



HEALTH SCIENCES

Ages and Stages Questionnaires Brazil in monitoring development in early childhood education

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Abstract: In Brazil, the lack of specific instruments for monitoring child development is a problem given that the number of children at risk of delay is relatively high. Newly adapted to the Brazilian context, the Third Ages and Stages Questionnaires Edition - ASQ-3, has been referenced as an excellent instrument for tracking and monitoring child development. The present study aimed to outline the profile of the global development of children from 5 to 50 months through the ASQ-BR who attended the Municipal Centers of Early Childhood Education, as well as to verify the applicability of this instrument to preschool teachers. To this end, the preschool teachers applied the instrument to 392 children. The girls performed better than the boys in the Fine Motor and Personal-Social domains. The highest scores were obtained in the Gross Motor (79.44%), Communication (72.34%) and Problem-Solving (69.54%) domains and the lowest in the Personal-Social and Fine Motor domains. The two domains with the highest incidence of risk were the Personal-Social (22.08%) and the Fine Motor (19.03%), respectively. It can be concluded that although the ASQ-BR presents itself as a potential instrument in the screening of child development in daycare centers and preschools.

Key words: child development, monitoring, Ages and Stages Questionnaires Brazil (ASQ-BR), early childhood education.

INTRODUCTION

It is in early childhood that the first human experiences, fundamental in the process of construction and functioning of the brain structure throughout life, are concentrated. It is in this period that the connections responsible for the development of motor, cognitive and socio-affective skills are built, therefore any stimulus, or lack of it, is crucial as to whether or not the maximum potential of each child is reached (Young 2010). It can be seen in Figure 1 that a large part of the synapses, responsible for brain development, are formed in the first six years of life and are no longer formed or formed only in small amounts in adulthood.

Early childhood care improves well-being, facilitates later learning, prepares children for entry into school, provides support for families, contributes to reducing poverty and reduces social inequality (UNESCO 2007). Thus, “key interventions early in life are seen to be small investments that yield high returns in physical, mental, and economic well-being during the life of the child and adult” (Banco Mundial 2002, p. 7). However, such interventions depend on a solid information base that can guide decision-making, as well as assessing their impact over time (Filgueiras & Landeira-Fernandez 2014).

The collection “Early Childhood: Advances in the Legal Framework for Early Childhood”, gives visibility to numerous pertinent themes

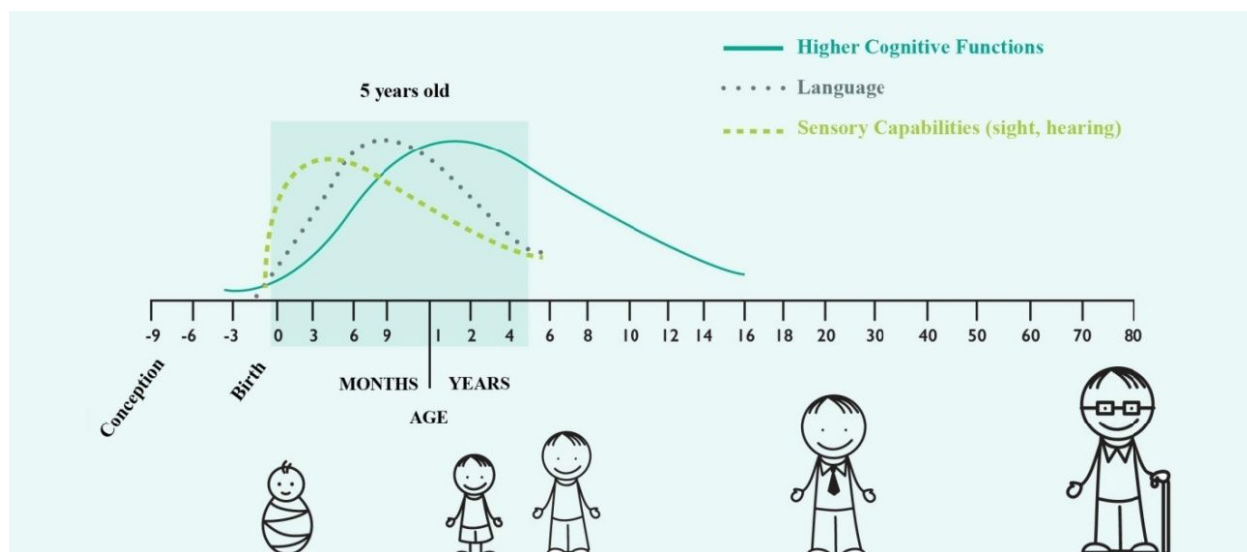


Figure 1. Formation of new synapses.

-- among them, child development monitoring
 -- by bringing together different articles on fundamentals, policies and good practices in support of this category. The authors emphasize the importance of basing public policy on empirical evidence as both quantitative and qualitative indicators can identify not only the challenges, but, above all, the possibilities. It is in this sense that the Legal Framework for Early Childhood advances by establishing in its Art. 11 that “public policy will necessarily have components for monitoring and systematic data collection, periodic evaluation of the elements that constitute the provision of services to children and dissemination of their results” (emphasis added).

The lack of specific measuring instruments developed and validated in Brazil, as well as the lack of studies aimed at validating international scales for the Brazilian population, is a problem (Vieira et al. 2009, Madaschi & Paula 2011, Rodrigues 2012, Zeppone et al. 2012, De Almeida et al. 2016). Child neuropsychomotor development screening studies conducted in Brazil have revealed high rates of children with suspected delay or delay and the accumulation

of risk factors. Moreover, the lack of knowledge of their impact on the development of each child has contributed to late diagnoses, hindering not only early intervention actions, but, above all, preventive measures being taken, making the use of child development monitoring instruments of paramount importance in most different contexts, especially those in which children are most present (Lima et al. 2016).

Nurseries and pre-schools are development contexts with unique potential, as they periodically bring together and keep track of many children. These institutions are responsible for promoting “the integral development of children under 5 (five) years of age in their physical, psychological, intellectual and social aspects, complementing the actions of the family and community” (Brasil 2013).

In 1984, the need to monitor child development led the Ministry of Health to release Child’s Health Card (CC) and, later, in 2005, the Child Health Record (CHR), an expanded version of the first. However, these instruments have helped little in monitoring and engaging in a dialogue between services and families as the information contained therein is often incorrect

and/or incomplete (De Almeida et al. 2016). The only systematic monitoring instrument in Brazil to raise indicators about large-scale child development has been shown to be inefficient, which maintains the discussion on the agenda on how to assess child development through a sufficiently comprehensive, fast, easy to apply, economical instrument and applicable instrument in natural contexts (Zeppone et al. 2012).

In the literature, there are a reasonable number of instruments aimed at assessing development in early childhood, but all of them have advantages and limitations that should be considered according to the objectives and the population studied (Vieira et al. 2009, Madaschi & Paula 2011, Rodrigues 2012). The limitations are associated with the age range understood, with the areas of development considered and, in most cases, with the context of application. It should also be noted that none of them, except for ASQ-BR, are applicable in the context of early childhood education.

Developed by Squires et al. (2009), the ASQ Third Edition (ASQ-3) is an instrument for screening and monitoring child development aimed at parents and primary caregivers of children from 1 to 66 months of age. It consists of 21 questionnaires, each with 30 items divided into five development areas (Communication, Gross Motor, Fine Motor, Problem-Solving and Personal-Social), totaling 630 questions, plus an additional information field, in which additional concerns may be expressed.

In Brazil, the systematic study of the instrument began in 2010, using translation and cross-cultural adaptation, envisioning the possibilities of its use in the field of early childhood education (Filgueiras et al. 2013). Unlike ASQ-3, ASQ-BR comprises children from 5 to 66 months of age and consists of 19 questionnaires.

In the first studies of translation, adaptation, and readaptation of the instrument for the Brazilian context, it was found that the instrument itself has good psychometric properties, as well as an easy and quick application, and can be used by preschool teachers and by other professionals who deal with children from 5 to 66 months old. However, subsequent studies show that adjustments should nevertheless still be made to adapt this instrument to the context of daycare centers and preschools.

In other studies, the potential of ASQ-BR stands out as an effective instrument for screening and monitoring child development, as well as an information support tool for parents and preschool teachers, which can be considered an empowerment instrument capable of strengthening the family-school bond and providing new perspectives in relation to children and their development (Della Barba & Serrano 2014, Della Barba et al. 2015, 2018, Oliveira 2020).

Thus, the proposed study aimed to outline the profile of the global development of children aged 5 to 66 months who attend Early Childhood Education Centers (CEIs) in a municipality located in the interior of the state of São Paulo. It also aimed to equip professionals linked to CEIs for the application process of the ASQ-BR, analyze the performance of children in the ASQ-BR and verify the applicability of the ASQ-BR in the context of early childhood education by preschool teachers.

MATERIALS AND METHODS

Characterization Study

This study is characterized as cross-sectional, descriptive and exploratory, with a quantitative-qualitative approach.

Participants

Twenty-seven professionals from the 6 existing municipal Child Education Centers participated in this study: 19 teachers, 6 managers, 1 psychologist and 1 representative from the Education and Culture Secretariat (SEEC) of the municipality, as well as 392 children from 5 to 50 months of age attended by the units.

Location

The instrumentalization of the professionals to apply the ASQ-BR was carried out in the SEEC auditorium of a municipality located in the interior of the state of São Paulo, while the questionnaires were conducted on the premises of the 6 existing CEIs, institutions known as daycare centers, dedicated to the care and education of children from 0 to 4 years of age, legally recognized for the first stage of basic education.

Instruments

The central instrument used to profile the global development of the children was the Ages and Stages Questionnaires Brazil (ASQ-BR), a version translated and adapted to the Brazilian context by Filgueiras et al. (2013). This instrument aims to track and monitor the development of children from 5 to 66 months of age, consisting of 19 questionnaires, each with 30 items divided into 5 development domains (Communication, Gross Motor, Fine Motor, Problem-Solving and Personal-Social), as well as a field for additional information in which teachers can express other concerns. For each item, teachers had to mark “yes” to indicate that the child performs a certain activity, “sometimes” to indicate that the child occasionally performs it and “no” for activities not yet performed by the child. Then the answers are converted into points (10, 5, 0), which are totaled by area. If the child’s score is below the cutoff point, a more detailed assessment is

recommended. If it is between the cutoff points, i.e., inside the monitoring zone, monitoring the child jointly with the caregivers is indicated. The ASQ monitoring zone is a space in which children at risk of delay are found, requiring additional activities and monitoring. Moreover, if the score is above the cutoff point, it is understood that the child presents development within what is expected.

Procedures

The present study was submitted to the Human Research Ethics Committee for their consideration, respecting the ethical provisions contained in Resolution 466/12 of the National Health Council.

Participants were selected through pre-established contact with SEEC in the municipality. Considering the units in the municipality, all agreed to participate in the study, including all teachers who work in them. On the other hand, the children were selected after the instrumentalization of the professionals, to whom the digitalized version of the informed consent form for parents and guardians was made available. From the 442 children enrolled in 2017, 392 were authorized to participate in the study; that is, 88.69% of the children enrolled in the city’s CEIs that participated in this study.

Data on children’s performance in ASQ-BR were collected on the premises of the CEIs themselves, by the professionals involved, during normal working hours. The time allocated for conducting the questionnaires was two months and fifteen days and they were returned to the researcher duly completed, in sealed envelopes, and labeled with the name of each unit. The data collection concerning the applicability of the instrument by preschool teachers in the context of daycare centers took place in the SEEC auditorium at the time reserved weekly for continuing education. For this purpose, an

interview was carried out based on a script with five open questions to which the participants answered and debated, among them: “What would you say about the questions, as well as about the activities in the questionnaires? Are they suitable for the context of daycare centers?”, “Taking into account that some classes consist of a relatively high number of children, how did you manage the available time? How did you reconcile the application of the questionnaires to the daycare routine?” and “Could the ASQ-BR be used in the context of daycare centers and preschools?”.

The data obtained from ASQ-BR were analyzed based on the criteria already established by the instrument using descriptive statistics generated by the statistical software R, with the help of a professional with expertise in the statistical area. The statistical analysis was conducted using standard procedures. We presented the mean and standard deviation for the obtained scores and the frequencies of the domains in doughnut charts. In order to compare groups, we considered comparison tests. First, we verified by the Shapiro-Wilk test that the scores do not follow normal distributions and the t-test could not be applied. Therefore, the groups were compared using the Wilcoxon-Mann-Whitney non-parametric test (Ramos et al. 2019), where the decision was made based on the p-values.

The data collected in the interview were analyzed through Bardin's Content Analysis, which, in turn, describe the collected content and the indicators and themes that allow knowledge to be inferred (Bardin 2011).

RESULTS

Profile of the global development of children

Three hundred and ninety-two questionnaires conducted with children from 5 to 50 months of

age who attended 6 CEIs in a city in the interior of the state of São Paulo were used. From the children who participated in the study, 97.96% were born at term, 51.79% are female and are included in questionnaires from 36 to 48 months.

When verifying the frequency of the scores for each domain observed in the instrument, it was noticed that in all cases, the scores tend to appear close to the ideal values; that is, in general, most performed satisfactorily. In addition, in all cases the mean is less than the median, which is less than usual (mean < median < mode), which means that, in general, that 50% of the children have a higher level of performance than the average.

Regarding the performance by domain that is presented in Figure 2, the Gross Motor was the one that presented the most satisfactory results, followed by Communication, Problem-Solving, Fine Motor and Personal-Social, which, in turn, showed more adverse results compared to the others, since almost half of the children who participated in this study are subdivided near or below the cutoff point; that is, almost half of them would need monitoring or a more detailed assessment of this skill.

Moving away from this more general picture, there are some important differences in relation to children's performance according to institution, sex and age group.

The institutions with the highest and lowest performance stand out here. It appears that the children from institution number 4 performed better than the others, especially in the domain of Problem-Solving and Communication, with 97.87% and 91.49% of them, respectively, above the cutoff point, or in other words, with a development within what is expected. The children from institution number 3, on the other hand, underperformed the others, especially in the Personal-Social domain, since 48.84% of them are below the cutoff point, which means that

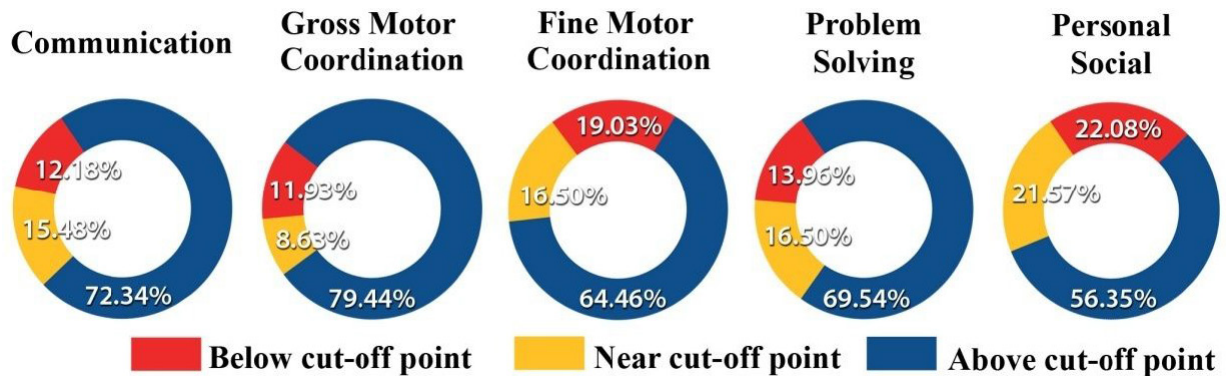


Figure 2. Performance by domain.

almost half of them would need a more detailed assessment about this skill, as well as about the skills related to the Fine Motor and Problem-Solving domains, which also concentrated a significant number of children with below-expected development. This information is important as differences in geographic location, infrastructure, availability of resources, the dynamics of the team, and the relationship between school and families arise in the dialogues and exchanges with the groups of each participating institution in the research, raising questions about the impact of the environment, both physical and social, in promoting child development and the importance of looking not only at the performance itself, but above all at the conditions in which it takes place.

Regarding performance by sex, it is noted in Figure 3 that girls apparently outperformed boys in all domains, especially in the Fine Motor and Personal-Social domains. Concerning the domains of the highest and lowest performance by each sex, it can be seen that both performed best in the Gross Motor domain and performed worst in the Personal-Social domain. The number of boys below the cutoff in the Personal-Social and Fine Motor domain is marked. To confirm whether there is in fact a difference between the performance of boys and girls, the Wilcoxon-Mann-Whitney non-parametric test (Ramos et

al. 2019) was used, using the 0.005 significance level for this. The test revealed that there is no difference between the results obtained by the boys and the results obtained by the girls in the domains Communication, Gross Motor and Problem-Solving. On the other hand, there is a significant difference between the groups in the Fine Motor and Personal-Social domains. In order to verify which of the groups has the best performance, the unilateral (larger) test was applied, which confirmed that the female scores in the Fine Motor and Personal-Social domains were in fact higher than the male scores.

It can be seen in Table I that the averages for the majority were around 40.00, and these averages, depending on the standard deviation of each one, may suggest a closer performance among the children that consisted of the same age group. The same goes for the cases whose average is very low as it can imply a relatively high oscillation among children of the same age with development within, close to or below what is expected. The highest average obtained was 57.50, referring to the Gross Motor domain of the 20-month questionnaire, while the lowest was 13.75, relating to the Personal-Social domain of the 9 month questionnaire.

Regarding performance by age, in the Communication domain, most graphs reflect a development within the expected range of

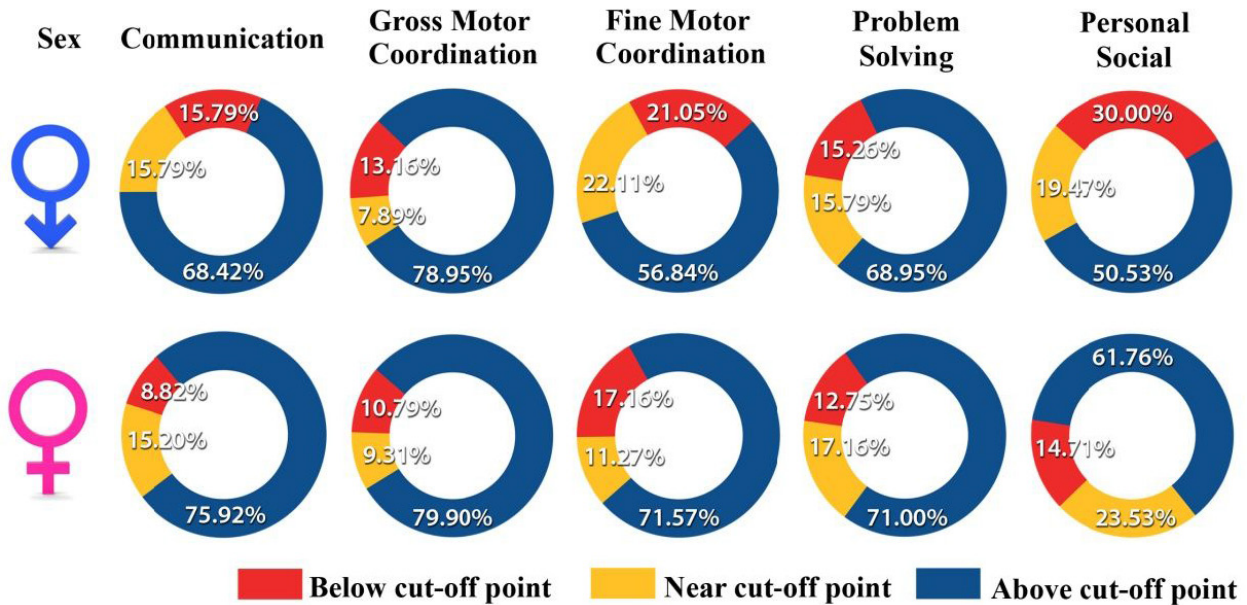


Figure 3. Performance by sex.

more than half of the children, except for the 9- and 10-month questionnaires. In the 9-month period, 50% are above the cut-off point and 50% are close to the cut-off point (that is, within the monitoring zone), therefore requiring monitoring jointly with caregivers. In the 10-month period, the only case in which less than half of the children (37.50%) present a development of this skill within what is expected, more than half is subdivided between the monitoring zone (50%) and a more detailed assessment (12.50%).

In the case of Gross Motor, in most questionnaires, the children’s good performance should be noted, presenting, in this case, a development within the expected. We only pay attention to the questionnaires of 8, 10 and 12 months, since, in both cases, half or more than half of the children are either close to the cutoff point or below the cutoff point, with a development that is less than expected.

Regarding the Problem-Solving domain, attention is paid to questionnaires of 12, 18, 30 and 48 months. In all of them, more than 50% of the children are close to or below the cutoff point. In all cases, the number of children who

are within the monitoring zone prevails. This means that, regardless of this subdivision, in all of these questionnaires less than 50% of the children developed as expected, while the others would either need to be followed up with their caregivers or evaluated in more detail. It should be noted that this was the only domain that resulted in 100% of children with development as expected to be observed in the 10-month questionnaire.

Finally, in the Personal-Social domain, the performance of children within the 9 month questionnaire should be noted. None of them presented a development as expected: 50% are close to the cutoff point (that is, within the monitoring zone), which therefore requires monitoring jointly with the caregivers, while the other 50% are below the cutoff point (that is, already undergoing a more detailed assessment). In the questionnaires of 12, 14, 20, 24, 42 and 48 months, more than 50% of them are subdivided between the monitoring and evaluation zones, predominantly those present in the monitoring zone.

Table I. Mean and standard deviation (deviation in parentheses) of the scores obtained in each domain, divided by questionnaire.

Questionnaire	Communication	Gross Motor	Fine Motor	Problem- solving	Personal-Social
6 months	41.67(07.91)	41.67(14.58)	41.11 (14.31)	50.00(15.21)	44.44(09.50)
8 months	41.11(16.16)	39.44(15.70)	48.89 (14.31)	48.89(19.49)	40.00(17.68)
9 months	38.75(17.02)	42.50(16.58)	48.75 (08.54)	33.75(22.50)	13.75(09.46)
10 months	35.00(11.95)	43.75(13.82)	48.75 (06.41)	55.62(05.63)	46.25(10.61)
12 months	38.08(16.01)	37.69(17.03)	35.00(21.21)	41.15(17.93)	28.85(13.41)
14 months	35.83(15.05)	43.33(18.01)	30.83 (16.76)	38.75(16.67)	28.33(17.36)
16 months	39.55(15.40)	50.91(16.56)	42.73 (17.08)	47.27(14.55)	39.09(19.08)
18 months	30.33(12.17)	50.00(17.83)	48.00 (12.93)	36.33(12.46)	43.33(10.63)
20 months	35.00(15.17)	57.50(04.08)	41.88 (09.11)	42.50(11.11)	40.94(12.00)
22 months	41.92(12.84)	51.54(11.25)	46.54 (13.13)	41.54(10.08)	48.46(13.60)
24 months	45.00(12.93)	51.11(09.44)	45.37(11.43)	39.63(12.93)	41.67(11.01)
27 months	45.91(16.81)	44.55(19.08)	28.86(17.38)	46.82(13.76)	37.95(16.01)
30 months	46.14(13.53)	45.00(17.93)	29.55(20.58)	39.55(18.64)	43.41(12.85)
33 months	52.35(12.14)	49.71(13.08)	32.06(19.19)	49.85(15.83)	43.68(16.20)
36 months	47.07(13.85)	50.87(12.12)	42.17(17.31)	47.93(11.72)	45.54(09.44)
42 months	46.25(11.58)	54.54(08.80)	42.37 (14.08)	44.87(12.14)	40.26(11.46)
48 months	43.16(14.69)	55.53(07.89)	34.04 (16.94)	40.26(12.41)	35.00(17.24)

The 12-month questionnaire results in alarming data in four of the five domains covered by the instrument, suggesting, in this case, that the understood age range (that is, from 11 months and 0 days to 12 months and 30 days), constitutes a period that requires a little more attention.

The applicability of the instrument by education professionals

From the reports of the professionals involved, five prevalent domains could be listed regarding the applicability of the instrument in the context of early childhood education. They are: questions and activities, time of application, expectations and surprises, contributions and challenges and possibilities.

According to the professionals, although some issues and activities are not fully adapted to the reality of early childhood education in the country, most of them are focused on skills understood and developed daily in these spaces and, therefore, could be carried out by making changes.

Regarding the time of application, the professionals paid attention to the fact that the instrument is very flexible and adaptable to the routines of each unit as the skills to be observed can be easily verified in daily activities, such as diaper changing, feeding, bathing and playing. However, strategies had to be defined to optimize the time as in these spaces, the number of children per educator is relatively high.

“Due to the lack of people having the opportunity to handle “serving yourself”, I would try to address the question of “eating without help, without spilling”. So that’s it, as he won’t serve himself, but everyone eats alone, I noticed the balance “if you drop more”, “if you drop less” when he is fed, imagining that it would occupy a bigger place, because the movement will be the same, only the amount will change!”

The professionals revealed both low and high expectations regarding the children’s ability, or lack of it, to present certain skills, and were surprised that some of them were much more capable than they had imagined, and others did not manage even if they appeared to be prepared. Many of them revealed that they had underestimated the children, assuming what they are or are not capable of doing, which leads to them avoiding some activities aimed at stimulating certain skills.

“You look at the child and you say, “this one is not going to do this, she won’t manage” and it was exactly the opposite, you are surprised by the children, you cannot judge before trying, not at all, then you try and you are surprised!”

Regarding the contributions of the instrument, the extent to which it was relevant for the professional to reflect on his/her own practice was evident. The vast majority reported how much the instrument helped in the process of observing child development and in constructing intentionality. Moreover, according to them, the instrument contributed to the particularities of the children being perceived and, therefore, for their individual needs to be met more effectively, since many of them do not manifest collectively or go unnoticed during the school routine.

“It brought us very close to the individuality of each one and allowed us to get to know the very peculiarities of each one better in that way. So it was excellent in that sense!”

“I understood my students a lot better, simply because you... someone who has two classes, it is tricky because you do not stay for long... it’s not intensive that, right. What changed was the way I looked at that situation, so I aimed to take that view, you know... that activity that was being done, when normally I would look only at X, I start looking at it in another way!”

All professionals agreed that, through adaptations, the instrument could be used in the context of early childhood education as a complementary tool to other methods of observation and recording. They also emphasized the importance and potential of day care centers and preschools for monitoring child development due to the time and frequency that these children spend in these spaces.

DISCUSSION

Based on the results presented, it can be observed that most of the children who participated in the study were born at term, are female and are over 3 years old. Although this group was smaller, the existence of children born prematurely in this study required special attention, considering that, without a previous consultation on the mothers’ gestational period and an adequate adjustment of the questionnaires to the children’s ages, misconceptions about the actual performance of each of them could impair the results obtained. The adjustment in this case is only indicated in cases in which the child was born premature and up to 24 months of age, since the instrument assumes that, after 24 months, any delay arising from the prematurity has already been absorbed. Filgueiras et al. (2013) and Della Barba et al. (2015), in turn, chose not to include children with a history of prematurity in their studies, and therefore it is not possible to

compare comparisons with regards to this data. It should be noted, however, that including such children in future studies would be important as they exist and are present in these spaces, thus requiring special attention from those who monitor them daily.

The number of female children is relatively higher both in this study and in the studies by Filgueiras et al. (2013) and Della Barba et al. (2015), reinforcing statistics on the number of men and women in the country, according to which there are more women than men, especially in the southeast region (IBGE 2010). In general, girls performed better than boys in all studies, but only in this study were their scores higher in all domains, including the Gross Motor domain, which, in turn, had been better scored by boys until then (Filgueiras et al. 2013, Della Barba et al. 2015). Other studies, such as de Souza et al. (2008) and Brito et al. (2011), which aimed to investigate the child development of preschoolers, corroborate this difference between boys and girls in neuropsychomotor development. It is assumed, in this case, that the differences found both in the present study and in the others may be related to different expectations and the provision of unequal opportunities according to sex, making it impossible for boys or girls to develop certain skills.

A larger number of children over 3 years of age in these spaces (Della Barba et al. 2015), as well as a concentration of them in the 42-month questionnaire (Filgueiras et al. 2013) are reiterated. Taking into account that pre-school enrollment became mandatory from the age of 4 (Brasil 2013), aiming at universalization in the country, it is expected that the number of children over 3 years in early childhood education is actually higher. According to a survey conducted by IBGE/PNAD, in 2015, 90.5% of Brazilian children aged 4 to 5 years were semi-enrolled in

preschool, while only 30.4% from 0 to 3 years old were attending day care centers. It is noteworthy that, although the questionnaires concerning 2- and 4-month olds do not comprise the Brazilian version of the instrument, due to the insufficient number of children within this age group, at day care centers in Rio de Janeiro to perform statistical inferences (Filgueiras et al. 2013), it would be interesting if they were also available, as in the American version. This is because, according to the professionals who participated in this study, there are a reasonable number of children under 5 months in the day care centers of the municipality and it would be interesting for them to obtain information about their development as well.

The two domains with the highest incidence of delay were the Personal-Social domain and the Fine Motor domain, respectively. In the study conducted by Fioravanti-Bastos et al. (2016), the Fine Motor domain was pointed out by preschool teacher as being of less importance when compared to the other domains that make up the instrument. According to the authors, this could be associated with the fact that, in the opinion of the preschool teacher, the questions do not offer important information about child development or, therefore, are not sufficiently suited to the context of day care centers and preschools in Rio de Janeiro. It is worth noting that there are studies that point to a relationship between fine motor problems and learning difficulties, especially in reading and writing, showing the importance of the development of this ability in a later process of acquiring new skills (Brito et al. 2011).

The existence of a significant number of children that are within the monitoring zone in all studies conducted so far in the country (Filgueiras et al. 2013, Della Barba et al. 2015) gives room for doubt related to the performance of Brazilian children, implying the following

question: would most of our children, in fact, be within the monitoring zone, thus requiring a follow-up with caregivers, or the absence of a normative score of its own could be positively or negatively influencing the results obtained so far? This is undoubtedly an important question to ask, especially considering that the central idea to justify the use of this instrument is precisely to identify and help children who present a risk for developmental delay.

The absence of its own normative score ends up limiting its use in Brazilian research, which certainly prevents important advances for its use in the country.

At the present time, comparisons of children's performance in Brazilian studies are not possible, given that both national and international studies published so far focused mostly on the psychometric qualities of the instrument (Teixeira et al. 2010, Graça et al. 2010, Figueiras et al. 2013, Lopes et al. 2015, Santana et al. 2015, Tavares et al. 2015).

In addition to analyzing the children's performance, the study allowed the impact of using the instrument for preschool teachers in the context of early childhood education to be analyzed, emphasizing the importance of evaluation in these spaces and by these professionals, as well as paying attention to the demand for instruments that allow a more directed look at the individuality of each child. It is also noteworthy how much the use of this instrument reverberated in a reflection on the preschool teachers' own practice and how positive it was for the children, since, when identifying the real needs of each of them, preschool teachers began to develop more intentional activities, envisioning the maximum potential of each one to be reached (Fioravanti-Bastos et al. 2016).

As in the study by Della Barba & Serrano (2014), attention is paid to the potential of

ASQ-BR as an informational support tool. In the case of the present study, the impact of this information on the decision-making of preschool teachers was evident. Preschool teachers, in turn, were surprised at various times by the development of some children who, according to them, did not seem to be able to perform certain activities, when, in fact, not only were they able to do them, but they were also able to perform more complex ones. The opposite also happened; that is, many preschool teachers revealed that they were surprised that some children could not perform simple activities that were expected at their age. This is undoubtedly a matter of concern, since it reveals a scant source of information about the individual development of the children present there, which certainly makes it difficult to identify problems and make decisions.

In this case, it is worth noting the importance of monitoring in the context of early childhood education and the need for systematic instruments capable of periodically providing objective information about the overall development of each child, not replacing other sources, but complementing them to ensure as much information as possible.

CONCLUSIONS

Although more than half of the children presented a development within what was expected, a significant number was located in monitoring zones; that is, many children would be in need of closer follow-up to reach their maximum development potential. The analysis also showed that there were cases of risk that required a more specific evaluation, even if in a smaller amount. This shows the extent to which changes in development are present among

children and the extent to which this requires a differentiated view of each of them.

The importance of critical observation of child development within these environments became evident, above all, by these professionals with whom children live daily, as well as the need for systematic monitoring instruments of easy and fast application.

Because this is an exploratory study, the results achieved set off important triggers regarding the discussion about monitoring child development in early childhood, especially in the contexts in which children are present daily and by professionals who know them in greater depth. Furthermore, these results contribute directly to the studies conducted so far on the ASQ-BR, since they consist of questions already conducted in previous studies. It is important to highlight that the use of ASQ-3 in research ends up being hampered due to the bureaucracy and cost involved, which makes it an unfeasible instrument despite its great potential.

It is understood that the present study has some limitations related to the data collection process, which were obtained within a limited period due to the available time of the participants. However, through careful planning, it was possible to meet the needs and doubts of the professionals involved as the interaction with the educators was constant and the exchanges were important, as well as considering all the proposed questions and listening to all the participants, without harming the quantity and quality of the information obtained.

The studies carried out so far in the ASQ in Brazil have focused on the psychometric qualities of the instrument, which makes the dialogue a little difficult between studies on the adaptation of the instrument to the Brazilian daycare and preschool environment and on the performance of children. It would be interesting that, in future studies, the question of adapting

the instrument in the educational context would be further developed and that its own normative score would be defined.

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