








Minors using Ritalin: obstacles in Primary Health Care surveillance

Menores em uso de Ritalina: percalços no acompanhamento da Atenção Primária à Saúde

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ABSTRACT

Objective: to understand how nursing workers from Family Health Strategy teams track children and adolescents using Ritalin. **Methods:** qualitative study, based on the theoretical references of the essential primary health care attributes. The participants were 27 nurses from the Family Health Strategy. Data collection took place through interviews later submitted to content analysis in the NVivo software. **Results:** three categories emerged: (Lack of) knowledge about the population who uses Ritalin: co-responsibilities in the process of assistance and difficulties to follow up on the use of Ritalin; Primary care knowledge and know-how in the setting of Ritalin use; The prescription of Ritalin as a demand from schools. **Conclusion:** the monitoring of children and adolescents who use Ritalin has shortcomings, and primary health care must organize itself to increase and strengthen the care to this population.

Descriptors: Primary Health Care; Attention Deficit Disorder with Hyperactivity; Methylphenidate; Family Health Strategy.

RESUMO

Objetivo: compreender como ocorre o acompanhamento de crianças e adolescentes em uso de Ritalina pelos profissionais enfermeiros das unidades Estratégicas Saúde da Família. **Métodos:** estudo qualitativo ancorado no referencial teórico dos atributos essenciais da atenção primária à saúde, no qual participaram 27 enfermeiros da Estratégia Saúde da Família. A coleta de dados ocorreu por meio de entrevistas, que passaram por análise de conteúdo, com o auxílio do software NVivo. **Resultados:** emergiram três categorias: (Des)conhecimento sobre a população usuária de Ritalina: sobre a co-responsabilização do processo assistencial e as dificuldades enfrentadas para o acompanhamento do uso da Ritalina; Saberes e fazeres da atenção primária no cenário de utilização da Ritalina; A prescrição da Ritalina como demanda da instituição escolar. **Conclusão:** o acompanhamento das crianças e adolescentes em uso de Ritalina está fragilizado, sendo necessário que a atenção primária à saúde se estruture, amplie e fortaleça os cuidados a essa população.

Descritores: Atenção Primária à Saúde; Transtorno do Déficit de Atenção com Hiperatividade; Metilfenidato; Estratégia Saúde da Família.

Introduction

Primary Health Care is the main entryway of users into the Single Health System. Its essential attributes include being longitudinal, providing immediate attention, comprehensive care, and coordination⁽¹⁻²⁾. It is also seen as the center of communications of the Health Care Network, coordinating care and organizing the actions and services made available⁽¹⁾. Furthermore, primary attention is the first level of health care, attending all people free of charge, according to the principles of comprehensive, universal, and equal care. This level of care is expected to successfully deal with 85% of issues without the need for specialized service⁽³⁻⁴⁾.

However, due to changes in the epidemiological and sociodemographic profile, health care demands in primary care have become more complex, requiring other forms of care in addition to the traditional ones. These include the incorporation of technologies and therapies, due to the multiple circumstances related to the complexity of assistance⁽⁵⁾.

Considering this context, and based on theoretical discussions about the medicalization process, there has been an excessive increase in the prescription and consumption of the psychotropic methylphenidate — better known by its commercial name, Ritalin — to treat Attention Deficit Hyperactivity Disorder (ADHD) in children and adolescents. This consumption has shown the need to create strategies of therapeutic monitoring that seek to guarantee the safe, correct, and necessary use of this medication⁽⁶⁾.

The increasing prescription of drugs in the field of child and adolescent health may lead to a phenomenon called overtreatment, which is the use of medication with no certainty that it will bring positive results to the patient⁽⁷⁾. As a result, the following question emerges: how do primary health care nurses follow up on children and adolescents diagnosed with Attention Deficit Hyperactivity Disorder who use Ritalin?

The justification for this study is the lack of literature describing the appropriate management of

Ritalin use, especially concerning the participation of nurses in this type of care and considering the adverse effects that these medications have been causing, as they stimulate the central nervous system of children and adolescents⁽⁶⁾. Considering this issue, the objective of this study was to understand how nursing workers from Family Health Strategy teams track children and adolescents using Ritalin.

Methods

This is a qualitative study, based on theoretical references about the essential attributes of primary health care: immediate attention, longitudinal and comprehensive care, and coordination⁽¹⁾. The study setting included 19 units from the Family Health Strategy, located in a city in the West of Paraná. The directives from the Consolidated Criteria for Reporting Qualitative Research (COREQ) were used, since it is a qualitative article.

In the city where the study took place, there were 28 health units. Only those with Family Health Strategy teams were included in the research, since they are closer to the population in the area and, thus, have a stronger bond and a deeper knowledge about them. From the 20 eligible units, one refused participation. Eight units had two Family Health Strategy teams, while the others had one.

Data collection was carried out in February 2021. Inclusion criteria included: being a nurse working in the Family Health Strategy for at least six months. The exclusion criteria were: Primary Health Care Units with a population above 4,000 people (the maximum number prescribed in the policies established to family health teams); refusal in participating in the study; and workers on leave or vacation during data collection.

Nurses were invited to participate in the research through in-person visits to the health units. After they accepted, the interview was scheduled according to the availability of the professionals. Collection took place in the unit itself, with 27 nurses, in a private

room. It was carried out by a researcher at a date and time chosen by the interviewee. Data were collected through in-person verbal interviews, using the guiding question: Tell me how nursing workers from this unit manage the children and adolescents with attention deficit hyperactivity disorder who use Ritalin. There were also questions regarding their knowledge about the medication and about the follow up on their users.

The mean time of interview was 30 minutes and no interview needed to be revisited. Theoretical saturation was reached within 16 interviews. However, since all interviews were already scheduled, they continued to exhaustion.

The answers were recorded in audio and later transcribed in full. The content of the transcription was presented and approved by the interviewees to validate the answers. Later, the material was analyzed according with the prescriptions of Content analysis⁽⁸⁾, with the aid of the NVivo Release[®] software, version 1.5.1. In the pre-analysis stage, data were skimmed, and then read to exhaustion to define thematic units. The memorandum tool of the software was used to register the researcher's main impressions and thoughts that emerged during the reading of the transcription. In the stage of material exploration, a word cloud was created according with frequency and similarity. Categories (codes) were also defined and classified.

In a process of approximation and distancing, the main topics were identified and named during data analysis. Three categories emerged from the treatment and interpretation of the results: (Lack of) knowledge about the population who uses Ritalin: co-responsibilities in the process of assistance and difficulties to follow up on the use of Ritalin; Primary care knowledge and know-how in the setting of Ritalin use; The prescription of Ritalin as a demand from schools.

The research was adequately explained orally to the participants, and their acceptance was registered through their signature in a Free and Informed Consent Form. Professionals were identified randomly by the letter "N", for nurse, followed by a num-

ber corresponding to the order in which interviews were carried out, to guarantee the confidentiality of the information.

The research project was approved by the Research Ethics Committee of the Universidade Estadual de Maringá under legal opinion No. 4,439,361/2020, attending all precepts from Resolution 2012/2020 from the National Council of Health, which regulates researches with human beings.

Results

From the 27 participants, 22 (81%) were female and 5 (19%), male. Their mean time in the profession was 26 months. Regarding the knowledge of professionals about what is methylphenidate, only 5 (18%) recognized the medication by this name, while the others (81%) only knew its commercial name (Ritalin). When asked about the acronym ADHD, only 6 (22%) knew that it meant attention deficit hyperactivity disorder.

Aiming to reach a broader understanding of the answer of the interviewees, a word cloud was created, based on frequency and similitude. It is presented on Figure 1.



Figure 1 – Word cloud from the interviews of Family Health Strategy nurses. Cascavel, PR, Brazil, 2021

The most common word was child (28 appearances), followed by managing (15), medication (12), and nursing (11). Three categories emerged from the content analysis and are presented below.

(Lack of) knowledge about the population who uses Ritalin: co-responsibilities in the process of assistance and difficulties to follow up on the use of Ritalin

The nurses recognized that follow up on children and adolescents with ADHD who use Ritalin is not very common in the area they cover. Some nurses reported there is no system to aid in the care to this population, attributing this responsibility to other professionals in the team: *The person who could know the exact number of children diagnosed with the disorder is the social assistant (N2). There are spreadsheets, but this is controlled by social services. I have no idea, only more serious cases come to the nurses (N8). I have no idea how many children use Ritalin, I'll ask the doctor (N16). I have no idea, none of the children I attend have it, or if they do, they only follow up with the doctor (N18). I don't know how many, but the social assistant does (N27).*

Among nurses who reported to know the population with ADHD diagnosis who uses Ritalin, some had incipient information. The statements below are about the cases each team knows: *There are three children with the disorder using Ritalin (N3). I have one child (N1). Two, in total, one eight-year old (boy) and another I think three year-old (girl), both use the medication (N11).*

Regarding the follow up of children and adolescents who use Ritalin, the nurses reported difficulties. Although follow up on these cases and therapies is extremely important, the main explanation about this gap in the assistance is the lack of time to get to know the population as a whole. This situation was made worse by the priority given to other activities demanded by the coronavirus disease (COVID-19) pandemic, which led to numerous changes in work routine: *I ended up here out of the blue, I couldn't get to know everything, the team is always incomplete and that makes it difficult! And then, the pandemic happened (N5). COVID-19 hindered the attention, there are few members in the team, and mental health, which was already difficult, is even worse now (N16). In the middle of the pandemic some new workers entered here, others were relocated, and this hinders any follow up, people get away from the activities. We are doing system reports, kind of, because productivity demands it (N18). Unfortunately,*

we work with the bare minimum and mental health goes by the wayside, there's no personnel (N19).

Another difficulty nurses report is the lack of a protocol to attend ADHD children and adolescents, as the following statements show: *There's no program, no follow up for these children, it's hard to work (N2). The problem with attention deficit hyperactivity disorder is that it is in the scope of mental services, which barely exist in the city. So, the unit has nowhere to run, there's no psychologist, no structure to care for this public (N3). There's no specific way to manage these children. We welcome them, do the pre-consultation and medical consultation. There's no specific way to manage those with attention deficit hyperactivity disorder or any other disorder, we can only provide a faster assistance to those with autism (N7).*

Primary care knowledge and know-how in the setting of Ritalin use

Nurses admitted that they did not know the adverse effects of Ritalin, neither did they know whether the children and adolescents using it had any adverse reaction to the medication. In this regard, the statements of the participants highlight the lack of familiarity with the services and health teams, with actions targeted at school health: *I don't know the adverse effects, never heard of them (N17). Never heard (N18). I don't know, we know we have children that use Ritalin, but if there's ever been an adverse reaction, I don't know about it (N5). If there's been an adverse reaction, I don't know about it (N27).*

The lack of knowledge about the adverse effects of the medication directly hinders assistance family guidance through health education. The emphasis on the knowledge and know-how of these professionals is due to the importance of their role in the context of the Family Health Team and to the recognition of their bond with the population. If that does not happen, situations as the following may take place: *...A child was "making a mess" with the mother on a weekend, and the mother didn't know any better, she overdosed the medication of the child, who had to be hospitalized (N9).*

This statement shows how important it is for the nurse and Primary Health Care as a whole to en-

gage with this specific population, because, despite not being very numerous, they are vulnerable, at risk, and need multidisciplinary comprehensive actions to guarantee the continuity of their care. From all interviewees, only two reported experiences with some of the adverse effects of Ritalin, which the following statements indicate: *Some of them report trouble sleeping, mood swings, family conflict (N19). Sometimes they come, and we evaluate to see whether it's associated with the medication. Generally, mood swings, anxiety, or the medication has no effect, sometimes a diagnosis cannot be reached (N3).*

Considering cases in which adverse effects were found, there were shortcomings in the surveying of the problems presented and in the follow up of the development of the case.

The prescription of Ritalin as a demand from schools

This category is related to the fact that, according with the report of the interviewees, teachers who spend time with these children and adolescents every day and see differences in their behavior suggest medical evaluations to determine whether they have ADHD, taking the initiative to refer students and their guardians to health units: *Generally, the schools are the ones who ask for an examination... The parents are encouraged by the school to ask for the medication, which makes it difficult to convince them otherwise... (N4). We try to attend the children from the City Center of Child Education and their families, but it is not easy, parents don't accept the response from the pedagogy specialist (N6). These children are often considered to be hyperactive because they are "messy", and the teachers encourage the use of Ritalin... which is not always necessary (N9). The attention should be a joint effort, the school refers them to us already suggesting the disease... after all these children don't all have the same disorder (N14).*

Discussion

The limitations of this study are the method of participant selection, which does not allow for an extrapolation of the results beyond family health tea-

ms. However, the study revealed shortcomings in the health follow up of children and adolescent users of Ritalin.

We believe that this study helps raising the awareness about the importance of follow up on the use of Ritalin by youth, in addition to allowing for an identification of the difficult and easy aspects of this follow up, providing information that can subsidize the development of new public health strategies for this public.

Although nursing is recognized as the responsible for care and for all processes related to it, we found shortcomings in the follow up of this population of Ritalin users. There was also no precise definition of the roles and (co)responsibilities of health team members and of the Health Care Network in this process.

It can be inferred that the lack of an effective connection between Primary Health Care, specialized services, and the lack of articulation in care networks are factors relevant for primary health care to become the coordinator of this type of care and the organizer of the system as a whole. When this does not happen, the access of users to the health team can be compromised, as well as the longitudinal nature of care and the continuity of the attention the user needs.

In the context of Primary Health Care, the role of the nurse is essential for the provision of care and the sanitary surveillance of individuals and community alike⁽¹⁾. However, the knowledge of the nurse about the youth population with ADHD does not, necessarily, mean that there is a comprehensive and coordinated system for the follow up of these cases.

The lack of a defined process, aggravated by the diversity of knowledge and actions between professionals in the Health Care Network, leads to a morose handling of health issues in the area of coverage of health services. For changes in this process to happen, family health strategies must be recognized as the first contact of the user, making it possible for the members of multidisciplinary teams to work as co-responsible parties in the care and management of children and adolescents using Ritalin⁽⁹⁾.

Regarding the recommendation of methylphenidate use in youth, it starts with behavioral problems reported by legal guardians. The use of the medication makes these children and adolescents vulnerable to potential adverse effects⁽¹⁰⁾. Regarding the prescription, it is usually made by physicians from the specialized services, and, often, there are no referrals/counter referrals for the treatment carried out.

Therefore, in some situations, the health system does not abide by the principle of comprehensiveness due to excessive workload, which is noticeable when children and adolescents need new prescriptions, cannot get a follow-up consultation in specialized services, and decide to search for the nurse or general practitioner to receive attention.

It stands out that children and adolescents who use methylphenidate show a fast improvement in their symptoms after the beginning of their treatment; however, some collateral effects may surface, which leads many of them to abruptly stop using the medication⁽⁶⁾. The main adverse effects in the use of the medication are psychotic disorders, arrhythmia, insomnia, impaired sleep, loss of appetite, headaches, and abdominal pain. When the frequency of these is severe, the use of the medication is often suspended⁽¹⁰⁾.

An example that called our attention was the reports of a three-year-old child who used methylphenidate, when the medication is only recommended for children above six years old⁽¹¹⁾. The coordination of primary care should be warned to stimulate and promote the continuing education of workers, so they recognize the possible adverse effects of Ritalin and are able to provide safe care⁽¹²⁾.

The prescription, use, and the reasons to interrupt methylphenidate use, must be evaluated using therapeutic monitoring strategies, to guarantee that the medication is being used in a safe and correct manner, only when necessary. Thus, it would be possible to promote better results in the rehabilitation and wellbeing of this population with ADHD⁽⁶⁾.

It can be inferred that adequate prescriptions and the correct use of this medication require pro-

fessionals to have knowledge about the stages that involve the process, which starts with an assertive prescription, consistently making the product available, appropriately storing and distributing it, and observing carefully the dosage, intervals, and periods of use of this drug.

However, the lack of well-trained professionals impairs the adequate prescription of medications such as Ritalin and the process of orienting the client about its correct use and possible side effects, even though these elements could help minimizing adverse effects and intoxications⁽⁹⁾.

It should be highlighted that, nowadays, populations are increasingly used to an irrational and excessive consumption of medication, a practice that both professionals and population need to rethink⁽¹⁰⁻¹³⁾. As a result, the simple fact that the patient is using medication cannot be seen as a safe intervention, and one cannot expect it to happen naturally. It is necessary to create strategies integrated with other safety-related activities, preferably within a system for medication management⁽¹⁴⁾.

The communication between physicians and patients, as well as patient education, improve safety in the use of medication. In addition to the relation between physician and patient, the team must have a compromised leadership, as well as an open space for regular discussions and evaluations of the cognitive and physical functions of the patients, to guarantee their ability to manage their drug treatment⁽¹⁴⁾.

The issues related to medication use may emerge at any time. When there is an effect from any drugs being used, the health team must carry out medication reconciliation, that is, a thorough list of the drugs used by the patient, for a systematic comparison with active prescriptions and an analysis of any association. This conduct can be implemented as a routine practice, avoiding mistakes^(10,14-15).

It is extremely important for the multidisciplinary team to study and follow up users, so potential associations with other drugs can be monitored and surveyed, ensuring comprehensive safe care⁽¹³⁾.

Schools, still assuming a biomedical conception, tend to search for the solution of health problems of children and adolescents in the figure of the physician. When the logic of medicalization enters the schools, they reinforce a movement according to which the use of medication is the only alternative for the student to learn⁽¹⁶⁾. To deal with this situation, it is necessary to rethink the actions from the Health in School Program, in such a way that teaching and health can be brought together, opening new paths for educators, nurses, and physicians to approach and care for the health of children and adolescents, and, especially, ensuring the continuing care of a multiprofessional assistance network⁽¹⁾.

The understanding that the ADHD should be addressed exclusively by nurses, mental care, and psychology, reaffirms a restrictive perspective, which does not recognize the importance of Primary Health Care, Family Health Strategy, of the Health at School Program, and of all actors in the educational field as co-participants in the process of follow up and resolution of this and other health and education youth issues^(1,17).

Therefore, the non-optimization of opportunities to inform and guide the community, be it due to the lack of knowledge from the professionals or due to the absence of a coordinated system of follow up of different groups by the health service, compromises continuing, safe, and comprehensive home care^(1,15).

An in-depth discussion must be had on this topic and on the importance of enhancing permanent multidisciplinary educational actions in the settings that involve the health of students and the interface of actions involving primary care and the educational field. Health education is a way to democratize access to knowledge and sensitize people to be co-responsible for the promotion of their own health⁽¹⁵⁾.

The participation of school in the biopsychosocial aspects of the child is extremely important. However, one can notice, in this environment, as well as in society as a whole, a behavior that reinforces practices that see medication as the only solution⁽¹⁷⁾. The lack of resources, of time in consultations, of the creation and

maintenance of groups to develop activities that guide popular health education, are factors that prejudice the daily practices of health workers, especially when these actions are not scheduled⁽⁵⁾.

In the family health strategy, it is necessary to create protocols that guide health professionals in regard to the workflow they must follow. The implementation of protocols of attention and of referrals/counter referrals for the field of education and health aims to direct the management of children and adolescents with Attention Deficit Hyperactivity Disorder, to provide them comprehensive continuing care and strengthen intersectoral relations⁽⁵⁾.

We believe that, even during the pandemic, when assistance flows and protocols have been established, workers tend to feel more empowered to perform their role in care, aiming to provide continuing, longitudinal care, and solve the problems in the network⁽⁹⁾.

For the follow up to be safe and effective, primary care must strengthen communication, with continuing education and a culture of safety, teamwork, engagement, where patients are prepared to manage their self-care, with the support of information technologies and medication reconciliation to deal with potential shortcomings, providing safe and efficient care⁽¹⁴⁾. This care must be integrated with other services from the health care network, establishing communication channels between these services⁽¹⁸⁾. This study makes it clear that the attribution of coordinating primary care and its integration with other health care network elements had shortcomings, and mental health is overloaded.

Primary care assistance must give priority to actions aimed at preventing, diagnosing, screening, and monitoring cases, in addition to referrals, rehabilitation, psychosocial support. It must act together with other sectors towards the development of measures for the social protection of more vulnerable groups. However, primary health care must structure, broaden, and strengthen the work conditions of professionals, so they can guarantee integral care to this population⁽¹⁸⁾.

Conclusion

There are gaps in the knowledge about the number of children and adolescents using Ritalin and on their follow up. There are also shortcomings in the knowledge and recognition of the potential adverse effects of this medication. It was made clear that Primary Health Care is not being able to provide the essential attributes of care to these users.

Authors' Contribution

Conception and for the project, data analysis and interpretation: Cheffer MH, Shibukawa BMC, Higarashi IH.

Article writing, relevant critical review of the intellectual content: Cheffer MH, Shibukawa BMC, Higarashi IH, Borges GS, Dietrichkeit ET, Campos TA, Salci MA.

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