

Parental Perspectives on Their Grade 4 Children with Reading and Writing Difficulties in Mainstream Government Schools in Mauritius

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Abstract

Reading and writing difficulties (RWD) in learners pose significant challenges not just for children but also for parents. While there is limited support available for children with RWD and their parents in Mauritian schools, research may reveal areas of parental need that speech-language therapists may address. The aim was to determine parents' perspectives regarding their Grade 4 children with RWD in mainstream government schools in Mauritius. Teachers identified children with RWD with the Screening Tool for Learning Disorder, and parents were requested to participate in the study. Sixty-seven parents completed a questionnaire investigating their perspectives on the symptoms and causes of their child's RWD and the ways in which they assist their child. The screening tool differentiated between children at risk of specific learning disorder (SLD) and children who indicated clear symptoms of SLD. The results of the tool did not correspond closely with the participants' satisfaction with their child's academic performance. The majority of participants could, however, identify RWD in their children when descriptions were given. Parents mostly cited laziness as the main cause of their child's RWD. The results showed that participants had limited information about the causes and symptoms of RWD and SLD. There is a lack of awareness about the role of speech-language therapists in the intervention of RWD. There are limited resources and support for children with RWD, despite an inclusive education policy in Mauritius. Speech-language therapists and teachers should collaborate to support children with RWD and their parents using inclusive education strategies.

Keywords: Mainstream government schools; Mauritius; parental perspectives; reading and writing difficulties; speech-language therapists; specific learning disorder

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INTRODUCTION

Raising a child with the aim of making them independent is considered the primary responsibility of any parent. Education and acquiring the ability to read and write are integral parts of being independent (Machel, 2017). It is also well established that there is a positive correlation between reading proficiency and a child's academic success (Schwabe et al., 2015). Learners with reading and writing difficulties (RWD) lag behind their peers in academic achievement and meeting classroom demands, while difficulties create a gap between the learner's true potential, day-to-day productivity and performance at school (Johney et al., 2015). RWD in learners are characterized by several

causes and underlying conditions (Henrique & Madeira, 2017).

Studies have shown that approximately 7% of children have significant and severe reading difficulties for reasons beyond poor teaching (Haft et al., 2016). There are numerous factors contributing to the reading and writing skills of children, described by Henrique and Madeira (2017) as extrinsic and intrinsic elements. Extrinsic elements include socio-familial, pedagogic, and socio-cultural factors, while intrinsic components involve psychological and biological factors within the child. Language exposure at home is an extrinsic factor related to the child's socio-familial and socio-cultural background (Marjanovič-Umek et al., 2015;

Nag et al., 2019). If the child is not given the opportunity to use materials that are associated with the language of learning and teaching in school, reading ability may be delayed (Hemmerichs et al., 2017). Other notable intrinsic causes of RWD are the presence of any restricted intellectual capacity, speech-language, hearing, and visual impairments, attention deficit and hyperactivity, and behavioural concerns which may impede the way children read letters, words, and sentences, and understand and retell the content of reading (Axelsson et al., 2020; Kodiango & Syomwene, 2016). Further intrinsic elements like genetic factors may also play a role as numerous studies indicate that a parental history of reading difficulties already impact their children's emergent literacy performance. Children with a positive parental history of RWD show significantly poorer emergent literacy skills and poorer performance at school in comparison to those whose parents do not exhibit any RWD (Esmaeeli et al., 2017; Snowling & Melby-Lervåg, 2016).

Children with RWD may have deficits in phonological awareness, resulting in persistent difficulties with accurate and/or fluent word recognition, decoding and spelling, despite adequate cognitive abilities and classroom instructions (Kuersten et al., 2019; Hebert et al., 2018). Schools may often designate children with RWD as 'unintelligent' or 'lazy' until they are diagnosed (Thompson et al., 2015), thereby denying support to meet the demands of the curriculum (Pit-ten Cate, 2018). In such circumstances, parents of children experiencing RWD may feel unsupported, because the poor academic performance of their child portrays a doubtful future (Karande & Kuril, 2011; Chandramuki et al., 2012). Parents with a child with RWD may display negative attitudes towards the problem, which may include denial, rejection, and self-blame (Findler et al., 2016). Consequently, they fail to realise that there is a need for immediate action and attribute the problem to the child's behaviour or a developmental process that will resolve (Sahu et al., 2018). Most parents might not know how to assist their child in developing their reading and writing skills, thereby negatively impacting both parents and child (Delany, 2017). Furthermore, the inability to assist and understand their child with RWD may be due to a lack of knowledge about the nature and signs of RWD, or specific learning disorder (SLD) when diagnosed (Johne et al., 2015). In a study by Zivoder et al. (2017), only 39% of the participating parents were partially acquainted with SLD, while 48.2% were familiar with the symptoms.

As such, it is important to consider parents as the primary facilitators for reading and writing readiness. Encouraging and stimulating their child's age-appropriate oral language development and vocabulary, appreciating stories and books, acquiring phonological awareness, understanding basic print concepts and the alphabetic principle, learning to distinguish shapes, and identifying at least some letters of the alphabet, have been proven to result in

better emergent literacy skills and promote reading and writing at school (Manten et al., 2020; Mohammed & Amponsah, 2018). Parental involvement in their child's academic work is a powerful correlate of scholastic achievement (Hemmerichs et al., 2017), resulting in fewer behavioural problems in school and less grade retention, whereas minimal parental involvement shows poorer achievement outcomes in children (Ross, 2016). Frequent communication with teachers and cultivating the child's interest in learning habits through interactive participation and behavioural support for their child, affect academic achievement positively (Darling-Hammond et al., 2020). Parental participation can likewise compensate for lower intelligence, prevent adverse effects of low socio-economic status and encourage scholastic achievement (Li & Qiu, 2018).

Speech-language therapists in Mauritius anecdotally report that parents appear to be unaware of the possibility that their child may be experiencing RWD as a result of SLD, and not necessarily due to lower intelligence or poor teaching methods in school. This tendency may be due to the limited resources available to teachers and parents of children with RWD in mainstream government schools in Mauritius (paper in review, author names removed for blinded review). Another contributing factor could be the use of the pull-out model of intervention in Mauritian schools, where individual learners receive intervention outside the classroom, which limits opportunities to adjust the curriculum for learners with RWD and restricts parental involvement (Fernandez & Hynes, 2016).

With parental involvement judged as essential, investigating the perspectives of parents in Mauritius regarding their child's RWD may show areas of need that may be addressed in households with the assistance of speech-language therapists. Hence, the aim of the study was to determine parents' perspectives regarding their Grade 4 children with RWD in mainstream government primary schools in Mauritius based on the conceptual framework of Griffiths et al. (2004). Grade 4 learners (eight to nine years of age) were found to be the most appropriate population to investigate in the study. Learners typically become sophisticated readers by nine years of age, showing independent reading and writing at sentence level to meet academic demands (Horowitz-Kraus et al., 2017). The investigation may delineate extrinsic and intrinsic factors that facilitate or pose barriers to the development of reading and writing skills for children in the Mauritian context.

METHOD

A descriptive research design using a parent-completed survey questionnaire was employed. Ethical clearance from the Ethics Committee (HUM018/0520) of the University of Pretoria, South Africa and the Ministry of Education of Mauritius, was obtained. Permissions to identify children with RWD in Grade 4 classes were obtained from 20 randomly selected mainstream government primary schools in

educational Zone 2 in Mauritius. The zone has a near equal distribution of urban and rural schools.

To gain access to parents as participants, learners with RWD in Grade 4 were identified after being screened with the help of their class teachers, using a purposive sampling method. The Screening Tool for Learning Disorder, developed and validated by Vidyadharan et al. (2017), was used. The screening tool contains 26 items from the domains of reading, writing, spelling, and mathematics. According to the tool, a score of 11 to 20 indicates a need for an assessment to confirm a SLD and a score of >20 signals SLD. Inclusion criteria for parents as participants were based on the characteristics of their child. The children should have been in Grade 4, aged between eight and nine years old, and attending a government primary school at the time of data collection. The children should also have scored 11 or higher on the screening tool to be identified with RWD.

RWD, therefore, refers to persistent academic learning difficulties in terms of reading accuracy, reading comprehension, and spelling difficulties across the different languages (English and French), which are both used as mediums of instruction in Mauritius. However, participants' children did not necessarily undergo any diagnostic procedures, and the possible

causes for RWD are unknown, except for the presence of a hearing difficulty which was ruled out by a hearing screening test. A validated hearing screen by Mahomed-Asmail et al. (2016) was used.

As shown in Table 1, a total of 67 parents and legal guardians (n=39, 58.2% mothers) participated in the study. The largest age group in the sample was between 31 and 40 years old (n=32, 47.8%), and almost all agreed that they are involved in their child's education by helping them with homework and revisions (n=65, 97.0%). Notably, most participants had male children with RWD (n=42, 62.7%) and had more than one child in their family (n=56, 83.6%). It is well-known that children with RWD show a male bias of approximately 2:1 and 3:1, which corresponds with the male bias in this study sample (American Psychiatric Association [APA], 2013). By far, the majority of participants (n=50, 74.6%) completed 11 years of school. Most participants (n=61, 91.0%) use Mauritian Creole as their primary language at home, which is in contrast with English as the main language of learning and teaching. Very few participants reported the presence of any psychiatric illness or conditions such as autism spectrum disorder (ASD), intellectual developmental disability (IDD), or SLD in their family (n=8, 11.9%).

Table 1
Participant Characteristics (n=67)

Demographic variable	Frequency	Percentage
	n	%
Participants who completed the questionnaire		
Mothers	39	58.2
Fathers	21	31.3
Legal guardians	7	10.4
Age (years)		
20-30	23	34.3
31-40	32	47.8
41-50	12	17.9
Gender of Grade 4 child		
Female	25	37.3
Male	42	62.7
Region		
Urban	30	44.8
Rural	37	55.2
Highest education qualification of participant		
Cambridge school certificate (11 years of school completed)	50	74.6
Higher school certificate (13 years of school completed)	4	6.0
Graduate degree	13	19.4
Number of children in the family		
1	11	16.4
2	28	41.8
≥ 3	28	41.8
Language spoken at home		
Mauritian Creole	61	91.0
French	6	6.0
Presence of psychiatric illness, IDD, ASD, and SLD in the family		
	8	11.9
Participates in their child's education		
	65	97.0

During a literature search, no published questionnaire could be found that meets the requirements of the study. Thus, a questionnaire was

compiled in English as parents in Mauritius are expected to be able to read and understand English since their minimum qualification was a Cambridge

school certificate (11 years of school completed, Table 1). Questions in the questionnaire have been used in studies by Zivoder et al. (2017) and Johnny et al. (2015). The questionnaire comprises of questions related to the following areas of interest: (1) Demographic details of parents having a child with RWD; (2) Medical and developmental history of their child with RWD, (3) Parental descriptions about the symptoms and causes of their child's RWD; and lastly; (4) Ways in which they assist their child with RWD. Multiple choice questions closed-ended (Yes/No) and open-ended questions were included.

Data collection was conducted during the last term of the 2020 school year, when the parents had already received at least two school reports of the academic performance of their children. After obtaining informed consent from parent participants, a meeting was arranged at their convenience at their child's school. Participants were given basic instructions regarding the questionnaire. While participants completed the questionnaire, the first author also read out the questions in case they had difficulty doing so. Participants were not assisted in completing the questionnaires, but the first author was available for queries regarding the questions. To comply with research ethics all participants' children were brought under the attention of their schools and the two speech-language therapists employed by the Ministry of Education for follow-up.

Quantitative data from the questionnaires were analysed using the SPSS version 26 software and firstly interpreted as frequencies and percentages. The continuous variables were tested for normality using the Kolmogorov-Smirnov. If the p-value was greater than 0.05, the data was normally distributed, and parametric tests were used. On the other hand, if the p-value was less than 0.05, the data differ from normality, and nonparametric tests were used. Since the p-value was greater than 0.05 ($p=0.059$), we assumed normality and the parametric independent samples t-test was used to determine significant differences between independent groups for the continuous variable (score on the Screening Tool for Learning Disorder). The null hypothesis of the t-test stated that the differences were not statistically significant, whereas the alternative hypothesis stated that it was. If the p-value was less than 0.05, the null hypothesis was rejected, and the differences in scores between the two independent groups were statistically significant.

For categorical data, the Chi-square test for association (hereafter just Chi-square test for brevity) with pairwise z-tests (hereafter just z-tests for brevity) was used. The null hypothesis for the z-test stated that two proportions, between two independent groups, did not differ statistically significantly, whereas the alternative hypothesis stated that it did. If the p-value was less than 0.05, the null hypothesis was rejected, and the proportions differed statistically significantly. As the z-test was an ad-hoc test of the Chi-square, a p-value less than 0.05 could then also be interpreted

as having statistically significant association between the categorical variables. For 2x2 cross-tabulations, the Chi-square test and the z-test were equivalent (had the same p-value), with the small difference that the z-test statistic was the square-root of the Chi-square test statistic. For cross-tabulations larger than this, the z-test has the advantage over the Chi-square test, of indicating precisely which percentages differ significantly from each other. Since the z-test was the same as the Chi-square test for 2x2 cross-tabulations, but gives more information for larger cross-tabulations, only the z-test statistics and its corresponding p-values were reported on in this paper when working with categorical variables. The qualitative data underwent a thematic analysis.

RESULTS

Screening for specific learning disorder

A total of 120 children with RWD were identified during the screening process, and 67 of those children's parents agreed to participate in the study. Thirty-three (49.3%) children scored 11 to 20 on the Screening Tool for Learning Disorder, thereby indicating the need for detailed assessments to confirm a diagnosis of SLD. The remaining 34 (50.7%) children identified with RWD scored above 20, indicating a high probability of SLD. The two performance groups were therefore almost similar in size. Significant differences regarding parental perspectives between the two groups were found. Participants whose children scored between 11 and 20 on the Screening Tool for Learning Disorder reported significantly more ($z=2.170$, $p=0.030$) that their child's school performance is satisfactory (45.5%) than parents whose children scored above 20 (20.6%). Furthermore, participants whose children scored between 11 and 20 reported significantly more ($z=2.257$, $p=0.024$) attention problems and trouble following directions in their children (93.9%) compared to those whose children scored above 20 on the screen (73.5%). The results, therefore, indicated more parental satisfaction with academic work when their children were less likely to have SLD, but parents reported more difficulties with attention and following directions in this group. Attention difficulties and problems following directions may indicate other disorders than SLD. SLD is described by APA (2013) as having difficulties learning and using academic skills which may include effortful word reading, difficulty understanding the meaning of what is being read, difficulties with spelling, written expression, mastering number sense, and mathematical reasoning.

Medical and developmental history of participants' children with RWD

Among the children identified with RWD ($n=67$), a few parents reported that their child was born preterm with low birth weight ($n=11$, 16.4%). The percentage is slightly lower than the low birth weight rate (17.3%) in Mauritius, according to the health statistic report in 2015 (Ministry of Health and Wellness, 2015). 28.4%

(n=19) responded that their child remained in hospital more than five days after birth due to medical complications, and 13.4% (n=9) children had feeding difficulties. A considerable number of children in the sample had a history of delayed speech and language development (n=26, 38.8%). 91.0% (n=61) attended pre-primary schools. Most children started their pre-primary education between three and five years of age (n= 48, 78.6%), while a few had only one year of pre-primary education (n=13, 19.4%), between four and five years of age. Only six children did not attend any pre-primary school and directly entered school in Grade 1. Most of the participants' children therefore had the opportunity to attain school readiness in the form of pre-primary education.

Participants' descriptions of their child's reading and writing skills

Participants rated their child's reading and writing skills as good, satisfactory or poor regarding specific statements in the questionnaire (Table 2) and by using their own words (Table 3). As shown in Table 2, most participants described their child's general academic performance as being poor (n=41, 61.2%) and stated that they exhibit poor reading and writing skills, with English and French equally affected (n=44, 65.7%). Almost one-third (n=22, 32.8%) and only four participants (n=4, 6.0%) rated their children's academic performance as satisfactory and good, respectively. In contrast, when asked about specific difficulties, more children were reported to have problems with understanding, explaining, and remembering what was read, understanding main ideas, following directions in print, and writing sentences. While all children in the study were identified as having RWD by the teacher completed screening tool, it appears that approximately a third of

parents viewed their children's general academic performance and reading and writing as satisfactory and good. It appears that when asked specific questions about the nature of their children's RWD, more participants could identify their children's RWD.

In Table 3, the highest number of descriptions indicated the child's difficulties as a reading and spelling problem, while some described the difficulties as either a reading or a writing (spelling) problem. Apart from RWD, participants described additional problems which include difficulties with understanding, speech and language, memory, behaviour and motivation.

Participants' descriptions of the possible causes of their child's RWD

A list of 11 possible reasons for RWD was given to participants and they had to mark all options that they regarded as applicable to their child. Nine of the options are valid causes of RWD and SLD, while being lazy is not considered a cause, although poor motivation in the child could be a consequence of RWD (APA, 2013). As shown in Table 4, the highest number of responses indicated that the child's RWD was due to laziness (n=25, 37.3%), the second highest number of responses, 14.9% (n=10) showed that participants did not know the reason for their child's RWD and poor performance by choosing the "I do not know" option. The third highest response showed that participants believed that their child had lower intelligence (n=8, 11.9%). A few participants indicated sensory problems in their children. Parents who reported visual and hearing difficulties in their children were referred for follow-up, even though hearing difficulties were ruled out by screening the child's hearing before parents were included in the study.

Table 2
Participants' Descriptions of Their Child's Symptoms of RWD (n=67)

Descriptions	Frequency n	Percentage %
Academic performance		
Poor	41	61.2
Satisfactory	22	32.8
Good	4	6.0
Reading and writing skills		
Poor	45	67.2
Satisfactory	17	25.4
Good	5	7.5
Language most affected		
English	17	25.4
French	6	9.0
Both English and French	44	65.7
Reading skills		
Difficulties understanding and explaining what is read	51	76.1
Does not remember what is read	57	85.1
Trouble understanding main ideas and follow directions in written language	56	83.6
Writing skills		
Has difficulties writing sentences. Sentences are usually short, choppy with words not written in the correct grammatical order	64	95.5

Table 3

Qualitative Content Analysis of Participants' Own Descriptions of Their Child's RWD

Themes	n	%
My child has difficulties while reading and spelling	17	25.4
My child has difficulties in reading only	12	17.9
I do not get enough time to help my child with his homework	11	16.4
My child has difficulties in writing only	8	11.9
My child has confusion between some letters and often reverse the letters b/d/t/f	6	9.0
My child is slow at learning and grasping everything	5	7.5
My child does not understand anything in class	4	6.0
My child has speech and language difficulties which affect him in class	3	4.5
My child is lazy/not motivated/lack of interest	3	4.5
My child has more difficulties with spelling than reading	2	3.0
I think my child has a poor memory	2	3.0
My child cannot study because of behavioral problems	2	3.0
My child does not have any difficulties	1	1.5

Table 4
Participants' Descriptions of the Possible Causes of Their Child's RWD

Causes	Frequency	Percentage
	n	%
My child just seems to be lazy	25	37.3
I do not know the reason for the RWD my child experiences	10	14.9
My child has poor intellectual capacity	8	11.9
My child has a learning disorder	7	10.4
My child has visual difficulties	7	10.4
My child's RWD are because of familial problems	5	7.5
My child has a hearing difficulty	3	4.5
My child's RWD are due to existing medical condition (seizures, frequent ear infections)	3	4.5
My child has behaviour problems causing RWD	2	3.0
Poor teaching methods	2	3.0
Mismatch between home language and language of teaching and learning at school	2	3.0

Significant differences between participants' responses about the causes of their child's RWD and their child's score on the Screening Tool for Learning Disorder.

The independent samples t-test indicated that participants who selected the option 'poor teaching methods' (n=2, 3.0%) had significantly (t=-2.045, p=0.045) higher scores on the Screening Tool for Learning Disorder (mean=21.00, SD=0.00) than participants who did not select the option (mean=20.06, SD=3.70). The exact same statistics and result was found for participants who selected the option 'mismatch between home language and language of teaching and learning' and those who did not select it. The significantly higher score might imply that the child's RWD could be regarded as SLD, but parents tended to select poor teaching methods and a mismatch between languages used at home and at school as causes for their child's RWD.

Significant associations between participants' demographic details and their descriptions about the symptoms, causes and the way they assist their child with RWD.

Relation to the Child

The z-test revealed that there were significant differences in the responses between the mothers, fathers, and legal guardians who completed the

questionnaire as the child's primary caregiver. The legal guardians selected the option 'I try to help them every day with homework' significantly less (42.9%) than mothers (84.6%) (z=2.457, p=0.014) and significantly less than fathers (95.2%) (z=3.090, p=0.002). Legal guardians also selected the option 'I am not doing anything right now to assist my child' significantly more (28.6%) than mothers (5.1%) (z=2.308, p=0.021) and significantly less than fathers (0.0%) (z=2.543, p=0.011). Thus, there was a significant association between who the caregiver is and the amount of help provided to the child, with legal guardians appearing to be doing less to help their children with RWD.

Age Group of Participants

There was a significant difference between the age groups of the participants and whether or not they selected the option 'my child seems to be lazy', among the 11 options given for the possible reasons for RWD in their child. Participants aged between 20 and 30 years selected this option significantly less (17.4%) than those between 31 and 40 years of age (50.0%) (z=2.484, p=0.013). However, it was not significantly less than participants between 41 and 50 years of age (41.7%). Therefore, there was a significant association between the age groups and whether or not RWD was attributed to laziness, with the largest group of parents

between 31 and 40 years of age (47.8%) tending to attribute their child's RWD to laziness. In Table 4 it was also shown that 25 (37.3%) of the participants' perspectives were that their children with RWD were lazy. Being lazy was the most reported cause of RWD in children.

Urban or Rural Living

The association between the place of living and whether the participants chose the option that the child had a particular learning disorder such as dyslexia or dysgraphia, was significant ($z=2.308$, $p=0.021$). Participants from rural areas selected the option 'My child has a particular learning disorder such as dyslexia or dysgraphia' significantly less (2.7%) than those from an urban area (20.0%). It therefore appears that participants from rural areas in Zone 2 in Mauritius were less likely to choose conditions associated with SLD as a reason for their child's RWD. It could be that they were less familiar with the terms dyslexia and dysgraphia.

Presence of conditions such as psychiatric illness, intellectual and developmental disability, autism spectrum disorder, and specific learning disorder in the family.

There was a significant association ($z=3.291$, $p=0.001$) between the presence of other conditions in the family and whether or not participants selected 'My child is not interested in learning how to read and write'. Participants who selected 'Yes' to the presence of familial conditions selected the option 'My child is not interested in learning how to read and write' significantly more (50.0%) than those without additional conditions in the family (8.5%). It therefore appears that the presence of conditions in the family could play a role in how parents viewed their child's RWD.

Participants who selected 'Yes' to the presence of related conditions in the family also selected the option 'I send them for private tuition lessons' significantly more (50.0%) than those without conditions in the family (18.6%) ($z=1.995$, $p=0.046$). Thus, there was a significant association between the presence of a condition in the family and the likelihood that participants sent the child for private tuition lessons. The association could mean that participants who were already familiar with related conditions in their family were more likely to seek help for their child.

Associations between participants' descriptions of symptoms and causes of their child's RWD and their child's developmental history.

There was a significant association ($z= 2.241$, $p=0.025$) between the child spending more than five days in hospital after birth and whether the participants stated that the child had trouble understanding what they have read. Participants who indicated that their child had trouble understanding what they read, selected 'Yes' significantly more (35.3%) to the

question 'Did your child spend more than five days in hospital after birth?' than participants that indicated that their child does not have trouble understanding what they have read (6.3%). It therefore appears that biomedical conditions in the child after birth could play a role in the child's RWD.

Earlier results already indicated that a high number of participants' children ($n=26$, 38.8%) had a history of speech and language difficulties. The result was further confirmed by the following significant association. There were significant associations between the children experiencing speech and language problems as a toddler, having trouble sounding out words when they were reading ($z=2.387$, $p=0.017$) and following directions ($z=2.212$, $p=0.027$). Participants who indicated that their child had trouble sounding out words when they were reading (45.5%) and had trouble following directions (44.6%) selected 'Yes' to the question 'Did your child experience any speech and language problems as a toddler?' significantly more than participants who indicated no trouble sounding out words when reading (8.3%) or trouble following directions (9.1%). An association between a history of speech and language difficulties and the child's present RWD was therefore found. The result could indicate that the child's RWD are based on persisting speech and language difficulties.

DISCUSSION

The study presented a rich description of participants' perspectives of symptoms and causes of their Grade 4 children's RWD in mainstream government schools in Mauritius and what they do to assist their children. A total of 67 parents and caregivers agreed to participate in the study after their child had failed the Screening Tool for Learning Disorder (Vidyadharan et al., 2017), completed by their class teacher.

Consistent with research on the male bias in RWD and SLD (APA, 2013), almost two-thirds of the children were boys. In partial agreement with the screening tool results, majority of parents also reported that their child has RWD and performs poorly at school. However, a third of participants reported their child's academic performance was satisfactory and good, implying that they may not be aware of the child's RWD. All participants had already received two school reports from their children by the time they were enrolled in the study. The results are confirmed by research by Johnney et al. (2015) and Zivoder et al. (2017) that parents may be unfamiliar with conditions like RWD and SLD.

The two groups of children identified with the screen, those who need further assessment and those indicating SLD, shows the usefulness of the tool. The tool could distinguish between the different degrees of difficulties among children with RWD, which was associated with more and less satisfaction that parents expressed with their child's academic performance. The screening tool appears feasible to be used in future studies as it shows promising validity.

The early histories of the participants' children, which included prolonged hospitalization after birth, early feeding difficulties, and speech and language delay, showed links with their current RWD. RWD and SLD are commonly, but not always preceded by delays in attention, language, or motor skills (APA, 2013). These factors could be regarded as intrinsic elements (Henrique & Madeira, 2017) contributing to the children's RWD. The findings of the study add to substantial existing evidence that language ability is foundational to skilled reading and writing and that many children with language impairment underachieve at school and exhibit RWD (Snowling et al., 2019). Hence, there is a high degree of overlap between RWD and developmental language disorder in children. The results of the current study confirm the overlap, with 26 (38.8%) children with RWD with a history of speech and language difficulties. The number of children with low birth weight, although not higher than the national low birth weight rate, and a prolonged hospital stay after birth in the study also highlight the commonalities between birth and early medical conditions and the risk of developing language delays and RWD during school years (Debata et al., 2019; Squarza et al., 2016).

According to most participants their child's RWD were present in both English and French which is a further confirmation of true SLD (APA, 2013). The participants' own descriptions of their child's RWD tended to be general, lacking detail and describing symptoms that may not be part of the diagnostic criteria of SLD. Such statements included laziness, attentional problems, and lower intelligence. More parents, but not all, could recognise their child's difficulties when provided with descriptive statements of the nature thereof. More participants noted writing difficulties than reading difficulties in their children. Writing difficulties could be easier to identify than reading difficulties as writing provides visible evidence of difficulties in the child's exercise books that are brought home. Reading difficulties may only be identified by parents if they help their child at home. Apart from the possibility of SLD underlying the children's RWD, there could also be other underlying conditions (such as intellectual disability when describing the child as 'slow at learning') which may be revealed when they are assessed. A recent study by Axelsson et al. (2020) investigating parental perspectives about influential factors on children's reading and writing development showed that parents felt that not only the teaching method, but also the teaching approach has an impact on their child's reading and writing development. In the same study parents also expressed concern about limited knowledge among schoolteachers and other staff members to teach reading and writing. In the current study participants with children with a high probability of SLD tended to view poor teaching methods and a mismatch between languages at home and at school as a possible cause of their child's RWD.

While the results indicated a high level of parent and caregiver awareness of their child's learning difficulties, it is concerning that approximately a third of participants appear to be unaware of the nature and causes of these difficulties. This finding is in agreement with Adlof et al. (2017) who also found that parents of children with language impairment and/or dyslexia were frequently unaware of their children's difficulties, but that they could identify reading difficulties better than oral language difficulties.

The largest group of participants ascribed their child's RWD to laziness, thereby revealing limited information on the likely causes of RWD in learners. The most reported cause of RWD in their child was also laziness. Only few participants showed awareness that their child could be having SLD, and these parents were mostly from urban areas. These findings are similar to a study by Sahu et al. (2018) who found that most parents did not have information about SLD and thought that the poor behaviour of their child such as disinterest in learning, attention deficit and lack of motivation were the reasons for poor school performance. Due to limited parental awareness about RWD and SLD in the current study, parents were not fully aware of the learning and behavioural difficulties of their child with RWD at home and school. Their child's behaviour, attitude and concentration-related problems were incorrectly considered responsible for their RWD, thereby not warranting immediate action. It could also be that the participants' children had attention deficit hyperactivity disorder when further investigated.

Key contributing factors to poor reading and writing abilities include low confidence of children, poor attention to phonics instruction and phonological awareness skills in class, lack of learner motivation to learn to read, and the shift away from phonics instruction to reading comprehension in the third grade (Mohammed & Amponsah, 2018). The current study also revealed that a mismatch between the child's home language (91% speak Mauritian Creole at home) and the language of learning and teaching (English or French) could play a role in the children's RWD.

Parents around the globe who are assisting with homework may often feel frustrated when their child continues to fail assessments and does not respond to their methods to support their child's academic performance (Chien & Lee, 2013). A few extrinsic factors were revealed that could contribute to RWD in participant's children. In the current study, legal guardians appear to need more assistance to support their child with RWD. Most parents in the study stated that they help their child with homework, and a few made use of private tuition, notably those with psychiatric and other conditions in the family. Almost no participants sought assessment and intervention from professionals trained in RWD/SLD such as speech-language therapists. The lack of intervention initiated by parents could also relate to the shortage of these professionals in Mauritius. At present there are

only 27 registered members registered with the Speech-Language Therapy Association in Mauritius, with 16 being self-employed, three employed in private companies, eight in public service (two in schools and six in hospitals). Due to a shortage, particularly in schools, parents may therefore be unfamiliar with their services.

Strengths and limitations of the study

Valuable parental perspectives about RWD in children were attained which can be shared with teachers, speech-language therapists and the Ministry of Education. The results show the importance of raising awareness about RWD and SLD among parents. To the authors' knowledge, this is the first study of its kind in Mauritius. Because the sample was substantial (n=67) and included a fair distribution of urban and rural areas, the findings may be generalized to parents of Grade 4 children with RWD in Mauritian mainstream government schools. Limitations of the study include a lack of knowledge of parental emotions about their child's difficulties and their self-perceived needs. Future research should investigate parental recommendations on how the education system in Mauritius could support children with RWD in government schools. Research should also investigate the influence of a mismatch between the child's home language and the language of learning and teaching.

CONCLUSION

The study confirms that there are limited resources available to parents and caregivers of children with RWD in mainstream primary government schools in Mauritius. Parents and caregivers have limited perspectives on the symptoms and causes of their child's RWD. They are clearly unaware of appropriate interventions to support their child. Each child in the current study needs a comprehensive assessment to determine the nature and the cause of their RWD and possible SLD. It is important to inform parents that RWD in children must be promptly identified and diagnosed. The most encouraging aspect of the results is that participating parents were willing to help their children, even though they were uninformed and not supported. There should be a comprehensive approach to identification, assessment, and intervention of learners with RWD in Mauritius. Therefore, more professionals such as speech-language therapists should be available to support parents and provide intervention for children with RWD. Having adopted an inclusive education approach (Ministry of Education and Human Resources, 2017), the Ministry of Education, schools, teachers and speech-language therapists have the opportunity to implement inclusive policies for children with special education needs in mainstream primary schools and their parents in Mauritius.

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