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Perceptions of teachers regarding the inclusion of epilepsy education in life skills for primary learners and teachers in Limpopo and Mpumalanga provinces (South Africa)

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SUMMARY

Background. Epilepsy is a frequent neurological condition with complicated effects, and it is characterized by seizures that can last quite a long time. It is important that people around treat epilepsy patients with understanding and be able to help them during seizures.

Objective: to determine the perceptions of teachers regarding epilepsy education being included in life skills education considering that teachers spend a great deal of time with school students.

Material and methods. The study employed an exploratory-descriptive design to explore primary school teachers' perceptions regarding the need to include epilepsy in life skills education. It was conducted in Limpopo and Mpumalanga provinces in South Africa. Data were collected from 20 primary school teachers in Limpopo and Mpumalanga using semi-structured interviews. Only primary school teachers who teach life skills were interviewed to reach data saturation.

Results. The respondents revealed their knowledge that epilepsy is a disease associated with falling, shivering movements/seizures, releasing saliva in a bubble foam, and being unconscious. However, they showed insufficient understanding regarding some aspects and expressed the opinion that there is a need of including epilepsy in life skills education, because it will assist the learners and teachers in knowing more about epilepsy. The participants consider that since epileptic seizure is an unpredictable condition that can happen to anyone, at any time, they feel it is important that learners and teachers are educated about it. For this purpose, they suggested various teaching methods and the necessary areas of knowledge about epilepsy.

Conclusion. The findings of the study revealed that the inclusion of epilepsy in life skills education will enhance the knowledge and understanding of epilepsy through learning the aspects that have been suggested by the participants.

KEYWORDS

Epilepsy, life skills education, primary school teacher, learners.

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Conflict of interests

The authors declare no conflict of interest regarding this publication.

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Authors' contribution

Makhado T.G. – conceptualisation, data collection and analysis, text writing;

Lebesse R.T. – conceptualisation, data analysis, text writing, supervision;

Maputle M.S. – conceptualisation, supervision

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Мнение школьных учителей о включении жизненных навыков, связанных с эпилепсией, в программы обучения учеников начальных классов и учителей в провинциях Лимпопо и Мпумаланга (Южная Африка)

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РЕЗЮМЕ

Актуальность. Эпилепсия является частым неврологическим заболеванием со сложными последствиями и характеризуется приступами, которые могут длиться довольно долго. Важно, чтобы окружающие с пониманием относились к больным эпилепсией и умели оказать им помощь во время приступов.

Цель: определить отношение учителей к включению в школьную программу обучения жизненным навыкам, связанным с эпилепсией, с учетом того, что они проводят много времени с учениками.

Материал и методы. В работе использовался исследовательско-описательный дизайн для изучения мнений учителей начальной школы относительно необходимости включения сведений по эпилепсии в обучение жизненным навыкам. Исследование проводилось в провинциях Лимпопо и Мпумаланга в Южной Африке. Данные были собраны от 20 учителей начальных школ в Лимпопо и Мпумаланге с помощью полуструктурированных интервью. Для обеспечения полноты данных были опрошены только те учителя начальных классов, которые в процессе обучения предоставляют ученикам информацию о необходимых жизненных навыках.

Результаты. Респонденты продемонстрировали знание о том, что эпилепсия – это заболевание, связанное с падениями, судорожными приступами, выделением слюны в виде пузырящейся пены и утратой сознания. Однако они проявили недостаточное понимание некоторых аспектов и выразили мнение о необходимости включения информации об эпилепсии в программы обучения жизненным навыкам, т.к. это поможет учащимся и учителям больше узнать о ней. Поскольку эпилептический приступ является непредсказуемым состоянием и может случиться с каждым в любое время, участники исследования считают важным, чтобы учащиеся и учителя были осведомлены о данном заболевании. С этой целью они предложили различные методы обучения необходимым знаниям в области эпилепсии.

Заключение. Результаты нашей работы показали, что включение эпилепсии в школьные программы по жизненным навыкам расширит понимание о данной болезни за счет обучения аспектам, предложенным участниками исследования.

КЛЮЧЕВЫЕ СЛОВА

Эпилепсия, обучение жизненным навыкам, учитель начальных классов, учащиеся.

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Вклад авторов

Махадо Т.Г. – концепция, сбор и анализ данных, написание текста;

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Для цитирования

Махадо Т.Г., Лебезе Р.Т., Мапутль М.С. Мнение школьных учителей о включении жизненных навыков, связанных с эпилепсией, в программы обучения учеников начальных классов и учителей в провинциях Лимпопо и Мпумаланга (Южная Африка) (на англ. яз.). *Эпилепсия и пароксизмальные состояния*. 2022; 14 (4): 334–343. <https://doi.org/10.17749/2077-8333/epi.par.con.2022.132>.

INTRODUCTION / ВВЕДЕНИЕ

Epilepsy is a frequent neurological condition with complicated effects, and it is characterized by seizures that can even last for more than two minutes [1]. There is a high prevalence of epilepsy in sub-Saharan low-income and

lower-middle-income countries. About 90% of people living with epilepsy live in sub-Saharan Africa; among the 90%, half are children [2].

Issues with diagnosing and managing epilepsy in African countries remain a big challenge, increasing the comorbidities associated with epilepsy in children [2]. The

co-existing medical disorders afflict children with epilepsy due to seizures and can seriously impact their physical, psychological, and social well-being. Less is published regarding epilepsy education, and poor education can cause despair, exploitation, poor health-seeking behavior, and unemployment [3].

This means that people living with epilepsy (PLWEs), their parents and caregivers, and community members are impacted by a lack of epilepsy education [3]. PLWEs are affected physically, emotionally, and socially because this condition is mainly misunderstood. Most people in society have little knowledge regarding epilepsy; therefore, they see epilepsy as seizures only, not considering the aftermath of attacks which can be depression, social anxiety, social isolation, and memory loss [4]. Depression, social isolation, and social anxiety are most common in children with epilepsy due to a lack of knowledge regarding the condition and due to stigma surrounding the situation.

According to K. Yeni et al. [5], insufficient knowledge regarding epilepsy results in a negative attitude of people toward PLWEs. PLWEs are discriminated against and isolated because of the conditions' misconceptions. Some of the misconceptions that have been revealed in different studies are that epilepsy is witchcraft or a demonic disease that is contagious [6–8].

There is a high prevalence of dropouts of learners from schools, and a high number of dropouts are those learners living with epilepsy. According to M. Syvertsen et al. [9], most learners living with epilepsy dropped out of school because of being isolated and discriminated against due to misconceptions and stigma that surround epilepsy. Therefore, this means that knowledge regarding epilepsy is of great importance to decrease the misconceptions and myths that are associated with [10]. According to popular belief, people have a more favorable view toward a particular phenomenon the more knowledge they have about [11]. Furthermore, when individuals are informed about epilepsy, they will have a positive attitude toward it.

This study aims to find out the perceptions of teachers regarding the inclusion of epilepsy education in life skills education considering that teachers are the ones that spend much time with the learners at school. Based on PLWE, students, teachers, community members, teachers, the department of education, and the body of knowledge, this study's significance will be determined.

MATERIAL AND METHODS / МАТЕРИАЛ И МЕТОДЫ

Study design / Дизайн исследования

The study employed an exploratory-descriptive design to explore primary school teachers' perceptions regarding the need to include epilepsy in life skills education. According to D.F. Polit and C.T. Beck [12], exploratory-descriptive studies are used to shed light on how a phenomenon manifests and can be particularly useful for uncovering the true nature of little-known phenomena.

Study setting / Место исследования

This study was conducted in Limpopo and Mpumalanga provinces, South Africa. Limpopo province is situated in the far north of South Africa, bordering Zimbabwe, Botswana, and Mozambique, while Mpumalanga is located in the east of South Africa, bordering Swaziland and Mozambique. There is the proximity between the them. The researchers chose to focus on these two provinces since they contain diverse population groups. They are also geographically and culturally connected, accommodating the most various cultures from other South African provinces.

Limpopo and Mpumalanga provinces are populated and characterized by diverse, multicultural groups. Thus, mostly Pedi, Zulu, Swati, Ndebele, Venda and Tsonga are within Limpopo province, while Mpumalanga province has a vast mixture of Tsonga, Ndebele and Swati cultures.

Population / Популяция

Primary school teachers were the target population for possible inclusion. Teachers are the people who help learners acquire knowledge and competence, so they can tell if the inclusion of epilepsy in life skills education for primary students is necessary.

Sampling / Выборка

Provinces and rural communities

Purposive sampling was used to select the villages based on cultural diversity, and rurality, and the study is part of the GladAfrica Epilepsy Research Project (GERP), thus, operating within the already selected rural communities in Limpopo and Mpumalanga provinces. For Limpopo province, the selected rural communities include Malavuwe/Nweli (VhaVenda), Mtiti (VaTsonga), Bochum and Medingeni (Modjadiskloof) (Pedi). For Mpumalanga Province, the selected rural communities include Clara and Acornhoek (VaTsonga, Jerusalem (Swati) and Kwaggafontein (Ndebele)).

Schools

All primary schools that were in the selected rural communities of Limpopo and Mpumalanga provinces of South Africa were purposely sampled.

Primary school teachers

The study employed a non-probability purposive sampling method to select primary school teachers according to the judgment that they have a better understanding of the need for epilepsy life skills education. Primary school teachers who teach life skills were purposely sampled to participate in the study.

Inclusion and exclusion criteria

The researchers sampled only teachers that meet the following criteria:

- a qualified teacher that is recognized in terms of the Employment of Educators Act, 1998 (Act 76 of 1998);
- a primary school teacher who teaches or has taught life

skills and has at least 12 months of experience in facilitating life skills class;

– a primary school teacher in Limpopo or Mpumalanga province.

Sample size

According to J.W. Creswell and C.N. Poth [13], it is crucial to consider sample size during sampling to avoid the catastrophe of discovering that the sample is too small during data analysis. Therefore, the researchers sampled 20 primary school teachers in this study, which was determined by data saturation.

Data collection / Сбор данных

Data were collected from 20 primary school teachers in primary schools in Limpopo and Mpumalanga using semi-structured interviews. Only teachers who teach life skills in primary schools were interviewed to reach data saturation. The interviews followed the semi-structured interview guides to facilitate the discussion, and the main central questions were:

- What do you know about epilepsy?
- What are your perceptions regarding the need to include epilepsy in life skills education?
- What is the possible key epilepsy life skills education content that can be included in the primary level from grade to grade?
- What kind of teaching method can be used in teaching epilepsy in life skills education?

With the consent of the participating teachers, all the interviews were audio recorded. Discussions were made more in-depth through paraphrasing and inquisitive follow-ups. In order to help the researcher, grasp what participants were saying, field notes and observations were continuously taken throughout the interview.

Data analysis / Анализ данных

This study used ATLAS.ti¹ for data analysis and followed the basic steps of notice-collect-think (NCT) analysis. The audio-recorded interviews were transcribed verbatim in Tshivenda, Swati, and Xitsonga and then later translated to

English by language experts. In the analytical technique, comparable codes were grouped together and given different colors to make their comparisons simple. Themes were created by collecting related ideas.

Measures to ensure trustworthiness / Меры по обеспечению достоверности

Trustworthiness in qualitative research is achieved by enhancing credibility, dependability, conformability, and transferability [12]. The study's credibility was enhanced by spending more time with participants in the interviews until data saturation was reached. The researchers ensured that the study is confirmable by having another professional (independent co-coder) in their field analyze the data collected and compare the findings and consensus. The biographical information was obtained to ensure transferability, and a detailed explanation of the research design and findings was provided. Other researchers assessed the study's setting and environment to gauge how applicable the findings were.

Ethical considerations / Этические аспекты

The University of Venda Human and Clinical Trial Research Ethics Committee provided ethical permission. SHS/20/PSYCH/12/2710 is the clearance number for research ethics. All those who accepted to participate in the study gave written informed consent after the researchers explained the study to them. The participants gave their consent for the interviews to be recorded.

RESULTS / РЕЗУЛЬТАТЫ

Demographic characteristics / Демографические характеристики

Twenty teachers from selected primary schools in Limpopo and Mpumalanga were interviewed. Eighteen of them teachers were female, and two were male. The interviewees' years of teaching experience ranged from five to twenty-six years. **Table 1** shows the demographic characteristics of teachers.

Table 1. Demographic characteristics of the participants

Таблица 1. Демографические характеристики участников

| School number / Номер школы | Gender, n / Пол, n | | Experience, years / Опыт работы, лет |
|--------------------------------|--------------------|------------------|---|
| | Male / Мужской | Female / Женский | |
| 1 | – | 3 | 0–5 |
| 2 | 1 | 3 | 6–10 |
| 3 | – | 3 | 11–15 |
| 4 | 1 | 4 | 16–20 |
| 5 | – | 4 | 21–25 |
| 6 | – | 1 | 26–30 |

¹ ATLAS.ti is a computer-assisted qualitative data analysis software that facilitates analysis of qualitative data for qualitative research, quantitative research, and mixed methods research (<https://atlasti.com/>).

Themes and sub-themes developed from the data analysis are used to present the study's findings (Table 2). A list of the sub-themes for each theme is provided in the description.

Theme 1. Participants' knowledge about epilepsy / Тема 1. Знания участников об эпилепсии

The participants in this study revealed their knowledge that epilepsy is a disease associated with falling, shivering movements/seizures, releasing saliva in a bubble foam, and being unconscious. Further they described that an epileptic attack can occur at anytime, anywhere. The responders believe PLWEs had a dysfunctional state of mind because of falling, shivering movements/seizures, and unconsciousness during the attack. They also indicated that epilepsy is a disorder that occurs at any age though it is more common in children. Therefore, this study revealed that teachers have insufficient knowledge regarding epilepsy; certain aspects show little understanding.

Below is the narrative from a participant:

"I know that a person who has epilepsy often has seizures

such as fainting or losing consciousness; afterward, they start releasing saliva in bubble form and start rolling their eyes!.. mostly yes... than adults" (P13. Female, 45; 15 years teaching experience).

From this theme, the following sub-themes emerged: knowledge regarding causes, knowledge regarding myth, knowledge regarding precautional measures, knowledge regarding dangers associated with epilepsy, and knowledge regarding the types of epilepsy.

Sub-themes 1.1-2. Knowledge regarding myths as causes of epilepsy

There are several myths revealed in this study that are said to induce or cause epilepsy. Participants expressed that epilepsy is an airborne disease and usually occurs to PLWEs when the moon is half. Some of the responders indicated witchcraft as the cause of the disease.

Below is the narrative from a participant:

"aaah... as I have said, I know epilepsy to be a disease of falling. A person with epilepsy even their state of mind isn't fully functional. Sometimes they do well and sometimes they do not. Eeehhh sometimes in our culture we tend to say if the

Table 2. Themes and sub-themes of the study

Таблица 2. Темы и подтемы исследования

| Theme / Тема | | Sub-theme / Подтема | |
|--------------|---|---------------------|---|
| 1 | Participants' knowledge about epilepsy / Знания участников об эпилепсии | 1.1 | Knowledge regarding causes / Знание о причинах |
| | | 1.2 | Knowledge regarding myths / Знание о мифах |
| | | 1.3 | Knowledge regarding precautional measures / Знания о мерах предосторожности |
| | | 1.4 | Knowledge regarding dangers associated with epilepsy / Знания об опасностях, связанных с эпилепсией |
| | | 1.5 | Knowledge regarding the types of epilepsy / Знание о типах эпилепсии |
| 2 | Participants' perspectives regarding the importance of epilepsy inclusion in life skills education / Мнения участников относительно важности включения информации об эпилепсии в обучение жизненным навыкам | 2.1 | Importance of epilepsy education to learners / Важность для учащихся |
| | | 2.2 | Importance of epilepsy education to teachers / Важность для учителей |
| | | 2.3 | Importance of epilepsy education to family and community / Важность для семьи и общества |
| 3 | Participants' suggested methods of teaching epilepsy in life skills education / Предложенные участниками методы обучения жизненным навыкам, связанным с эпилепсией | 3.1 | Awareness campaigns / Кампании по повышению осведомленности |
| | | 3.2 | Games and demonstration / Игры и демонстрация |
| | | 3.3 | Pictures, pamphlets, and books / Картинки, брошюры и книги |
| | | 3.4 | Discussion / Обсуждение |
| | | 3.5 | Practical examples of acting / Практические примеры действий |
| | | 3.6 | Exposure of learners to facilities with PLWEs or inviting health practitioners / Посещение учащимися учреждений для людей, страдающих эпилепсией, или приглашение практикующих врачей |
| 4 | Participants' perspectives regarding information to be included in the epilepsy life skills program / Мнения участников относительно информации, которая должна быть включена в программу обучения навыкам по эпилепсии | 4.1 | Information regarding the general overview of epilepsy / Информация, дающая общее представление об эпилепсии |
| | | 4.2 | Information regarding the diet and self-care activities / Информация о диете и самообслуживании |
| | | 4.3 | Information on management of epilepsy / Информация о лечении эпилепсии |

Note. PLWEs – people living with epilepsy.

moon Is half an epileptic person will tend to be unwell” (P2. Female, 40; 10 years of teaching experience).

Sub-themes 1.3–4. Knowledge regarding precautional measures and dangers associated with epilepsy

There are several precautional measures that the participants in this study revealed as a must-follow, which included that PLWEs are not supposed to sit next to the fire or better still PLWEs are not supposed to spend most of the time alone, they should have a caretaker.

The narrative from a participant is as follows:

“It is dangerous eish!!! you know, because when it starts to attack you find that the person has no one near him when he is near the fire he burns because when it starts, he is not in himself, he loses his mind, when it ends, he does not remember anything what was happening and how” (P6. Male, 39; 9 years teaching experience).

Sub-theme 1.5. Knowledge regarding the types of epilepsy

The last sub-theme that emerged under the participants' knowledge regarding epilepsy was knowledge regarding the types of epilepsy. The data revealed that there is a type of epilepsy in which when PLWEs are attacked, they will just fall into a deep sleep, and that when that persons wakes up, they are not aware of anything happening.

This was supported by the following narrative from a participant:

“Epilepsy is severe in a way that it attacks a person unexpectedly, the person urinates or even worse releases faeces. The second type can occur when one is seated, and the person decides to stand up and start walking or even worse start pulling furniture and talking. The last one that I know, the person just falls into a deep sleep and when the person wakes up, he/she is clueless about what happened” (P15. Female, 53; 26 years teaching experience).

Theme 2. Participants' perspectives regarding the importance of epilepsy inclusion in life skills education / Тема 2. Мнения участников относительно важности включения информации об эпилепсии в обучение жизненным навыкам

The second theme that emerged was the participants' perspectives regarding the importance of epilepsy inclusion in life skills education. It was observed that epilepsy inclusion in life skills education is of great importance in different groups of people which include learners, teachers and family, and the community at large.

Below is the narrative from a responder:

“It will benefit everyone, eeh!!! anyone will benefit because we find that here at schools' teachers will also learn and some other learners at home they do have eh!!!, what can I say? They might have anyone who has epilepsy, if they learn at school, they will assist the one at home with the information they get or got at school” (P2. Female, 40; 10 years teaching experience).

From this theme, the following sub-themes emerged: the importance of epilepsy education to learners, the importance

of epilepsy education to teachers, and the importance of epilepsy education to family and community.

Sub-theme 2.1. Importance of epilepsy education to learners

It was observed that learners are going to benefit from this epilepsy education because they will have skills on how to help PLWEs when they have been attacked by seizures or have an epileptic episode in the absence of teachers at school.

The narrative from a participant is as follows:

“It is very important one learner might be having epilepsy and other learners will start laughing, bullying and name calling the other learner who suffers from epilepsy!!!!they will understand that one does not choose to have it” (P15. Female, 53; 26 years teaching experience).

Sub-theme 2.2. Importance of epilepsy education to teachers

Participants revealed that if teachers are also trained about epilepsy, it will be so much easier to disseminate the knowledge to learners. Furthermore, it was explained that teachers would also have confidence when it comes to handling and even taking care of PLWEs in the class because they will have knowledge regarding epilepsy.

Below is the narrative from a participant:

“Yes!!! it is important because the child is with the educator more than 50% of their time the child is with the educator. So the educator must know well about this diseases” (P2. Female, 40; 10 years teaching experience).

Sub-theme 2.3. Importance of epilepsy education to family and community

The findings of the study indicated that teaching learners epilepsy in life skills will be a great benefit to the family and the community at large, because it is believed that the identical learners that are taught at school will be able to assist PLWEs at home or even in the community with the knowledge that they acquired from school. This means that because learners are also part of the community, they will be able to disseminate the epilepsy knowledge to other community members, thus, reducing stigmatization.

Below is the narrative from a responder:

“Because the child will be able to know what causes epilepsy and if someone has it at home they will explain it to you because they will be knowledgeable” (P10. Female, 37; 10 years teaching experience).

Theme 3. Participants' suggested methods of teaching epilepsy in life skills education / Тема 3. Предложенные участниками методы обучения жизненным навыкам, связанным с эпилепсией

For learners to learn effectively about epilepsy in life skills education, participants consider different methods of teaching can be used. The study of these findings revealed that it's better to use methods that are effective for children so that they will recall what has been taught.

The narrative from a participant is as follows:

"It's not just a single method, there has to be telling, question and answer, and discovery. !!!!class with other learners" (P19. Female, 40; 12 years teaching experience).

From this theme, the following sub-themes emerged: awareness campaigns; games and demonstration; pictures, pamphlets, and books; discussion; practical examples of acting; exposure of learners to facilities with PLWEs or inviting health practitioners.

Sub-theme 3.1. Awareness campaigns

According to respondents, through the awareness campaigns a lot can be learned, and it can help in changing the behaviour of learners towards PLWEs. This means that these awareness campaigns will help to reduce stigmatization.

Below is the narrative from a participant:

"To do epilepsy awareness so people can know, do epilepsy campaigns. And maybe get epileptic people to teach and educate on it" (P1. Female, 30; 5 years teaching experience).

Sub-theme 3.2. Games and demonstration

The findings of the study indicated that the best method of teaching primary learners to learn more about epilepsy and be able to remember it is through demonstration and playing games.

These are two of the narratives from the participants:

"We can use a doll or a human being when demonstrating how to help a person under the attack of epilepsy. Learners should also be given the chance to do it practically on the body of a human" (P14. Female, 45; 10 years teaching experience).

"If there were videos of children with epilepsy how they do it so they can see that the disease is serious how it is being treated doesn't need to be left alone videos I see because they can help us a lot" (P11. Female, 43; 17 years teaching experience).

Sub-theme 3.3. Pictures, pamphlets, and books

Participants consider that it is very effective to teach children of a younger age using pictures, because children love picture learning much more than theory learning.

Below is the narrative from a responder:

"To younger children, we should use the methods of pictures, the pictures of people with epilepsy can be put into flashcards!!!!. explain to the learners about the pictures" (P15. Female, 53; 26 years teaching experience).

Sub-theme 3.4. Discussion

The other method of teaching that was suggested by the participants to be effective was the discussion. It was explained that if there can be an engagement of learners through a discussion about topics related to epilepsy by asking questions and answering, it will be productive because it will be learner-centered, and children will be able to recall what they were discussing.

The narrative from a participant is the following:

"It's not just a single method there has to be telling, question and answer, and discovery. On telling the teacher

must tell the student which should happen more on the lower grades!!! question-and-answer method has to work!!! and then discuss it in class with other learners" (P19. Female, 40; 12 years teaching experience).

Sub-theme 3.5. Practical example of acting

It was revealed that educating epilepsy through giving practical examples or acting in a drama where epilepsy is displayed was very effective because learners would be involved. This means they will know about epilepsy and at the same time have skills for managing epilepsy.

Below is the narrative from a participant:

"There should be practical where learners will be able to see what is being done. We can take one learner to demonstrate with the learner and act like they fainted and having seizures and use the learner as an example!!! work they are still young" (P20. Female, 47; 21 years teaching experience).

Sub-theme 3.6. Exposure of learners to facilities with PLWEs or inviting health practitioners

The findings of this study also showed that exposing learners to the facilities that have PLWEs so that they see how they are managed and taken care of can be very assistive and effective as a method of teaching. Furthermore, the participants explained that even inviting a health practitioner who is an expert can be of much help.

The narrative from a responder is the following:

"Department should allow us to take children to the facilities where people with the disease of epilepsy are so that they can see and how someone is helped how to help them" (P8. Female, 50; 18 years teaching experience).

Theme 4. Participants' perspectives regarding information to be included in the epilepsy life skills program / Тема 4. Мнения участников относительно информации, которая должна быть включена в программу обучения навыкам по эпилепсии

The last theme that emerged from this study was the participants' perspectives regarding the information that should be included in the epilepsy life skills program. There are several topics that the responders emphasized to be assistive in embedding epilepsy knowledge in learners and teachers as well.

Below is the narrative by a participant:

"Learners should know what epilepsy is, what causes epilepsy, and how to help other learners who have epilepsy. Learners should also know which people are more likely to have epilepsy and how to handle those people". (P15. Female, 53; 26 years teaching experience).

From this theme, the following sub-themes emerged: information regarding the general overview of epilepsy, information regarding the diet and self-care activities, and information on management of epilepsy.

Sub-theme 4.1. Information regarding the general overview of epilepsy

The study revealed that it is important to know from the beginning what epilepsy is, which will include the causes of

epilepsy, signs and symptoms, and the referral process of PLWE so that it can be easier to identify if a person is about to have an epileptic attack.

The narrative from a responder is as follows:

"We do introductions, explaining what epilepsy is. Teach on What causes epilepsy, the possible treatment plans even in their households and how to identify a person with epilepsy their signs" (P3. Female, 50; 25 years teaching experience).

Sub-theme 4.2. Information regarding the diet and self-care activities

Participants consider that the educational program should include information regarding the diet of PLWEs and measures of self-care that need to be followed by PLWEs to prevent epileptic attacks.

Below are the narratives by participants:

"Maybe the diet, I think they should be taught about the best food that will not cause them to have epilepsy" (P2. Female, 40; 10 years teaching experience).

"Mmmmm... eish!!!! I think it will have to be learners need to take care of themselves". (P2. Female, 40; 10 years teaching experience).

Sub-theme 4.3. Information on management of epilepsy

Most of the participants elaborated that it will be of great importance to learn about how to manage someone with an epileptic seizure instead of standing not knowing what to do. Therefore, the responders suggested that in the epilepsy life skills program there should be a topic on how to manage epilepsy.

Below is the narrative from a participant:

"Teachers should be trained on how to help a learner if the symptoms of epilepsy start when the learner is at school and which methods to follow!!! We have to know the first thing to do the second thing to do and the third thing to do you have to do all the stages up to the last one" (P20. Female, 47; 21 years teaching experience).

DISCUSSION / ОБСУЖДЕНИЕ

In this study, primary school teachers in the provinces of Mpumalanga and Limpopo were interviewed about their perceptions regarding necessity of teaching life skills lessons about epilepsy. The participants expressed that there is a need of including epilepsy in life skills education because it will assist the learners and teachers in knowing more about epilepsy. Furthermore, they showed that since epilepsy is an unpredictable condition that can happen to anyone, at any time, they feel it is important that learners and teachers are educated about it. Through epilepsy education, teachers will acquire skills in identifying a learner with epilepsy, knowledge on how to assist the person with seizures, and again will also have knowledge of the referral process.

This was also supported by the study conducted by T.G. Makhado et al. [3] stating that including epilepsy in life skills education will enhance the skills of managing PLWEs and assist teachers and learners to have a positive attitude

toward PLWEs. Learners in this context will also have the skills of identifying PLWEs and skills on how to take care of a person with seizures. Moreover, it is through the learners that the community will also benefit from the inclusion of epilepsy in life skills, because they will be able to disseminate the knowledge that was taught to their families and community. T.G. Makhado et al. [3] emphasized that since learners are also members of the community, they may act as a catalyst for educating and enlightening other community members about epilepsy. There are different aspects of epilepsy that teachers can be trained, educated, or even workshop to be equipped with knowledge regarding epilepsy.

Findings revealed that there are certain aspects of epilepsy that the participants would like to learn so that they will be more knowledgeable about epilepsy. Teachers reported that they need to be trained specifically on how to identify a learner with epilepsy and how to handle PLWEs when they have epileptic seizures. Being trained about this will then assist them to be able to disseminate the knowledge to learners [14–16]. It was shown that learners should also be educated regarding the general knowledge about epilepsy which includes the definition of epilepsy, what causes epilepsy, how to assist someone with episodes of epilepsy, and self-care measures and diet for PLWEs [17]. To teach the aspects to be included in epilepsy, certain methods of teaching should be used.

The inclusion of epilepsy in life skills education is important to the community as well because when teachers and learners know about epilepsy, they will disseminate their knowledge to the community. For learners and teachers to be able to do this, there are different teaching methods that have been perceived by the participants of our study to be effective. Methods of teaching which are found to be effective in educating epilepsy are all practical: playing videos, demonstrations, use of pictures, discussion, and playing an act. According to H. Hariani [18], S. Walan [19], R. Feniger-Schaal and H. Orkibi [20], the most effective methods of teaching are role play, puzzles and games, storytelling, use of video. It is believed that these methods have the potential to stimulate learning. An effective method of training for teachers was also found to be workshops and making use of practical examples [21]

Inclusion of epilepsy in education is of great importance considering that epilepsy is one of the conditions that are less taught in most parts of the world [22, 23]. Moreover, there are different misconceptions, myths, and stigma that is associated with epilepsy because of a lack of education about it [3, 24, 25]. This means that when students are taught about epilepsy it will even assist other learners living with epilepsy to have confidence that if they start to have seizures, their fellow learners will be able to assist because of the knowledge they have. Moreover, epilepsy education will also assist PLWEs because they will not be bullied and laughed at whenever they have an epileptic attack. This concurs with the studies conducted by K.A. Kelly et al. [26], A. Reupert et al. [27], M.A. Al-Ghuraibi and T.M. Aldossry [28], which revealed bullying and stigmatization associated with a specific condition are the results of lack of knowledge regarding a particular condition. Educating learners at

a younger age can assist in having a better future with decreased misconceptions, stigma, and bullying of other learners at school who have epilepsy.

The findings of this study revealed that the inclusion of epilepsy in life skills education will therefore enhance the knowledge and understanding of epilepsy through educating the aspects that have been suggested by the participants. Furthermore, the inclusion of epilepsy through exploration will promote the positive values and attitude of learners and teachers regarding epilepsy, and lastly, the teachers and learners will be enabled to have skills of how to handle a person with epileptic attacks through the methods of teaching that were recommended by the participants in this study. This aligns well with the framework that is guiding the main study the life skill approach model [3].

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CONCLUSION / ЗАКЛЮЧЕНИЕ

The study aimed to explore the perceptions of teachers regarding the inclusion of epilepsy education in life skills for primary learners and teachers in Limpopo and Mpumalanga provinces. Data analysis revealed four themes: participants' knowledge about epilepsy, participants' perspectives regarding the importance of epilepsy inclusion in life skills education, participants' suggested methods of teaching epilepsy in life skills education, participants' perspectives regarding information to be included in the epilepsy life skills program. The findings revealed that the inclusion of epilepsy in life skills education will therefore enhance the knowledge and understanding of epilepsy through educating the aspects that have been suggested by the participants.

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