Cross-cultural adaptation and inter-rater reliability of the Schizophrenia proneness instrument adult version (SPI-A) in the Indonesian context

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ABSTRACT

This study aims to adapt the Schizophrenia Proneness Instrument, Adult Version (SPI-A) for the assessment of basic symptoms to the Indonesian context (culturally and linguistically) and analyze the inter-rater reliability of the translated version. Following a specific methodology for cultural adaptation, direct and back-translations were conducted together with cognitive interviews to analyze the comprehensibility of the translated version. A linguistic expert analyzes the resulting version to determine its grammatical and linguistic adequacy. Finally, the interclass correlation (ICC) of the three expert ratings of the samples (N = 9) was analyzed. The direct and back-translation phases showed good conceptual equivalence to the original version. The cognitive interviews revealed items that were challenging to understand and required revision. The final version also considered the judgments of a linguistic expert for grammatical and conceptual improvements. Inter-rater reliability analysis showed an excellent degree of agreement (ICC value: 0.984; 95% CI: 0.950–0.996). The translated SPI-A fits the Indonesian context and can be used in clinical settings to assess basic symptoms in help-seeking individuals in Indonesia.

1. Introduction

Early detection of psychosis is important to prevent the negative impacts of psychosis on patients' lives (McGorry et al., 2008; McGorry and Killackey, 2002; Yung and Phillips, 2004). Earlier studies have shown that psychosis develops through certain stages, and many disabilities accumulate in the prodromal phase before full-blown psychosis (Häfner et al., 1995; Yung and McGorry, 1996). These encourage a shift in intervention targets to the pre-psychotic phase (Schultze-Lutter, 2009; Schultze-Lutter et al., 2012, 2016), which, among others, is characterized by the emergence of self-injurious and health-damaging behaviors (McGorry and Jackson, 1999; Yung et al., 2003), decreased psychosocial functioning (Schultze-Lutter et al., 2012; Yung et al., 2003), emotional problems, distress, and help-seeking behavior (Yung et al., 2003). The changes identified during the prodromal period have

become the impetus for intervention efforts in the early stages, before the onset of psychosis. Early detection during this phase can prevent or delay the onset of psychotic disorders, including preventing and minimizing the occurrence of more severe neurobiological changes. The positive effects that emerge as a result of early intervention make it mandatory for psychotic disorders (Yung and Phillips, 2004). This approach involves patients who experience mental health problems, namely with Clinical High Risk for Psychosis (CHR-P) (Birchwood et al., 1998). The CHR-P population includes individuals likely to develop first-episode psychosis (Lieberman and Fenton, 2000).

CHR-P is a construct that explains the condition in the pre-psychotic phase and shows psychosis-risk symptoms (Fusar-Poli et al., 2013). CHR-P patients show a significant decline in psychological and cognitive functioning; most meet the DSM-IV mental disorder criteria (Woods et al., 2009). Some patients have comorbid anxiety, depression, and

substance use disorders, also have negative symptoms, significant interference with academics and work, difficulty establishing interpersonal relationships, poor subjective quality of life, and decreased psychosocial functioning as impaired psychosocial functioning is a significant symptom of CHR-P (Woods et al., 2009).

In Indonesia, interventions for psychosis are likely implemented in the latest stage because of the lack of early detection caused by invalid instruments to diagnose psychosis in its early phases. The development of valid and reliable detection instruments is a necessary solution that can support the early prevention of psychosis (Fusar-Poli et al., 2019). One early detection instrument with high predictive power is the Schizophrenia Proneness Instrument (SPI), which was developed as an adult version (SPI-A) (Schultze-Lutter et al., 2007)) and a child and adolescent version (SPI-CY) (Fusar-Poli et al., 2013). SPI is a tool to assess basic symptoms (BS) that allows the assessment of severity in terms of frequency (Schultze-Lutter, 2020). BS are subtle and subjective subclinical disturbances in drive, stress tolerance, affect, thought processes, speech processes, (body) perception, and motor functions (Schultze-Lutter, 2009; Schultze-Lutter et al., 2012, 2016). Individuals who experience them perceive these symptoms as disturbances in mental processing disorder and may seek help for them (Schultze-Lutter, 2009; Schultze-Lutter et al., 2012, 2016). Furthermore, individuals with BS may respond actively by increasing their efforts to overcome the discomfort or changes that arise from BS (Schultze-Lutter, 2009; Schultze-Lutter et al., 2012, 2016). BS consists of six dimensions in adults: 1) Affective-Dynamic Disturbance, 2) Cognitive-Attentional Impediments, 3) Cognitive Disturbances, 4) Disturbances in experiencing self and surroundings, 5) Body Perception Disorders, and 6) Perception Disturbances (Schultze-Lutter et al., 2008; Schultze-Lutter, Addington, et al., 2007). The number of symptoms in these six dimensions that also constitute the subscales of the SPI-A is 56, as shown in Table 1. The SPI-A has good reliability through a high percentage of inter-rater reliability, which reached C-60% to C-91% in the first test, and the inter-rater reliability value for five trained people was 89% in the second test (Schultze-Lutter et al., 2012).

The SPI-A is an English-language instrument, and no version that can facilitate its use in different linguistic contexts is currently available for the Indonesian population. Furthermore, to provide valid information during clinical assessment using SPI-A in Indonesia, it is necessary to have culturally adapted versions with appropriate psychometrics attributes. Thus, this study aimed to conduct a cultural adaptation process for the SPI-A in Indonesia, maintain the semantic and conceptual equivalence of the original version, and analyze its inter-rater reliability.

2. Method

This study was conducted in Surabaya, Indonesia, as part of an extensive study of BS in the Indonesian population. Cultural adaptation was conducted based on criteria developed by the International Test Commission (ITC, 2019), and the methodology proposed by Ramada-Rodilla et al. (2013) was used to prepare the study plan.

2.1. Participants

Five groups of participants were included in this study (Fig. 1). The first group, formed by bilingual experts (n = 4), was divided into two different teams that developed the translation of the test: the first team of translators (n = 2) carried out the direct translation, and the second translation team (n = 2) completed the back translation. Expert bilingual translators and clinical psychologists formed both teams. The second group consisted of a panel of experts (n = 2) who reviewed and accepted the versions resulting from the direct and back translations of the SPI-A. The third group consisted of a convenience sample of help-seeking individuals who participated in the cognitive interview (n = 5). The fourth group comprised linguistic experts who oversaw the Indonesian version of the test (n = 1). Finally, the fifth group comprised

Table 1
SPI-A blueprint.

Dimensions	No	Indicator	
Affective-dynamic disturbances (A, Adyn)		A1	Impaired tolerance to stressor certain
	1	A1.1	Impaired tolerance to unusual, unexpected or specific novel demands
	2	A1.2	Impaired tolerance to certain social everyday situations
	3	A1.3	Impaired tolerance to working under pressure of time or rapidly changing different demands
		A2	Change in mood, emotional responsiveness
	4	A2.1	Change in mood
	5	A2.2	Change in emotional responsiveness
	6	A3	Decrease in positive emotional responsiveness towards others
Cognitive-Attentional Impediments (B, Attent)	7	B1	Inability to divide attention
	8	B2	Feeling overly distracted by stimuli
	9	B3	Difficulties concentrating
	10	B4	Difficulties to hold things in mind for less than half an hour
	11	B5	Slowed-down thinking
	12	B6	Lack of 'thought energy', purposive thoughts
Disturbances in Experiencing the Self and Surroundings (C, Cognit)	13	C1	Increased indecisiveness with regard to insignificant choices between equal alternatives
	14	C2	Thought interference
	15	C3	Thought blockage
	16	C4	Disturbance of receptive speech
	17	C5	Disturbance of expressive speech
	18	C6	Disturbance of immediate recall
Disturbance In Experience Self and Environment (D, Self)	19	D1	Decreased capacity to discriminate between different kinds of emotions
	20	D2	Increased emotional reactivity in response to routine social interactions
	21	D3	Thought pressure
	22	D4	Unstable ideas of reference '
	23	D5	Changed perception of the face or body of others
Body Perception Disturbances (E, Body)	24	E1	Bodily sensations of numbness and stiffness
	25	E2	Bodily sensations of pain in a distinct are
	26	E3	Bodily sensations migrating through the body
	27	E4	Bodily sensations of being electrified
	28	E5	Bodily sensations of movement or pressure
	29	E6	Bodily sensations of body/body parts changing size
Perception Disturbances (F, Percept)	30	F1	Hypersensitivity to light/optic stimuli
	31	F2	Photopsia
	32	F3	Micropsia, macropsia
	33	F4	Hypersensitivity to sound or noise
	34	F5	Changed intensity/quality of acoustic stimuli
	35	F6	Somatopsychic bodily depersonalization
Optional (O): Additional items with a positive predictive value equal or greater 0.70 according to the prospective CER-study ((Klosterkötter et al., 2001)	36	O1	Thought perseveration
	37	O2	Decreased ability to discriminate between ideas and perception, fantasy and true memories
	38	O3	Disturbances of abstract thinking

Table 1 (*continued*)

| Dimensions	No	Indicator	
		O4	Other visual perception disturbances
	39	O4.1	Near and tele-vision
	40	O4.2	Metamorphopsia
	41	O4.3	Changes in color vision
	42	O4.4	Changed perception of patient's own face
	43	O4.5	Pseudo movements of optic stimuli
	44	O4.6	Diplopia, oblique vision
	45	O4.7	Disturbances of the estimation of distances or sizes
	46	O4.8	Disturbances of the perception of straight lines/contours
	47	O4.9	Maintenance of optic stimuli, 'visual echoes'
	48	O4.10	Partial seeing including tubular vision
		O5	Other acoustic perception disturbances
	49	O5.1	Acoasms
	50	O5.2	Maintenance of acoustic stimuli, 'acoustic echoes'
	51	O6	Disturbances of olfactory, gustatory or tactile perception
	52	O7	Captivation of attention by details of the visual field
	53	O8	Derealization
	54	O9	Motor interference exceeding simple lack of co-ordination
	55	O10	Motor blockages
	56	O11	Loss of automatic skills
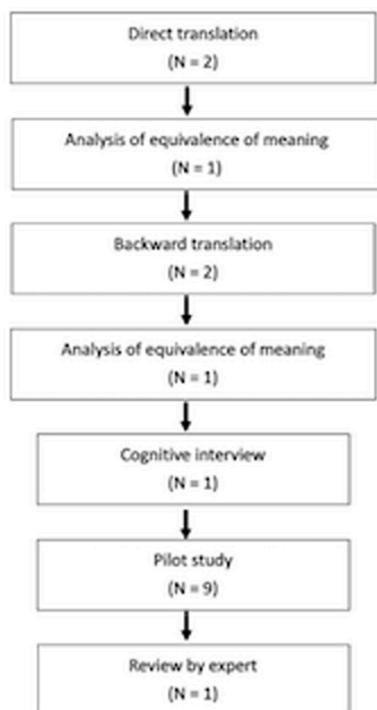
Fig. 1. Cultural adaptation process.

participants in the instrument trial (n = 9).

In the pilot study, we administered the SPI-A to Indonesian residents. Clinical psychologists interviewed participants using an adapted version of the SPI-A. The inclusion criteria were: a) certified clinical psychologists, b) experienced in interacting with patients requiring clinical treatment, and c) Indonesian nationality. The participants were help-

seeking individuals with mental problems aged between 15 and 30 years.

2.2. Measures

The SPI-A was developed based on the Bonn Scale for the Assessment of Basic Symptoms (BSABS), both semi-structured interview tools. The SPI-A has six subscales: 1) Affective-Dynamic Disturbances; 2) Cognitive-Attentional Impediments; 3) Cognitive Disturbances; 4) Disturbances in experiencing self and surrounding; 5) Body Perception Disorders, including various types of sensations in the psychogenic body; and 6) Perception Disturbances, including hypersensitivity to light or optical stimuli and to sound (Schultze-Lutter et al., 2012). Altogether, the SPI-A consists of 56 items, as detailed in Table 1.

2.3. Procedure

2.3.1. Direct translation

At the first stage, the first translator was a clinical psychologist, and the second translator was a language expert. Each translator completed the translation into Indonesian. This stage produced two versions of the direct translation: FT1 and FT2.

2.3.2. Synthesis stage of the direct translation version

At the second stage, the researcher summarized the two versions of the direct translation by comparing the translation results and measuring the differences in semantic, idiomatic, conceptual, linguistic, and contextual aspects. The reviewer evaluated the first two Indonesian versions based on their conceptual equivalence to the original version. Reviewers chose the most appropriate translation or synthesized the results of two existing translations to produce the most appropriate direct translation. This first draft was evaluated based on conceptual equivalence with the original version: a) equivalent translation, b) moderate conceptual equivalent, and c) non-equivalent. Translations with a score of b were sent back to the first group for alternative translations and then reviewed again by a panel of experts.

2.3.3. Back translation

At the third stage, the back-translation process was conducted as follows: The synthesis results from the translation were directly translated back into English by two researchers: a clinical psychologist and a linguist. In doing so, the translator referred only to the direct translation synthesis and did not examine the original measurement tools. This process produced two back-translated drafts: backward translation 1 (BT 1) and backward translation 2 (BT 2).

2.3.4. Synthesis stage of the back translation version

At the fourth stage, the researcher elaborated on BT 1 and 2. The reviewer evaluated the two back-translated versions based on their conceptual equivalence to the original version. Reviewers chose the most appropriate translation or synthesized the results of two existing translations to produce the most appropriate direct translation.

2.3.5. Cognitive interview

Cognitive interviewing is a participant-centered research technique that uses an in-depth approach to study how a targeted audience understands, mentally processes, and responds to materials such as assessment items. This fifth stage aimed to obtain the clarity and relevance of items (Dumas et al., 2008) and response processes, for example, the thinking processes and operations involved in responding to an item (AERA et al., 2014; Castillo-Díaz and Padilla, 2013). Willis (1999) suggested cognitive interview methodological recommendations, stating that a sample of five to ten participants should be available, in addition to audio recordings, to facilitate recording interviewees' comments (Beatty and Willis, 2007; Willis, 1999). The cognitive interviews followed the guidelines of Buers et al. (2014) and the recommendations

of Willis (Willis, 1999) with some adjustments. Interviews were conducted to explore the understanding, retrieval, assessment, and adequacy of the content. We also asked the participants for the most suitable media, online or offline. Participants were asked to think aloud when answering each item on the SPI-A, and verbal probing was performed. When two or more participants had difficulty understanding an item, an expert group reviewed each item to improve their understanding (Román-Oyola and Reynolds, 2010).

2.3.6. Pilot study

At the sixth stage, the final version was administered to participants who met the criteria for representing the research population for testing the SPI-A-adapted version. The researcher submitted an ethical test and was declared to have passed the ethical suitability test by the Health Research Ethics Commission, Faculty of Nursing, Airlangga University, and obtained approval from Ethical Approval No. 22332-KEPK. The criteria for research subjects for testing measuring instruments are as follows:

a. individuals seeking help with mental problems at mental health centers
b. aged between 16 and 35 years

In January 2023, we conducted a pilot study in which each interview lasted 90–150 min.

2.3.7. Expert review

The adaptation results measuring tool was given to experts to evaluate the suitability of the SPI-A adaptation results for Indonesia.

2.3.8. Content validity

The adapted version was validated to ensure that the constructs measured are based on the intended purpose (ITC, 2018). We used three experts to analyze content validity (evidence based on test content). The experts selected were clinical psychologists who had been practicing for more than five years and were guaranteed to know about mental disorders and psychosis. The experts rated the items based on relevance, importance, and clarity with a score range of 1–4. A score of 1 indicated very irrelevant, unimportant, and unclear, whereas a score of 4 indicated very relevant, necessary, and clear. Each question item was rated by experts from 1 to 4; good questions were rated as 3 and 4, whereas incorrect questions were rated as 1 and 2.

Content validity was calculated using the Aiken V coefficient (Aiken, 1985) based on the assessment results of a panel of three experts on the question items from the measuring instrument regarding the extent to which the items represent the measured construct. The Aiken validity coefficient was calculated using the raw scores of *n* validators. The Aiken V coefficient value ranges between −1 and 1 (Aiken, 1985).

2.3.9. Inter-rater reliability

Three raters rated the interview results of the nine participants. The raters were clinical psychologists trained by Schultze-Lutter in January 2023. The assessments carried out by the raters were based on the assessment guidelines of the SPI-A. Inter-rater reliability was assessed using an interclass correlation (ICC) reliability analysis.

3. Result

3.1. Direct and back-translation

The synthesis results of the direct and back-translations showed that some words or sentences had to be adjusted to the Indonesian culture. The judgments from expert linguists and psychological scientists on direct translation results (FT1 and FT2) had 90% similarities and a 10% difference. The ratings of the back translation results (BT1 and BT2) had 95% similarity and 5% difference.

3.2. Cognitive interviews

The research team reviewed and modified these items with low understanding, as shown in (Table 2).

3.2.1. Review by an expert linguist

Some words that have been corrected according to the expert feedback were:

Table 2
Examples of cognitive interview results.

Original Item	Translation from Original	Recommendation for Change	Final Translation
Has the presence of others become more stressful for you?	Apakah kehadiran orang lain semakin membuat Anda stres?	The word "kehadiran"needs to be clearer	Apakah kehadiran orang lain di sekitar anda, semakin membuat Anda stres?
Do you sometimes lose your train of thought?	Apakah Anda terkadang kehilangan alur pikiran Anda?	It needs to be merge two question to become one queation	Apakah Anda terkadang kehilangan alur pikiran dan tiba-tiba pikiran terputus?
Do you ever have difficulties remembering things immediately, such as my question?	Apakah Anda pernah mengalami kesulitan mengingat sesuatu secara langsung, misalnya pertanyaan saya ini?	The word "mengingat sesuatu secara langsung" produced confusion to the respondents	Apakah Anda pernah mengalami kesulitan mengingat sesuatu hal sesaat setelah anda mendengarnya, misalkan seperti pertanyaan yang saya ajukan saat ini?
Do you sometimes feel as if random things were meant especially for you, e.g., comments on the radio or TV? What does it take for you to realize that this is just a sudden impression and not true? How long does this impression/ idea last?	Apakah Anda kadang-kadang merasa seolah-olah peristiwa apa pun dimaksudkan khusus untuk Anda, misalnya, komentar di radio atau TV? Apa yang Anda perlukan untuk menyadari bahwa ini hanya kesan yang tiba-tiba dan tidak benar? Berapa lama kesan/ide ini bertahan?	Respondents need more time to understand the question because it is less effective. The interviewer must pay attention to the speed and intonation because the question is to long.	Apakah Anda kadang-kadang merasa seolah peristiwa yang terjadi ditujukan secara khusus untuk Anda, misalnya, komentar di radio atau TV? Pertanyaan tambahan untuk eksplorasi: Apa yang Anda perlukan untuk menyadari bahwa kesan ini tidak benar? Berapa lama kesan/ide ini bertahan?
Have you ever had unusual peculiar bodily feelings, body sensations unlike those you have known before? Can you describe them?	Apakah Anda kadang-kadang merasakan nyeri aneh di area tertentu saja atau terkonsentrasi pada bagian tubuh tertentu, di luar atau di dalam tubuh? Dimana letak nyerinya?	The word "konsentrasi" was hard to understand because it had the same meaning as "kegiatan berpikir", one respondent needed an example before answering the question.	Apakah Anda kadang-kadang merasakan nyeri tidak biasa di bagian tubuh tertentu atau terpusat pada bagian tubuh tertentu, di luar atau di dalam tubuh? Dimana letak nyerinya? (boleh berikan contoh, misalkan nyeri di bagian lengan)

a) The word "Energi pikiran" in indicator B6 (thought energy) is changed to "Energi untuk berpikir."
b) The word "rujukan diri" in indicator D4 (self-reference) was hard to understand and was changed to "acuan diri."
c) The word "perasaan berbulu" in indicator E1 (furry feeling) was changed to "perasaan baal."
d) The word "penyumbatan" in indicator O10 (blockages) was changed to "hambatan."

3.2.2. Content validity

The average total content validity was 0.99 (Table 3). Referring to the Aiken V validity criteria, this means "very valid" with V ≥ 0.8; the SPI-A adapted version is appropriate for the measured construct. In addition, there is an item with an Aiken V value below 1, meaning there are still questions that need to be improved, namely items A2, A2.2, B6, C3, D4, and O10. Improvements must be made by replacing poorly understood words or sentences, and many sentences that can be understood at all levels of education must be considered.

3.2.3. Inter-rater reliability

We used the JASP statistical package version 0.17.13 to analyze the ICC based on a mean-rating (k = 3), two-way random effects model, consistency, and multiple raters or measurements with 95% confidence. The ICC value was 0.984, indicating excellent reliability, and the 95% CI ranged from 0.950 to 0.996. The 95% CI range indicates a 95% chance that the true ICC value lands at any point between 0.950 and 0.996. Statistically, it can be concluded that the level of reliability is at an excellent level (see Table 4).

4. Discussion

Schizophrenia and other psychotic disorders can cause significant social and vocational difficulties (Tandon et al., 2023). Early intervention is crucial to delaying or reducing disability caused by these illnesses (Sahu et al., 2023; Tandon et al., 2023). An indicated prevention can protect individuals with first signs of the developing disorder from developing full-blown psychosis and has been proven to reduce its burden (Schmidt et al., 2015). Accurate diagnosis and assessment of case detection are crucial, requiring reliable and valid instruments (Fusar-Poli et al., 2019). One instrument used in the indicated prevention of psychosis is the SPI-A (Schultze-Lutter et al., 2015). Since SPI-A is an English version of the instrument, cultural adaptation is essential, mainly when assessments are applied in different languages, environments, and periods, to reduce the risk of bias in research (Gjersing et al., 2010).

This study presents the first culturally adapted version of the SPI-A in Indonesia. The adaptation process followed the methodological steps recommended by ITC (2018) to ensure that the SPI-A adaptation process was appropriate to the Indonesian cultural context conceptually and semantically. Therefore, bilingual experts and psychological scientists carried out the stages of direct and back-translation, followed by cognitive interviews and linguistic validation of the final version of the adaptation. The consensus on test adaptation research requires that the translator is independent and has bilingual skills (Beaton et al., 2000; Gudmundsson, 2009; ITC, 2018). Although one translator is considered sufficient for this process, the latest recommendations suggest using a minimum of two translators to minimize the risk of bias from a

Table 3
Aiken's V value.

Category	Aiken's V Value	Interpretation
Relevancy	1	Very Valid
Importance	1	Very Valid
Clarity	0,98	Very Valid
Rata-rata Penilaian Total	0,99	Very Valid

Table 4
Interclass correlation (ICC).

Type	Point Estimate	Lower 95% CI	Upper 95% CI
ICC3,1	0.984	0.950	0.996

Note. 9 subjects and three raters/measurements. ICC type as referenced by (Shrout & Fleiss, 1979)

linguistic, psychological, cultural, theoretical, and practical perspective (ITC, 2018). Beaton et al. (2000) stated that one translator must be familiar with the measured construct, whereas the second translator should not know the purpose of the translation, but be able to translate into the language used by the target population, and independent of the academic objectives of the translation being carried out (Borsa et al., 2012).

The results of the cultural adaptation process revealed that the Indonesian version of the SPI-A shows conceptual and semantic equivalence with the English version. The main difficulties observed in the cognitive interviews were the infrequent use of some terms, and the organization and structuring of some phrases, which gave rise to ambiguity in understanding items (e.g., stray thoughts and deadlock). The results of the content validity analysis showed that for all assessment categories (relevance, clarity, and importance), the total average value of content validity was 0.99, which indicates good validity; the same results were obtained for the validity of each item (see Appendix). Referring to the Aiken V validity criteria, this value can be categorized as "very valid" because of V ≥ 0.8 (Aiken, 1985), which means that the SPI-A-adapted version is suitable for measuring the construct to be measured. In addition, Aiken V values were below 1 for questions A2, A2.2, B6, C3, D4, and O10.

The Indonesian adaptation of the SPI-A demonstrated excellent inter-rater reliability (ICC, 0.984; 95% CI, 0.950–0.996), which means that the Indonesian adaptation of the SPI-A can be trusted to measure BS consistently, and deliver consistent and trustworthy results across different users (Koo and Li, 2016). The results of SPI-A cultural adaptation have shown excellent psychometrics and are promising for the early detection of psychosis according to the BS approach in Indonesia. SPI-A is highly recommended for detecting the early course of psychosis in Indonesia. Furthermore, the interview-based assessment method used in SPI-A can give a detailed understanding of each symptom (Schultze-Lutter, Addington et al., 2007). The focus of SPI-A is on self-experienced sub-clinical disturbances described that are rare and/or only infrequent in the general population but prevalent before the onset of the first psychotic episode (Fux et al., 2013; Schultze-Lutter et al., 2007, 2018). This makes it a valuable tool for the early detection of psychosis (Schultze-Lutter et al., 2015).

4.1. Limitations and recommendations for further research

The trial involved interviewing each participant for 90 to 120 min, requiring a significant allocation of time for data collection. However, the sample size was small, and increasing it can improve the validity of each item. Future studies should recruit more diverse participants to overcome limitations due to Indonesia's diverse ethnicities and languages (Sahu et al., 2023). Conducting cognitive interviews with a wider range of respondents can lead to significant improvements.

5. Conclusion

The Indonesian version of SPI-A is reliable and valid to measure BS in the Indonesian population. The cognitive interview stage became crucial in cultural adaptation processes. Through this process, the unfamiliar or foreign words that were challenging to understand could be detected, and direct guidance to revised items was provided through the participants' responses.

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CRediT authorship contribution statement

Frauke Schultze-Lutter: Data curation, Investigation, Supervision, Writing – review & editing, Conceptualization, Validation. **Achmad Chusairi:** Conceptualization, Supervision, Writing – review & editing. **Endang Surjaningrum:** Conceptualization, Methodology, Supervision, Writing – original draft. **Tri Kurniati Ambarini:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Software, Validation, Visualization, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

None.

Acknowledgements

Appendix. Aiken's V for each item

No	Item	Relevance				Importance				Clarity			
		Mean	SD	V	Interpretation	Mean	SD	V	Interpretation	Mean	SD	V	Interpretation
Affective-dynamic Disturbances (A, ADYN)													
1	A1.1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
2	A1.2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
3	A1.3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
	A2	4	0	1	Valid	4	0	1	Valid	3,67	0,58	0,83	Valid
4	A2.1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
5	A2.2	4	0	1	Valid	4	0	1	Valid	3,33	1,15	0,67	Valid
6	A3	4	0	1	Valid	4	0	1	Valid	4,0	0	1	Valid
Cognitive-Attentional Impediments (B, Attent)													
7	B1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
8	B2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
9	B3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
10	B4	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
11	B5	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
12	B6	4	0	1	Valid	4	0	1	Valid	3,67	0,58	0,83	Valid
Cognitive disturbances (C, COGNIT)													
13	C1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
14	C2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
15	C3	4	0	1	Valid	4	0	1	Valid	3,67	0,58	0,83	Valid
16	C4	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
17	C5	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
18	C6	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
No	Item	Relevance				Importance				Clarity			
		Mean	SD	V	Interpretation	Mean	SD	V	Interpretation	Mean	SD	V	Interpretation
Disturbances in Experiencing the Self and Surroundings (D, Self)													
19	D1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
20	D2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
21	D3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
22	D4	4	0	1	Valid	4	0	1	Valid	3,67	0,58	0,83	Valid
23	D5	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
Body Perception Disturbances (E, Body)													
24	E1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
25	E2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
26	E3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
27	E4	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
28	E5	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
29	E6	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
Perception Disturbances (F, Percept)													
30	F1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
31	F2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
32	F3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
33	F4	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
34	F5	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
35	F6	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
Optional item (O)													
36	O1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
37	O2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
38	O3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
39	O4.1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
40	O4.2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
41	O4.3	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
42	O4.4	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
43	O4.5	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid

(continued)

No	Item	Relevance				Importance				Clarity			
		Mean	SD	V	Interpretation	Mean	SD	V	Interpretation	Mean	SD	V	Interpretation
44	O4.6	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
45	O4.7	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
46	O4.8	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
47	O4.9	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
48	O4.10	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
49	O5.1	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
50	O5.2	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
51	O6	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
52	O7	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
53	O8	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
54	O9	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid
55	O10	4	0	1	Valid	4	0	1	Valid	3,67	0,58	0,83	Valid
56	O11	4	0	1	Valid	4	0	1	Valid	4	0	1	Valid

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