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Awareness and Knowledge of Vertigo among the Adult Population of Selangor, Malaysia

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ABSTRACT

Dizziness and vertigo are common among the adult and elderly population. However, the knowledge & awareness of vertigo and the understanding of the differences between vertigo and dizziness in the adult population is seldom studied. The present study aimed to assess the level of awareness and knowledge of vertigo among the adult population living in Selangor, Malaysia. In addition, the study also focused on the participants' knowledge of differentiating dizziness and vertigo. This cross-sectional study received responses from 189 participants who were in the age range between 20 and 40 years among which 152 participants' responses met the inclusion criteria. A self-developed validated online questionnaire was used as a study tool to understand the awareness and knowledge of vertigo among the participants. Data analysis was conducted using SPSS (version 28) to obtain frequency and percentages. The results of the present study showed that 57.9% of participants had an average level of awareness of vertigo. Further, 55.3% disagreed that vertigo is the same as dizziness however only 6.6% of the participants were exactly able to identify the differences between vertigo and dizziness. The present study concludes an average level of awareness and knowledge of vertigo among most young adults of Selangor, Malaysia. However, the ability to differentiate vertigo from dizziness was very low among the participants, demonstrating a gap in their knowledge of vertigo. Hence, education about vertigo among the public must be ameliorated. Further studies are required on different age groups and within the other states of Malaysia.

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1 Introduction

In middle to high-income countries such as Malaysia, the aging population has drawn the attention of the healthcare system. Alongside numerous medical conditions that come with old age, it is not uncommon that a high risk of falling is associated with the elderly population, carrying a prevalence of 7.5 to 16.7% in Asia followed by 28% - 35% in Malaysia (Tungvachirakul et al. 2014; Yeong et al. 2016; Ghazi et al. 2017). Falls are the second leading cause of worldwide morbidity and mortality in the elderly population (WHO 2018), and it has become a cause of concern for society and healthcare systems. To reduce the incidence of falls, the public must be well educated about the risk factors that contribute to falls. Willadsen et al. (2016) define fall risk factors' assessment are associated with the probability of disease not necessarily recognized by the patient. Risk factors for falls can be further divided into intrinsic factors such as weakness of limbs and pre-existing medical conditions, and extrinsic factors such as poor lighting and uneven walking surfaces (Appeadu and Bordoni 2021). As the number of risk factors present in an individual increases, the risk of falling also increases (Berg and Cassells 1992; Kiel et al. 2018). Proper knowledge of the causes of falls will allow the public to identify any existing risk factors that put themselves or those under their care at a higher risk of falling, allowing them to take action to reduce those risks or seek treatment.

With an annual prevalence of 40% (Homann et al. 2013), vertigo is one of the common causes of falls globally. Based on a survey by Johns Hopkins Medicine, one-third of the American population suffer from inner-ear dysfunctions causing dizziness and loss of balance. This increases their risk of falling compared to people with a good sense of balance (Xu et al. 2021). While vertigo and inner-ear problems are commonly talked about, most people only have a vague understanding of this topic, leading to many misconceptions. One such misconception is that 'dizziness' and 'vertigo' carry the same meaning and are interchangeably used to describe a sense of altered spatial orientation and perception of movement, leading to loss of balance.

To grasp the understanding of vertigo, we must first understand dizziness. Dizziness is a vague term, used to describe a sensation of whirling or feeling a tendency to fall. It has no actual medical definition, but it is often used in place of light-headedness, presyncope, vertigo, and disequilibrium to represent these sensations. Vertigo is defined as the illusion of movement, where the patient feels their own body or the surrounding environment moving, usually in rotatory motion (Fife 2021). Hanley et al. (2001) define very clearly in their study that presyncope is a feeling of light-headedness, typically due to temporary cerebral ischemia, leading to a feeling of near fainting. Further, Sloane et al. (2001) describe disequilibrium as a sense of imbalance and typically involves the legs and trunk, without sensations of the head.

Vertigo has a lifetime prevalence of 20-30% (Neuhauser et al. 2008) and a 1-year prevalence of 4.9 % (Neuhauser 2007). Vertigo is a symptom of vestibular disorders that can be of central or peripheral pathology. Peripheral vestibular disorders causing vertigo commonly refer to benign paroxysmal positional vertigo (BPPV), Meniere's disease, and vestibular neuritis; central vestibular disorders include vestibular migraine, vertebrobasilar ischemic stroke, and insufficiency of the vertebrobasilar system (Thompson and Amedee 2009). Vertigo is typically characterized by reports of feeling a rotatory movement while not in motion that may last for seconds to hours, maybe even days or weeks (Strupp and Brandt 2008). These may be accompanied by several symptoms such as tinnitus, headache, migraine, diplopia, and dysphagia. This study focused on vertigo caused by peripheral pathologies as vertigo from central pathologies needs additional knowledge on neurological conditions which is beyond the scope of the study.

Although this knowledge may seem trivial, greater awareness and understanding of vertigo will empower the public to communicate its symptoms to their healthcare providers in a better way. Wherever necessary, an accurate diagnosis can be made to ensure that they receive proper treatment. Although vertigo is more common among the elderly, educating the young adult population on its clinical manifestations, causes, risk factors, and treatment options are equally important as a preventive measure. There are only a handful of studies done on the awareness and knowledge of vertigo (Nada et al. 2019; Alenezi et al. 2020), and none of which were done in Malaysia. A recent study on the Saudi population revealed that there was a lack of awareness and knowledge relating to various demographic factors (Alotaibi et al. 2020). This lack of awareness and knowledge of vertigo among the public will lead to the liberal use of the term 'dizziness' in cases related to and unrelated to vertigo. A study by Kroenke et al.(1992) found it useful to establish the cause of dizziness, leading up to the most appropriate management for the specific cause. However, without awareness and knowledge of vertigo among the people, healthcare providers will have great difficulty in diagnosing patients with complaints of 'dizziness' due to the inability of the patients to accurately describe and distinguish their unique experience of dizziness. The purpose of this study, therefore, was to assess the extent of awareness and knowledge of vertigo among the adult population in Selangor, Malaysia and also to find the knowledge of participants in differentiating dizziness and vertigo. The finding of the present study would provide a baseline information on the level of knowledge of vertigo among the participants and allow us to identify if there is a need to improve on the education of vertigo. The results also can be used to direct future education on vertigo,

and its diagnosis and treatment to properly equip the public with a thorough understanding of this easily overlooked topic. The present study may be the first of many to evaluate the awareness and knowledge of vertigo among Malaysians, giving researchers a baseline for future studies.

2 Materials and Methods

This cross-sectional study was conducted in Selangor, Malaysia. Selangor is a state located on the west coast of Peninsular Malaysia and comprises of 9 districts, namely Gombak, Klang, Kuala Langat, Kuala Selangor, Petaling Jaya, Sepang, Hulu Selangor, Hulu Langat, and SabakBernam. The working adult population aged between 20 - 40 years was reached in this study using an online questionnaire that utilizes true-or-false statements and a 4-point Likert rating scale in the questions to study the level of awareness and knowledge of vertigo. Furthermore, convenience sampling was used in this study due to its ease and cost-effectiveness (Elfil and Negida 2017), which involves the recruitment of participants based on their availability, accessibility, or geographical proximity. The study was approved by the INTI International University's ethical committee (INTI-IU/FHLS-RC/BPHTI/7NY12020/022). Participants of this study were recruited via social media platforms. An invitation post with instructions and the link to the questionnaire of the study was shared within Facebook groups such as INTI Physio Club. Healthy adults between the age of 20 - 40 years and those who understand the English language were chosen for the study. People who were non-Malaysians or residing out of the study area were excluded. A written invitation was shared to friends and family on WhatsApp and Instagram, requesting that they further share the study invitation with others upon completion of the questionnaire. A photo post with instructions and a link to the questionnaire was uploaded to social platforms, allowing the engagement of followers. The sample size was estimated as 385, with the confidence level set at 95%, and the z-score used was 1.96. The margin of error was set at 0.05 and the population proportion at 50% (Pourhoseingholi et al. 2013). All participants of this study were given an informed consent form and a brief explanation of the purpose and procedure of the study before recruitment. Besides, participants were assured that all information collected would be kept private and confidential.

2.1 Study Questionnaire

This study utilized a self-developed online questionnaire to obtain data from the participants. The questionnaire was developed to assess the knowledge and awareness aspects of the participants about vertigo. The questionnaire consisted of 3 sections viz., (1) demographic data of the participants, such as age, gender, race, occupation, and education level, (2) 6 questions to gauge the level of awareness of vertigo, and (3) 21 questions to gauge the understanding of vertigo, separated into 5 questions on the definition of vertigo and 16 questions on the detailed knowledge of vertigo. The questions used in the knowledge sections were compiled from a recent study on the knowledge, attitudes, and practices (KAP) relating to vertigo in Saudi Arabia (Alenezi et al. 2020). The content of the questionnaire was validated by the experts in the respective field of study, before being sent out to the target population.

The awareness section of the questionnaire was scored using a 4-point Likert scale with 'Strongly disagree' as 1, "Disagree" as 2, "Agree" as 3, and 'Strongly agree' as 4. The maximum score possible was 24 and the minimum score was 6. A score of 6 to 12 was scored as low personal awareness, 13 to 18 was scored as average personal awareness, and 19 to 24 was scored as high personal awareness.

The knowledge section of the questionnaire consists of 21 True or False questions with an extra option of "I don't know". Participants would score 1 point for each correct answer and 0 points for selecting the wrong answer or "I don't know". The participant was scored as "General awareness knowledge" when scoring 0 to 7 points, "Average knowledge" when scoring 8 to 14, and "Detailed specific knowledge" when scoring 15 to 21. The questionnaire begins with 5 questions on the definition of vertigo, aimed at assessing the participant's knowledge of the difference between vertigo and other forms of dizziness. The following 16 questions cover the causes, symptoms, and prevalence of vertigo. The target population of this study was members of the public that may or may not have medical knowledge. Thus, the questions of this questionnaire were phrased using common English, avoiding the use of medical jargon to ensure participants could fully understand the statements provided. A study by Subramaniam et al.(2017) implied that medical jargon leads to misunderstanding in the healthcare setting. The questions did not go in-depth into the medical details of vertigo, as members of the public cannot be expected to have that knowledge. Instead, the questions reflected more practical knowledge that would affect the participants' attitudes and perceptions of vertigo.

2.2 Statistical analysis

The statistical data were analyzed using the IBM® Statistical Package for the Social Sciences (SPSS) version 28. The demographic data such as gender, race, occupation, and education level, were analyzed using frequency and percentages (Table 1). Continuous variables such as age and scores obtained from the questionnaire were analyzed using the mean and standard deviation. Further, the level of awareness and level of knowledge were analyzed using frequency and percentages (Table 2 and Table 3).

Table 1 Demographic data of the participants

Variables		Frequency (%)
Age	20 – 25	98 (64.5)
	26 – 30	25 (16.4)
	31 – 35	22 (14.5)
	36 – 40	7 (4.6)
Gender	Male	50 (32.9)
	Female	102 (67.1)
Race	Chinese	133 (87.5)
	Indian	9 (5.9)
	Malay	8 (5.3)
	Others	2 (1.3)
Occupation	Arts and Entertainment	6 (3.9)
	Business	34 (22.4)
	Engineering	9 (5.9)
	Education	17 (11.2)
	Food and Beverages	3 (2.0)
	Healthcare	25 (16.4)
	Law	2 (1.3)
	Student	38 (2.5)
	Information technology	4 (2.6)
	Others	14 (9.2)
Education Level	SPM* (or equivalent)	3 (2.0)
	Pre-U	4 (2.6)
	Diploma	6 (3.9)
	Undergraduate	113 (74.3)
	Postgraduate	26 (17.1)

*SPM – Sijil Pelajaran Malaysia

Table 2 Participant's Responses for Awareness Domain

Awareness Domain	Strongly disagree n (%)	Disagree n (%)	Agree n (%)	Strongly agree n (%)
	Disagree		Agree	
I am aware of what vertigo is.	18 (11.8)	40 (26.3)	59 (38.8)	35 (23.0)
I have heard of or read about vertigo.	12 (7.9)	15 (9.9)	62 (40.8)	63 (41.4)
I have experienced vertigo.	89 (58.6)	27 (17.8)	21 (13.8)	15 (9.9)
I have heard experiences of vertigo from family members or close friends.	40 (26.3)	20 (13.2)	37 (24.3)	55 (36.2)
I have heard that vertigo will resolve on its own and does not need to be treated as a serious medical problem.	50 (32.9)	64 (42.1)	33 (21.7)	5 (3.3)
I think vertigo affects only the older population.	69 (45.4)	57 (37.5)	22 (14.5)	4 (2.6)

3 Results

3.1 Demographic features

Table 1 shows the demographic features of the participants in this study based on their age, gender, race, occupation, and education levels. A total of 189 participants responded to this study by convenience sampling. Among the 189 participants, only 152 met the inclusion criteria, aged between 20 - 40 years. The participants of the study had a mean age of 26.04 ± 4.66 years. There were 102 females (67.1%) and 50 males (32.9%). Among the participated participants, 87.5% of the participants were Chinese (n = 133), 5.9% were Indian (n = 9) and 5.3% were Malay (n = 8). The occupations of the participants varied greatly, with 25% students, 22.4% business personnel, and 16.4% in the healthcare sector. The majority of the participants had an undergraduate education level of 74.3%, followed by a postgraduate level of education of 17.1%.

3.2 Awareness of Vertigo

The present study was found to have an average personal awareness of vertigo (n = 88, 57.9%) from the participants'

responses, with a mean score of 16.61±2.95. While the remaining responses from 45 participants showed high personal awareness (29.6%), 19 participants had low personal awareness (12.5%) of vertigo. The Likert scale 4-point score for the awareness domain of the participant's response (1 and 2) considered as "Agree" and (3 and 4) considered as "Disagree" was reported in the study. In addition, most participants have heard of or read about vertigo (n = 125, 82.2%) before the study and could confidently know what vertigo is (n = 94, 61.8%). Although most participants have not experienced vertigo themselves (n = 116, 76.4%), more than half have heard of experiences from their family members or close friends (n = 92, 60.5%). Furthermore, the majority of the participants (n = 114, 75.0%) perceive vertigo to be a serious medical problem. The young adults (n=36, 23.8%) who participated in this survey experienced vertigo even before enrolling in this study. Based on the responses to this, they are aware that vertigo does not only affect the older population (n = 126, 82.9%) (Table 2).

3.3 Knowledge of Vertigo

By considering the awareness level of participants about vertigo in this study, participants mostly have an average knowledge of vertigo (n = 100, 65.8%) with an obtained mean score of 10.38 (± 4.206). Followed by 31 participants who had general awareness knowledge of vertigo (20.4%), and 21 participants who have detailed specific knowledge of vertigo (13.8%). Table 3 shows the responses of the participants to the knowledge domain of the questionnaire and the findings are divided into two sections which reflect on knowledge of vertigo and the knowledge of the differences between vertigo and dizziness.

Table 3 Participant's Responses for Knowledge Domain

	Knowledge Domain	True, n (%)	False, n (%)	I don't know, n (%)
	Knowledge on Vertigo			
1	Vertigo can be associated with problems in the inner ear. (semi-circular canals)	122 (80.3)	5 (3.3)	25 (16.4)
2	Vertigo can be associated with problems in the brain.	53 (34.9)	32 (21.1)	67 (44.1)
3	Vertigo may occur due to the use of certain medications.	42 (27.6)	20 (13.2)	90 (59.2)
4	If you have vertigo, you may feel worse when you move your head or change positions (stand up, rollover).	113 (74.3)	3 (2.0)	36 (23.7)
5	Vertigo may last for seconds, hours, or days.	110 (72.4)	3 (2.0)	39 (25.7)
6	Vertigo may be accompanied by loss of hearing and a ringing sensation in the ears.	85 (55.9)	11 (7.2)	56 (36.8)
7	Vertigo may be accompanied by seeing double, having trouble speaking or swallowing, or feeling weak.	78 (51.3)	14 (9.2)	60 (39.5)
8	Vertigo may be associated with migraines	84 (55.3)	12 (7.9)	56 (36.8)
9	Vertigo may be accompanied by a headache or sensitivity to light and noise.	106 (69.7)	10 (6.6)	36 (23.7)
10	Vertigo may be accompanied by mood swings.	34 (22.4)	36 (23.7)	82 (53.9)
11	If you have vertigo, you may feel worse when you cough or sneeze.	45 (29.6)	26 (17.1)	81 (53.3)
12	Vertigo is a disease transferred from parents to children.	3 (2.0)	92 (60.5)	57 (37.5)
13	Vertigo affects females more than males.	25 (16.4)	14 (9.2)	113 (74.3)
14	Vertigo affects the elderly more than young people.	62 (40.8)	21 (13.8)	69 (45.4)
15	Vertigo can be treated with medicine.	85 (55.9)	12 (7.9)	55 (36.2)
16	Vertigo can be treated with exercises.	49 (32.2)	19 (12.5)	84 (55.3)
	Knowledge on the Differences between Vertigo & Dizziness			
17	Vertigo is the same as dizziness	33 (21.7)	84 (55.3)	35 (23.0)
18	Vertigo is a feeling of moving or spinning when not in motion or that the world is spinning around you.	134 (88.2)	2 (1.3)	16 (10.5)
19	Vertigo is a feeling of fainting due to fear of heights.	15 (9.9)	109 (71.7)	28 (18.4)
20	Vertigo is a feeling of nausea and vomiting while in motion.	75 (49.3)	42 (27.6)	35 (23.0)
21	Vertigo is a feeling of drifting to one side while walking.	86 (56.6)	24 (15.8)	42 (27.6)

According to the section for knowledge on vertigo, most participants know that vertigo is associated with the inner ear (n = 122, 80.3%), but only a small group of them know that it can be associated with a problem in the brain as well (n = 53, 34.9%), and can occur due to the use of certain medication (n = 42, 27.6%). Further, 113 participants (74.3%) know that moving their heads or changing positions may aggravate vertigo symptoms. A larger group of participants (n=134, 88.2 %) agreed that vertigo is a feeling of moving or spinning when not in motion or that the world is spinning around you as well. 86 participants (56.6%) have agreed that vertigo is a feeling of drifting to one side while walking. Most of them (n = 110, 72.4%) agree that vertigo may last for seconds, hours, or days. Of the symptoms that accompany vertigo, more than half of the participants know that vertigo may be accompanied by loss of hearing and a ringing sensation in the ears (n = 85, 55.9%), seeing double, having trouble speaking or swallowing, or feeling weak (n = 78, 51.3%), and having migraines (n = 84, 55.3%). A larger number agreed that vertigo can lead to headache or sensitivity to light and noise (n = 106, 69.7%). However, only 34 participants (22.4%) know that vertigo can be accompanied by mood swings, while only 45 of them (29.6%) know that coughing or sneezing could also make them feel worse if they have vertigo. More than half the participants agreed that vertigo is not transferred from parents to children (n = 92, 60.5%). Only 25 participants (16.4%) know that vertigo affects females more than males, and 62 participants (40.8%) answered 'true' to vertigo affecting the elderly more than young people. Finally, 56% of the participants (n = 85) know that vertigo can be treated with medicine, and only 32.2% (n = 49) know that some exercises or maneuvers can treat vertigo.

Based on the responses of the participant's knowledge of the differences between vertigo and dizziness, 84 participants (55.3%) disagree that vertigo is the same as dizziness. However, most of the participants (n = 134, 88.2%) agreed that "vertigo is a feeling of moving or spinning when not in motion" or that "the world is spinning around you". Most of the participants (n = 109, 71.7%) disagree that vertigo is a feeling of fainting due to a fear of heights. Only a small group of the participants chose the right answer for "vertigo is a feeling of nausea and vomiting while in motion" (n = 42, 27.6%) and "vertigo is a feeling of drifting to one side while walking" (n = 24, 15.8%), which was "false". Of the 84 participants who chose vertigo as not the same as dizziness, only 10 of them (6.6%) answered all 5 questions correctly.

4 Discussion

The purpose of this study was to determine the level of awareness and knowledge of vertigo among the adult population of Selangor. The second objective was to determine the percentage of adults who understand the difference between dizziness and vertigo. A research group of young adults was selected because they would have completed their studies and are likely to be caretakers of the older population, who are more prone to vertigo. D'Amen et al. (2021) address the trend of an aging population where the responsibility of caregiving is given to the younger population. A study on the prevalence of vestibular disorders in a tertiary hospital showed that patients between 40 - 64 years old had the highest prevalence of vestibular disorders at 20.5% (Wahat et al. 2013). This indicates the need for the younger population to be better educated on common healthcare topics.

The results suggest that the majority of young adults in Selangor, Malaysia have an average awareness and knowledge of vertigo. Within the age group of 20 to 40 years, most of the participants have never experienced vertigo before, yet they have heard about it or have heard about experiences from those close to them. Notably, 23.8% of respondents in the present study experienced vertigo before, which falls between the prevalence range of 7.4% and 38.2% among vertigo patients reported from past research in Malaysia. A report by Samsudin states indicates that there is a 7.4% prevalence of vestibular problems in the Neurology clinic of Universiti Kebangsaan Malaysia Medical Centre (UKMMC) where 95 out of 1283 patients were diagnosed with some form of vestibular problems (Samsudin 2011). Another study done at UKMMC noted that 38.2% of the 777 patients in the study were diagnosed with vestibular disorders (Wahat et al. 2013). As such, many acknowledge vertigo as a serious medical problem. Benecke et al. (2013) addressed the burden of vertigo on the patient, stating that vertigo harms the patient's work performance. Patients with vertigo have reported a reduction in workload, loss of working days, or changing jobs because of their condition. The prevalence of vertigo also increases the utilization of healthcare services, adding to the burden of the healthcare system (van der Zaag-Loonen & van Leeuwen 2015; San Fillippo 2017).

In the present study, the participants were shown to have an average level of knowledge about vertigo. While 55% of the participants know that there is a difference between dizziness and vertigo, only a handful of them was able to report the difference. 10 participants (6.6%) answered all 5 of the definition knowledge questions correctly, identifying the definition of vertigo to be a feeling of moving or spinning when not in motion. Further, Stanton and Freeman (2022) describe vertigo as "feeling like the room is spinning around you". It may be argued that the other statements within that section were not false, for example, "vertigo is a feeling of nausea and vomiting while in motion". Although nausea and vomiting are often associated with vertigo, it is inaccurate to say that "vertigo is" that symptom, therefore it is deemed a false statement. Though 88.2% of participants were aware that vertigo is a rotatory sensation when at rest, it was clear that many understood vertigos to be general dizziness. In terms of knowledge of vertigo,

most of the participants were familiar with the common presentations of vertigo such as headaches, migraines, tinnitus, and vision or speech impairment. They knew that vertigo stems from problems in the semicircular canals. However, most do not know that vertigo may arise from the brain, presenting as a lesion or dysfunction of the brainstem and leading to central vertigo (Pricilia and Kurniawan 2021). 85 participants know that vertigo can be treated with medication while only slightly over half those numbers know of exercises that can treat vertigo. This typically refers to vestibular rehabilitation that may be performed by trained medical professionals and physiotherapists. Vestibular rehabilitation has been shown to improve primary symptoms of vertigo, improve balance, reduce the risk of falling, and may show a reduction in anxiety and depression in patients (Kundakci et al. 2018). Finally, the results show that the participants did not have good knowledge of the demographic prevalence of vertigo. Knowing that there is a clear lack of knowledge of vertigo, authorities need to realize the rising trends of this problem and take action to educate the public. Previous research has shown that knowledge and health education interventions are effective for the primary prevention of individuals and have been shown to improve the physical activity levels of said individuals (Ramôa Castro et al. 2017; Wang et al. 2018). With improvements in education about vertigo, greater awareness of the problem will lead to early detection of vestibular problems, enabling the patient to take control of their medical situation (Dowdal-Osborn 2002). This, in turn, will lessen the potential burden on the healthcare system.

There were a few limitations in this study; Firstly, it had a small sample size of only 189 respondents, and secondly, the sample obtained was predominantly Chinese, making the results non-generalizable to young adults of other races. This could be due to the use of convenience sampling. Apart from that, the questionnaire was administered online, making it impossible to ensure that the participants did not search for answers online or through reference books while answering the questions. If the participants have done this, it could lead to a negative skewing of the data, providing inaccurate information about the level of knowledge about vertigo. Finally, the results could not determine cause and effect as this was a cross-sectional study.

Conclusion

The findings of this study conclude that there is an average level of personal awareness and knowledge of vertigo among young adults of Selangor. Only 6.6% knew the difference between vertigo and dizziness. Most people would have encountered an instance of vertigo in their lifetime, but there is a gap in the knowledge of this condition among the public. There is a need to educate the public about vertigo, making a clear difference between dizziness and all its subtypes. More studies are needed to assess the prevalence and level of knowledge of vertigo within other states in Malaysia and with a wider age group. Future studies should aim to include more members of other races as well as different age groups to allow generalizability. A more in-depth study can be done to test and analyze if there are other correlating factors as well. This study serves as a reference point for future studies, providing a baseline for the level of awareness and knowledge of vertigo in this study population. This information would allow us to identify that there is a lack of education on this topic. This study may also put more importance on vertigo and raise its awareness among the public. As people become more aware of this, they are more likely to seek treatment for it, reducing the chances of secondary complications caused by untreated vertigo. This may, in a small way, reduce the burden on the healthcare system.

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Conflicts of interest

The authors affirm that they do not have any conflict of interest.

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