

# Verification the Reliability and Validity of a Malaysian Version of Rathus Assertiveness Schedule as Drug Prevention Scale

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## Article Information:

Received April 6, 2023

Revised May 14, 2023

Accepted June 6, 2023

**Keywords:** drug prevention scale; rathus assertiveness schedule; validity reliability

## Abstract

The aim of this research was to verify the Malaysian version of Rathus assertiveness as a drug prevention scale in secondary school students. The current research participants were 211 secondary students in Johor, Selangor, and Kuala Lumpur, Malaysia. An exploratory factor analysis with principal axis factoring and varimax rotation was performed for the initial analysis. After the eigenvalue emerged, the data was suppressed to .30 to display the factor loading. The value of commonalities and factor loading were considered to frame and locate the items in the scale structure. Furthermore, the reliability of the scale was tested through Cronbach's alpha. The result showed that nine factors emerged, explaining 58.721% of the variance. Four of the 30 items were eliminated from the analysis because they had commonalities below the threshold. The structure of the scale was as follows: seven items in the first factor, four items in the second factor, four items in the third factor, two items in the fourth factor, two items in the fifth factor, one item in the sixth factor, two items in the seventh factor, two items in the eight factors, and one item in the ninth factor. Furthermore, the reliability of the scale was .748. This research concluded that the scale was internally consistence measuring the secondary school student's assertiveness in drug education.

## INTRODUCTION

Assertiveness is related to personal expression or standing for their rights without denying the rights of others (Suzuki et al., 2007; Rathinasabapathy, 2022). Some researchers study the Rathus assertiveness schedule with drug abuse. Ganji et al. (2022) assess the assertiveness of drug abusers. They found that the drug addict sample was less assertive, less socially assertive, and more socially anxious compared to the non-addict sample. Collins (2012) compares the level of assertiveness between drug abusers and non-abusers. They found that drug users and non-drug users seemed to have the same level of assertiveness. Kocak et al. (2022) test the effect of empowerment training in protecting adolescents from drug abuse on an assertiveness level. The study found that empowerment training increased the level of assertiveness. Furthermore, a pilot study conducted by Horan et al. (1975) revealed that current and former drug users are less assertive than those who had experience with drug abuse but no longer do

How to cite: Jusoh, A. J., Imami, M. K. W., Handrianto, C., Isa, A. N. M., Omar, S. Z., Abdullah, A., & Wahab, S. (2023). Verification of Reliability and Validity of a Malaysian Version of Rathus Assertiveness Schedule as Drug Prevention Scale. *Islamic Guidance and Counseling Journal*, 6(2). <https://doi.org/10.25217/0020236369700>

E-ISSN: 2614-1566

Published by: Institut Agama Islam Ma'arif NU (IAIMNU) Metro Lampung

so. That research claims a relationship between assertiveness and drug abusers, which indicates the level of assertiveness could be an indication of a drug abuser.

An instrument that measures Rathus's assertiveness schedule related to drugs has not yet been validated. In the literature, we found Rathus assertiveness schedule scale validation related to sickle cell disease (Jenerette & Dixon, 2010), neurotics, schizophrenics, personality disorders (Rathus & Nevid, 1977), and alcoholics (Menon & Edward, 2014). The Rathus assertiveness scale related to the drug is essential as a research tool to gauge drug abuse and prevention information. Research proves the relationship between drugs and assertiveness. Ramadhan et al., (2019) depict that assertiveness training is practical for drug abuse prevention. It means increasing assertiveness could prevent adolescents from drug abuse behaviour. It is strengthened by Vancappel et al. (2023), who cited a positive correlation between drug abuse and assertiveness. Therefore, the validation of Rathus' assertiveness schedule as drug prevention is necessary.

Furthermore, the psychometric analysis of Rathus's assertiveness schedule has not been verified in the Malaysian context. For example, (Suzuki et al., 2007) verified the reliability and validity of Rathus's assertiveness schedule in the Japanese context. Gustafson (1992) verifies the Rathus assertiveness schedule in the context of the Swedish sample. Dares (1981) verifies the Rathus assertiveness schedule in South African undergraduate students. Even though the scale has already been validated in certain regions, that does not mean it will work for all populations and purposes (Knekta et al., 2019). So, there is a need to test the scale in the Malaysian context to verify its use. Other than that, (Knekta et al., 2019) stated that the validity of the scale is time-sensitive and that the interpretation might be in line with cultural change. Furthermore, there is a need to validate Rathus's assertiveness schedule in the Malaysian context because Amat et al. (2021), through their need analysis reveal the need for the psychosocial module, which consists of assertiveness. Therefore, this research intends to validate the Malaysian version of the Rathus assertiveness schedule as a drug prevention scale.

Providing a valid instrument for measuring secondary school students' assertiveness is important. Secondary school is a critical risk period where students of this age are vulnerable to drug abuse (Likisa & Science, 2021). In this age, students are known to be in the age of growth, where they are exposed to new behaviours through their relationships with peers and society (Sotoudeh et al., 2021). They could be influenced by peers or their environment to consume drugs. Blair & Diamond (2008) stated that studenthood is a stage of development that is characterised by quick biological and social change, leading to significant age- and gender-dependent variation (Likisa & Science, 2021). Other than that, in this age, the student's vulnerability to drug abuse is also caused by external factors such as socioeconomic status, academic achievement (Shah et al., 2020), a lack of peer support at school, a lack of school discipline, and the students' sexual intercourse (Rodzlan Hasani et al., 2019). That is why conceiving the drug prevention for secondary school are important, one of which is providing a valid tool to measure secondary school students' assertiveness in drug education.

A valid instrument will be the psychometric toll revealing the data on students assertiveness in drug education, which can be used to create more effective drug prevention strategies (Abd Elwahab El Sayed et al., 2019). Teachers or counsellors can use the information collected to frame or initiate an effective drug prevention programme for students. This is needed since the number of secondary school students abusing drugs in Malaysia is worrying. Wan Sulaiman et al., (2021) stated that drug addiction increased from 12.089 in 2017 to 12.520 in 2018. Other than that, the Malaysian National Anti-Drug Agency (AADK) reported that 42% of 2.188.525 were identified as being in a risky situation to consume drugs (Handrianto et al., 2020). Other than that, there is a tendency for secondary school students to use drug abuse as a coping strategy. Rom et al. (2023), in their research, found that secondary school students in Malaysia used drug abuse as their coping strategy for stress and depression release.

## Rationale of The Study

In the literature, assertiveness is discussed as a construct. One of which is communication ability. Assertiveness is often discussed as a communication ability; it is a skill to reveal self-expression to others (Immanuel, 2019). Good communication skills can be sharpened through the assertiveness programme (Abdelaziz et al., 2020). Assertiveness is the ability to communicate one's needs, wants, and opinions while also considering and respecting those of others (Vagos & Pereira, 2019). Specifically, Ayhan & Seki Öz, (2021) explained that assertiveness refers to the act of expressing emotion, which can help individuals provide better service for themselves or others. Assertive feelings can encourage more genuine and intimate communication, be calm and assured in the face of criticism, and give others the chance to express their opinions by holding their ideas in tact (Bulantika et al., 2019). Through good communication, assertive people are able to maintain good relationships with others because they are able to appreciate others' feelings and opinions and exchange feelings and thoughts (Khairunnisa & Putri, 2019).

Another construct linked with assertiveness is the courage to complain about others. Bulantika et al. (2019) stated that the courage to complain related to the inability to act assertively due to fear of disappointing others, fear of being disliked, and fear of not being accepted in the group. Having less assertiveness could endanger personal relationships with others, for example, when complaining about negative treatment, such as responding accurately to criticism and refusing requests to consume drugs (Vagos & Pereira, 2019). In this case, assertiveness is important to control one's feelings and emotions. A study conducted by Roshanzadeh et al. (2021) revealed that assertiveness is in line with courage in the concept of moral decision-making. It further revealed that assertive people can navigate and decide whether an action is morally acceptable or not. Other than that, assertiveness is also related to the construct of being confident. Bulantika et al. (2019) stated that the improvement of individual assertiveness is important to change perspective and action, which can improve self-confidence and look positive at every action taken. An example of being confident is being able to deal with personal limitations, such as asking for help and support when needed or refusing the demand when it comes to negative behaviours such as consuming drugs (Vagos & Pereira, 2019; Handrianto et al., 2021).

However, the assertiveness scale has not yet been integrated with drug education. where the concept of assertiveness is very important to prevent students from developing drug consumption habits (Maulinsari & Purnama, 2022). Assertiveness is one of the behaviours that must be developed by students to hinder drug consumption habits (Fadli & Firman, 2019; Maulinsari & Purnama, 2022). Assertiveness is the behaviour of honestly expressing desire, feeling, and thought without offending others (Bulantika et al., 2019; Maulinsari & Purnama, 2022). It makes individuals have strong relationships with their social lives while still being able to stand by their principles (Maqbool Parray et al., 2020). Ramadhan et al. (2019) stated that strong ties of an individual with his social life, such as with parents and the school environment, become the protective factor for students against the use of drugs. Individuals with assertiveness will be able to say "no" to the demand for drug consumption without causing conflict in the rejection (Kazemi et al., 2019). In other words, assertiveness makes an individual respect themselves by standing against drug abuse while still being able to maintain a good relationship with others (Vagos & Pereira, 2019; Tatari et al., 2021). Therefore, introducing assertiveness to the students in drug education is necessary.

Some researchers disclose a lack of research on assertiveness in drug prevention. For example, Bahramnejad et al. (2020) stated that information about psychosocial interventions such as assertiveness in drug education is very limited. Ramadhan et al. (2019) also stated that research to determine the effect of assertive training has never been done. The lack of assertiveness research in drug education might be caused by the lack of valid and reliable

instruments to measure assertiveness in drug prevention. A valid instrument indicates that the instrument measures what it is intended to measure (Surucu & Maslakci, 2020; Ilhami et al., 2023). Therefore, providing a valid assertiveness instrument in drug education is needed to make sure the research on assertiveness in drug education is done correctly. Furthermore, the concept of assertiveness should be measured in each context in which it is applied. According to theory, assertiveness does not only develop and shape in accordance with genetic or cultural traits (Parmaksiz & Kiliçarslan, 2020). Rather, the concept of assertiveness is situationally sensitive (Gil-Llario et al., 2022). Students in drug education might have a different level of assertiveness compared to students who are not in drug education. Therefore, there is a need to test assertiveness in a specific context, such as drug education.

### **Aim of the Study**

The aim of this research is to establish a valid and reliable assertiveness scale to be used in drug education. This involves examining the primary construct of assertiveness in drug education and validating the structure of the scale. The goal is to provide a tool to measure students' assertiveness in drug education, which aims to improve the effectiveness of drug prevention programmes in schools. This scale can be used to measure the level of students' assertiveness during or after their participation in a drug education programme. Therefore, counsellors or teachers can have a bright perspective on the student's personality trait so they can take effective action or respond appropriately.

## **METHODS**

### **Procedures of Study**

The Malaysian version of Rathus assertiveness schedule related to the drug abuse prevention scale consists of 30 items adopted. Every item used a 5-point scale. One indicates very much disagree, two indicate, three indicate agree, four indicate agree, and five indicate very much agree. Respondents were asked to select which was most relevant to the certain situation. The adopted scale was modified by researchers based on the literature review. The back-to-back translation was done by six experts. The scale was translated from English to Malaysian and translated back to English.

### **Subject**

The purpose of this research is to validate the Malaysian Version of Rathus Assertiveness Schedule as Drug Prevention Scale in secondary school students in Malaysia. The researcher collected data in Johor, Selangor, and Kuala Lumpur, Malaysia. A total of 211 students participated in the current research. One hundred and ten of them were from Johor, 70 from Selangor, and 31 from Kuala Lumpur. Female students were dominant in the current research, where 86 participants were male and 125 were female. The researcher also gauges information about the participants' race since Malaysia has several races. One hundred eleven participants were Malay, 66 participants were Chinese, 19 participants were Indian, and five participants came from other races. The detail information about the participants can be seen in the table 1.

### **Ethical Consideration**

As an ethical consideration for the current research, the researcher follows the relevant guidelines and procedures in collecting data. Professors Dr Rahmattullah Khan and Abdul Wahab Khan of the Human Research Ethics Committee at Sultan Idris Education University approved the permission of the ethics. The ethical consideration approval confirmed that the researcher paid attention to the respondents' rights and followed any required procedure with

Table 1. Data of participants of the study

Sample		<i>N</i>	<i>Percentages</i>
Region	Johor	110	52.1%
	Selangor	70	33.2%
	Kuala Lumpur	31	14.7%
Gender	Male	86	40.8%
	Female	125	59.2%
Races	Malay	111	52.6%
	Chinese	66	31.3%
	Indian	29	13.7%
	Others	5	2.4%

the permission number; UPSI/PPPI/PYK/ETIKA(M)/014(231). The researcher gives the questionnaires to respondents, followed by a notice that 1) The questionnaires did not intend to test the respondent's intelligence. 2) The purpose of the data collection was solely to contribute academically and as a contribution to knowledge. 3) The respondents hoped to answer the questionnaire honestly and sincerely. 4) all information obtained from this research was confidential and will not be distributed to any party.

### Data Analysis

The construct validity of the scale was tested through factorial analysis (Sellbom & Tellegen, 2019). Knekta et al. (2019) explain that exploratory factor analysis could help researchers evolve theory because it explains the dimensionality of the instrument and helps to decide whether the item empirically belongs to the specific construct. In the current research, researchers employed exploratory factor analysis to evolve the existing factors and locate the items for each factor. In EFA, the discern variable was conceived as the weighted sum of potentially correlated factor variables and unique factors (Auerswald & Moshagen, 2019; Hafnidar et al., 2021). Eigenvalue was more significant than one, and a scree plot was used to retain the number of factors in this research. The theoretical consideration behind this is that an eigenvalue greater than 1 declares that the factor accounts for more variance in the observed data than any single variable in the dataset (Finch, 2020). SPSS 27.0 was used to perform EFA. In early analysis, the researchers set the principles axis factoring method, which was extracted with an eigenvalue greater than 1. The researchers also display the scree plot to interpret the eigenvalue through the diagram.

Furthermore, varimax rotation was performed to help interpret the data easily. The data also suppress small coefficients up to .30 to display only items with factor loading greater than .30. Two considerations were considered for the current research: communalities and factor loading. Almaleki (2021) stated that one of the major concerns in the factorial analysis was the minimum level of commonality to decide which indicator was adequate to represent a latent trait. Communality itself indicates the variable explained by the common factor (Shrestha, 2021). It estimates the percentage of the variance in the variable explained by all factors (Durosaro et al., 2019). The commonality ranges from 0 to 1, with 0 indicating that the factor was not explained by the variance and 1 indicating that all the variance was explained by the factor (Almaleki, 2021). For the current research, the item with a commonality below .30 was eliminated from the analysis. Other than that, the researchers also considered the number of factors loaded; factor loading was related to the correlation of the items to the specific factor (De Roover & Vermunt, 2019). The criteria of factor loading explained by Yıldırım & Güler (2022) as poor (.32), fair (.45), good (.55), very good (.63), and excellent (.71). For the current research, factor loading was used to locate the item to the specific factor.

Table 2. Drug prevention scale Rathus assertiveness scale

Sex	No of subject	Mean points	SD	Minimum points	Maximum points	Cronbach Alpha
Male	86	3.1554	.30122	2.50	3.90	.655
female	125	3.2368	.37306	2.33	4.30	.789
Total	211	3.2036	.34715	2.33	4.30	.748

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity		
	Approx. Chi-Square	df	Sig.
.776	1543.728	435	.000

## RESULTS AND DISCUSSION

### Results

This study analyzed data from 47 participants who completed the intervention and follow-up until the last session (see Figure 1 for participant flow). The participants were divided into three groups: mindfulness dhikr breathing (MDB) treatment group (n=17), progressive muscle relaxation (PMR) treatment group (n=12), and control group (n=18) (Table 1). Some participants were excluded from the study due to reasons such as the use of medication for insomnia, incomplete screening, not receiving the MDB or PMR treatment, discontinuing the PMR treatment due to COVID-19 symptoms, or discontinuing the control treatment.

The response was collected from 211 students, with a response rate of 100%. In the current research, respondent complete answers regarding the region, gender, race, and 30 items of the Rathus assertiveness schedule as drug prevention. The initial analysis split the respondents based on gender, with 86 males and 125 females. Table 2 shows this group's average value of the Rathus assertiveness schedule as a drug prevention scale. The average score for all respondents was 3.20, with a standard deviation of .347. Female respondents have a higher mean score compared to male respondents. The Pearson correlation coefficient was calculated on the questionnaires' total scores for even and odd numbered items. The data was significantly correlated; the correlation coefficient was .539. Furthermore, the Cronbach alpha coefficient was also calculated; Cronbach alpha was .748 for all respondents, .655 for males and .789 for females, see table 2.

### Factor Analysis

Kaiser-Meyer-Olkin and Bartlett's test of sphericity was executed to test the appropriateness of the data for factor analysis. The result of KMO and Bartlett's test confirms that the data was sufficient for factorial analysis. The result of KMO was .775, indicating the threshold of .5. Furthermore, the result of Bartlett's test was significant, see table 3.

A factor analysis was conducted for 30 items in the SPSS 27.0 application. The principle's axis factoring rotated with varimax rotation, and the coefficient was settled to .30 was settled. Data analysis through 211 participants reveals nine factors with an eigenvalue exceeding 1.0. The total contribution ratio of the nine factors was 58.721% of the variance. The eigenvalue of each factor was 5.396 for the first factor, 3.036 for the second factor, 1.726 for the third factor, 1.478 for the fourth factor, 1.304 for the fifth factor, 1.288 for the sixth factor, 1.204 for the seventh factor, 1.133 for the eighth factor, and 1.052 for the ninth factor. The complete data of the factor can be seen in table 4.

Table 4. Total Variance

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.396	17.986	17.986	4.835	16.116	16.116
2	3.036	10.121	28.107	2.465	8.218	24.334
3	1.726	5.752	33.859	1.129	3.762	28.096
4	1.478	4.927	38.786	.924	3.079	31.176
5	1.304	4.345	43.131	.802	2.675	33.851
6	1.288	4.292	47.423	.748	2.493	36.343
7	1.204	4.015	51.438	.617	2.055	38.398
8	1.133	3.777	55.215	.517	1.724	40.122
9	1.052	3.506	58.721	.454	1.515	41.637
10	.925	3.083	61.804			
11	.903	3.011	64.815			
12	.851	2.836	67.651			
13	.792	2.640	70.291			
14	.784	2.612	72.903			
15	.750	2.501	75.404			
16	.710	2.367	77.771			
17	.679	2.264	80.035			
18	.667	2.224	82.259			
19	.654	2.182	84.441			
20	.585	1.951	86.392			
21	.523	1.743	88.135			
22	.505	1.685	89.820			
23	.483	1.609	91.429			
24	.438	1.459	92.888			
25	.427	1.424	94.312			
26	.406	1.354	95.667			
27	.383	1.278	96.945			
28	.340	1.135	98.080			
29	.303	1.009	99.089			
30	.273	.911	100.000			

Extraction Method: Principal Axis Factoring

Furthermore, the number of eigenvalues was confirmed through the Scree plot. In the diagram, nine items exceed the standard of 1. The scree plot confirmed nine factors in the current data set.

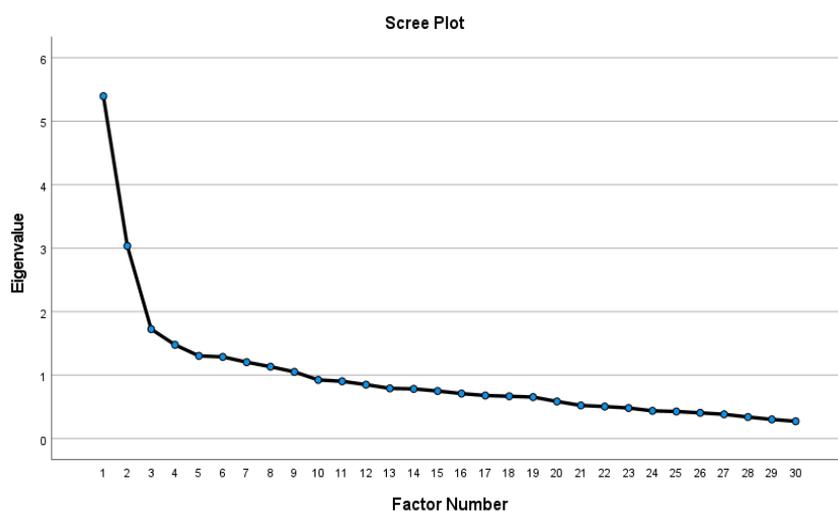


Figure 1. Scree Plot

Commonalities portray the proportion of the variance explained by the common factor, and factor loading portrays which factor the items correlated with. Table 5 reveals the value of factor loading and commonalities; the finding reveals that several items did not achieve the commonalities threshold of 0.3 (X12, X14, X27, and X28). Furthermore, the factor loading indicates which factor the item was correlated with. The result showed that there were seven items in the first factor with factor loading ranging from .308 to .667, there were four items in the second factor with factor loading ranging from .420 to .506, there were four items in the third factor with factor loading ranged from .304 to .714, there were two items in the fourth factor with factor loading ranged from .571 to 669, there were two items in the fifth factor with factor loading ranged from .372 to .536, there was one item in the sixth factor with factor loading .780, there were two items in the seventh factor with factor loading .343 and .525, there were two items in the eighth factor with factor loading .523 and .470 and one item in the ninth factor with factor loading .404.

Table 5. Factor loading and commonalities

Items	Extracted factor									Communalities
	1	2	3	4	5	6	7	8	9	
1. Most people seem to be more aggressive and assertive than I am						.780				.649
2. I have hesitated to join in a community because of "shyness"	.562									.474
3. When my friends in school doing bad things, I complain about it to the teachers				.571						.452
4. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured					.372					.360
5. If my friends have gone to considerable trouble to show me behaviour that is not quite suitable, I have a difficult time saying "No."		.461								.377
6. When someone told me about drug cases, I insist upon knowing why					.536					.406
7. There are times when I look for a good, vigorous argument in drug discussion.							.343			.330
8. I strive to get ahead as well as most people in my position							.525			.307
9. To be honest, people often take advantage of me.								.404		.324
10. I enjoy starting conversations about drug			.608							.416
11. I often don't know what to say to people who consume drug.	.633									.486

12. I will hesitate to make phone calls to talk about drug cases		.214
13. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews	.506	.456
14. I find it embarrassing to return merchandise	.420	.297
15. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance	.461	.524
16. I have avoided asking questions about drug for fear of sounding stupid	.581	.505
17. During an argument, I am sometimes afraid that I will get so upset that I will shake all over	.667	.497
18. If a famed and respected lecturer makes a comment which I think is incorrect about drug, I will have the audience hear my point of view as well		.523 .405
19. I avoid arguing about drug with people who drug addict	.447	.326
20. When I have done something important or worthwhile, I manage to let others know about it		.470 .485
21. I am open and frank about my feelings	.493	.424
22. If someone has been spreading false and bad stories about me, I see him or her as soon as possible and "have a talk" about it	.304	.519
23. I often have a hard time saying "No." to drug	.403	.421
24. I tend to bottle up my emotions rather than make a scene		.398
25. I will complain my teacher if my friends try to consume drug		.669 .508
26. When I am asked to consume drug, I sometimes just don't know what to say	.308	.434
27. If a couple near me in a force someone to consume drug I would ask them stop and quit		.428 .228

28. Anyone attempting to push ahead of me in a line is in for a good battle	.423	.254
29. I am quick to express an opinion regarding of drug	.714	.617
30. There are times when I just can't say anything	.555	.400

The researcher then named the factors that describe the items. The first factor consists of seven items named “inability to express feeling”, the second factor consists of four items named “lack of self-confidence”, the third factor consists of four items named “strong self-confidence”, the fourth factor consists of two items named as “the courage to complain”, the fifth factor consists of two items named “disregard to own feeling”, the sixth factor consists of one item named “aggressive”, the seventh factor consists of two items named “endeavour”, the eighth factor consists of two items named “expressing thought and values”, and the ninth factor consists of one item named “used by other”.

## Discussion

The validity and reliability of the Rathus assertiveness schedule as a drug prevention scale were verified through 211 secondary school students in Malaysia. The scale attained high reproducibility in the current research, as proved by a high correlation coefficient ( $r = .539$ ). Furthermore, the Cronbach alpha coefficient score for all respondents was .748. Schrepp (2020) defines the thresholds of Cronbach alpha as follows;  $> .9$  (excellent),  $> .8$  (good),  $> .7$  (acceptable),  $> .6$  (questionable),  $> .5$  (poor), and  $< .5$  (not acceptable). Reflecting the threshold given, the internal consistency of the current scale was acceptable. Testing the reliability of a scale is essential to finding scale consistency. In this case, Cronbach's alpha helps to measure the internal consistency of the scale. It helps to prove that the scale measures the different aspects of the same attribute (Adeniran, 2019). Amirrudin & Nasution (2021) stated that a high Cronbach alpha indicates that the items have similar covariance, which can measure the same concept. Many researchers utilize Cronbach's alpha as a method to test the reliability of a scale. For example, Schrep (2020) tested the reliability of the UX scale using Cronbach Alpha, Ramdan (2019) tested the reliability of the Indonesian version of the Hamilton anxiety scale using Cronbach Alpha, and Crandall et al. (2020) tested the reliability of the family health scale using Cronbach Alpha.

Several eigenvalues more significant than one are essential for the current research (Fan et al., 2022; Husin et al., 2023). Most extraction methods rely on eigenvalues to decide the number of factors in the analysis (Auerswald & Moshagen, 2019). There were nine factors with an eigenvalue greater than 1 in this research. The first and second factors, namely "inability to express feelings" and "lack of self-confidence," had the highest eigenvalues (5.396 and 3.036). Their research stated that teenagers could not act assertively because they feared being disliked, disappointing others, and not being accepted in the group. Fear leads teenagers to limit themselves in their environmental interactions, resulting in an inability to express feelings and a lack of self-confidence (Bulantika et al., 2019; Zainil et al., 2023). Besides that, Ismail et al. (2020) stated that assertive behaviour is the key to enhancing life quality and communication.

Research by Emeliya Natasha Bt Mohd Noor et al. (2022) reveals that there are two reasons Malaysian lack the ability to communicate or express feelings: anxiety and a lack of confidence. This research revealed that a lack of self-confidence makes students afraid to involve in the community (X2). Furthermore, the lack of communication skills prevents them from advising drug abusers (X11), they inability to reject the invitation to consume drugs (X23), and the cannot argue when being asked to consume drugs (X26). Emeliya Natasha Bt Mohd Noor et al. (2022) add that the individual's inability to assertive communication could make

them talk too much without making strong statements or argumentation (Ang, 2016). His research revealed that many Malaysian students were not assertive, meaning they lacked social skills such as a low level of effective communication. That is why the first and second factors have high factor loading in this research.

Research conducted by Chie et al. (2015) in Malaysia reveal that assertiveness could make the Student more independent and logical in rejecting peer influence to consume the drug. However, assertiveness learning should be followed by instilling self-confidence. Tymes et al. (2016) found that students lacking social confidence in risky situations engage in deviant behaviours such as drug abuse. The lack of self-confidence will make students prone to being led and influenced by peers and others, resulting in uncontrollable action (Chie et al., 2015; Nengsih et al., 2022). This research proved that the lack of self-confidence prevents students from learning about the drug because of their fear of seeming stupid (X16) and their inability to prevent their peers and themselves because they did not dare argue against drug abusers (X19). Mustapha et al. (2020) suggest three strategies for drug prevention in Malaysia: inculcating trust, building motivating, and enhancing self-confidence.

### **Implications**

The result of this research is expected to have theoretical and practical implications. Theoretically, this research contributes to the psychometric discussion on the assertiveness concept, where assertiveness in drug education consists of nine factors: inability to express feelings, lack of self-confidence, strong self-confidence, the courage to complain, disregard for one's own feelings, aggression, endeavour, expressing thoughts and values, and being used by others. Furthermore, practically, the result of this research can be used to measure the student's assertiveness in drug education and to initiate an effective drug prevention programme in school.

### **Limitations and Suggestions for Further Research**

There are several limitations and suggestions for future research. Firstly, the number of participants is limited to 211 secondary school students in Malaysia; more participants are needed to have more accurate instrument testing in Malaysia. Secondly, this research only employs one factorial analysis, namely exploratory factor analysis (EFA), which only measures the initial structure of the instrument; future research suggests employing confirmatory factor analysis (CFA) to confirm the structure of the instrument. Other validation procedures, such as RASCH analysis of convergent and divergent validity, can also be used to strengthen the validity and reliability of the instrument.

### **CONCLUSION**

The purpose of this research was to determine whether or not the Malaysian version of the Rathus assertiveness schedule was a valid scale for evaluating drug prevention. The data demonstrated that they could be relied upon for factorial analysis. Exploratory factor analysis, considering eigenvalues, commonalities, and factor loadings, was utilized to validate the scale structure. The eigenvalue revealed nine different factors; the similarities between the items indicate that four should be removed, and the factor loadings point to the structure of the items in the scale. The structure of the scale can be broken down as follows: the first factor includes seven items, the second factor includes four items, the third factor includes four items, the fourth factor includes two items, the fifth factor includes two items, the sixth factor includes one item, the seventh factor includes two items, the eighth factor includes two items, and the ninth factor includes one item. In addition, the scale was shown to be reliable by the Cronbach alpha, which gave it a score of .748.

## ACKNOWLEDGMENT

This research was funded by the Ministry of Higher Education Malaysia through Long Term Research Grant Scheme (LRGS/1/2019/UKM/02/2/4), with the project title "Developing and conceptualizing a model of drug-free school environment prevention strategy at selected hot spots" (grant number: 2019025610742). We would like to express our gratitude to the editorial team and reviewers who spent their priceless time reviewing and improving this article.

## AUTHOR CONTRIBUTION STATEMENT

Conceptualization, AJJ and MKWI; methodology, CH and ANMI; data analysis, SZO; writing—review and editing, AA and SW. All authors have read and agreed to the published version of the manuscript.

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Islamic Guidance and Counseling Journal

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