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PRACA ORYGINALNA
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Parental knowledge regarding the transmission and prevention of parasitic diseases in preschool-aged children

Wiedza rodziców na temat przenoszenia i zapobiegania chorobom pasożytniczym u dzieci w wieku przedszkolnym

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ABSTRACT

INTRODUCTION: Despite advancements, parasitic diseases remain a significant health challenge. Prevention is crucial among preschool-aged children due to their susceptibility to infections from close interactions and limited hygiene practices. Educating parents is essential to safeguard both them and their children against parasitic infections. This study evaluates the knowledge of parents of preschool children regarding the transmission and prevention of parasitic diseases. It also compares parents' knowledge based on sociodemographic factors and other determinants.

MATERIAL AND METHODS: Data were collected through anonymous questionnaires completed by parents of children attending kindergartens in Żywiec County, Silesian Voivodeship, Poland. The study, conducted from September 22 to November 30, 2023, included 434 participants. Statistical analysis was performed using the chi-squared NW test and Cramer's V correlation analysis.

RESULTS: A majority of respondents (61.8%) demonstrated good knowledge – predominantly parents with higher or secondary education. Statistical analysis showed significant correlations between knowledge level and educational attainment (higher education: 34.4%; secondary education: 18.9%; basic vocational education: 12.9%; primary education: 0%), self-assessment (very good: 41.7%; good: 30.3%; average: 21.1%; poor: 0%), and the importance placed on promoting knowledge (very important: 27.3%; important: 21%; moderately important: 17.2%; marginally important: 0%; not important: 0%).

CONCLUSIONS: Parents of preschool children possess good knowledge about the transmission and prevention of parasitic diseases. However, further parental education is needed, benefiting both children and society.

KEYWORDS

parasitic diseases, parental knowledge, children, prevention

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STRESZCZENIE

WSTĘP: Pomimo postępu choroby pasożytnicze nadal stanowią istotne wyzwanie zdrowotne. Profilaktyka jest szczególnie ważna u dzieci w wieku przedszkolnym ze względu na podatność na zakażenia wynikającą z bliskich kontaktów i ograniczonych nawyków higienicznych. Edukacja rodziców jest niezbędna, aby ochronić zarówno ich samych, jak i dzieci przed zakażeniami pasożytniczymi. W badaniu oceniono wiedzę rodziców dzieci w wieku przedszkolnym na temat przenoszenia oraz profilaktyki chorób pasożytniczych. Porównano również poziom wiedzy rodziców w zależności od czynników socjodemograficznych i innych determinantów.

MATERIAŁ I METODY: Dane zebrano za pomocą anonimowych ankiet wypełnianych przez rodziców dzieci uczęszczających do przedszkoli na terenie powiatu żywieckiego (województwo śląskie, Polska). Badanie prowadzono w okresie od 22 września do 30 listopada 2023 r.; wzięło w nim udział 434 uczestników. Analiza statystyczna została przeprowadzona z użyciem testu chi-kwadrat NW oraz analizy korelacji V Cramera.

WYNIKI: Większość respondentów (61,8%) wykazała się dobrą znajomością zagadnienia – byli to głównie rodzice z wykształceniem wyższym lub średnim. Analiza statystyczna wykazała istotne korelacje między poziomem wiedzy a wykształceniem (wyższe: 34,4%; średnie: 18,9%; zasadnicze zawodowe: 12,9%; podstawowe: 0%), samooceną (bardzo dobra: 41,7%; dobra: 30,3%; przeciętna: 21,1%; słaba: 0%) oraz wagą przypisywaną promowaniu wiedzy (bardzo duże znaczenie: 27,3%; duże znaczenie: 21%; umiarkowane znaczenie: 17,2%; marginalne znaczenie: 0%; brak znaczenia: 0%).

WNIOSKI: Rodzice dzieci w wieku przedszkolnym posiadają odpowiednią wiedzę na temat dróg przenoszenia i profilaktyki chorób pasożytniczych. Wskazana jest jednak dalsza edukacja rodziców, co przyniesie korzyści zarówno dzieciom, jak i społeczeństwu.

SŁOWA KLUCZOWE

choroby pasożytnicze, wiedza rodziców, dzieci, profilaktyka

INTRODUCTION

Parasitic diseases, also known as invasive diseases or parasitoses, are illnesses caused by living organisms that develop at the expense of the host [1]. Parasites are categorized into three primary biological groups: protozoa, helminths, and insects (Insecta). This classification serves as a fundamental criterion distinguishing parasites from other pathogen groups, such as bacteria, viruses, or fungi [1]. Parasitic invasions are a serious health problem worldwide, and increased human mobility and differences in sanitation have facilitated the spread of these diseases [2]. According to data from the World Health Organization, over 4.5 billion people worldwide may be infected [3]. In Poland, the number of diagnosed cases is much lower than in developing countries, where parasitic diseases remain highly prevalent. The Act of December 5, 2008 on the prevention and control of infections and infectious diseases in humans ended the monitoring of as many as 19 diseases. This may have contributed to the true number of infections being underestimated [4]. However, cases of echinococcosis, giardiasis, cysticercosis, congenital toxoplasmosis, cryptosporidiosis, trichinellosis, and malaria continue to be monitored. Confirmed cases of these diseases are subject to mandatory reporting to the State Sanitary Inspectorate [5]. The National Institute of Public Health – National Institute of Hygiene has regularly compiled epidemiological reports on infectious diseases, including parasitic diseases [6]. Data on the spread of parasitic diseases in Poland can also be obtained from scientific research and national and international publications [4].

Research and epidemiological data clearly show that the most common parasitic diseases in Poland are enterobiasis (pinworm infestation), giardiasis, scabies, and pediculosis (lice infestation) [7]. One of the most widespread parasitic diseases of the digestive tract in Poland is enterobiasis [8]. In 2008, there were 5,666 cases (incidence: 14.9/100,000 inhabitants). There is a lack of current data, as mandatory epidemiological surveillance of enterobiasis was discontinued in 2009 [6]. It is estimated that the highest percentage of pinworm infestations occur in children and adolescents aged 7–14 years. In Poland, giardiasis mainly affects children attending kindergartens, schools, and preschools [1]. In recent years, the total number of registered cases has remained below 1,000, with the number exceeding this by 2022, reaching 1,340 (incidence: 3.5/100,000 inhabitants) [6]. Scabies is a disease that can affect people from various social groups, regardless of age, sex, race, or socioeconomic status. The most frequent scabies outbreak sites are large concentrations of people, such as schools, kindergartens, or preschools [8]. In 2008, 11,044 cases were recorded in Poland, with an incidence of 29 per 100,000 inhabitants [6]. Since 2009, there have been no new data on the number of new cases, which makes it impossible to accurately assess the current epidemiological situation [5]. Pediculosis is classified as a skin parasitosis, with head lice being the most common form. The spread of this disease is promoted by large gatherings of people such as in kindergartens, preschools, schools, playrooms, and camps [9]. In

Poland, in 2008, the number of cases was 2,653 (incidence: 6.96/100,000 inhabitants) [9]. Although current data on the frequency of pediculosis are not available, this does not mean that the problem has been resolved. The disease is widespread, regardless of the environment, lifestyle, or social group affiliation [8]. It can be transmitted by head-to-head contact, as well as through objects such as combs, hair ties, hair clips, or hats [10].

As the above data show, preschool children are particularly at risk for these diseases because of frequent contact with peers and insufficient hygiene habits. Preventing parasitic infections in children largely depends on the knowledge and actions of parents, especially since parasitoses are commonly considered to be problems of developing countries, deprived groups with lower socioeconomic status, or people living in difficult conditions. Knowing the transmission routes and methods of prevention is essential for effective protection of children from infection [11]. Awareness of risks, even if minimal, and having proper knowledge are the first steps toward maintaining correct hygiene and educating children on this topic, which in turn can help lower the incidence of these diseases.

In view of the above, a study was conducted, the main goal of which was to assess the knowledge of parents of preschool children regarding the spread and prevention of parasitic diseases. The extent of parental knowledge was also evaluated in relation to selected sociodemographic variables and other determinants influencing awareness levels.

MATERIAL AND METHODS

The study was conducted in kindergartens located in urban and rural areas within the Żywiec district from September 22 to November 30, 2023. The samples were then purposefully selected. Data collection was carried out using the paper-and-pencil interview method (PAPI), which involved the participants self--completing paper questionnaires. A total of 440 questionnaires were collected, of which 434 were correctly completed and ultimately qualified for analysis. The participation rate was 59.7%.

The research tool was an original questionnaire, in which the key questions concerned parents' knowledge of the routes of transmission of parasitic diseases and preventive measures. Participants were also asked for their opinions on the need for preventive deworming of children and promoting knowledge about the prevention and spread of these diseases. Additionally, respondents rated their own knowledge about parasitic diseases.

An objective assessment of the parents' knowledge was conducted using an original point scale. Each correct answer was awarded one point; the maximum possible score was 17. The scores corresponded to the following qualitative assessments:

- above 16 points: very good knowledge
- 14–16 points: good knowledge
- 12–13 points: satisfactory knowledge
- 10–11 points: insufficient knowledge
- below 10: poor knowledge.

Data analysis was conducted using the software program Statistica 13.3 (StatSoft Polska). Descriptive statistics were calculated in the course of the statistical analysis, including the NW chi-squared test and Cramer's V correlation analysis. Statistical significance was set at $p \leq 0.05$.

The study did not constitute a medical experiment and, as such, did not necessitate approval from the bioethics committee. It was conducted as an anonymous questionnaire survey, with the completion of the questionnaire serving as implicit consent to provide responses concerning the child. The collected questionnaires and the resulting database were maintained in accordance with the principles of research ethics and good scientific practice, thereby ensuring the confidentiality and anonymity of the participants.

RESULTS

A total of 434 individuals participated in the study, including 352 women (81.1%) and 82 men (18.9%) aged 20–60 years. The mean age of the patients was 35 ± 6 years. The majority of the respondents were married (81.8%). A significant proportion of participants reported having a higher education (52.8%). Detailed data on the study group are presented in Table I.

Table I. Characteristics of the study group

Variable		n (%)
Sex	Female	352 (81.1)
	Male	82 (18.9)
Marital status	Single	21 (4.8)
	Married	355 (81.8)
	Unregistered partnership	32 (7.4)
	Widowed	5 (1.2)
	Divorced	21 (4.8)
Education	Primary	5 (1.2)
	Vocational	31 (7.1)
	Secondary	169 (38.9)
	Higher	229 (52.8)
Place of residence	Rural	220 (50.7)
	Urban	214 (49.3)

More than half of the respondents (52.5%) rated their knowledge of parasitic diseases as average, 38.1% as good, 5.5% as very good, and 3.9% as poor. The objective assessment of their knowledge showed that the participants had a good level of knowledge (average score: 15.1). Detailed data are presented in Figure 1.

The objective assessment of knowledge among the respondents significantly correlated with their self-assessed level of knowledge, level of education, and the importance they attached to promoting awareness of the spread and prevention of parasitic diseases (Table II). The objective assessment of knowledge was very good for 41.7% of the respondents who self-evaluated their knowledge at the same level, 30.3% who rated it as good, 21.1% who rated it as average, and 0% who rated it as poor. Notably, 12.5% of the participants who considered their knowledge to be very good actually scored poorly on the objective scale, whereas 64.7% of those who believed their knowledge to be poor scored well. A statistically significant difference was found, whereby respondents with higher education more often achieved very good or good knowledge scores than those with primary or vocational education (p = = 0.008). A higher level of knowledge was also found among those for whom it was important to promote awareness of the spread and prevention of parasitic diseases.

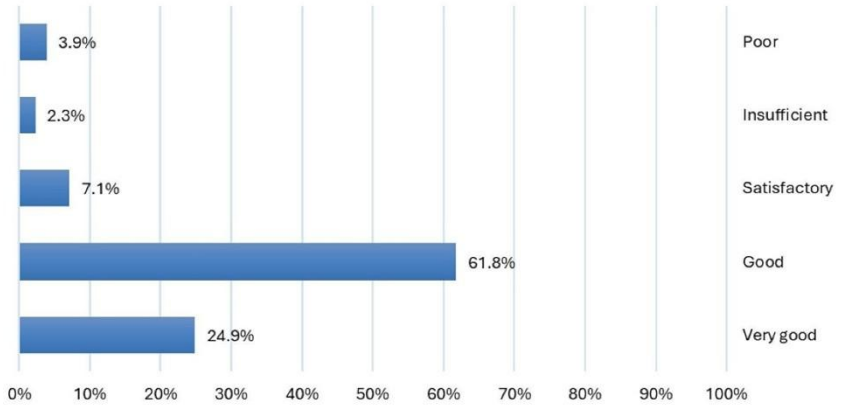

Fig. 1. Assessment of knowledge about the spread and prevention of parasitic diseases

Table II. Assessment of knowledge by education level, self-assessment, and attitude toward the need to promote knowledge

Objective assessment of knowledge and variables		Very good	Good	Satisfactory	Insufficient	Poor	p-value	Correlation coefficient
Education n (%)	Primary/Vocational	4 (11.1)	25 (69.4)	3 (8.3)	1 (2.8)	3 (8.3)	p = 0.008	0.14
	Secondary	32 (18.9)	106 (62.7)	14 (8.3)	8 (4.7)	9 (5.3)		
	Higher	72 (31.4)	137 (59.8)	14 (6.1)	1 (0.4)	5 (2.2)		
Self-assessment of knowledge n (%)	Very good	10 (41.7)	8 (33.3)	2 (8.3)	1 (4.2)	3 (12.5)	p < 0.001	0.17
	Good	50 (30.3)	106 (64.2)	4 (2.4)	2 (1.2)	3 (1.8)		
	Average	48 (21.1)	143 (62.7)	21 (9.2)	7 (3.1)	9 (3.9)		
	Bad	0 (0.0)	11 (64.7)	4 (23.5)	0 (0.0)	2 (11.8)		
Promoting knowledge n (%)	Very important	86 (27.3)	206 (65.4)	13 (4.1)	4 (1.3)	6 (1.9)	p < 0.001	0.20
	Important	17 (21.0)	43 (53.1)	14 (17.3)	3 (3.7)	4 (4.9)		
	Moderately important	5 (17.2)	13 (44.8)	2 (6.9)	2 (6.9)	7 (24.1)		
	Not important	0 (0.0)	6 (66.7)	2 (22.2)	1 (11.1)	0 (0.0)		

The respondents were asked about their hygiene and dietary habits to help prevent parasitic diseases. Most respondents answered correctly, indicating the following practices: washing vegetables and fruits (98.4%), drinking boiled water (86.2%), pasteurizing milk (79.3%), avoiding the consumption of undercooked or raw meats (93.8%), maintaining personal hygiene (98.2%), thoroughly washing hands before eating, after using the toilet, after playing with animals or in the sandbox, and after gardening (97.5%),

keeping nails short and clean (86.4%), monitoring the condition of skin and hair, especially in children attending preschool, kindergarten, or school (96.1%), using separate towels and hairbrushes (94.5%), frequently changing underwear, bed linen, and towels (94.7%), and keeping the home clean (95.2%).

DISCUSSION

Parasitic diseases in Poland are still a problem that is often downplayed. Climate change, tourism, trade, insufficient parasitological diagnostics, and a lack of educational programs are factors that contribute to the number of cases [12]. There is a widespread belief that this problem does not exist and is frequently underestimated, which highlights the need for further research and analysis in this area. The aim of this study was to assess the knowledge of parents of preschool children regarding the spread and prevention of parasitic diseases. Although the issue of parasitic diseases in Poland may not reach the same scale as in other countries, possessing knowledge of this subject remains crucial. Awareness and education on prevention can help avoid potential epidemics and limit the spread of disease. Moreover, in an age of globalization and climate change, the risk of new pathogens emerging is increasing, making knowledge about parasitic diseases essential for protecting public health.

The results showed that parents' knowledge was at a good level. Similar results were obtained by Gniadek et al. [13] when analyzing parents' knowledge regarding the parasites present in their environment; their study also confirmed that parents' knowledge was satisfactory. Furthermore, the study observed a significant correlation between the respondents' education level and their knowledge. This finding suggests that a higher level of education may contribute to a better understanding of the risks related to parasites and to more effective prevention methods. Education influences access to information and the ability to process and apply it in practice. People with higher education typically have greater opportunities to use a variety of knowledge sources, such as scientific literature, the internet, or specialized training. Additionally, education may influence health attitudes and behaviors. Better-educated individuals are often more aware of the importance of prevention and hygiene, which translates to their daily practices and health decisions. In the context of parasitic diseases, more knowledge can lead to more effective preventative actions such as regular check-ups, using appropriate protective measures, and educating other family members.

Including parasitic diseases in educational programs at various levels of education can help raise the general level of knowledge in society. Education in this area should include both basic information about parasites and practical guidelines for prevention and hygiene. Therefore, even individuals with less education will have the opportunity to acquire the necessary knowledge and skills to help protect themselves and their families from parasitic diseases.

It is possible that the level of knowledge is correlated with the perceived significance of the issue; in countries where parasitic diseases are more common, knowledge about them may be more widespread. A study conducted among parents of 449 school-aged children living in 17 villages in the Cumilla district of Bangladesh revealed different results from our research [14]. In that study, most parents demonstrated an unsatisfactory level of knowledge regarding the prevention of parasitic infections. Another study on knowledge and awareness of intestinal parasitic infections was carried out among students at King Abdulaziz University in Jeddah, Saudi Arabia [15]. The analysis involved 213 students from various fields, who were divided into groups of medical and non-medical students. In terms of education level, the participants represented undergraduate, master's, and doctoral studies. The respondents were asked to answer questions related to parasitic infections. A statistically significant correlation was found between the level of knowledge, education, and field of study. The studies conducted in both Bangladesh and Saudi Arabia indicate that the level of knowledge about parasitic diseases primarily depends on one's education and does not appear to be determined by epidemiological indicators. Other factors, including socioeconomic ones, may also play a significant role; however, confirming this hypothesis requires further analysis, including a comparative analysis of countries with different economic situations. In middle- and high--income countries, residents have easier access to information regarding parasitic diseases and better healthcare. In contrast, access to information is often limited in low-income countries, which can lead to insufficient knowledge and improper practices in the prevention and treatment of parasitic diseases [2].

The results of our study also indicate a high level of hygiene awareness among the surveyed parents, which is crucial for the effective prevention of parasitic diseases. Practices such as washing produce, drinking boiled water, avoiding the consumption of raw meat, and maintaining personal hygiene are basic preventative measures that can significantly reduce the risk of parasitic infections. The high percentage of respondents who indicated observing these practices suggests that parents are well-informed about the basic principles of food hygiene.

However, despite the high level of knowledge among those surveyed, there is a need to strengthen health education further, especially in the context of changing environmental and social conditions. Climate change, globalization, and increased population mobility may lead to the emergence of new health threats, including new species of parasites. Therefore, continuously updating knowledge and adapting educational programs to the current challenges is essential. It is also

important to emphasize the need to monitor and evaluate the effectiveness of educational efforts. Regular studies and analyses of knowledge levels among different social groups can provide valuable information on the effectiveness of measures that have been implemented and can identify areas that require additional support. The results presented herein may help raise awareness of the issue and initiate further research in this field, taking into account other study groups. The significance of parasitic diseases and the knowledge of parents with preschool-aged children cannot be overstated. Parents play a key role in the health prevention of their children, and their awareness and knowledge regarding health risks, such as parasitic diseases, are essential for the effective prevention and control of these illnesses.

It is worth noting that the study group was very large, and the high rate of participation contributed to the credibility of the data. However, there are also some limitations that could have affected the interpretation of the results. The predominance of individuals with higher education in the study group may lead to an inflated general level of knowledge, which may not reflect the actual situation in the entire population. Additionally, the lack of control over the survey completion process may have introduced systematic errors, such as a response bias.

Future research should diversify the study sample to include groups with different social and educational backgrounds, enabling a more comprehensive understanding of knowledge about parasitic diseases. The use of supervised data collection methods could also increase the credibility of the results by minimizing the influence of confounding factors. Regardless of the study's limitations, its findings highlight the importance of health education regarding parasitic diseases, as well as the need for further research that may contribute to the prevention and control of these diseases within the population.

CONCLUSIONS

1. Parents' knowledge of preschool children regarding the spread and prevention of parasitic diseases is at a good level, while their hygiene and dietary habits aimed at preventing these diseases are at a high level.
2. A significant correlation was found between the respondents' level of knowledge and their education, self-assessment of knowledge, and the need to promote it.
3. There is a need for further parental education regarding parasitic diseases, especially concerning less-well-known parasites.
4. Parental education is a key component in the prevention of parasitic diseases among preschool children.

Authors' contribution

Study design – E. Kurowska-Łoboz, A. Wypych-Ślusarska
Data collection – E. Kurowska-Łoboz
Data interpretation – E. Kurowska-Łoboz, A. Wypych-Ślusarska
Statistical analysis – E. Kurowska-Łoboz, A. Wypych-Ślusarska
Manuscript preparation – A. Wypych-Ślusarska
Literature research – E. Kurowska-Łoboz

REFERENCES

1. Pasożytnicze choroby. Encyklopedia PWN [online] https://encyklopedia.pwn.pl/haslo/pasozytnicze-choroby;3954833.html [accessed on 31 January 2024].
2. Parazytologia kliniczna w ujęciu wielodyscyplinarnym. Pawłowski ZS, Stefaniak J [ed.]. PZWL. Warszawa 2018.
3. Kaleta P, Palacz-Wróbel M, Chajec Ł. The prevalence of helminthiasis in pre-school children – determination of predisposing factors. [Article in Polish]. Med Rodzinna. 2018;21(4):315–321. doi: 10.25121/MR.2018.21.4.315.
4. Ołdak E. Intestinal parasitic infections in children. [Article in Polish]. Standardy Medyczne/Pediatria. 2019;16(5):622–629.
5. Ustawa z dnia 5 grudnia 2008 r. o zapobieganiu oraz zwalczaniu zakażeń i chorób zakaźnych u ludzi (Dz.U. 2008 nr 234 poz. 1570). ISAP – Internetowy System Aktów Prawnych [online] https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20082341570 [accessed on 20 August 2025].
6. Zakład Epidemiologii Chorób Zakaźnych i Nadzoru: Pracownia Monitorowania i Analizy Sytuacji Epidemiologicznej. Biuletyny, meldunki, informacje epidemiologiczne. NIZP-PZH [online] https://wwwold.pzh.gov.pl/oldpage/epimeld/index_p.html [accessed on 11 March 2024].
7. Kuchar E, Własienko A, Jasonek J. Najczęstsze choroby pasożytnicze w praktyce lekarza pediatry. Klin Pediatr. 2016;24(5):5054–5059.
8. Choroby pasożytnicze u dzieci. Popielska J [ed.]. Medical Tribune Polska. Warszawa 2023.
9. Mamos AR, Orszulak-Michalak DE. Parazytozy – aktualny problem opieki zdrowotnej w Polsce. Pol Prz Nauk Zdr. 2017;3(52):285–292.
10. Nowicka-Zuchowska A, Zuchowski A. Postępowanie we wszawicy. Lek Pol. 2018;28(8):5–6,8–9.
11. Kubiak K, Wrońska M, Dzika E, Dziedziech M, Poźniak H, Leokajtis M, et al. Występowanie pasożytów jelitowych u dzieci w wieku przedszkolnym oraz wychowanków domów dziecka w województwie warmińsko-mazurskim (północno-wschodnia Polska). Przegl Epidemiol. 2015;69(3):601–604.
12. Korzeniewski K, Augustynowicz A, Lass A. Intestinal parasites in Polish community on the example of military environment. Int Marit Health. 2014;65(4):216–222. doi: 10.5603/IMH.2014.0041.
13. Gniadek A, Cepuch G, Ochender K, Salamon D. The level of knowledge about parasitic diseases and the threats resulting from their presence in the environment evaluated in a group of parents of preschool children. Ann Parasitol. 2015;61(2):109–114.
14. Sujan MSH, Islam MS, Naher S, Banik R, Gozal D. Predictors associated with knowledge and practice of helminthic infection prevention among rural school-aged children's parents in Bangladesh: A cross-sectional study. Front Public Health. 2020;8:484. doi: 10.3389/fpubh.2020.00484.
15. Altwaim SA. Knowledge and awareness of intestinal parasitic infections among students at King Abdulaziz University in Jeddah, Saudi Arabia. World Fam Med. 2022;20(14):122–138. doi: 10.5742/MEWFM.2023.95251571.