



Source details

Journal of Basic and Clinical Physiology and Pharmacology

Formerly known as: *Reviews in Clinical and Basic Pharmacology*

Scopus coverage years: from 1985 to 1988, from 1990 to Present

Publisher: Walter de Gruyter

ISSN: 0792-6855 E-ISSN: 2191-0286

Subject area: [Pharmacology, Toxicology and Pharmaceutics: Pharmacology](#)

[Pharmacology, Toxicology and Pharmaceutics: Drug Discovery](#)

[Biochemistry, Genetics and Molecular Biology: Physiology](#)

Source type: Journal

CiteScore 2021

2.5

SJR 2021

0.347

SNIP 2021

0.728

[View all documents >](#)

[Set document alert](#)

[Save to source list](#) [Source Homepage](#)

[CiteScore](#) [CiteScore rank & trend](#) [Scopus content coverage](#)

i Improved CiteScore methodology

CiteScore 2021 counts the citations received in 2018-2021 to articles, reviews, conference papers, book chapters and data papers published in 2018-2021, and divides this by the number of publications published in 2018-2021. [Learn more >](#)

CiteScore 2021

$$2.5 = \frac{1,062 \text{ Citations 2018 - 2021}}{421 \text{ Documents 2018 - 2021}}$$

Calculated on 05 May, 2022.

CiteScoreTracker 2022

$$2.5 = \frac{913 \text{ Citations to date}}{367 \text{ Documents to date}}$$

Last updated on 05 May, 2022 - Updated monthly

CiteScore rank 2021

Category	Rank	Percentile
Pharmacology, Toxicology and Pharmaceutics └ Pharmacology	#203/303	33rd
Pharmacology, Toxicology and Pharmaceutics └ Drug Discovery	#109/154	29th

[View CiteScore methodology >](#) [CiteScore FAQ >](#) [Add CiteScore to your site](#)



SJR

Scimago Journal & Country Rank

Enter Journal Title, ISSN or Publisher Name

[Home](#)[Journal Rankings](#)[Country Rankings](#)[Viz Tools](#)[Help](#)[About Us](#)

Journal of Basic and Clinical Physiology and Pharmacology

COUNTRY

Germany

Universities and
research institutions in
Germany**SUBJECT AREA AND
CATEGORY**Biochemistry, Genetics
and Molecular Biology
PhysiologyMedicine
Medicine
(miscellaneous)Pharmacology,
Toxicology and
Pharmaceutics
Drug Discovery
Pharmacology**PUBLISHER**

Walter de Gruyter GmbH

H-INDEX**36****PUBLICATION TYPE**

Journals

ISSN

07926855, 21910286

COVERAGE

1985-1988, 1990-2021

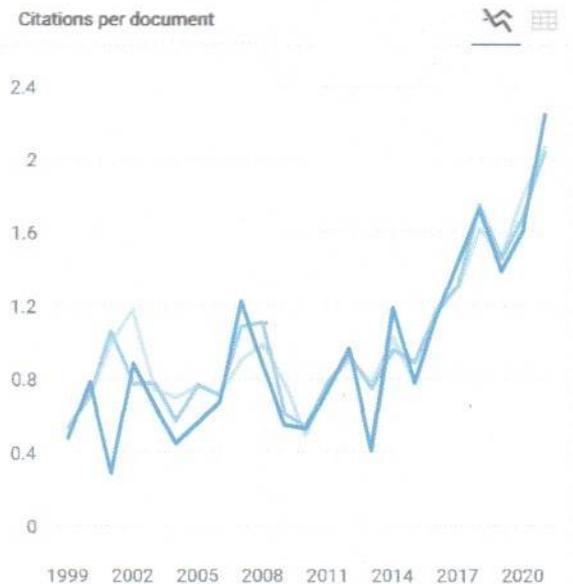
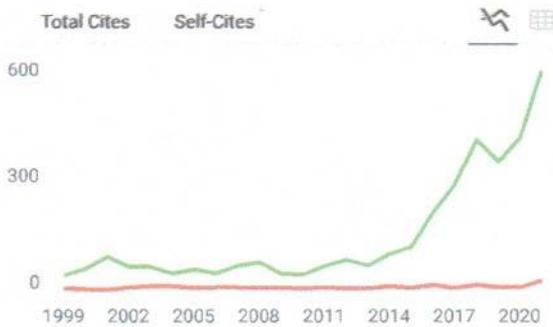
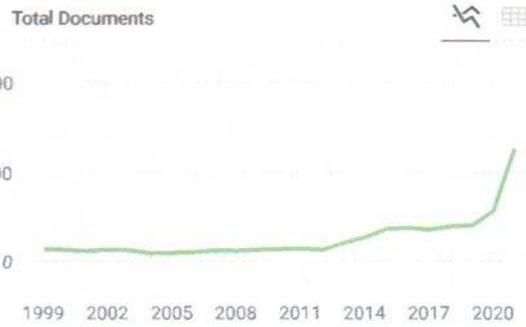
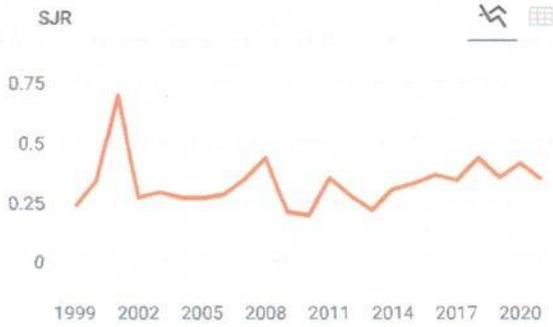
INFORMATION[Homepage](#)[How to publish in this
journal](#)m.horowitz@mail.huji.ac.il**SCOPE**

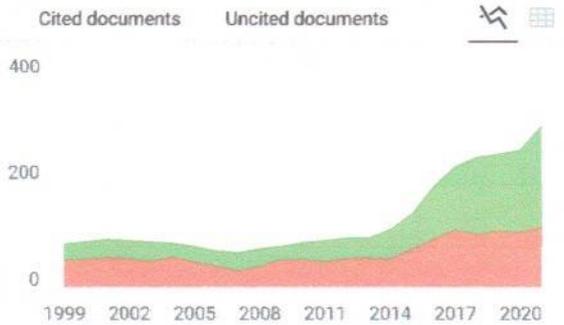
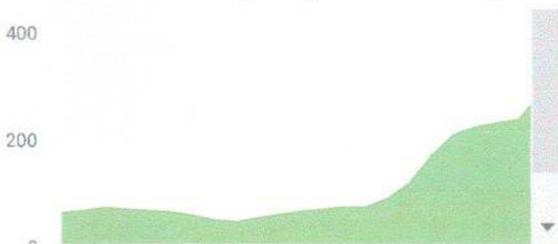
The Journal of Basic and Clinical Physiology and Pharmacology (JBCPP) is a peer-reviewed bi-monthly published journal in experimental medicine. JBCPP publishes novel research in the physiological and pharmacological sciences, including brain research; cardiovascular-pulmonary interactions; exercise; thermal control; haematology; immune response; inflammation; metabolism; oxidative stress; and phytotherapy. As the borders between physiology, pharmacology and biochemistry become increasingly blurred, we also welcome papers using cutting-edge techniques in cellular and/or molecular biology to link descriptive or behavioral studies with cellular and molecular mechanisms underlying the integrative processes. Topics: Behavior and Neuroprotection, Reproduction, Genotoxicity and Cytotoxicity, Vascular Conditions, Cardiovascular Function, Cardiovascular-Pulmonary Interactions, Oxidative Stress, Metabolism, Immune Response, Hematological Profile, Inflammation, Infection, Phytotherapy.

 Join the conversation about this journal

FIND SIMILAR JOURNALS ?

1 Archives of Physiology and Biochemistry GBR 65% similarity	2 International Journal of Pharmacology PAK 62% similarity	3 Pathophysiology CHE 60% similarity	4 Tropical Journal of Pharmaceutical Sciences NGA 60% similarity
--------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------	--------------------------------------------------------------------	------------------------------------------------------------------------------------------------





Journal of Basic and Clinical Physiology and...

Q3 Drug Discovery
best quartile

SJR 2021
0.35

powered by scimagojr.com

← Show this widget in your own website

Just copy the code below and paste within your html code:

```
<a href="https://www.scimagojr.com" style="display: inline-block; width: 100px; height: 15px; background-color: #f0f0f0; border: 1px solid #ccc;">
```

SCImago Graphica

Explore, visually communicate and make sense of data with our **new data visualization tool.**



Metrics based on Scopus® data as of April 2022.

Oman 2 years ago

How much money to publis in this journal

reply

Melanie Ortiz 2 years ago

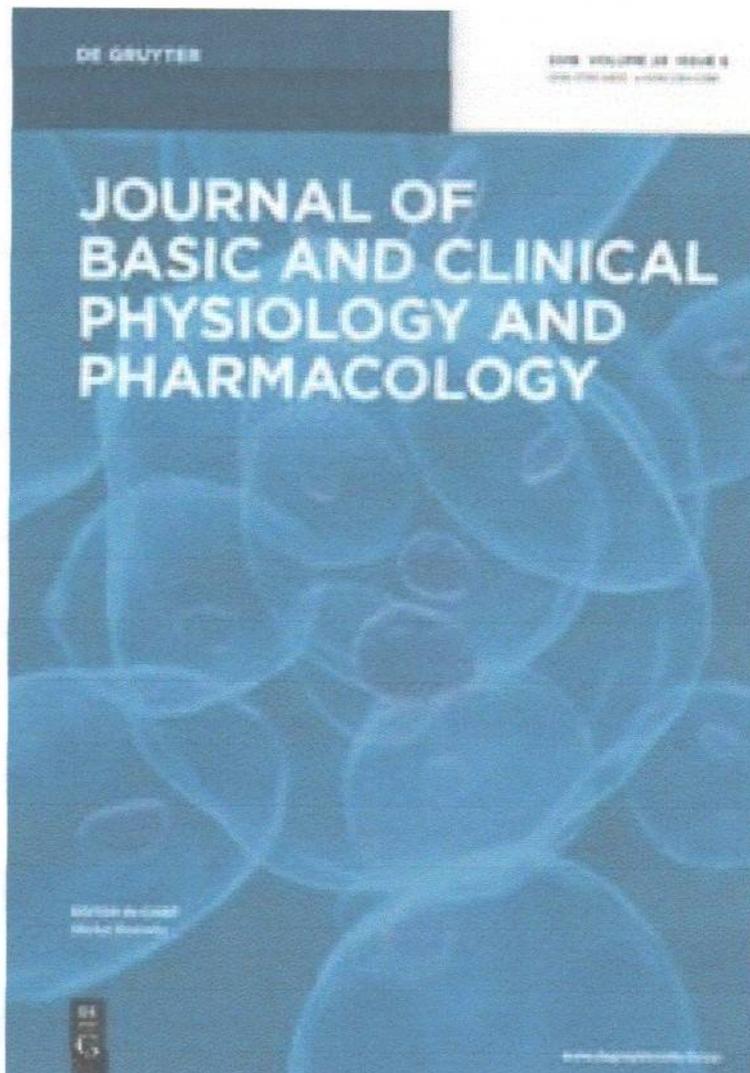
SCImago Team

Dear Oman,
thank you for contacting us.
Unfortunately, we cannot help you with your request, we suggest you visit the journal's homepage or contact the journal's editorial staff , so they could inform you more deeply.
Best Regards, SCImago Team

Daniel Orieko 2 years ago

Please how do you get original article submitted.

reply





Published since December 1, 1986

Journal of Basic and Clinical Physiology and Pharmacology

ISSN: 2191-0286

Editor-in-chief: Ugo Oliviero

Managing Editor: Alberto Marra

[OVERVIEW](#)[LATEST ISSUE](#)[ISSUES](#)[RANKING](#)[SUBMIT](#)[EDITORS](#)

Editorial

Editor-in-Chief:

Ugo Oliviero (Federico II University, Naples, Italy)

Deputy Editor:

Alberto M. Marra (Federico II University, Naples, Italy and University of Heidelberg, Germany)

Associate/Section Editors:

Emergency Medicine: Giorgio Bosso (S. Maria delle Grazie Hospital, Pozzuoli, Naples)

Oncology: Evelyne Bischof (prev. Ewelina Biskup; University Hospital Basel, Switzerland, Shanghai University of Medicine & Health Sciences, Shanghai, China)

Hematology and Coagulation disorders: Pablo Demelo-Rodriguez (G. Marangon Hospital and Universidad Complutense de Madrid, Spain)

Vascular Medicine: Antonio Valvano (Legnano Hospital, Legnano, Italy)

Gastroenterology: Theodor Voiosu (University of Bucharest, Bucharest, Romania)

Liver Disease: Andrei Voiosu (University of Bucharest, Bucharest, Romania)

Neurology and Cerebrovascular: Lorenzo Falsetti (Azienda Ospedaliero-Universitaria "Ospedali Riuniti" di Ancona, Italy)

Gender Medicine: Valeria Raparelli (University of Ferrara, Ferrara, Italy)

Endocrinology: Ieva Ruza, (University of Riga, Riga, Latvia)

Diabetology and Metabolism: Mariarosaria De Luca (Federico II University, Naples)

Cardiovascular Diseases: Andrea Salzano (Glenfield General Hospital, University of Leicester, Leicester, UK)

Heart Failure: Antonio Cittadini (Federico II University of Naples, Naples, Italy)

Respiratory Medicine: Salvatore Torrisi (University of Catania, Catania, Italy)

Geriatrics: Leonardo Bencivenga (Federico II University, Naples, Italy)

Immunology: Gilda Varricchi (Federico II University, Naples, Italy)

Rheumatology: Domenico Sambataro (Artroreuma, Catania, Italy)

Basic Science: Francesca Vinchi (New York Blood Center, New York, USA), Roberta D'Assante (Federico II, Naples),

Urology, Andrology and Nephrology: Felice Crocetto (Federico II University, Naples, Italy)

Editorial Office:

E-mail: jbcpp.editorial@degruyter.com

(Deutsch)

If you have institutional access, your institution may have a subscription to this journal.
Authenticate with your institution to access content.

— or —

Subscription

Electronic Individual

99,00 €

To subscribe

[Contact our sales team](#)

Online ISSN: 2191-0286

Type: Journal

Language: English

Publisher: De Gruyter

First published: December 1, 1986

Publication Frequency: 6 Issues per Year

Audience: researchers and health professionals in the field of clinical physiology and pharmacology

Search journal



Subjects

Architecture and Design

Arts

Asian and Pacific Studies

Business and Economics

Chemistry

Classical and Ancient Near Eastern Studies

Computer Sciences

Cultural Studies

Engineering

General Interest

Geosciences

History



Published by [De Gruyter](#)

Volume 32 Issue 4 - INTERNATIONAL CONFERENCE OF PHARMACY AND HEALTH SCIENCES: The 3rd JOINT CONFERENCE UNAIR - USM; Guest Editors: Suciati & Andang Miatmoko July 2021

Issue of [Journal of Basic and Clinical Physiology and Pharmacology](#)

CONTENTS

JOURNAL OVERVIEW

Publicly Available June 25, 2021

Frontmatter

Page range: i-ii

[Cite this](#)

[Download PDF](#)

Original Articles

Unlicensed June 25, 2021

Cost of illness of diabetes mellitus in Indonesia: a systematic review

Yohana Febriani Putri Peu Patty, Mufarrihah, Yunita Nita

Page range: 285-295

[More ▾](#)

[Cite this](#)

Unlicensed June 25, 2021

Social media health interventions to improve diabetes mellitus patient outcome: a systematic review

Riza Alfian, Umi Athiyah, Yunita Nita

Page range: 297-304

More ▾

Cite this

Unlicensed June 25, 2021

Developing pharmacokinetics–pharmacodynamics model of valproic acid syrup based on prediction of population pharmacokinetics parameter and seizure frequency in Indonesian pediatric epilepsy outpatients

I Komang Prawira Nata Nugraha, Anita Purnamayanti, I Gusti Ngurah Made Suwarba, Nani Parfati

Page range: 305-311

More ▾

Cite this

Unlicensed June 25, 2021

Acetylcholinesterase inhibitory activity of extract and fractions from the root of *Rauvolfia serpentina*(L.) Bth.ex Kurz

Suciati, Debora Poerwantoro, Aty Widayawaruyanti, Kornkanok Ingkaninan

Page range: 313-317

More ▾

Cite this

Unlicensed June 25, 2021

Green tea and its active compound epigallocatechin-3-gallate (EGCG) inhibit neuronal apoptosis in a middle cerebral artery occlusion (MCAO) model

Abdulloh Machin, Imam Susilo, Djoko A. Purwanto

Page range: 319-325

More ▾

Cite this

Unlicensed June 25, 2021

The effects of quercetin on nicotine-induced reward effects in mice

Mahardian Rahmadi, Dian Suasana, Silvy Restuning Lailis, Dinda Monika Nusantara Ratri, Chrismawan Ardianto

Page range: 327-333

More ▾

Cite this

Unlicensed June 25, 2021

Resveratrol ameliorates physical and psychological stress-induced depressive-like behavior

Chrismawan Ardianto, Aniek Setiya Budiatin, I Nengah Budi Sumartha, Nurrahmi Nurrahmi, Mahardian Rahmadi, Junaidi Khotib

Page range: 335-340

More ▾

Cite this

Unlicensed June 25, 2021

Translation and cross-cultural adaption of an instrument measuring patient's well-being under treatment for schizophrenia

Julaeha Julaeha, Umi Athiyah, Margarita Maria Maramis, Agus Sugianto, Andi Hermansyah

Page range: 341-347

More ▾

Cite this

Unlicensed June 25, 2021

Quercetin promotes behavioral recovery and biomolecular changes of melanocortin-4 receptor in mice with ischemic stroke

Tuhfatul Ulya, Chrismawan Ardianto, Putri Anggreini, Aniek Setiya Budiatin, Dwi Setyawan, Junaidi Khotib

Page range: 349-355

More ▾

Cite this

Unlicensed June 25, 2021

Knowledge and attitudes of healthcare professionals on prescribing errors

Desak Ketut Ernawati, Ida Ayu Alit Widhiartini, Endang Budiarti

Page range: 357-362

More ▾

Cite this

Unlicensed June 25, 2021

Inhibition of Ras and STAT3 activity of 4-(tert-butyl)-N-carbamoylbenzamide as antiproliferative agent in HER2-expressing breast cancer cells

Aguslina Kirtishanti, Siswandono Siswodihardjo, I Ketut Suidiana, Desak G. A. Suprabawati, Aristika Dinaryanti

Page range: 363-371

More ▾

Cite this

Unlicensed June 25, 2021

Predicting the molecular mechanism of glucosamine in accelerating bone defect repair by stimulating osteogenic proteins

Maria Apriliani Gani, Ahmad Dzulfikri Nurhan, Aniek Setiya Budiati, Siswandono Siswodihardjo, Junaidi Khotib

Page range: 373-377

More ▾

Cite this

Unlicensed June 25, 2021

Larvicidal toxicity and parasporal inclusion of native *Bacillus thuringiensis* BK5.2 against *Aedes aegypti*

Salamun, Fatimah, Ahmad Fauzi, Seling N. Praduwana, Ni'matuzahroh

Page range: 379-384

More ▾

Cite this

Unlicensed June 25, 2021

Synthesis, ADMET predictions, molecular docking studies, and *in-vitro* anticancer activity of some benzoxazines against A549 human lung cancer cells

Melanny Ika Sulistyowaty, Retno Widyowati, Galih Satrio Putra, Tutuk Budiati, Katsuyoshi Matsunami

Page range: 385-392

More ▾

Cite this

Unlicensed June 25, 2021

Thymoquinone and its derivatives against breast cancer with HER2 positive: *in silico* studies of ADMET, docking and QSPR

Adinda Adelia Wulandari, Achmad Aziz Choiri, Fitria, Tri Widiandani

Page range: 393-401

More ▾

Cite this

Julaeha Julaeha, Umi Athiyah, Margarita Maria Maramis, Agus Sugianto and Andi Hermansyah*

Translation and cross-cultural adaption of an instrument measuring patient's well-being under treatment for schizophrenia

<https://doi.org/10.1515/jbcpp-2021-0002>

Received January 2, 2021; accepted March 8, 2021

Abstract

Objectives: The Subjective Well-Being under Neuroleptic (SWN) Scale is a self-rating scale measuring the well-being of patients with schizophrenia under antipsychotic drug treatment. The instrument has been globally used, with issues regarding the well-being assessment scale across different cultures, patient characteristics, and country-setting remains a controversy. This study aimed to translate and culturally adapt the SWN scale into the Indonesian version (Indonesian Modified SWN or IM-SWN) and evaluate its validity and reliability.

Methods: The SWN instrument was translated and culturally adapted following internationally accepted procedures, including forward translation, expert panel review, backward-translation, pretesting and cognitive interviewing, and psychometric analysis for the final version of the scale. The translated instrument was tested on 108 schizophrenia patients. The instrument's validity and reliability were assessed using Pearson's correlation and Cronbach's Alpha coefficient. Additional analysis for the socio-demographic and psychometric properties of the patient was also conducted.

Results: The range of IM-SWN total score between 30 and 112. IM-SWN was found to have a high-reliability coefficient (0.897), and the internal consistency values of each question item ranged between 0.885 and 0.910. The results also showed a high correlation between five order factors (Physical functioning, mental functioning, self-control, emotional regulation, and social integration), with a total score of between 0.768 and 0.885.

Conclusions: This study highlighted that the IM-SWN is a valid and reliable instrument for measuring well-being among the Indonesian population with schizophrenia.

Keywords: antipsychotics; mental health; schizophrenia; subjective well-being; translation.

Introduction

Within the past 10 years, there has been shifting focus on measuring patients' quality of life towards evaluating a complex set of Economic, Clinical and Humanistic Outcome (ECHO) based on patients' subjective experiences [1]. The World Health Organization (WHO) described the quality of life as "individual perceptions of their position in life in the context of the culture and value system in which they live, and in relation to their goals, expectation, standards, and concerns" [3]. The definition highlights the need to maintain quality of life in the longer term, which might be an issue for patients who received long-term therapy, such as schizophrenia.

Poor patient compliance, service disengagement, and comorbid disorder are some features attributed to the low quality of life in a patient with schizophrenia [2]. Moreover, the patient's condition might even be worsened with disabilities, severe mental illness, and a plethora of disruption both socially and individually to the patient's life [4]. Therefore, it is not surprising that treatment for patients with schizophrenia may comprise understanding the patient's autonomy, right, and opinion as an adjunct to pharmacological treatment [4]. The long-term goal for patients with schizophrenia is improved initial response of therapy, decreased level of severity, and improved social

*Corresponding author: Andi Hermansyah, Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia, Phone: +62315933150, E-mail: andi-h@ff.unair.ac.id. <https://orcid.org/0000-0002-9716-3126>

Julaeha Julaeha, Faculty of Pharmacy, Universitas 17 Agustus 1945 Jakarta, Jakarta, Indonesia; and Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia. <https://orcid.org/0000-0002-8807-5175>

Umi Athiyah, Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia

Margarita Maria Maramis, Dr. Soetomo Academic Hospital, Surabaya, Indonesia; and Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

Agus Sugianto, Center for Public Mental Health, Universitas Gadjah Mada, Yogyakarta, Indonesia

functioning and life quality. This is why measuring the quality of life in such patients is challenging.

A number of published studies focused on evaluating the quality of life from the physician perspective; for instance, the Quality of Life Scale (QLS) [6–13]. However, this might be insufficient as patients with schizophrenia generally receive antipsychotic medication, which has not been included in such measurement. Therefore, compliance towards antipsychotic treatment is essential to be included within the full spectrum of measuring patients' quality of life [5]. Recently, there has been a change of interest in measuring the patient's well-being, such as the Subjective Well-being under neuroleptics (SWN) scale. The Subjective Well-being under neuroleptics (SWN) scale is an example of the questionnaire to assess the patient's quality of life [14, 15]. This questionnaire has been utilized in various current studies [16–19]. The SWN is translated into more than 40 languages [20–27]. However, there is no available scale developed in the Indonesian language despite the significant population of Indonesians suffering from schizophrenia. The presence of such scale may demonstrate its significance to the treatment in Indonesia. The objective of this study is to measure the validity and reliability of the Indonesian version SWN questionnaire as part of the translation and adaptation of the instrument.

Materials and methods

Study design

Ethics approval was obtained from the Research Ethics Committee of Menur Mental Hospital, Surabaya, East Java (No. 070/7556/305/2019) which was also the site for this study. From the electronic mail correspondence on 24 December 2019, the research team gained official permission and confirmation from the SWN scale developer to develop the scale into Indonesian. The study was a cross-sectional design with participants, which were purposively sampled.

Participants

Outpatient schizophrenia patients were selected for this study. The inclusion criteria are patients with schizophrenia, aged 18 or older, consented to participate in the study and a patient who has no vision problems. The exclusion criteria are patients who suffered from other psychiatric illness and patients diagnosed with brain dysfunction or cognitive impairment. Informed consent was acquired from all participants prior to beginning the study. Participants were involved only after they signed informed consent. All researchers ensured participant data confidentiality and compliance with the Declaration of Helsinki. The total participants were 108 schizophrenia patients

who completed the study; they either participated in online or offline interviews.

Instrument

The original subjective well-being under neuroleptic treatment scale (SWN) consisted of 38 statements and later modified by the author in a shorter form consisted of 20 statements, each consists 10 positive statements and 10 negative statements, respectively [14, 15]. The patients filled out this questionnaire based on their understanding of health status, symptoms of psychosis, the effect on the antipsychotic, and nonmedical aspect through the preceding 7 days [15].

This study applied 6-point Likert scale from SWN short form (1–6). The total score varies from 20 to 120 points, and the higher score indicates greater well-being. There are five domains of SWN: physical function (PF), mental function (MF), self-control (SC), emotional regulation (ER), and social integration (SI) with each domain consisted of four statements. The score ranges for each domain from 4 points (worst) to 24 points (best) [15].

Translation, cross-cultural adaption and SWN validation in Indonesian language

This study followed the Principles of Good Practice for the Translation and Culture Adaption Process to adapt the SWN short form into Indonesian version [28]. The original questionnaire was translated into Indonesian by a sworn translator and reversed back into English translation by a different sworn translator blindfolded to the original version.

Both versions have been analyzed and reviewed to be as accurate as possible to the original English version by three authors (JJ, UA, and AH), who are competent and fluent in Indonesian and English. The final Indonesian-language version was achieved through consensus among authors. The comprehensiveness of every part and items in this form was then examined by an expert panel involving one psychiatrist, two mental health pharmacists, and one schizophrenia caregiver from Indonesian Community Care for Schizophrenia (Figure 1).

Data analysis

We used the IBM SPSS for windows version 24.0 for data analysis, and a $p < 0.05$ was considered statistically significant. Descriptive analysis was presented for characteristics of participants and psychometric properties of SWN Indonesian version. For reliability analysis, the coefficient of internal consistency (Cronbach's Alpha) which is calculated based on the variance of each item, was utilized. The Pearson correlation coefficient was calculated to test the construct validity. Analysis Moment of Structural (AMOS) program was used for confirmatory factor analysis (CFA).

Results

Table 1 reveals that male patients were major respondents (57%), the age ranged from 31–49 years were dominant

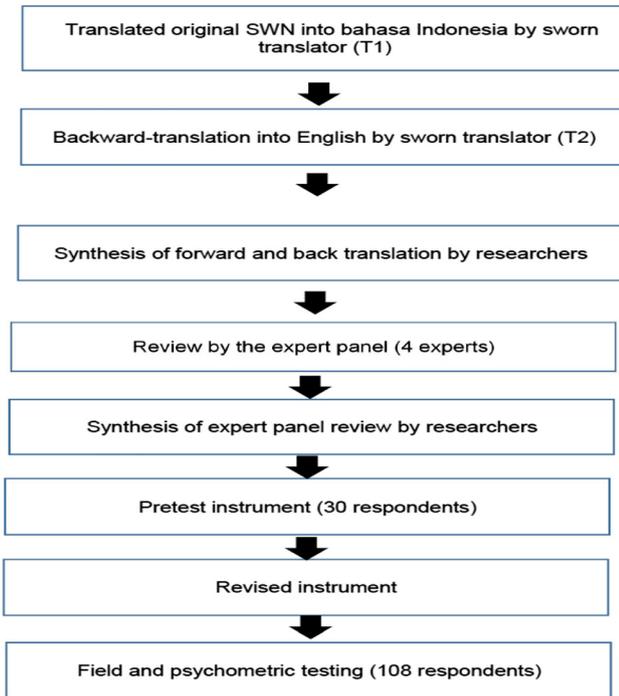


Figure 1: Flowchart of adaption of SWN into Indonesian version.

(65%) and most of the patients were single (60%), 37% have secondary education, and half of them were not a worker. The prescription frequency for antipsychotic as monotherapy was low (22%), with the majority of patients being on antipsychotics polypharmacy. Table 2 shows the lowest total score of SWN was 30, the highest total score of SWN was 112, and the mean of SWN scores were 82.88 (SD=16.745). The mean scores of self-control were highest (17.83; SD=3.266), followed by emotional-regulation (17.13; SD=4.501), social-integration (16.75; SD=4.752), mental function (15.95; SD=3.933), and physical function (15.21; SD=3.671).

The internal consistency among the Indonesian version items, as shown by Cronbach’s coefficient alpha was high (0.897). This result also showed high internal consistency values of the items, which varied between 0.885 and 0.910 (Table 3). The construct validity of the scale was measured using Pearson correlations analysis. The construct validity for each domain and its total score between 0.768 and 0.885 (Table 4). A confirmatory factor analysis was conducted demonstrated comparative fit analysis index (CFI), the goodness of fit analysis index (GFI), root mean square of approximation (RMSEA) were 0.872 and 0.787, also root mean square error of approximation (RMSEA) were 0.79, respectively (Figure 2).

Table 1: Characteristic of respondent (n=108).

Characteristics	n	%
Gender		
Male	62	57
Female	46	43
Age, year		
18–30	25	23
31–49	70	65
50–65	11	10
>65	2	2
Marital status		
Single	65	60
Married	32	30
Divorced	11	10
Regional		
East Java and Bali	57	53
Yogyakarta	7	6
Central Java	22	20
West Java and Banten	11	10
Jakarta	6	6
Sumatra and Borneo	5	5
Educational level		
Elementary school	6	6
Junior high school	12	11
Senior high school	40	37
Diploma	15	14
Undergraduate or higher	35	32
Occupation		
Full time	31	29
Part time	30	28
Not worker	47	43
Duration of treatment, year		
<1	11	10
1–5	39	36
6–10	24	22
>10	34	32
Number of antipsychotics		
Monotherapy	24	22
2 antipsychotics	46	43
≥3 antipsychotics	38	35

Table 2: Psychometric properties of the Indonesian version scale (n=108).

	Minimum	Maximum	Mean	SD
Total score	30	112	82.88	16.745
Physical function	4	24	15.21	3.671
Mental function	4	24	15.95	3.933
Self-control	8	24	17.83	3.266
Emotional regulation	4	24	17.13	4.501
Social integration	4	24	16.75	4.752

Table 3: Cronbach's alpha values of reliability tests (n=108).

Item	Minimum	Maximum	Mean	SD	Cronbach's α if item deleted
Q1	1	6	4.18	1.420	0.893
Q2	1	6	4.47	1.300	0.889
Q3	1	6	4.48	1.308	0.889
Q4	1	6	4.06	1.693	0.885
Q5	1	6	3.63	1.754	0.910
Q6	1	6	3.82	1.668	0.885
Q7	1	6	4.25	1.340	0.902
Q8	1	6	4.53	1.329	0.889
Q9	1	6	3.31	1.412	0.891
Q10	1	6	4.21	1.565	0.887
Q11	1	6	3.56	1.474	0.890
Q12	1	6	3.99	1.556	0.890
Q13	1	6	4.07	1.477	0.889
Q14	1	6	4.32	1.509	0.889
Q15	1	6	4.94	1.035	0.895
Q16	1	6	3.80	1.605	0.889
Q17	1	6	3.66	1.542	0.889
Q18	1	6	4.28	1.310	0.897
Q19	1	6	4.73	0.943	0.898
Q20	1	6	4.57	1.320	0.886

Table 4: Pearson correlation for each domain of the Indonesian version scale (n=108).

	Pearson correlations	Sig. (2-tailed)
Physical function	0.798**	0.000
Mental function	0.794**	0.000
Self-control	0.768**	0.000
Emotional regulation	0.885**	0.000
Social integration	0.884**	0.000

Pearson product moment correlation coefficients: small (0.10–0.29), medium (0.30–0.49), and large (>0.50); **p<0.01.

Discussion

Disease-specific quality of life and well-being instruments are more sensitive to treatment effects measure than generic instruments [29–31]. Patient report measurements may provide the most direct access to the individual's perceptions domain. The Indonesian version of SWN scale was created as an instrument for research and clinical practice to assess the subjective well-being in different dimensions of patients suffering from schizophrenia disorder medicated with antipsychotics.

The findings of this study showed acceptable internal consistency evidence, as well as construct validity for the modified scale. The modified scale's internal consistency

was found not significantly differ from the original version (Cronbach's alpha=0.92), and the subscale reliabilities ranged from 0.818–0.852 [15]. It could, therefore, be concluded that the Indonesian version of SWN scale is internally consistent. Additionally, the principal component analysis results indicated that the Indonesian version is relatively similar to the original version [15]. In addition, the finding shows the correlation score is higher than SWN Turkish version (0.52–0.63) and Estonian version (0.55–0.68) [23, 24].

Recovery condition or functional remission in schizophrenia was determined as the attainment of three criteria: i) the ability to gain a job or voluntary work or to be an active student or head of a family with an engaged partner; (ii) independent life, single or with groups or spouse; and (iii) social connection with more than two contacts in the last 4 weeks or possessing a partner or spouse [32, 33]. Adequate subjective well-being can be used for an early outcome prediction and treatment planning [34]. The criterion of adequate subjective well-being was shown by SWN total score ≥ 80 points [32]. This study's results indicated more than half of patients with schizophrenia in functional remission condition based on these criteria.

This study shows no difference in the SWN score among participants based on different types and number of antipsychotics. Despite the controversy related to the impact of antipsychotics treatment on subjective well-being [14], this study offers the potential use of the Indonesian version as a scale to measure the subjective well-being of schizophrenia patients.

A cautious interpretation of the result of this study is required due to several methodological limitations. Firstly, this study sample size might not reflect and represent patients' overall condition with schizophrenia in Indonesia, particularly when the respondents in this study were recruited from outpatient settings. This is why further research in the inpatient setting is required, with larger-scale testing is necessary for the future. Secondly, this study did not examine a long-term period of the patient's condition, which this way may ignore any changes during the therapy. Therefore, a longitudinal study is recommended to observe the instrument's effectiveness when dealing with changes over time, including changes in age, social characteristics, and cognitive development. Thirdly, further study is needed to evaluate the Indonesian version's criterion validity, which was not part of this study analysis.

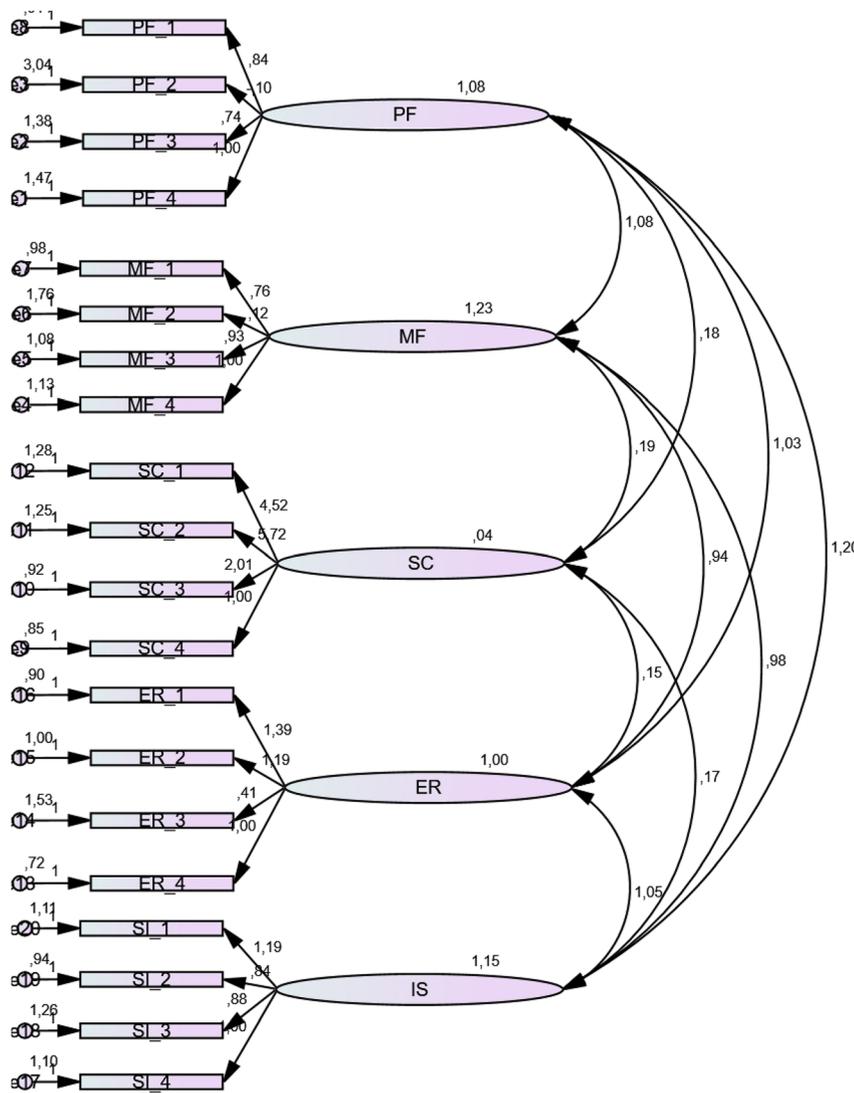


Figure 2: Confirmatory factor analysis of IM-SWN (n = 108). *PF=physical function; MF=mental function; SC=self-control; ER=emotion regulation; IS=integration social. CFI=0.871; GFI=0.787; RMSEA=0.79

Conclusions

This study highlighted that the IM-SWN is a valid and reliable instrument for measuring well-being among the Indonesian population with schizophrenia under neuroleptic treatment.

Acknowledgments: The authors thanked the head and all staffs of the Menur National Mental Hospital Indonesia and Indonesian Community Care for Schizophrenia for providing supports and facilitating data collections. We also thanked participants of this study who have provided time and efforts for this study.

Research funding: The authors thanked the Indonesian Endowment Fund for Education and Universitas Airlangga for supporting this study.

Author contributions: All authors have accepted responsibility for the entire content of this manuscript and approved its submission.

Competing interests: Authors stated no conflict of interest.

Informed consent: Informed consent was obtained from all individuals included in this study.

Ethical approval: Ethical approval was obtained from the Research Ethics Committee of Menur Mental Hospital Surabaya, East Java, Indonesia with number 070/7556/305/2019.

References

1. Bullinger M, Quitmann J. Quality of life as patient-reported outcomes: principles of assessment. *Dialogues Clin Neurosci* 2014;16:137–45.

2. Karow A, Wittmann L, Schöttle D, Schäfer I, Lambert M. The assessment of quality of life in clinical practice in patients with schizophrenia. *Dialogues Clin Neurosci* 2014;16:185–95.
3. The WHOQOL Group. The world health organization quality of life assessment (WHOQOL). *Soc Sci Med* 1995;41:1403–9.
4. Bobes J, Garcia-Portilla MP, Bascaran MT, Saiz PA, Bousoño M. Quality of life in schizophrenic patients. *Dialogues Clin Neurosci* 2007;9:215–26.
5. Camfield L, Skevington SM. On subjective well being and quality of life. *J Health Psychol* 2008;13:764–75.
6. Heinrichs DH, Hanlon TE, Carpenter WT. The quality of life scale: an instrument for rating the schizophrenic deficit syndrome. *Schizophr Bull* 1984;10:388–98.
7. Tollefson GD, Beasley CM, Tran PV, Street JS, Krueger JA, Tamura RN, et al. Olanzapine versus haloperidol in the treatment of schizophrenia and schizoaffective and schizophreniform disorders: results of an international collaborative trial. *Am J Psychiatr* 1997;154:457–65.
8. Tran PV, Hamilton SH, Kuntz AJ, Potvin JH, Andersen SW, Beasley C, et al. Double-blind comparison of olanzapine versus risperidone in the treatment of schizophrenia and other psychotic disorders. *J Clin Psychopharmacol* 1997;17:400–18.
9. Hamilton SH, Revicki DA, Genduso LA, Beasley CM. Olanzapine versus placebo and haloperidol: quality of life and efficacy results of the North American double blind trial. *Neuropsychopharmacology* 1998;18:41–9.
10. Revicki DA, Genduso LA, Hamilton SH, Ganoczy D, Beasley CM. Olanzapine versus haloperidol in the treatment of schizophrenia and other psychotic disorders. Quality of life and clinical outcomes of a randomized clinical trial. *Qual Life Res* 1999;8:417–26.
11. Hamilton SH, Edgell ET, Revicki DA, Breir A. Functional outcomes in schizophrenia: a comparison of olanzapine and haloperidol in European sample. *Int Clin Psychopharmacol* 2000;15:245–55.
12. Gureje O, Miles W, Keks N, Grainger D, Lamber T, McGrath J, et al. Olanzapine versus risperidone in the management of schizophrenia: a randomized double-blind trial in Australia and New Zealand. *Schizophr Res* 2003;61:303–14.
13. Whitty P, Browne S, Clarke M, McTigue O, Waddington J, Kinsella T, et al. Systematic comparison of subjective and objective measures of quality of life at 4-year follow-up subsequent to a first episode of psychosis. *J Nerv Ment Dis* 2004;71:137–44.
14. Naber D. A self-rating to measure subjective effects of neuroleptic drugs. Relationships to objective psychopathology, quality of life, compliance and other clinical variables. *Int Clin Psychopharmacol* 1995;10(3 Suppl):133–8.
15. Naber D, Moritz S, Lambert M, Rajonk F, Holzbach R, Mass R, et al. Improvement of schizophrenic patients' subjective well-being under atypical antipsychotic drugs. *Schizophr Res* 2001;50:79–88.
16. De Haan L, Weisfelt M, Dingemans PMAJ, Linszen DH, Wouters L. Psychometric properties of the subjective well-being under neuroleptics scale and the subjective deficit syndrome scale. *Psychopharmacology* 2002;162:24–8.
17. Kluge M, Wehmeier PM, Dittmann RW, Langer F, Czekalla J, Lehmann M, et al. A simple switching strategy for inadequately treated patients with schizophrenia to olanzapine: changes in psychopathology and subjective well-being. *Pharmacopsychiatry* 2005;38:6–12.
18. Naber D, Riedel M, Klimke A, Vorbach EU, Lambert M, Kuhn KU, et al. Randomized double blind comparison of olanzapine vs clozapine on subjective well-being and clinical outcomes in patients with schizophrenia. *Acta Psychiatr Scand* 2005;111:106–15.
19. Lambert M, Schimmelmann BG, Naber D, Schacht A, Karow A, Wagner T, et al. Prediction of remission as a combination of symptomatic and functional remission and adequate subjective well-being in 2960 patients with schizophrenia. *J Clin Psychiatr* 2006;67:1690–7.
20. Vothknecht S, Schoevers RA, de Haan L. Subjective well-being in schizophrenia as measured with the subjective well-being under neuroleptic treatment scale: a review. *Aust N Z Collage of Psychiatr* 2011;45:182–92.
21. Balestrieri M, Giaroli G, Mazzi M, Bellantuono C. Performance of the Italian version of the subjective well-being under neuroleptic (SWN) scale in schizophrenic outpatients. *Pharmacopsychiatry* 2006;39:81–4.
22. Siamouli M, Moutou K, Pantoula E, Magiria S, Chatzivasileiou I, Arapidis K, et al. Preliminary data concerning the reliability and psychometric properties of the Greek translation of the 20-item Subjective Well-Being under Neuroleptic Treatment Scale (SWN-20). *Ann Gen Psychiatr* 2009;8:3.
23. Pazvantoglu O, Simsek OF, Aydemir O, Sarisoy G, Korkmaz IZ, Mor S, et al. Reliability and validity of subjective well-being under neuroleptics scales-short form Turkish version. *Bull Clin Psychopharmacol* 2012;22:235–43.
24. Haring L, Mottus R, Jaanson P, Pilli R, Magi K, Maron E. Subjective well-being under neuroleptics scale short form (SWN-K): reliability and validity in an Estonian speaking sample. *Ann Gen Psychiatr* 2013;12:28.
25. Sanjuan J, Haro JM, Maurino J, Diez T, Ballesteros J. Validation of the Spanish version of the subjective well-being under neuroleptic (SWN) scale in patients with schizophrenia. *Med Clin* 2012;25:151–4.
26. Guo J, Zhao Z, Ha S. Testing the reliability and validity of Chinese version of subjective well-being under neuroleptics (SWN) short form. *Med J Chin People Health* 2003;15:1–2.
27. Yoon JS, Kook SH, Lee HY, Lee C, Paik IH. The development of a Korean modification of the scale to measure subjective well-being under neuroleptic treatment (KmSWN). *J Korean Neuropsychiatr Assoc* 2000;39:987–98.
28. Wild D, Grove A, Martin M, Eremenco S, McElroy S, Verjee-Lorenz A, et al. Principles of good practice for translation and cultural adaptation process for Patient-Report Outcomes (PRO) measures: report of the ISPOR task force for translation and cultural adaptation. *Value Health* 2005;8:94–104.
29. Bullinger M. Generic quality of life assessment in psychiatry. Potentials and limitations. *Eur Psychiatr* 1997;12:203–9.
30. Karow A, Naber D. Subjective well-being and quality of under atypical antipsychotic treatment. *Psychopharmacol* 2002;162:3–10.
31. Lambert M, Schimmelmann BG, Karow A, Naber D. Subjective well-being and initial dysphoric reaction under antipsychotic drugs-concepts, measurement and clinical relevance. *Pharmacopsychiatry* 2003;36:181–90.

32. Lambert M, Naber D, Schacht A, Wagner T, Hundemer HP, Karow A, et al. Rates and predictors of remission and recovery during 3 years in 392 never-treated patients with schizophrenia. *Acta Psychiatr Scand* 2008;118:220–9.
33. Lambert M, Schimmelmann BG, Schacht A, Karow A, Wagner T, Wehmeier PM, et al. Long-term patterns of subjective wellbeing in schizophrenia: cluster, predictors of cluster affiliation, and relation to recovery criteria in 2842 patients followed over 3 years. *Schizophr Res* 2009;107:165–72.
34. Wehmeier PM, Kluge M, Schneider E, Schacht A, Wagner T, Schreiber W. Quality of life and subjective well-being during treatment with antipsychotics in out-patients with schizophrenia. *Prog Neuro-Psychopharmacol Biol Psychiatr* 2007;31:703–12.