The Drug Attitude Inventory Used in Long-Term Patients in Kamenge Neuropsychiatric Center

Jean Berchmans Ndarusanze

Ph. D Neurosciences Student
Doctoral School of Burundi
University of Burundi, Burundi

Abstract

Background: Many patients with schizophrenia and other mentally ill patients come regularly to the Neuropsychiatric Center of Kamenge, for consultation and medication. In the long-term treatment of schizophrenia, treatment non-adherence and drug discontinuation are large problems (Uggerby et al, 2011). For monitoring treatment adherence among people with schizophrenia, the Drug Attitude Inventory (DAI) in 10-item versions provides unique information of clinical relevance.

Objective: The overall aim of this research was to screen for drug adherence and non-drug adherence, among sheltered patients with schizophrenia and other psychotic illness. This paper's aim differs from the purpose of Stjernswärd, S. et al. (2013) study which was the DAI-10 instrument evaluation.

Methode: Data were collected, among 19 persons most of them (52.63%) were diagnosed with schizophrenia 47.36% with other psychoses.

Measures: Standard statistical methods as implemented in the IBM SPSS 25 were fitted. Central tendency variables (frequency, mean) and percentages analysis were fitted.

Results: The average of the answers on Item 6 is 94.7% 'negative responses', showing an attitude against self-medication; whereas, Item 3 refers to an important

adherence-relevant aspect (100% perceived that their drug treatment was forced upon them). Items, 1, 4, 7, 9, and, 10 refer to the wanted effects of the drug treatment.

The average of positive answers in favor of drugs is 93.68%. Items, 2, 5, and, 8, refer to unwanted effects of the drug treatment and represent an average of 24.6 % of positive responses: interventions focusing on side effects should be initiated.

Conclusion: The treatment of such patients should be accompanied by permanent assistance and surveillance to ensure drugs are correctly taken.

To enhance the dialogue with patients and patient participation in care, the DAI-10 can be administered by staff at all levels of care (Gray et al., 2010).

Keywords: Correlation; Psychoses; self-report instrument; schizophrenia

1. Introduction

Many patients with schizophrenia come regularly to the Neuropsychiatric Center of Kamenge [1] for consultation and medication from their home. In accordance with the availability of beds, those in need of continuous support and monitoring may be referred to hospitalization. A big number of people needing long-term care in psychiatric institutions are diagnosed with schizophrenia (Taylor et al., 2009) [2]. In long term treatment of schizophrenia, treatment non-adherence and drug discontinuation are large problems (Uggerby et al, 2011) [3]. Among first episode patients with schizophrenia, in the EUFEST project, many potential predictors of future non-adherence were assessed (Gaebel et al., 2010) [4]. In DAI-10, there are four negatively phrased items and six positively phrased items. Most of the positively phrased items refer to symptom reduction, when three of the negatively phrased ones refer to side effects. Data were collected among 19 persons living in for a long time, most of them (52.63%) diagnosed with schizophrenia, 47.36% with other psychoses. One item concerned the perceived control over one's drug treatment(*Item 3),* which is a key clinical issue[5].

The overall aim of this research was to screen for drug adherence and non-drug adherence among persons with schizophrenia and other psychotic illness at Kamenge Neuropsychiatric Center.

My research paper aimed at demonstrating the ability of insight in patients with schizophrenia and other psychoses, to differentiate between symptoms due to the disease, and the side effects of drugs; and this by their own interpretation through a special tool of the DAI-10.

My paper's aim differs from the purpose of Stjernswärd, S. et al. (2013) study which was the DAI-10 instrument evaluation.

2. Materials and methods

1.1. 2.1. Participants

Nineteen patients with psychiatric disorders in a group of mentally ill patients during the years 2021, were asked to participate. Participants were informed about the research project by the researcher at the beginning before they participate. Each person, individually, was asked by the researcher, to fill in a self-report form. Nineteen patients accepted to participate and fill the questionnaires in presence of the researcher and medical staff.

1.1.1. 2.1. Measures

1.1.2. 2.1.1. The DAI-10

The standard DAI-10 phrasing in Kirundi translation was used.

The items are listed in Table 1 below.

Table 1. Items of the DAI-10. **Bold items refer to symptom reduction**; *items in italic refer to side-effects.* Item three refers to the perceived control over one's drug treatment. Item 6 is conceptually ambiguous.

1. For me, the good things about medication outweigh the bad
2. I feel strange, "doped up", on medication
3. I take medications of my own free choice
4. Medications make me feel more relaxed
5. Medication makes me feel tired and sluggish
6. I take medication only when I feel ill
7. I feel more normal on medication
8. It is unnatural for my mind and body to be controlled by medications
9. My thoughts are clearer on medication
10. Taking medication will prevent me from having a breakdown

Table 1: The DAI-10

1.1.3. Statistical, Methods

Statistical methods, as implemented in the IBM SPSS 25, were fitted.

1.1.4. 2.2.3. Ethics

The mother project, including this study, was approved by the Research Direction of the University of Burundi and the Neuropsychiatric Center of Kamenge.

3. Results

Nineteen participants of diverse psychotic disorders were included (men, women). The age range was 20 to 61 years, with a median age of 35 years.

Diagnosis according to ICD10 and current drug treatment were obtained from their physicians: 52.63 % had schizophrenia and 47.37% was diagnosed with various psychoses: 5.26 % of bipolar disorders, 26.31% of acute psychosis, 5.26 % of puerperal stress psychosis and Co-morbid substance misuse was registered for 10.52% (5.26 % of drug psychosis, 5.26 % alcohol psychosis). Thus more than 99% of the group were able to rate the items in a meaningful way. None of the 19 response alternatives were empty.

Item 6 is conceptually ambiguous (94.7% responded ''***No***''*, showing an attitude against self-medication*) whereas Item 3 refers to an important adherence-relevant aspect (100% perceived that their drug treatment was forced upon them). ***Items, 1, 4, 7, 9, and, 10***, (see Table 1) are all positively phrased and refer to the wanted effects of the drug treatment. The average of positive answers in favor of drugs is 93.68%.
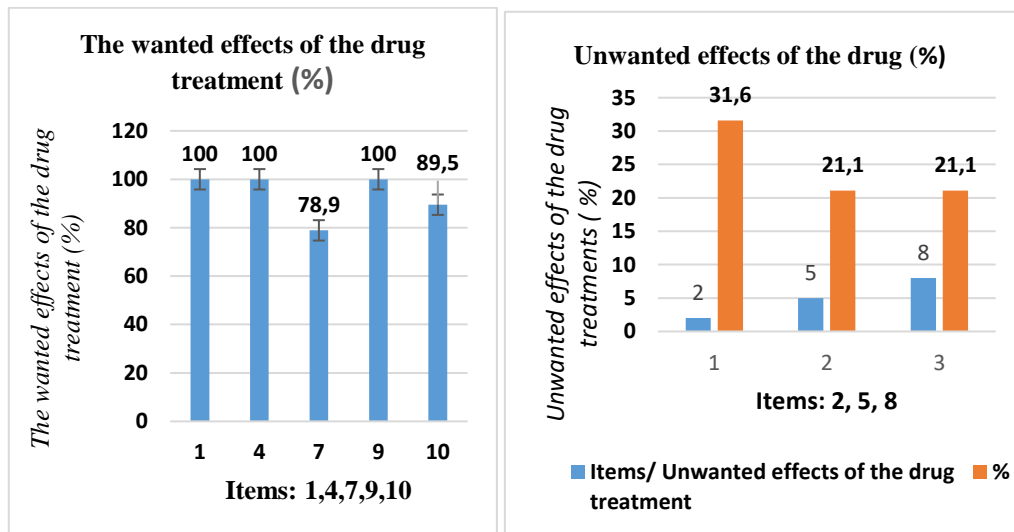
Frequency table

For me, the good things about medication outweigh the bad

		Fréquence	Pourcentage	Pourcentage valide
Valide	Yes	19	100,0	100,0

Medications make me feel more relaxed

		Fréquence	Pourcentage	Pourcentage valide
Valide	Yes	19	100,0	100,0

I feel more normal on medication

		Fréquence	Pourcentage	Pourcentage valide
Valide	No	4	21,1	21,1
	Yes	15	78,9	78,9
	Total	19	100,0	100,0

My thoughts are clearer on medication

		Fréquence	Pourcentage	Pourcentage valide
Valide	Yes	19	100,0	100,0

Taking medication will prevent me from having a breakdown

		Fréquence	Pourcentage	Pourcentage valide
Valide	No	2	10,5	10,5
	Yes	17	89,5	89,5
	Total	19	100,0	100,0

Frequency table

I feel strange, "doped up", on medication

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	No	13	68,4	68,4	68,4
	Yes	6	31,6	31,6	100,0
	Total	19	100,0	100,0	

Medication makes me feel tired and sluggish

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	No	15	78,9	78,9	78,9
	Yes	4	21,1	21,1	100,0
	Total	19	100,0	100,0	

It is unnatural for my mind and body to be controlled by medications

		Fréquence	Pourcentage	Pourcentage valide	Pourcentage cumulé
Valide	No	15	78,9	78,9	78,9
	Yes	4	21,1	21,1	100,0
	Total	19	100,0	100,0	

<u>*Table*</u> *2: Items 1, 4, 7, 9*   <u>*Table*</u> *3: Items 2, 5, and 8*

Items 2, 5 and 8 refer to unwanted effects of the drug treatment, and represent an average of 24.6 % of positive responses.

I take medications of my own free choice		
	Frequency	**Pourcentage**
No	19	100

Table 4: *Items 3* refers to the perceived control over one's drug treatment 100%; this means that all the 19 patients with schizophrenia are not deciding which drugs they will take.

4. Discussion

Most of these seriously ill long-term patients were able to respond to the items in a statistically as well as clinically meaningful way. Items, 1, 4, 7, 9, and, 10, (see Table 1) are all positively phrased and refer to the wanted effects of the drug treatment. The average of positive answers in favor of drugs is 93.68%.

If the Negative percentage of the responses is high, which was the case for 24.6% of the participants, interventions focusing on side-effects should be initiated. Then the pattern of significant side effects can be assessed and appropriate interventions can be initiated. Finally, if Item 3 is scored 100%, the issue of perceived lack of control over one's medication should be

addressed, by improving insight and underlining shared responsibility and decision-making.

The average of positive answers in favor of drugs (Drug adherence) is 93.68% compared to 100% who perceive that their drug treatment was forced upon them; thus, 7% of patients do not adhere to treatments, when 100% consider that the drugs are prescribed to them without their consent.

My research paper aimed at demonstrating the ability of insight in patients with schizophrenia and other psychoses, to differentiate between symptoms due to the disease, and the side effects of drugs; while pronouncing their lack of consent when to the drugs which are prescribed to them and this by their own interpretation through a special tool of the DAI-10.

The average of positive answers in favor of drugs is 93.68% reveals the relevance of the drugs in the sight of patients to help them feel delivered from their symptoms and thereby, delivered from their serious state of illness.

The responses reveal the imperative need for monitoring and permanent assistance in the taking of drugs by the families, given that all (100%) of schizophrenic patients and other mentally ill patients concerned by this study display a lack of consent in relationship with medications prescribed to them.

5. Conclusion

To identify needs for different types of adherence-improving interventions, among seriously mentally ill patients, DAI-10 is an easy-to-use report instrument for monitoring drug attitudes. To enhance the dialogue with patients and patient participation in care, the DAI-10 can be administered by staff at all levels of care (Gray et al., 2010).

Conflict of interest: *No conflict*

References

[1] D. Dassa, L. Boyer, M. Benoit, S. Bourcet, P. Raymondet, T. Bottai, Factors associated with medication non-adherence in patients suffering from schizophrenia: a cross-sectional study in a universal coverage health-care system, *Australian & New Zealandjournal of Psychiatry*, **44** (2010), 921-928. https://doi.org/10.3109/00048674.2010.493503

[2] T. Lecomte, A. Spidel, C. Leclerc, G. W. MacEwan, C. Greaves, R. P. Bentall, Predictors and profiles of treatment non-adherence and engagement in services problems in early psychosis *Schizophrenia Research*, **102** (2008), no. 1-3, 295-302. https://doi.org/10.1016/j.schres.2008.01.024

[3] R. E. Nielsen, E. Lindström, J. Nielsen, S. Levander, DAI-10 is as good as DAI-30 in schizophrenia, *European Neuropsychopharmacology*, **22** (2012), no. 10, 747-750. https://doi.org/10.1016/j.euroneuro.2012.02.008

[4] S. Stjernswärd, K. Persson, R. Nielsen, E. Tuninger, S. Levander, A modified Drug Attitude Inventory used in long-term patients in sheltered housing. *European Neuropsychopharmacology*, **23** (2013), no. 10, 1296-1299. https://doi.org/10.1016/j.euroneuro.2012.11.011

[5] F. Van Wolvelaer, Alcohol addiction treatment programs in Bujumbura, Burundi.