Impact of pharmacists' intervention in improving adherence among patients with schizophrenia

Dear Editor,

Schizophrenia is defined as a harsh conceptual

and perceptual ailment, characterized by profound disruptions in thinking and affecting language. The patients experience such as hearing voices or illusions, and the wisdom of self.^[1,2] According to the World Health Organization (WHO), schizophrenia distresses more than 21 million people worldwide. By 2020, the WHO forecasts that in urbanized states, mental disorders will be the second foremost reason of frailty and premature decease, after congenital disease. Malaysia has reported 7351 cases from 2003 to 2005 as the National Mental Health Registry for Schizophrenia is documented.^[1] The incidence rate is higher in males compared to women, whereas the median incidence rate was 15.2/100,000 (range of 7.7–43.0/100,000).^[1]

Management of schizophrenia possessed great challenges because numerous studies have shown a significant, long-lasting health, social, and economic burden on healthcare givers, caregivers, and community. According to García-Ruiz *et al.* (2012), the total cost of managing schizophrenia patient is high in most countries. This statement is strongly justified by Jacob *et al.* in 2013 that an escalation of \$888 in management costs (P < 0.0001) and an escalation of \$4244 in total costs (P < 0.0001) are due to polypharmacy of antipsychotics.^[3]

"Non-adherence" is well-defined as the user choice not to consume given medicine,[4] and when the depressed patients not comply with treatment plans, it becomes a probable reason for the augmented hospital admission rates. As a result, they may be hospitalized due to relapse, or the illness become more-severe or the ailment will be in a progressive stage of their condition, which can ominously the length of stay in the hospital and affects the health outcome.[4] According to Tharani et al., [5] 2013, many factors have been ruled out as the reason why they are not adhered to their medication. One of the factors is that the healthcare provider cannot distinguish between deprived responses versus poor adherence as the limited assessment. Theoretically, enlightening adherence can help to prevent relapse and rehospitalization. Ioasa-Martin and Moore have addressed this issue to get a better outcome for the treatment.

A study carried out by Aaltonen *et al.*, in 2010 stated that the mental disorder patients have reported their dissatisfaction with the information given by the healthcare provider upon collecting the medication after discharge from the ward or regular follow-up. The complex prescription due to polypharmacy of antipsychotic medication^[3] and concurrent diseases^[2,6] may be steered to misunderstanding. A clear guidance and enough information from the healthcare provider are required.

Pharmacists can play a significant role in the major care of patients with mental illness through the establishment in medication monitoring. It has shown to have an especially strong encouragement, resilient impact on patient satisfaction with and adherence to antipsychotic given. Many countries recognized that pharmacists can help to identify medication-related problems and assist patient's knowledge in antipsychotic medication. Their contribution is found valuable, and it is approved by a study conducted by Al-Somai *et al.* in 2014 that have mentioned 37.4% of the complications associated with drug consuming can be eradicated through the

education given by the pharmacist.^[9] William and Purvis also found that percentage of termination rates is reduced to <50% with the involvement of pharmacist in the clozapine clinic for schizophrenia.^[10]

In Malaysia, the pharmacist involvement in schizophrenia medication adherence is still in preliminary level. For the time being, they are focusing on the technical part of dispensing alone. They should expand the role in the experience of people when taking the medication and it is required by the law that pharmacist should also be involved in giving patient education and counseling, adjustment of dosages, monitoring adherence, and management of adverse drug reactions medication counseling. Pharmacist should review the complicated list of medication that was prescribed to the patient, giving consultation and estimating patient's compliance through many tools such as pill counts, patient's self-report, blood monitoring, and others.[11] In the beginning, the pharmacist team should identify the barriers to expand their services in mental health issues. A study carried out in O'Reilly et al. in 2011[8] on the pharmacists' attitudes and beliefs about treatments and outcomes of mental disorders medication adherence, pill counts etc., showed that there were such stigma and the absence of acquaintance of mental illness which can interfere with and limit proficient practice.[12] According to Liekens et al.,[7] in 2014, they have confidence in that a venture in advanced training programs for pharmacists in the delivery of mental health services is justified. In-house training is found to be useful for the pharmacist to be well equipped with the knowledge in mental health education and yet give their full support to mental disorder diseases confidently as giving consultation in the chronic diseases, for example, diabetes medication adherence clinic^[13] and asthma.^[14] Yet pharmacists' role is necessary in the shift toward a patient-centered practice. Besides, patients want to be seen as individuals with exclusive understandings, opinions, and needs regarding medication to facilitate greater patient involvement in his or her treatment.[15] Study carried out by Liekens et al. in 2014 also pointed out another limitation for the pharmacist in assisting schizophrenia patient to have a better adherence such as restriction in private space that can help pharmacist to give a better counseling on antipsychotic medication. They also found that the open counter system may restrict the information given by the pharmacist since they are uncomfortable compared in giving advice for other chronic illness. As a conclusion, further training such as internship training and continuing professional development activities for pharmacist in mental health is found beneficial because it was proven that pharmacist intervention is valuable in patient adherence to the medication.^[7,14]

Acknowledgment

The authors thank the Ministry of Higher Education and Ministry of Health Malaysia for Master's degree scholarship.

Financial support and sponsorship Nil.

Conflicts of interest

There are no conflicts of interest.

Wan Nur Asyiken Wan Ab Rahman¹, Sarah Diyana Shafie¹, Long Chiau Ming^{1,2}

¹Faculty of Pharmacy, Universiti Teknologi MARA, Puncak Alam, Selangor, Malaysia, ²Unit for Medication Outcomes Research and Education (UMORE), Pharmacy, School of Medicine, University of Tasmania, Australia

Address for correspondence:

Dr. Long Chiau Ming, Wan Nur Asyiken Wan Ab Rahman, Level 11, FF1, Faculty of Pharmacy, Universiti Teknologi MARA, 42300 Puncak Alam, Selangor, Malaysia.

E-mail: wannikinn@gmail.com; ming.long@bath.edu

REFERENCES

- Malaysia MoH. Schizophrenia Clinical Practice Guideline. Malaysia MoH; 2009.
- 2. García-Ruiz AJ, Pérez-Costillas L, Montesinos AC, Alcalde J, Oyagüez I, Casado MA. Cost-effectiveness analysis of antipsychotics in reducing schizophrenia relapses. Health Econ Rev 2012;2:8.
- 3. Jacob S, Ibrahim MM, Mohammed F. Polypharmacy in the management of patients with schizophrenia on risperidone in a tertiary-care hospital in Malaysia. Ment Health Fam Med 2013;10:37-43.
- Ioasa-Martin I, Moore LJ. Problems with non-adherence to antipsychotic medication in Samoan New Zealanders: A literature review. Int J Ment Health Nurs 2012;21:386-92.
- Tharani AJ, Farooq S, Saleem F, Naveed A. Compliance to antipsychotic medication: A challenge for client, family and health care providers. J Pak Med Assoc 2013;63:516-8.
- 6. Castillo S, Begley K, Ryan-Haddad A, Sorrentino E, Twum-Fening K. Depression in the elderly: A pharmacist's perspective. Formulary 2013;48:1-12.
- 7. Liekens S, Vandael E, Roter D, Larson S, Smits T,

- Laekeman G, et al. Impact of training on pharmacists' counseling of patients starting antidepressant therapy. Patient Educ Couns 2014;94:110-5.
- 8. O'Reilly CL, Bell JS, Chen TF. Pharmacists' beliefs about treatments and outcomes of mental disorders: A mental health literacy survey. Aust N Z J Psychiatry 2010;44:1089-96.
- Al-Somai N, Al-Muhur M, Quteimat O, Hamzah N. The impact of clinical pharmacist and ID intervention in rationalization of antimicrobial use. Saudi Pharm J 2014;22:516-21.
- 10. Williams T, Purvis TL. Development of an outpatient pharmacist-managed clozapine clinic. Am J Health Syst Pharm 2012;69:1192-5.
- 11. Valenstein M, Kavanagh J, Lee T, Reilly P, Dalack GW, Grabowski J, *et al.* Using a pharmacy-based intervention to improve antipsychotic adherence among patients with serious mental illness. Schizophr Bull 2011;37:727-36.
- 12. Aaltonen SE, Laine NP, Volmer D, Gharat MS, Muceniece R, Vitola A, *et al.* Barriers to medication counselling for people with mental health disorders: A six country study. Pharm Pract (Granada) 2010;8:122-31.
- 13. Butt M, Mhd Ali A, Bakry MM, Mustafa N. Impact of a pharmacist led diabetes mellitus intervention on HbA1c, medication adherence and quality of life: A randomised controlled study. Saudi Pharm J 2015.
- 14. Mey A, Hattingh L, Davey AK, Knox K, Fejzic J, Wheeler AJ. Preparing community pharmacists for a role in mental health: An evaluation of accredited Australian pharmacy programs. Curr Pharm Teach Learn 2015;7:371-7.
- 15. Chong WW, Aslani P, Chen TF. Pharmacist-patient communication on use of antidepressants: A simulated patient study in community pharmacy. Res Social Adm Pharm 2014;10:419-37.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code:	Website:
	www.archivepp.com
	DOI:
	10.4103/2045-080X.174941

How to cite this article: Wan Ab Rahman WA, Shafie SD, Ming LC. Impact of pharmacists' intervention in improving adherence among patients with schizophrenia. Arch Pharma Pract 2016;7:27-9.

eproduced with permission of the copyright owner. Further reproduction prohibited wit rmission.	thout