief Illness Perception Questionnaire (B-IPQ) for use in adolescents with attention-deficit hyperactivity disorder. *Nordic Journal of Psychiatry*, 74(2), 89–95. <https://doi.org/10.1080/08039488.2019.1674376>
- Falagas, M. E., Zarkadoulia, E. A., Pliatsika, P. A., & Panos, G. (2008). Socioeconomic status (SES) as a determinant of adherence to treatment in HIV infected patients: A systematic review of the literature. *Retrovirology*, 5, 13. <https://doi.org/10.1186/1742-4690-5-13>
- February 2022, S. J. // 17. (2022, February 17). *Yemen's health system is hanging 'on a cliff.'* Devex. <https://www.devex.com/news/sponsored/yemen-s-health-system-is-hanging-on-a-cliff-102543>



- Fetensa, G., Yadecha, B., Tolossa, T., & Bekuma, T. T. (2019). Medication Adherence and Associated Factors among Chronic Heart Failure Clients on Follow Up Oromia Region, West Ethiopia. *Cardiovascular & Hematological Agents in Medicinal Chemistry*, 17(2), 104–114. <https://doi.org/10.2174/1871525717666191019162254>
- Fogarty, L., Roter, D., Larson, S., Burke, J., Gillespie, J., & Levy, R. (2002). Patient adherence to HIV medication regimens: A review of published and abstract reports. *Patient Education and Counseling*, 46(2), 93–108. [https://doi.org/10.1016/s0738-3991\(01\)00219-1](https://doi.org/10.1016/s0738-3991(01)00219-1)
- Gellad, W. F., Grenard, J. L., & Marcum, Z. A. (2011). A systematic review of barriers to medication adherence in the elderly: Looking beyond cost and regimen complexity. *The American Journal of Geriatric Pharmacotherapy*, 9(1), 11–23. <https://doi.org/10.1016/j.amjopharm.2011.02.004>
- George, J., Phun, Y.-T., Bailey, M. J., Kong, D. C. M., & Stewart, K. (2004). Development and validation of the medication regimen complexity index. *The Annals of Pharmacotherapy*, 38(9), 1369–1376. <https://doi.org/10.1345/aph.1D479>
- Gold, D. T., Alexander, I. M., & Ettinger, M. P. (2006). How can osteoporosis patients benefit more from their therapy? Adherence issues with bisphosphonate therapy. *The Annals of Pharmacotherapy*, 40(6), 1143–1150. <https://doi.org/10.1345/aph.1G534>
- Goldstein, C. M., Gathright, E. C., Gunstad, J., A. Dolansky, M., Redle, J. D., Josephson, R., Moore, S. M., & Hughes, J. W. (2017). Depressive symptoms moderate the relationship between medication regimen complexity and objectively measured medication adherence in adults with heart failure. *Journal of Behavioral Medicine*, 40(4), 602–611. <https://doi.org/10.1007/s10865-017-9829-z>
- Gonzalez, J. S., Peyrot, M., McCarl, L. A., Collins, E. M., Serpa, L., Mimiaga, M. J., & Safren, S. A. (2008). Depression and Diabetes Treatment Nonadherence: A Meta-Analysis. *Diabetes Care*, 31(12), 2398–2403. <https://doi.org/10.2337/dc08-1341>
- Groenewegen, A., Rutten, F. H., Mosterd, A., & Hoes, A. W. (2020). Epidemiology of heart failure. *European Journal of Heart Failure*, 22(8), 1342–1356. <https://doi.org/10.1002/ejhf.1858>
- Grymonpre, R. E., Didur, C. D., Montgomery, P. R., & Sitar, D. S. (1998). Pill count, self-report, and pharmacy claims data to measure medication adherence in the elderly. *The Annals of Pharmacotherapy*, 32(7–8), 749–754. <https://doi.org/10.1345/aph.17423>
- Guo, P., Qin, Y., Wang, R., Li, J., Liu, J., Wang, K., Li, Y., Kang, Z., Hao, Y., Liu, H., Sun, H., Cui, Y., Shan, L., & Wu, Q. (2023). Perspectives and evaluation



on the effect of financial burden relief of medical insurance for people with catastrophic diseases and its influencing factors. *Frontiers in Public Health*, 11, 1123023. <https://doi.org/10.3389/fpubh.2023.1123023>

Gupta, P., Voors, A. A., Patel, P., Lane, D., Anker, S. D., Cleland, J. G. F., Dickstein, K., Filippatos, G., Lang, C. C., van Veldhuisen, D. J., Metra, M., Zannad, F., Samani, N. J., Jones, D. J. L., Squire, I. B., & Ng, L. L. (2021). Non-adherence to heart failure medications predicts clinical outcomes: Assessment in a single spot urine sample by liquid chromatography-tandem mass spectrometry (results of a prospective multicentre study). *European Journal of Heart Failure*, 23(7), 1182–1190. <https://doi.org/10.1002/ejhf.2160>

Hajouli, S., & Ludhwani, D. (2022). Heart Failure And Ejection Fraction. In *StatPearls [Internet]*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK553115/>

Haynes, R. B., Ackloo, E., Sahota, N., McDonald, H. P., & Yao, X. (2008). Interventions for enhancing medication adherence. *The Cochrane Database of Systematic Reviews*, 2, CD000011. <https://doi.org/10.1002/14651858.CD000011.pub3>

Health Sector in Yemen – Policy Note. (n.d.). World Bank. Retrieved February 1, 2023, from <https://www.worldbank.org/en/country/yemen/publication/health-sector-in-yemen-policy-note>

Heidenreich, P. A., Fonarow, G. C., Opsha, Y., Sandhu, A. T., Sweitzer, N. K., & Warraich, H. J. (2022). Economic Issues in Heart Failure in the United States. *Journal of Cardiac Failure*, 28(3), 453–466. <https://doi.org/10.1016/j.cardfail.2021.12.017>

Hodari, K. T., Nanton, J. R., Carroll, C. L., Feldman, S. R., & Balkrishnan, R. (2006). Adherence in dermatology: A review of the last 20 years. *The Journal of Dermatological Treatment*, 17(3), 136–142. <https://doi.org/10.1080/09546630600688515>

Home. (n.d.). Retrieved February 17, 2023, from <https://ehnheart.org/>

Horne, R. (2006). Compliance, adherence, and concordance: Implications for asthma treatment. *Chest*, 130(1 Suppl), 65S-72S. https://doi.org/10.1378/chest.130.1_suppl.65S

Horne, R., Chapman, S. C. E., Parham, R., Freemantle, N., Forbes, A., & Cooper, V. (2013). Understanding Patients' Adherence-Related Beliefs about Medicines Prescribed for Long-Term Conditions: A Meta-Analytic Review of the Necessity-Concerns Framework. *PLoS ONE*, 8(12), e80633. <https://doi.org/10.1371/journal.pone.0080633>



- Horne, R., Cooper, V., Wileman, V., & Chan, A. (2019). Supporting adherence to medicines for long-term conditions: A perceptions and practicalities approach based on an extended common-sense model. *European Psychologist*, 24, 82–96. <https://doi.org/10.1027/1016-9040/a000353>
- Horne, R., Weinman, J., & Hankins, M. (1999). The beliefs about medicines questionnaire: The development and evaluation of a new method for assessing the cognitive representation of medication. *Psychology & Health*, 14(1), 1–24. <https://doi.org/10.1080/08870449908407311>
- Hummler, H., Stillhart, C., Meilicke, L., Grimm, M., Krause, E., Mannaa, M., Gollasch, M., Weitschies, W., & Page, S. (2023). Impact of Tablet Size and Shape on the Swallowability in Older Adults. *Pharmaceutics*, 15(4), Article 4. <https://doi.org/10.3390/pharmaceutics15041042>
- Insel, K., Morrow, D., Brewer, B., & Figueredo, A. (2006). Executive function, working memory, and medication adherence among older adults. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 61(2), P102-107. <https://doi.org/10.1093/geronb/61.2.p102>
- Irshaidat, S., Gustafsson, M., & Norberg, H. (2023). Self-Reported Medication Adherence Among Older People Admitted to Hospital: A Descriptive Study. *Drugs - Real World Outcomes*, 10(1), 23–29. <https://doi.org/10.1007/s40801-023-00352-8>
- Jarab, A. S., Al-Qerem, W. A., Hamam, H. W., Alzoubi, K. H., Abu Heshmeh, S. R., Mukattash, T. L., & Alefishat, E. (2023). Medication Adherence and Its Associated Factors Among Outpatients with Heart Failure. *Patient Preference and Adherence*, 17, 1209–1220. <https://doi.org/10.2147/PPA.S410371>
- Jarrah, M., Khader, Y., Alkouri, O., Al-Bashaireh, A., Alhalaiqa, F., Al Marzouqi, A., Qaladi, O. A., Alharbi, A., Alshahrani, Y. M., Alqarni, A. S., & Oweis, A. (2023). Medication Adherence and Its Influencing Factors among Patients with Heart Failure: A Cross Sectional Study. *Medicina (Kaunas, Lithuania)*, 59(5), 960. <https://doi.org/10.3390/medicina59050960>
- Jimmy, B., & Jose, J. (2011). Patient Medication Adherence: Measures in Daily Practice. *Oman Medical Journal*, 26(3), 155–159. <https://doi.org/10.5001/omj.2011.38>
- Jindal, R. M., Joseph, J. T., Morris, M. C., Santella, R. N., & Baines, L. S. (2003). Noncompliance after kidney transplantation: A systematic review. *Transplantation Proceedings*, 35(8), 2868–2872. <https://doi.org/10.1016/j.transproceed.2003.10.052>
- Johansson, E., Long, N. H., Diwan, V. K., & Winkvist, A. (1999). Attitudes to compliance with tuberculosis treatment among women and men in Vietnam. *The International Journal of Tuberculosis and Lung Disease: The Official*



Journal of the International Union Against Tuberculosis and Lung Disease, 3(10), 862–868.

Johansson, E., & Winkvist, A. (2002). Trust and transparency in human encounters in tuberculosis control: Lessons learned from Vietnam. *Qualitative Health Research*, 12(4), 473–491. <https://doi.org/10.1177/104973202129120025>

Julius, R. J., Novitsky, M. A., & Dubin, W. R. (2009). Medication adherence: A review of the literature and implications for clinical practice. *Journal of Psychiatric Practice*, 15(1), 34–44. <https://doi.org/10.1097/01.pra.0000344917.43780.77>

Kalichman, S. C., & Grebler, T. (2010). Stress and Poverty Predictors of Treatment Adherence among People with Low-Literacy Living with HIV/AIDS. *Psychosomatic Medicine*, 72(8), 810–816. <https://doi.org/10.1097/PSY.0b013e3181f01be3>

Kardas, P., Lewek, P., & Matyjaszczyk, M. (2013). Determinants of patient adherence: A review of systematic reviews. *Frontiers in Pharmacology*, 4. <https://doi.org/10.3389/fphar.2013.00091>

Karter, A. J., Parker, M. M., Solomon, M. D., Lyles, C. R., Adams, A. S., Moffet, H. H., & Reed, M. E. (2018). Effect of Out-of-Pocket Cost on Medication Initiation, Adherence, and Persistence among Patients with Type 2 Diabetes: The Diabetes Study of Northern California (DISTANCE). *Health Services Research*, 53(2), 1227–1247. <https://doi.org/10.1111/1475-6773.12700>

Kripalani, S., Risser, J., Gatti, M. E., & Jacobson, T. A. (2009). Development and evaluation of the Adherence to Refills and Medications Scale (ARMS) among low-literacy patients with chronic disease. *Value in Health: The Journal of the International Society for Pharmacoeconomics and Outcomes Research*, 12(1), 118–123. <https://doi.org/10.1111/j.1524-4733.2008.00400.x>

Krousel-Wood, M., Islam, T., Webber, L. S., Re, R. N., Morisky, D. E., & Muntner, P. (2009). New medication adherence scale versus pharmacy fill rates in seniors with hypertension. *The American Journal of Managed Care*, 15(1), 59–66.

Krueger, K., Botermann, L., Schorr, S. G., Griese-Mammen, N., Laufs, U., & Schulz, M. (2015). Age-related medication adherence in patients with chronic heart failure: A systematic literature review. *International Journal of Cardiology*, 184, 728–735. <https://doi.org/10.1016/j.ijcard.2015.03.042>

Kusaslan Avci, D. (2018). Evaluation of the relationship between loneliness and medication adherence in patients with diabetes mellitus: A cross-sectional study. *The Journal of International Medical Research*, 46(8), 3149–3161. <https://doi.org/10.1177/0300060518773223>



- Lam, W. Y., & Fresco, P. (2015). Medication Adherence Measures: An Overview. *BioMed Research International*, 2015, 217047. <https://doi.org/10.1155/2015/217047>
- Lanouette, N. M., Folsom, D. P., Sciolla, A., & Jeste, D. V. (2009). Psychotropic medication nonadherence among United States Latinos: A comprehensive literature review. *Psychiatric Services (Washington, D.C.)*, 60(2), 157–174. <https://doi.org/10.1176/appi.ps.60.2.157>
- Law, M. R., Cheng, L., Dhalla, I. A., Heard, D., & Morgan, S. G. (2012). The effect of cost on adherence to prescription medications in Canada. *CMAJ: Canadian Medical Association Journal*, 184(3), 297–302. <https://doi.org/10.1503/cmaj.111270>
- Lee, E., & Choi, M. (2024). Factors associated with medication adherence among older adults with multimorbidity: A culture perspective. *Geriatric Nursing*, 55, 297–303. <https://doi.org/10.1016/j.gerinurse.2023.11.018>
- Lemstra, M., Nwankwo, C., Bird, Y., & Moraros, J. (2018). Primary nonadherence to chronic disease medications: A meta-analysis. *Patient Preference and Adherence*, 12, 721–731. <https://doi.org/10.2147/PPA.S161151>
- Leslie, K. H., McCowan, C., & Pell, J. P. (2019). Adherence to cardiovascular medication: A review of systematic reviews. *Journal of Public Health (Oxford, England)*, 41(1), e84–e94. <https://doi.org/10.1093/pubmed/fdy088>
- Lewis, M. A., & Rook, K. S. (1999). Social control in personal relationships: Impact on health behaviors and psychological distress. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 18(1), 63–71. <https://doi.org/10.1037//0278-6133.18.1.63>
- Lin, C.-Y., Ganji, M., Griffiths, M. D., Bravell, M. E., Broström, A., & Pakpour, A. H. (2020). Mediated effects of insomnia, psychological distress and medication adherence in the association of eHealth literacy and cardiac events among Iranian older patients with heart failure: A longitudinal study. *European Journal of Cardiovascular Nursing*, 19(2), 155–164. <https://doi.org/10.1177/1474515119873648>
- Lin, C.-Y., Ou, H.-T., Nikoobakht, M., Broström, A., Årestedt, K., & Pakpour, A. H. (2018). Validation of the 5-Item Medication Adherence Report Scale in Older Stroke Patients in Iran. *The Journal of Cardiovascular Nursing*, 33(6), 536–543. <https://doi.org/10.1097/JCN.0000000000000488>
- Lorig, K. R., Sobel, D. S., Stewart, A. L., Brown, B. W., Bandura, A., Ritter, P., Gonzalez, V. M., Laurent, D. D., & Holman, H. R. (1999). Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: A randomized trial. *Medical Care*, 37(1), 5–14. <https://doi.org/10.1097/00005650-199901000-00003>



- Lowry, K. P., Dudley, T. K., Oddone, E. Z., & Bosworth, H. B. (2005). Intentional and unintentional nonadherence to antihypertensive medication. *The Annals of Pharmacotherapy*, 39(7–8), 1198–1203. <https://doi.org/10.1345/aph.1E594>
- Lyles, C. R., Seligman, H. K., Parker, M. M., Moffet, H. H., Adler, N., Schillinger, D., Piette, J. D., & Karter, A. J. (2016). Financial Strain and Medication Adherence among Diabetes Patients in an Integrated Health Care Delivery System: The Diabetes Study of Northern California (DISTANCE). *Health Services Research*, 51(2), 610–624. <https://doi.org/10.1111/1475-6773.12346>
- Mahler, C., Hermann, K., Horne, R., Lüdt, S., Haefeli, W. E., Szecsenyi, J., & Jank, S. (2010). Assessing reported adherence to pharmacological treatment recommendations. Translation and evaluation of the Medication Adherence Report Scale (MARS) in Germany. *Journal of Evaluation in Clinical Practice*, 16(3), 574–579. <https://doi.org/10.1111/j.1365-2753.2009.01169.x>
- Makaryus, A. N., & Friedman, E. A. (2005). Patients' understanding of their treatment plans and diagnosis at discharge. *Mayo Clinic Proceedings*, 80(8), 991–994. <https://doi.org/10.4065/80.8.991>
- Malih Radhi, M., Niazy, S. M., & Naser Abed, S. (2023). Individual-related factors associated with treatment adherence among hypertensive patients. *Journal of Public Health in Africa*, 14(6), 2466. <https://doi.org/10.4081/jphia.2023.2466>
- Mann, D. L., & Bristow, M. R. (2005). Mechanisms and Models in Heart Failure. *Circulation*, 111(21), 2837–2849. <https://doi.org/10.1161/CIRCULATIONAHA.104.500546>
- Mantwill, S., Monestel-Umaña, S., & Schulz, P. J. (2015). The Relationship between Health Literacy and Health Disparities: A Systematic Review. *PLoS ONE*, 10(12), e0145455. <https://doi.org/10.1371/journal.pone.0145455>
- Martin, M. Y., Kim, Y., Kratt, P., Litaker, M. S., Kohler, C. L., Schoenberger, Y.-M., Clarke, S. J., Prayor-Patterson, H., Tseng, T.-S., Pisu, M., & Williams, O. D. (2011). Medication Adherence Among Rural, Low-Income Hypertensive Adults: A Randomized Trial of a Multimedia Community-Based Intervention. *American Journal of Health Promotion : AJHP*, 25(6), 372–378. <https://doi.org/10.4278/ajhp.090123-QUAN-26>
- Mathur, D., Deora, S., Kaushik, A., Bhardwaj, P., & Singh, K. (2020). Awareness, medication adherence, and diet pattern among hypertensive patients attending teaching institution in western Rajasthan, India. *Journal of Family*



Medicine and Primary Care, 9(5), 2342–2349.
https://doi.org/10.4103/jfmpc.jfmpc_193_20

McHorney, C. A., & Spain, C. V. (2011). Frequency of and reasons for medication non-fulfillment and non-persistence among American adults with chronic disease in 2008. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, 14(3), 307–320. <https://doi.org/10.1111/j.1369-7625.2010.00619.x>

McRae-Clark, A. L., Baker, N. L., Sonne, S. C., DeVane, C. L., Wagner, A., & Norton, J. (2015). Concordance of direct and indirect measures of medication adherence in a treatment trial for cannabis dependence. *Journal of Substance Abuse Treatment*, 57, 70–74. <https://doi.org/10.1016/j.jsat.2015.05.002>

Menckeberg, T. T., Bouvy, M. L., Bracke, M., Kaptein, A. A., Leufkens, H. G., Raaijmakers, J. A. M., & Horne, R. (2008). Beliefs about medicines predict refill adherence to inhaled corticosteroids. *Journal of Psychosomatic Research*, 64(1), 47–54. <https://doi.org/10.1016/j.jpsychores.2007.07.016>

Menegoni, L. (1996). Conceptions of tuberculosis and therapeutic choices in Highland Chiapas, Mexico. *Medical Anthropology Quarterly*, 10(3), 381–401. <https://doi.org/10.1525/maq.1996.10.3.02a00060>

Mills, E. J., Nachega, J. B., Bangsberg, D. R., Singh, S., Rachlis, B., Wu, P., Wilson, K., Buchan, I., Gill, C. J., & Cooper, C. (2006). Adherence to HAART: A systematic review of developed and developing nation patient-reported barriers and facilitators. *PLoS Medicine*, 3(11), e438. <https://doi.org/10.1371/journal.pmed.0030438>

Mirza, A. H., Alqasomi, A., El-Dahiyat, F., & Babar, Z.-U.-D. (2023). Access to Medicines and Pharmaceutical Policy in Saudi Arabia: A Scoping Review. *Integrated Pharmacy Research & Practice*, 12, 137–155. <https://doi.org/10.2147/IPRP.S410262>

Mishra, S. I., Gioia, D., Childress, S., Barnet, B., & Webster, R. L. (2011). Adherence to Medication Regimens among Low-Income Patients with Multiple Comorbid Chronic Conditions. *Health & Social Work*, 36(4), 249–258.

Mitchell, A. J., & Selmes, T. (2007). Why don't patients take their medicine? Reasons and solutions in psychiatry. *Advances in Psychiatric Treatment*, 13(5), 336–346. <https://doi.org/10.1192/apt.bp.106.003194>

Moaddab, F., Ghanbari, A., Taheri-Ezbarami, Z., Salari, A., & Kazemnezhad-Leyli, E. (2023). Clinical parameters and outcomes in heart failure patients based on gender differences. *International Journal of Africa Nursing Sciences*, 18, 100525. <https://doi.org/10.1016/j.ijans.2022.100525>



- Mohamad Yahaya, A. H., Hassali, M., Awaisu, A., & Shafie, A. (2009). Factors associated with warfarin therapy knowledge and anticoagulation control among patients attending a warfarin clinic in Malaysia. *Journal of Clinical and Diagnostic Research*, 3, 1663–1670.
- Molloy, G. J., Messerli-Bürgy, N., Hutton, G., Wikman, A., Perkins-Porras, L., & Steptoe, A. (2014). Intentional and unintentional non-adherence to medications following an acute coronary syndrome: A longitudinal study. *Journal of Psychosomatic Research*, 76(5), 430–432. <https://doi.org/10.1016/j.jpsychores.2014.02.007>
- Morgan, S. G., & Lee, A. (2017). Cost-related non-adherence to prescribed medicines among older adults: A cross-sectional analysis of a survey in 11 developed countries. *BMJ Open*, 7(1), e014287. <https://doi.org/10.1136/bmjopen-2016-014287>
- Mullins, C. D., Blatt, L., Gbarayor, C. M., Yang, H.-W. K., & Baquet, C. (2005). Health disparities: A barrier to high-quality care. *American Journal of Health-System Pharmacy*, 62(18), 1873–1882. <https://doi.org/10.2146/ajhp050064>
- Muñoz-Contreras, M. C., Segarra, I., López-Román, F. J., Galera, R. N., & Cerdá, B. (2022). Role of caregivers on medication adherence management in polymedicated patients with Alzheimer's disease or other types of dementia. *Frontiers in Public Health*, 10, 987936. <https://doi.org/10.3389/fpubh.2022.987936>
- Munro, S. A., Lewin, S. A., Smith, H. J., Engel, M. E., Fretheim, A., & Volmink, J. (2007). Patient adherence to tuberculosis treatment: A systematic review of qualitative research. *PLoS Medicine*, 4(7), e238. <https://doi.org/10.1371/journal.pmed.0040238>
- Nachega, J. B., Uthman, O. A., Peltzer, K., Richardson, L. A., Mills, E. J., Amekudzi, K., & Ouédraogo, A. (2015). Association between antiretroviral therapy adherence and employment status: Systematic review and meta-analysis. *Bulletin of the World Health Organization*, 93(1), 29–41. <https://doi.org/10.2471/BLT.14.138149>
- Nair, D. M., George, A., & Chacko, K. T. (1997). Tuberculosis in Bombay: New insights from poor urban patients. *Health Policy and Planning*, 12(1), 77–85. <https://doi.org/10.1093/heapol/12.1.77>
- Nair, N. (2020). Epidemiology and pathogenesis of heart failure with preserved ejection fraction. *Reviews in Cardiovascular Medicine*, 21(4), Article 4. <https://doi.org/10.31083/j.rcm.2020.04.154>
- Naser, A. Y. (2022). Cost-related nonadherence for prescription medications: A cross-sectional study in Jordan. *Expert Review of Pharmacoeconomics &*



Outcomes Research, 22(3), 497–503.
<https://doi.org/10.1080/14737167.2021.1899814>

National Collaborating Centre for Primary Care (UK). (2009). *Medicines Adherence: Involving Patients in Decisions About Prescribed Medicines and Supporting Adherence*. Royal College of General Practitioners (UK). <http://www.ncbi.nlm.nih.gov/books/NBK55440/>

Nekui, F., Galbraith, A. A., Briesacher, B. A., Zhang, F., Soumerai, S. B., Ross-Degnan, D., Gurwitz, J. H., & Madden, J. M. (2021). Cost-Related Medication Nonadherence and its Risk Factors among Medicare Beneficiaries. *Medical Care*, 59(1), 13–21. <https://doi.org/10.1097/MLR.0000000000001458>

Nguyen, T.-M.-U., La Caze, A., & Cottrell, N. (2014). What are validated self-report adherence scales really measuring?: A systematic review. *British Journal of Clinical Pharmacology*, 77(3), 427–445. <https://doi.org/10.1111/bcp.12194>

Nieuwlaat, R., Wilczynski, N., Navarro, T., Hobson, N., Jeffery, R., Keepanasseril, A., Agoritsas, T., Mistry, N., Iorio, A., Jack, S., Sivaramalingam, B., Iserman, E., Mustafa, R. A., Jedraszewski, D., Cotoi, C., & Haynes, R. B. (2014). Interventions for enhancing medication adherence. *The Cochrane Database of Systematic Reviews*, 2014(11), CD000011. <https://doi.org/10.1002/14651858.CD000011.pub4>

Nosé, M., Barbui, C., & Tansella, M. (2003). How often do patients with psychosis fail to adhere to treatment programmes? A systematic review. *Psychological Medicine*, 33(7), 1149–1160. <https://doi.org/10.1017/s0033291703008328>

Oehl, M., Hummer, M., & Fleischhacker, W. W. (2000). Compliance with antipsychotic treatment. *Acta Psychiatrica Scandinavica. Supplementum*, 407, 83–86. <https://doi.org/10.1034/j.1600-0447.2000.00016.x>

Ogah, O. S., Adebiyi, A., Sliwa, K., Ogah, O. S., Adebiyi, A., & Sliwa, K. (2019). Heart Failure in Sub-Saharan Africa. In *Topics in Heart Failure Management*. IntechOpen. <https://doi.org/10.5772/intechopen.82416>

Okuboyejo, S. (2014). Non-adherence to medication in outpatient setting in Nigeria: The effect of employment status. *Global Journal of Health Science*, 6(3), 37–44. <https://doi.org/10.5539/gjhs.v6n3p37>

Osborn, C. Y., Kripalani, S., Goggins, K. M., & Wallston, K. A. (2017). Financial Strain is Associated with Medication Nonadherence and Worse Self-rated Health among Cardiovascular Patients. *Journal of Health Care for the Poor and Underserved*, 28(1), 499–513. <https://doi.org/10.1353/hpu.2017.0036>



- Osterberg, L., & Blaschke, T. (2005). Adherence to Medication. *New England Journal of Medicine*, 353(5), 487–497. <https://doi.org/10.1056/NEJMra050100>
- Pampallona, S., Bollini, P., Tibaldi, G., Kupelnick, B., & Munizza, C. (2002). Patient adherence in the treatment of depression. *The British Journal of Psychiatry: The Journal of Mental Science*, 180, 104–109. <https://doi.org/10.1192/bjp.180.2.104>
- Park, Y.-H., Kim, H., Jang, S.-N., & Koh, C. K. (2013). Predictors of adherence to medication in older Korean patients with hypertension. *European Journal of Cardiovascular Nursing*, 12(1), 17–24. <https://doi.org/10.1016/j.ejcnurse.2011.05.006>
- Patrick, D. L., Burke, L. B., Gwaltney, C. J., Leidy, N. K., Martin, M. L., Molsen, E., & Ring, L. (2011). Content validity--establishing and reporting the evidence in newly developed patient-reported outcomes (PRO) instruments for medical product evaluation: ISPOR PRO good research practices task force report: part 1--eliciting concepts for a new PRO instrument. *Value in Health: The Journal of the International Society for Pharmacoeconomics and Outcomes Research*, 14(8), 967–977. <https://doi.org/10.1016/j.jval.2011.06.014>
- Raebel, M. A., Schmittiel, J., Karter, A. J., Konieczny, J. L., & Steiner, J. F. (2013). Standardizing terminology and definitions of medication adherence and persistence in research employing electronic databases. *Medical Care*, 51(8 Suppl 3), S11-21. <https://doi.org/10.1097/MLR.0b013e31829b1d2a>
- Raffaa, H. S. M., Alasmari, B. A., Abadi, S. A., Al Metrek, M. A., Raffaa, H. S., Al Qarni, H. Z. M., Alhumayed, R. S., Al Hamad, F. H., Almakhluji, F. M., Al Mani, H. M., Al Halafi, F. M., Assiri, M. A., & Al Qahtani, S. M. (2020). Adherence of heart failure patients to heart failure medications and its determinants in the Aseer region, Southern Saudi Arabia. *Journal of Family Medicine and Primary Care*, 9(9), 5041–5045. https://doi.org/10.4103/jfmpc.jfmpc_904_20
- Reisner, S. L., Mimiaga, M. J., Skeer, M., Perkovich, B., Johnson, C. V., & Safren, S. A. (2009). A Review of HIV Antiretroviral Adherence and Intervention Studies Among HIV-Infected Youth. *Topics in HIV Medicine: A Publication of the International AIDS Society, USA*, 17(1), 14–25.
- Revicki, D. A., & May, H. J. (1985). Occupational stress, social support, and depression. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 4(1), 61–77. <https://doi.org/10.1037//0278-6133.4.1.61>
- Rezaei, S., Vaezi, F., Afzal, G., Naderi, N., & Mehralian, G. (n.d.). Medication Adherence and Health Literacy in Patients with Heart Failure: A Cross-



- Sectional Survey in Iran. *HLRP: Health Literacy Research and Practice*, 6(3), e191–e199. <https://doi.org/10.3928/24748307-20220718-02>
- Rezaei, S., Vaezi, F., Afzal, G., Naderi, N., & Mehralian, G. (2022). Medication Adherence and Health Literacy in Patients with Heart Failure: A Cross-Sectional Survey in Iran. *Health Literacy Research and Practice*, 6(3), e191–e199. <https://doi.org/10.3928/24748307-20220718-02>
- Rizzuto, N., Charles, G., & Knobf, M. T. (2022). Decreasing 30-Day Readmission Rates in Patients With Heart Failure. *Critical Care Nurse*, 42(4), 13–19. <https://doi.org/10.4037/ccn2022417>
- Roger, V. L. (2021). Epidemiology of Heart Failure. *Circulation Research*, 128(10), 1421–1434. <https://doi.org/10.1161/CIRCRESAHA.121.318172>
- Ruddy, K., Mayer, E., & Partridge, A. (2009). Patient adherence and persistence with oral anticancer treatment. *CA: A Cancer Journal for Clinicians*, 59(1), 56–66. <https://doi.org/10.3322/caac.20004>
- Sabaté, E., & World Health Organization (Eds.). (2003a). *Adherence to long-term therapies: Evidence for action*. World Health Organization.
- Sabaté, E., & World Health Organization (Eds.). (2003b). *Adherence to long-term therapies: Evidence for action*. World Health Organization.
- Saberi, P., Caswell, N., Amodio-Groton, M., & Alpert, P. (2008). Pharmacy-refill measure of adherence to efavirenz can predict maintenance of HIV viral suppression. *AIDS Care*, 20(6), 741–745. <https://doi.org/10.1080/09540120701694006>
- Sadeghiazar, S., Mobasseri, K., Gholizadeh, L., Sarbakhsh, P., & Allahbakhshian, A. (2022). Illness acceptance, medication adherence and the quality of life in patients with heart failure: A path analysis of a conceptual model. *Applied Nursing Research*, 65, 151583. <https://doi.org/10.1016/j.apnr.2022.151583>
- Savarese, G., & Lund, L. H. (2017). Global Public Health Burden of Heart Failure. *Cardiac Failure Review*, 3(1), 7–11. <https://doi.org/10.15420/cfr.2016:25:2>
- Sayner, R., Carpenter, D. M., Blalock, S. J., Robin, A. L., Muir, K. W., Hartnett, M. E., Giangiacomo, A. L., Tudor, G., & Sleath, B. (2015). Accuracy of patient-reported adherence to glaucoma medications on a visual analog scale as compared with electronic monitors. *Clinical Therapeutics*, 37(9), 1975–1985. <https://doi.org/10.1016/j.clinthera.2015.06.008>
- Schmid, H., Hartmann, B., & Schiffel, H. (2009). Adherence to prescribed oral medication in adult patients undergoing chronic hemodialysis: A critical review of the literature. *European Journal of Medical Research*, 14(5), 185–190. <https://doi.org/10.1186/2047-783x-14-5-185>



- Schroeder, K., Fahey, T., Hay, A. D., Montgomery, A., & Peters, T. J. (2006). Adherence to antihypertensive medication assessed by self-report was associated with electronic monitoring compliance. *Journal of Clinical Epidemiology*, 59(6), 650–651. <https://doi.org/10.1016/j.jclinepi.2005.10.013>
- Schüz, B., Marx, C., Wurm, S., Warner, L. M., Ziegelmann, J. P., Schwarzer, R., & Tesch-Römer, C. (2011). Medication beliefs predict medication adherence in older adults with multiple illnesses. *Journal of Psychosomatic Research*, 70(2), 179–187. <https://doi.org/10.1016/j.jpsychores.2010.07.014>
- Scott, K., Campbell, C., Skovdal, M., Madanhire, C., Nyamukapa, C., & Gregson, S. (2013). What can companies do to support HIV-positive workers? Recommendations for medium-and large-sized African workplaces. *International Journal of Workplace Health Management*, 6, 174–188. <https://doi.org/10.1108/IJWHM-12-2010-0043>
- Seid, M. A., Toleha, H. N., & Sema, F. D. (2023). Medication Nonadherence and Associated Factors among Heart Failure Patients at University of Gondar Comprehensive Specialized Hospital, Northwest Ethiopia. *International Journal of Chronic Diseases*, 2023, 1824987. <https://doi.org/10.1155/2023/1824987>
- Sewerynek, E., Dabrowska, K., Skowrońska-Jóźwiak, E., Zygmunt, A., & Lewiński, A. (2009). Compliance with alendronate 10 treatment in elderly women with postmenopausal osteoporosis. *Endokrynologia Polska*, 60, 76–81.
- Shamsi, A., Yavarmanesh, H., Harati, H., Eiliaei, S., & Sadeghian, M. (2020). The relationship between medication adherence and affective temperaments in patients with congestive heart failure. *Psychiatria (Psychiatry)*, 17(3), Article 3. <https://doi.org/10.5603/PSYCH.2020.0024>
- Shojaee, A., Azimi, A. V., Naderi, N., Salaree, M. M., & Faizi, F. (2023). Predictions of Adherence to Treatment in Patients Referred to the Heart Failure Clinic of Shahid Rajaee Hospital in Tehran. *Research in Cardiovascular Medicine*, 12(1), 8. https://doi.org/10.4103/rcm.rcm_36_22
- Srivastava, K., Arora, A., Kataria, A., Cappelleri, J. C., Sadosky, A., & Peterson, A. M. (2013). Impact of reducing dosing frequency on adherence to oral therapies: A literature review and meta-analysis. *Patient Preference and Adherence*, 7, 419–434. <https://doi.org/10.2147/PPA.S44646>
- Stirratt, M. J., Dunbar-Jacob, J., Crane, H. M., Simoni, J. M., Czajkowski, S., Hilliard, M. E., Aikens, J. E., Hunter, C. M., Velligan, D. I., Huntley, K., Ogedegbe, G., Rand, C. S., Schron, E., & Nilsen, W. J. (2015). Self-report measures of medication adherence behavior: Recommendations on optimal



- use. *Translational Behavioral Medicine*, 5(4), 470–482. <https://doi.org/10.1007/s13142-015-0315-2>
- Studer, C. M., Linder, M., & Pazzaglia, L. (2023). A global systematic overview of socioeconomic factors associated with antidiabetic medication adherence in individuals with type 2 diabetes. *Journal of Health, Population, and Nutrition*, 42, 122. <https://doi.org/10.1186/s41043-023-00459-2>
- Supramaniam, P., binti Ali, A., Li Yun, C., Pei Yi, C., binti Shaari, A., binti Kamaruzaman, N. H., Jia Yi, S., Keat Ming, T., Yuan Liang, W., & Pei Wen, Y. (2019). Reliability and validity of Beliefs on Medicine Questionnaire (BMQ) in diabetes mellitus patients: Malay Translated Version. *International Journal of Scientific and Research Publications (IJSRP)*, 9(2), p8609. <https://doi.org/10.29322/IJSRP.9.02.2019.p8609>
- Svarstad, B. L., Chewning, B. A., Sleath, B. L., & Claesson, C. (1999). The Brief Medication Questionnaire: A tool for screening patient adherence and barriers to adherence. *Patient Education and Counseling*, 37(2), 113–124. [https://doi.org/10.1016/s0738-3991\(98\)00107-4](https://doi.org/10.1016/s0738-3991(98)00107-4)
- Tajabadi, M., Goran Orlimi, H., Ramzgouyan, M. R., Nemati, A., Deravi, N., Beheshtizadeh, N., & Azami, M. (2022). Regenerative strategies for the consequences of myocardial infarction: Chronological indication and upcoming visions. *Biomedicine & Pharmacotherapy*, 146, 112584. <https://doi.org/10.1016/j.biopha.2021.112584>
- Tan, C. S. (2020). The Need of Patient Education to Improve Medication Adherence Among Hypertensive Patients. *Malaysian Journal of Pharmacy (MJP)*, 6(1), 1–5.
- Te Paske, R., Vervloet, M., Linn, A. J., Brabers, A. E. M., van Boven, J. F. M., & van Dijk, L. (2023). The impact of trust in healthcare and medication, and beliefs about medication on medication adherence in a Dutch medication-using population. *Journal of Psychosomatic Research*, 174, 111472. <https://doi.org/10.1016/j.jpsychores.2023.111472>
- The Impact of Employment on HIV Treatment Adherence.* (2013). [Report]. http://www.ilo.org/global/topics/hiv-aids/publications/WCMS_230625/lang--en/index.htm
- Thompson, K., Kulkarni, J., & Sergejew, A. A. (2000). Reliability and validity of a new Medication Adherence Rating Scale (MARS) for the psychoses. *Schizophrenia Research*, 42(3), 241–247. [https://doi.org/10.1016/s0920-9964\(99\)00130-9](https://doi.org/10.1016/s0920-9964(99)00130-9)
- Tinoco, M. S., Groia-Veloso, R. C. de S., Santos, J. N. D. dos, Cruzeiro, M. G. M., Dias, B. M., & Reis, A. M. M. (2021). Medication regimen complexity of coronary artery disease patients. *Einstein (São Paulo)*, 19, eAO5565. https://doi.org/10.31744/einstein_journal/2021AO5565



- Trivedi, R. B., Ayotte, B., Edelman, D., & Bosworth, H. B. (2008). The Association of Emotional Well-being and Marital Status with Treatment Adherence among Patients with Hypertension. *Journal of Behavioral Medicine*, 31(6), 489–497. <https://doi.org/10.1007/s10865-008-9173-4>
- van der Wal, M. H. L., Jaarsma, T., Moser, D. K., Veeger, N. J. G. M., van Gilst, W. H., & van Veldhuisen, D. J. (2006). Compliance in heart failure patients: The importance of knowledge and beliefs. *European Heart Journal*, 27(4), 434–440. <https://doi.org/10.1093/eurheartj/ehi603>
- van der Wal, M. H. L., Jaarsma, T., & van Veldhuisen, D. J. (2005). Non-compliance in patients with heart failure; how can we manage it? *European Journal of Heart Failure*, 7(1), 5–17. <https://doi.org/10.1016/j.ejheart.2004.04.007>
- van der Wal, M. H. L., van Veldhuisen, D. J., Veeger, N. J. G. M., Rutten, F. H., & Jaarsma, T. (2010). Compliance with non-pharmacological recommendations and outcome in heart failure patients. *European Heart Journal*, 31(12), 1486–1493. <https://doi.org/10.1093/eurheartj/ehq091>
- Vik, S. A., Maxwell, C. J., & Hogan, D. B. (2004). Measurement, correlates, and health outcomes of medication adherence among seniors. *The Annals of Pharmacotherapy*, 38(2), 303–312. <https://doi.org/10.1345/aph.1D252>
- Vik, S. A., Maxwell, C. J., Hogan, D. B., Patten, S. B., Johnson, J. A., & Slack, L. R.-. (2005). ASSESSING MEDICATION ADHERENCE AMONG OLDER PERSONS IN COMMUNITY SETTINGS. *Journal of Population Therapeutics and Clinical Pharmacology*, 12(1), Article 1. <https://www.jptcp.com>
- Virani, S. S., Alonso, A., Benjamin, E. J., Bittencourt, M. S., Callaway, C. W., Carson, A. P., Chamberlain, A. M., Chang, A. R., Cheng, S., Delling, F. N., Djousse, L., Elkind, M. S. V., Ferguson, J. F., Fornage, M., Khan, S. S., Kissela, B. M., Knutson, K. L., Kwan, T. W., Lackland, D. T., ... American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. (2020). Heart Disease and Stroke Statistics-2020 Update: A Report From the American Heart Association. *Circulation*, 141(9), e139–e596. <https://doi.org/10.1161/CIR.0000000000000757>
- Vrijens, B., Antoniou, S., Burnier, M., de la Sierra, A., & Volpe, M. (2017). Current Situation of Medication Adherence in Hypertension. *Frontiers in Pharmacology*, 8. <https://www.frontiersin.org/articles/10.3389/fphar.2017.00100>
- Vrijens, B., De Geest, S., Hughes, D. A., Przemyslaw, K., Demonceau, J., Ruppar, T., Dobbels, F., Fargher, E., Morrison, V., Lewek, P., Matyjaszczyk, M., Mshelia, C., Clyne, W., Aronson, J. K., Urquhart, J., & ABC Project Team.



- (2012). A new taxonomy for describing and defining adherence to medications. *British Journal of Clinical Pharmacology*, 73(5), 691–705. <https://doi.org/10.1111/j.1365-2125.2012.04167.x>
- Watkins, R. E., & Plant, A. J. (2004). Pathways to treatment for tuberculosis in Bali: Patient perspectives. *Qualitative Health Research*, 14(5), 691–703. <https://doi.org/10.1177/1049732304263628>
- Weiner, J. R., Toy, E. L., Sacco, P., & Duh, M. S. (2008). Costs, quality of life and treatment compliance associated with antibiotic therapies in patients with cystic fibrosis: A review of the literature. *Expert Opinion on Pharmacotherapy*, 9(5), 751–766. <https://doi.org/10.1517/14656566.9.5.751>
- Wibowo, M. I. N. A., Yasin, N. M., Kristina, S. A., & Prabandari, Y. S. (2022). Exploring of Determinants Factors of Anti-Diabetic Medication Adherence in Several Regions of Asia—A Systematic Review. *Patient Preference and Adherence*, 16, 197–215. <https://doi.org/10.2147/PPA.S347079>
- Wu, J.-R., & Moser, D. K. (2018). Medication Adherence Mediates the Relationship Between Heart Failure Symptoms and Cardiac Event-Free Survival in Patients With Heart Failure. *The Journal of Cardiovascular Nursing*, 33(1), 40–46. <https://doi.org/10.1097/JCN.0000000000000427>
- Wu, J.-R., Moser, D. K., Lennie, T. A., & Burkhardt, P. V. (2008). Medication Adherence in Patients Who Have Heart Failure: A Review of the Literature. *Nursing Clinics of North America*, 43(1), 133–153. <https://doi.org/10.1016/j.cnur.2007.10.006>
- Wu, P., Johnson, B. A., Nachega, J. B., Wu, B., Ordonez, C. E., Hare, A. Q., Kearns, R., Murphy, R., Sunpath, H., & Marconi, V. C. (2014). The combination of pill count and self-reported adherence is a strong predictor of first-line ART failure for adults in South Africa. *Current HIV Research*, 12(5), 366–375. <https://doi.org/10.2174/1570162x1205141121102501>
- Ying-xia, L. H. L. G. Z. L. D. B. L. L. Z. (2016). Study on the medication adherence in patients with type 2 diabetes by electronic monitoring and scale assessment. *JOURNAL OF SHANGHAI JIAOTONG UNIVERSITY (MEDICAL SCIENCE)*, 36(06), 901. <https://doi.org/10.3969/j.issn.1674-8115.2016.06.023>
- Zhang, N. J., Terry, A., & McHorney, C. A. (2014). Impact of health literacy on medication adherence: A systematic review and meta-analysis. *The Annals of Pharmacotherapy*, 48(6), 741–751. <https://doi.org/10.1177/1060028014526562>
- Zhang, Y., Wu, S.-H., Fendrick, A. M., & Baicker, K. (2013). Variation in Medication Adherence in Heart Failure. *JAMA Internal Medicine*, 173(6), 468–470. <https://doi.org/10.1001/jamainternmed.2013.2509>



**THE IMPACT OF COST, BELIEFS, AND REGIMEN COMPLEXITY ON MEDICATION ADHERENCE
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PATIENTS IN YEMEN: A CROSS-SECTIONAL STUDY**

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Zullig, L. L., Mendys, P., & Bosworth, H. B. (2017). Medication adherence: A practical measurement selection guide using case studies. *Patient Education and Counseling*, 100(7), 1410–1414.
<https://doi.org/10.1016/j.pec.2017.02.001>