Specialists' Views Concerning the Assessment, Evaluation, and Programming System (AEPS) in Associations for Children with Disabilities in Saudi Arabia

Khiryah S. Munchi and Nizar H. Bagadood

Faculty of Education, Umm Al-Qura University, Makkah, Saudi Arabia

Summary
To support early intervention, it is necessary to develop programming system tools that enable accurate, valid, and reliable assessments and can help achieve reasonable, generalizable, and measurable goals. This study examined the Assessment, Evaluation, and Programming System (AEPS) used by associations of children with disabilities in Saudi Arabia to assess its suitability for children with intellectual disabilities. A group of 16 specialists with different professional backgrounds (including special education, physiotherapy, occupational therapy, speech therapy and psychology) from 11 associations of children with disabilities took part in semi-structured personal interviews. The study concluded that AEPS is generally suited for use with children with intellectual disabilities. However, its suitability depends on the type and severity of the child's disability. The more severe the disability, the less effective the AEPS is likely to be. On the basis of this finding the researchers formed interdisciplinary teams to organise and integrate the children's learning and assess the benefits of AEPS, including its accuracy and ability to achieve adaptive, cognitive, and social targets, enhance family engagement and learning and develop basic development skills. This study also identified obstacles associated with the use of AEPS. These include the lack of comprehensiveness and accuracy of the goal, lack of precision and non-applicability to large movements and the fact that it cannot be used with all children with intellectual disabilities. In addition, the research showed that non-cooperation within the family is a major obstacle to the implementation of the AEPS. The results of this study have several implications.

Keywords: *AEPS, early intervention, intellectual disabilities, special education.*

1. Introduction

The number of children participating in early intervention programmes increases every year, so the implementation of effective integrated programmes is vital. Early intervention is necessary because the early years are viewed as the foundation of future learning skills and experiences (Taylor, 2018). However, the standards and programmes for children in the early intervention phase vary due to the differing needs of children with disabilities. When it comes to designing and implementing educational and training opportunities, it must be taken into account that children with disabilities are unique, physically, mentally, and behaviourally. To master basic skills, they need planned and early childhood intervention actions (Alkhatib & Alhadidi, 2021). Researchers confirm that early intervention programmes are the most effective and that the time from birth to entry into school is a critical period for the child. Therefore, offers for children with special needs are very important; they do not make up for developmental delay and overcome their difficulties without early intervention. Early intervention is one of the developed areas of special needs education. Special needs education can be extended to and is also beneficial to the wider family (Zureikat, 2016).

This is particularly relevant for children with intellectual disabilities as such disabilities are permanent. Early intervention for children with intellectual disabilities is especially important as they develop and learn more slowly than others, in different ways and using different strategies. (Alkhatib & Alhadidi, 2021). Therefore, more than any other group, they need educational, psychological, social, and professional care to reduce or, even, avoid the negative effects of disability. Early intervention helps to reduce material costs, initiate behaviour al change and prevent intellectual and developmental delay in preschool age children (Sulaiman, 2019).

The Assessment, Evaluation, and Programming System (AEPS) is one of the most widely used tools for infants with disabilities. Its third edition was published in 2007 in Spanish, French, Canadian, Korean, Finnish and Chinese (Johnson & Macy, 2019). AEPS is a comprehensive and coherent system that encompasses the components of measurement, assessment, curriculum, and family participation and combines measurement, goal setting, intervention, continuous follow-up, and evaluation for development from birth to six years of age. It is divided

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into two phases: the first phase relates to children from birth to age three and the second phase relates to children from the age of three to six. It covers six developmental areas, namely: fine movement, total movement and adaptive, cognitive, social, and communication development (Macy et al., 2015).

Despite its proven effectiveness in the USA and other countries that have used it, the AEPS is not widely implemented in the Arab world and does not feature as a subject of study in the literature on early intervention in Arab countries. This study addresses this gap by contributing to the enrichment of educational literature and serving as a reference for the AEPS in Arab countries. It will provide a tool for the scientific library that could be used for the benefit of families, educators, and people with specialisations in the area of disability. In addition, it will highlight the benefits and limitations of the use of AEPS in Saudi associations for children with disabilities from the point of view of the specialists working with such children. Several studies involving experts and educators have carried out content analysis studies of APES and other qualitative studies to ensure its validity and highlight its uses from the point of view of specialists. For example, Macy et al. (2015) assessed the effectiveness of AEPS at infant and preschool level, taking into consideration the development of the social and motor-cognitive development of the children and their writing and math abilities. The results focused on the accuracy, clarity, functionality and sequence of the domain elements and the completeness of the domain objectives. The researchers' findings were very much in line with those of a similar study carried out by Alsartawi et al. (2019) who used the experimental method to measure the effectiveness of AEPS in 15 developmentally delayed children aged 16 to 47 months. The aim was to compare the AEPS and the IFSP Family Services Plan in the UAE. The results demonstrated the effectiveness of the programme in developing all six areas of children's development. Johnson and Macy (2019) used a descriptive survey approach to evaluate the reliability of a third version of the AEPS implemented in the US. They surveyed teachers who had followed an online training course and they also observed 23 children, some of whom had disabilities, at home and in the classroom. They found that the changes made to the AEPS had a positive impact on the assessment, intervention planning, and ongoing follow-up of children with disabilities.

These findings were borne out by the results of a study conducted in the UK by Taylor (2018) who examined the potential of early childhood teachers using AEPS. Their study involved 6 teachers who observed a group of 8 children aged one to six years. The results showed that the implementation of AEPS in the classroom by early childhood teachers following training was effective to minimise children's exposure to environmental risk. Similar results were reported by Paillard et al. (2018) who studied early childhood programmes, tools, assessments, and challenges faced by users of early intervention programmes, using a qualitative approach based on grouping conversations through WebEx. The study involved 31 early intervention service providers from the US and other countries. The study confirmed the wide use of several intervention programmes, including the AEPS, by professionals worldwide. The same conclusion was reached by Suhonen et al. (2015) on the use of the social communication aspect of the AEPS and the Play Behaviour Scale for toddlers (Preschool Play Behaviour). Their study involved 89 children with disability aged 59 months and 124 children without disability aged 45 months living in Helsinki, Finland. The study tool was a self-administered questionnaire completed by teachers that aimed to identify the relationship between social communication and play. The results of the study showed that children with severe disabilities suffered from developmental difficulties, requiring special sessions, and integrated care programmes; whereas children with less severe or no disability showed remarkable development. There were no differences between males and females in terms of social communication.

Although previous studies have dealt with the development and investigation of AEPS from several aspects, there are some aspects that have not yet been considered in the literature. The objectives of these studies differed from those of this study; most focus on identifying the advantages and disadvantages of the AEPS. In addition to the previous studies focusing on the children, other studies have examined the education of families and parents. Different studies looked at children with a range of disabilities and were not limited to a specific disability. There is a lack of qualitative studies focused on the implementation of AEPS in Arab countries, particularly studies that evaluate the system from the professionals' point of view. The findings of previous studies based on the reflections of the researchers highlighted the importance of this study. It is the first Arab study to examine the AEPS using a qualitative approach that captures the viewpoints of specialists in the field and highlights the advantages and disadvantages of implementing the AEPS in the context of Saudi Arabia

2. Method

The aim of this research is to examine the effectiveness of the AEPS used by associations of children with disabilities in Saudi Arabia and its suitability for use with children with intellectual disabilities. This study uses qualitative methods to obtain in-depth information on the implementation of AEPS.

Participants were recruited from 11 Saudi Associations for children with disabilities using a purposeful sample strategy comprising specific criteria and conditions (Almahmoudi,

2019) and the snowball sampling method (Alqahtani and Aldhahyan, 2020). The population of the study comprised specialists who use the AEPS, including special education specialists and specialists of other disciplines including special education, physiotherapy, occupational therapy, speech therapy, and psychology, who work with Associations for Children with Disabilities. The specialists had to have a scientific degree (a diploma, Bachelor's or Master's degree) in their specialisation and have experience implementing AEPS with children with intellectual disabilities. 16 professionals met the eligibility criteria for the study. Semi-structured interviews were conducted with the participants. As many interviews as required were carried out until the researchers felt that they had obtained all the required responses and achieved data saturation (Ellis, 2020).

The data analysis phase, which comprises data organisation, classification, interpretation, and elicitation of meaning and connotation, is one of the most important phases of the qualitative approach and depends entirely on the researcher (Alabdulkarim, 2012). The researcher adopted Ary et al.'s (2010) model for this study as it is clear and comprehensive. It comprises three basic phases of data analysis: organisation and familiarity, coding and reduction, and interpretation and representation. It is a method of identifying, analysing, and interpreting patterns of meaning (topics) in qualitative data. This method of data analysis focuses on highlighting the most important and essential elements of the topic (Alabdulkarim, 2012). It is based on coding topics in the data set (Alsaeed, 2020). Coding, the smallest unit of data analysis, generates several basic themes in the form of main topics and several sub-topics (Clarke & Braun, 2017). A huge amount of data was created on the advantages, disadvantages, and obstacles in the implementation of the AEPS.

Ethical considerations were also considered in this study. All the study participants gave their informed consent to participate in the study and the study design was approved by the relevant ethics committee. The participants were assured of the confidentiality of the interviews, their identity and the information they provided. They were also informed that they were free to withdraw from the study at any time. It was confirmed that the participants would not be harmed by the study, or the information received. The interviews were audio recorded for reference purposes and participants were assured that they would be destroyed following the analysis. The participants were also made aware of the possibility of quotations and information gleaned from the interviews being published in scientific journals. The research data were encrypted and transferred to the researcher's computer and password protected. The quality of the study was also considered. Qualitative research aims for reliability and credibility and one of the ways to achieve this is through honesty and trustworthiness (Alzahrani, 2020). This research implemented various methods to achieve reliability represented by the internal validity of the study, including cumulative honesty, communicative honesty, and environmental honesty, in addition to triangulation and pluralism.

3. Findings and Discussion

This study is one of the first studies in the Arab world to deal with the subject of AEPS. To investigate this topic in depth, the researchers focused the data collection on the main advantages and disadvantages, as well as the obstacles that limit its implementation. During the data collection process, the researchers found several main themes related to the application of AEPS. Several issues emerged when analysing the data.

In relation to the role of the family

The first theme emerging from the data concerns the need to involve all family members, not simply the mother, in the child's learning and training the child at home and not relying solely on the specialists' input during the child's official learning hours to obtain a result. This could be one of the biggest drawbacks in implementing the AEPS. In fact, AEPS is characterised by the effective involvement of the family and the requirement of a family report and a family educational plan. Families must be trained in early intervention programmes for people with intellectual disabilities and people with special needs in general. This is supported by the findings of Vilaseca et al. (2020) Acar and Akamoglu, (2014), and Alsartawi, (2019), which indicate that the families' involvement with children with intellectual disabilities is of great benefit.

The goal for families is to involve them in the education programme for their children and have them complete the home programme prepared for the family. The families' cooperation contributes to the success of the child's intervention process, and their lack of cooperation represents an obstacle to the implementation of the AEPS. It is clear, through the analysis of the data, that lack of cooperation by family members is one of the biggest obstacles to the application of the AEPS. One special education specialist (N.S.) explained that (M.R.): "The mother is sometimes the biggest obstacle in the application of the programme. The mother is the cooperating contact. If she does not understand, she does not communicate."

The responses of the participants show that AEPS is characterised by the mechanism to collect data from the family and that it is a comprehensive family-based system. It supports the inclusion and training of the family within the rehabilitation programme for children with intellectual disabilities. It also includes the family educational plan for the family for home training. The family report is the task

set by psychologists for the family through which data is collected. The first step in the application of the AEPS is to collect data from the family. One special education specialist (N.S) explained that: "A mother explores the capabilities of her child. Although I am the psychologist … the family is 100% for the mother … I am the family specialist. It is a benefit to me that I see how the mother sees her child, and this is really number one for me that the family is involved in the matter."

The family report that requires the family's participation from the beginning of the child's early intervention process distinguishes the AEPS from other early intervention programmes. The family is considered to be a basis for implementing the programme and the whole family must participate in the training, as discussed below. The success of the child's training in AEPS relies on the family carrying out home training to meet the child's goals and the participation of the family members is an integral part of the child's daily routine. Another special education specialist (T.S.) alluded to the importance of the family's participation in AEPS and their being an integral part of the rehabilitation and intervention process for the child, so the family members must be trained to meet the goals of home training and commit to them. He stated: "Most of the goals that we can achieve with the whole family, the mother, the parents, or the brothers."

The physiotherapist (H.T.) also emphasised that the family is the basis of the AEPS, stating: "This is the best thing about AEPS. Parental involvement is really making parents better understand the abilities and skills of their children in AEPS and understand the goal that must be to train the child."

The first phase of the AEPS starts with collecting data through the family report. The intervention phase requires the family members to be aware of the goals of the training and the aim of their involvement in the training. This stage is followed by another very important stage, which is the cooperation of families with specialists in implementing the system. To complete the home training, one special education specialist (M.A) states, "It is true that there is a great deal of cooperation, that is, even the mothers, some of them are looking and photographing for us how their children are learning from the surrounding environment. Sometimes the mother does not understand. She tells me how to study for my son."

Remote training, especially during the Covid-19 pandemic, was an alternative solution to in-person training. Remote training relies heavily on the mother and her effective participation in the training process, creating and preparing all conditions and means to reach the desired results of distance education. One special education specialist (T.S.) stated: "The results are wonderful, there is no big obstacle, because if the mother faces difficulty in implementing the goal with the child, the training is very cool … excellent when I set the appropriate goals for the child."

Another participant strongly agreed that, among the advantages of the AEPS, is the ease of its application, the availability of its means, and the possibility of relying on the mother for remote training. Some of the children under observation made progress and others did not respond to the training due to the mother's lack of cooperation. Also, one of the disadvantages of applying the AEPS remotely is the inability to address all objectives remotely as some require the presence of the child with the specialist. In this regard, the speech and language pathologist (M.S.) said: "With limited selection of goals, you can implement them successfully and effectively … but at the same time you will have to choose goals that are doable online and postpone the goals that require the child to be with you directly."

From the foregoing, we conclude that one of the advantages of the programme is the possibility to successfully carry out remote training to reach some objectives with the cooperation and guidance of the mother. Some goals cannot be achieved remotely as the child must be present with the relevant specialist.

In relation to children with intellectual disabilities

This section will discuss a consistent theme which emerged from the data with relation to the AEPS system and children with intellectual disabilities. The evaluation process is essential and is the first step in working with the child. Therefore, completing the qualification process is considered to be one of the fundamentals of AEPS. This result supports the conclusions of previous research by Ogrady and Dusing (2014) and Suhonen et al. (2015).

Regarding this point, a special education specialist (T.S.) said: "In the evaluation, it is accurate in terms of the child's freedom to play and easy for him. I mean, I can evaluate it through playing by asking the mother also whether the child who settles it at home is easy to evaluate other than other programmes. "This view was supported by another special education specialist (M.R) on the discussion about the assessment and its method, who stated that: "We first assess the child's skills, which he has mastered, and the skills he has not mastered. The skill that he has not mastered, of course, every skill he has achieved or what he has achieved is very detailed, meaning from the first thing to the last thing for the child."

One of the advantages of the system is the evaluation of the child by observation through play. One of the advantages of the programme is that it establishes the child's skills at the evaluation stage in preparation for the development of the plan and the goal setting and to determine the child's strengths and weaknesses. One of the specialists referred to this aspect as a disadvantage, remembering the work that needed to be done at the beginning of the application of the programme which took

a great deal of time. As the specialist (M.R) stated in this regard: "Of course, this means that it is frankly tiring. It … means we can sit for a month." The advantages of the system are the accuracy of the assessment and the preparation of all that is necessary to train the child in all areas. Its disadvantages include the time spent by specialists to prepare the models.

Undoubtedly, the needs of children with disabilities differ from one child to another and within the umbrella of intellectual disability there are many different cases. So, there were some areas of disagreement among the participants regarding the compatibility of skills with the individual cases, and obstacles where children had physical disability. All the participating specialists confirmed the appropriateness of the programme for children with intellectual disabilities. Opinions differed about grouping intellectual disability with another disability according to the type and severity of the disability. One of specialists (N.S.) said: "For those with intellectual disabilities it is suitable, but for those with other disabilities, its suitability depends on the type of disability."

Another specialist (T.S.) confirmed this, stating: "It is very suitable for children with intellectual disabilities, in that the skills in AEPS and how we train them attract them … so they learn the skill smoothly. The programme is excellent and suitable for children with intellectual disabilities, and its application is very easy and fun. But in some cases, such as severe disability or multiple disabilities, such as an intellectual disability with a motor disability or an intellectual disability with a visual disability … here we must take some goals or delete some of the curriculum from the AEPS, as it is suitable for children with intellectual disabilities only."

Supporting the above statement, is the opinion of specialists in physical and occupational therapists with regard to intellectual disability. The physiotherapist (H.T.) states: "We cannot apply it to children with severe physical disabilities. This tool is not suitable for children with physical disabilities, and it is more suitable for children with mild to moderate intellectual disabilities." The occupational therapist (L.C.) agrees saying: "For severe physical disabilities, for example, joint conditions or children with severe spasticity and quadriplegia, it is impossible to complete the goals." From the point of view of the speech-language pathologist (M.S.): "It is very suitable for children who have an intellectual disability, the severity of the disability, of course, affects it."

Overall, strong evidence emerged from the interviews that the AEPS is appropriate for children with intellectual disabilities. In the case of accompanying disabilities, its suitability depends on the type and severity of the child's disability. All the participants agreed that the nature or severity of the disability is one of the biggest obstacles in implementing the programme, making it inappropriate in some cases and impossible to implement in others.

In relation to the multidisciplinary team approach

Among the topics that emerged from the data analysis was the importance of having a multidisciplinary team implement the AEPS. Several data of great importance emerged from this topic for the AEPS application. The presence and cooperation of a multidisciplinary team in all the phases of the system is a characteristic feature of the AEPS. It also emerged how important it was for the members of the team to work together to choose goals in the areas that coincided with one another so that the whole team would be working on the child from all areas to get better and more accurate results. This finding is consistent with that of previous studies (Oliveira et al., 2018; Abdulkarim et al., 2019).

The responses of the participants highlighted the fact that the presence of a multidisciplinary team is considered to be one of the advantages of the AEPS. The specialist (T.S.) stated: "AEPS provides a multidisciplinary team to work on the programme and this is the best thing in establishing the child's needs and developing skills that suit his needs."

It was suggested that among the obstacles to the application of the system is the lack of multidisciplinary team collaboration and the burdens that fall on some specialists. One of the specialists (T.S.) illustrated this as follows: "The best is that everyone in the multidisciplinary team specialists is available. I mean, I will not be as effective as when the physiotherapist evaluates in the field of large movements, I will not, I mean, evaluate accurately and clearly, such as an occupational therapist in the field of movement or a speech-language pathologist in the field of social communication. Multidisciplinary child assessment team working on the programme should always be together." Even if attention is paid to preparing the special education specialist with courses during studies on other disciplines, it must be considered that specialist is unable to train in fields that require deep prior academic preparation and qualification, such as the field of physical therapy, occupational, speech, and communication therapy. The special education specialist cannot reach the level of the specialist in the field, such as occupational therapy, physical therapy, speech, and communication therapy, simply by following some training courses. This is considered as one of the obstacles to the application of the programme, as specialised therapists are not always available in all fields. The programme requires a multidisciplinary team with academic preparation in each field. It is clear from the above that all the specialists agree on the importance of having a multidisciplinary team and this is one of the fundamental reasons for the success of the AEPS. The lack of a full collaboration team leads to obstacles in the implementation and the achievement of the goals set for the children, as well as to the work of the specialist in the field due to preoccupation with other fields. Therefore, all team

members must be available for the six developmental areas with the appropriate scientific specialisation in any setting that applies to the AEPS.

One of the very important matters that emerged during the analysis of the data that emerged from the above and that characterises the AEPS is the method of work among the specialists in the six developmental fields to reach common goals between the fields. There are generally converging goals between the fields with the aim of achieving more accurate and precise results. In this regard, the special education specialist (T.S.) stated: "The same goal is set for me as a speech-language pathologist in the social field and the occupational therapist. We integrate some goals that achieve the same goals that we want from the child." In a similar vein, the psychologist (A.A) added: "Because of the advantages of the goals of the work team, there is a link between the goals. You work in integration with the case. You do not work on one side. You work on several aspects. This is an important point. The second is for the movement … it is all services in the same place with a work team."

One of the advantages of the AEPS is the establishment of a unified system and provision of all rehabilitation services in the six areas of development. There is an integrated team at the centre to oversee the special regulations and models attached to the AEPS. The special education specialist (S.J) supports this system: "The whole team has a unified opinion. The child works with him with one goal only. Physiotherapy will have the same cognitive goal, the same goal of adaptation. The various fields all have one goal, so the child's focus is on one thing." Speaking about the common goals between the fields, she added: "The converging goals are the common goals between me and the team. This goal may be shared with two or more fields, it may be with one field only, and it is possible with the whole team members."

From the above, we find that AEPS is distinguished by the work of the team in all aspects with the child at any one time and the selection of common goals between areas to work on as a whole team. Choosing convergent goals is a prerequisite for the success of the rehabilitation process for the child in AEPS. And all the members of the team are aware of the objectives of the six developmental domains that pertain to the child, so everyone trains the child in the same direction by choosing the objectives of the common domains.

Evidence shows that the aims of the AEPS system are not achieved without the cooperation of the members of the multidisciplinary team. The foundation and pillar of the AEPS is the cooperation of the members of the multidisciplinary team and the lack of performance or lack of cooperation among specialists leads to a defect in the system and impacts the output. About this topic, the special education specialist (T.S.) stated: "The cooperation of the work multidisciplinary team is a basic rule in implementing the AEPS programme and achieving its goals. The cooperation of the members of the multidisciplinary team is very important and is essential to the AEPS programme." This view was echoed by another special education specialist (K.H), who commented: "The work team is cooperative, and this basic pillar is the cooperative work team. The more cooperative the work team is, the more successful the AEPS process with the child is, an integrated system that calls for cooperation within the work team." In the same context, the special education specialist (S.J) stated: "One of the negative aspects of AEPS that we can face is when the work team is not cooperative. Some individuals may be a little inflexible. It is not one of the main downsides of the system, but it can cause an impediment to work."

This analysis suggests that ease of communication between specialists and their cooperation raises the quality of the rehabilitation process for the child and this is one of the advantages of the AEPS, as is the standardisation of the work system at the centre by applying a unified programme with an organised mechanism for all the work team members. Among the obstacles to implementing the programme is the lack of cooperation between specialists in training the child and choosing goals and lack of cooperation that would hinder the proper functioning of the work mechanism.

In relation to its features and application

The data analysis led to the emergence of the final significant issue identified from the responses. The AEPS focuses on preparing the child, starting with the relationship between the goals and the daily life of the child to ensure that the training programme is feasible. The studies included in the literature focus on the accuracy and comprehensiveness of the AEPS. Tylor (2018), Johnson and Macy (2019) and Lemire et al. (2015) highlight the system's flexibility and ease of application and the programme provides a detailed explanation of how to implement the tasks and provides the necessary tools to reach the objectives.

The responses of participants indicate that, among the advantages of the AEPS is its flexibility, the range of goals and skills in proportion to the child's disability status and diagnosis, and the freedom to choose goals according to age groups and adapt them according to the needs of the child. So, we move from the flexibility of the goals and their ease of application to the accuracy of the goals and their importance for the child. Speaking about the accuracy of the goals, one of the special education specialists (M.R) said: "The skill is separated by detail for you, meaning it gives you a detailed skill. He knows it and the one who does not know it, each skill under it falls under four items, and each item is such a thing in each goal that gives you the goal that is smaller than it, so that is its most accurate features,

accurate in goals, let us put our hands on the failure of the child and end it."

On a similar note, one of the speech and language pathologists (M.S.) stated: "It is very good in the AEPS … you choose even the goals … you start with the goals that you score one and you postpone the goals that are scored zero. You start with the goals that the child has a willingness to reach. The order of skills is that it is from the easiest to the most difficult, a long-term goal, a short-term goal, and the daily goal that you are working on."

The AEPS is not limited to general goals, but is divided into special goals for the student's individual educational plan. Its early intervention is accurate in its goals, in its coherent design as it connects all parts to one another. It enables the child to master successive skills, from the easiest to the most difficult. This is one of the programme's advantages.

One of the shortcomings of the AEPS programme is lack of comprehensiveness of the goals. The special education specialist (T.S.) states: "We apply the AEPS programme in the centre as a basic programme. But we need sometimes to add skills from other programmes such as Bavaria, especially if the child has a multiple disability, not just an intellectual disability." Likewise, another special education specialist (A.Z.), discussing the AEPS programme's shortcomings, said: "In general, lacking these simple things in the inputs in order to be complete, such as lack of cognitive skills and the inclusion of the skills of recognising animals, body parts, and fruits." Another respondent (H.S.) referred to the fact that the AEPS programme does not incorporate written skills, adding that "there are clear shortcomings in writing skills, whether for children from zero to three and from three to six, where the objectives were stated."

The physiotherapists therapist (H.T.) said: "It gave me the goals and I use them as a checklist only. I take the main goals from it. We use it more precisely and in more detail from a medical point of view. We have models to evaluate on, and the AEPS programme was additional to them, but I relied on it only. The evaluation is not because it is not accurate in my medical or functional field." Another occupational therapist (L.C.) agrees that the AEPS programme has this limitation, stating: "It does not include the elements of occupational therapy."

It appears, therefore, that the programme focuses on the cognitive aspect and its continuous development, but needs to be improved to encompass large and small movements to enable the specialists to use previously approved standards and not rely on other standards or exclude these aspects when planning the training programme for children.

In terms of shortcomings in the field of social communication, (M.S.) stated: "The pronunciation is never focused on." It is evident that the translation function does not work sufficiently well and that English and Arabic are not compatible in aspects relating to the formation of language. The programme currently lacks aspects relating to the Arabic language.

Each field comprises a comprehensive set of basic skills and the specialist has to choose goals that match the child's skill ability according to the child's disability. According to the data gathered from the interviews there are some shortcomings in the goals relating to large and precise movements; there are only basic goals relating to these areas and the sub-goals their lack comprehensiveness. Therefore, specialists rely on previously used standards or exclude these areas in the AEPS.

A special education teacher (M.R.) explained: "Sometimes it takes a longer age range. I have done everything for him. What can I do to take some of the skills from three to six and of course we have a few. I move from one goal to another according to the child's progress, but there are skills I do not move away from. You see basic skills. You think of basic skills. I can't achieve a goal if I haven't achieved it before". (S.G.) stated: "But flexibility is also a feature of AEPS and it was the readjustment of goal or ability for each child that helped this cause a lot." And the speech therapist (M.S.) adds: "Anyone who comes to you as a child with a mental disability expects you to work on it. They work on skills and language in this way".

The psychologist's opinion differed from that of the psychiatrists when she (N.S.) stated: "The second thing is, if you are supposed to have the family records of children aged 0-3 and 3-6, then the teacher should provide them. Start with this chronological age and … cognitive delay, for example. The child's chronological age is 4 but the child's realisation is still 2 … this means the child will miss the targets set for 3- to 6-year olds. That's the only realisation we have, that we don't stand a chance. The standardisation of the application mechanism leads to a lack of outputs and results from AEPS. Therefore, the desired results for children vary." The difference in the application of AEPS between the centres and the ambiguity of some points in the application is due to the more recent application of the AEPS. Benefits of the programme include its flexibility in the application and selection of goals and skills related to the child's disability status and diagnosis, and the freedom to choose goals between age groups. and customise and adapt the goals to the needs of the children. The reason for the disagreement lies in the different application mechanisms between the centres and the ambiguity in some points in the application method of the AEPS due to the novelty of the application.

We now move from the flexibility of the goals and the ease of their application to the specificity of the goals and their importance to the child. Talking about accuracy, the special education specialist (M.R.) said: "The most accurate skill. The skill is broken down in detail for you, which means you get a detailed skill. Each skill has a level. Each skill has a more accurate number when assessing the child's

skill. The one who knows and the one who doesn't know fall under four points and each point is something in each target that allows you to aim smaller. So, it's best to move with precision, aim with precision."

Regarding the area of social communication, the speech and language pathologist (M.S.) stated: "Regarding the accuracy of the goals. … you choose yourself the goals you aim for, you start with the goals you score and you move the goals whose score is zero. You start with the goals that the child has. He is ready for his production. The order of skills is from easiest to most difficult. A long-term goal, a short-term goal, and the daily goal you're working towards."

On the basis of this data regarding the AEPS and the emergence of some results in children, after having gained a deeper and broader understanding of the system through research and observation, we conclude that the system is relevant and not limited to general goals. The programme can work on specific goals that are clearly identified in the child's individual intervention plan that aim to progressively increase the child's abilities. The programme focuses on achieving sequential goals, from the easiest to the most difficult, and this contributes to its effectiveness.

With regard to the goals set for the child, the special educator (T.S.) stated that: "We use as a basic programme in the centre the AEPS programme. We also add … competencies of the Bavaria curriculum, especially if it is a multiple disability, not just an intellectual disability." And the special educator (A.Z.) also stated: "The inclusion of the goals and their shortcomings, in general it is comprehensive for you, minus these simple things in the inputs that he wants to complete. The targets and their lack of cognitive abilities." The interviewee mentioned that the programme does not include writing skills. The physical and occupational therapist (H.T.) said: "He gave me the goals and I just use them as a checklist. I take over the main goals from him. We use it more accurately and in detail from a medical point of view. We have to evaluate models and the AEPS came, but I just went along with it. The assessment does not take place because it is in my area of expertise, e.g. medical or functional."

4. Conclusion

This study captured 16 specialists' views on using AEPS in Associations for Children with Disabilities, in 11 centres of expertise in Saudi Arabia. The results demonstrated the suitability and effectiveness of the AEPS for children with intellectual disabilities and those with multiple disabilities. The suitability of the programme was found to depend on the severity and degree of the child's disability. The study explored the AEPS approach for children with disabilities and identified the main advantages and disadvantages of implementing the AEPS.

The results highlighted many advantages and benefits of the AEPS, specifically the establishment of basic developmental competencies in the child, the programme's rigour, the breaking down of goals into sub-goals, the order of goals from easy to difficult, the multispectral involvement of specialists, the programme's flexibility and adaptability to the abilities of the child and the freedom to choose child-friendly goals. The professional helps to choose appropriate goals for the child, shows the child the achievement of the goals, clarifies the deficits overcome by the child and works in a multidisciplinary team on interdisciplinary goals to shape the work of the work teams. One of the strengths of the programme is that it involves the family from the outset in the training through child observation and playful comprehension. Some participants differed in the application of the programme, leading to different expected results. This is due to the novelty of the application.

The results also highlighted the main disadvantages of and obstacles to the system, including the lack of availability of a multidisciplinary team, possible lack of collaboration among the members of the team on the intervention plan, non-cooperative families that impede the intervention, and inadequacies of some of the goals (e.g., no sub-goals included in the large and small movements field). The severity of the child's disability may also make it difficult to use the AEPS and some practitioners add external goals to tailor the programme to children with severe or multiple disabilities and reduced mobility. Also getting started with the systems is labour intensive as there are multiple models for children, families, individual curricula and credentials.

Below is a simplified representation of the results pertaining to each of the specialisation fields. The data gathered from the special education teachers focused on the advantages of the AEPS. The advantages mentioned included that the system offers an accurate evaluation of the six developmental competencies of the child and facilitates teamwork. The presence of a multidisciplinary team and collaboration between the different specialisations is one of the foundations of the AEPS. Another advantage is that it facilitates the identification of common goals between areas. It also expects the family members to work together to achieve goals for the whole family. During training, the system focuses on activating the individual training plan through individual and group sessions, which complement each other.

The most noticeable disadvantages and barriers of the AEPS include the unavailability of a multidisciplinary team with academic specialisation in one or more areas and trying to implement the programme with non-cooperative families who do not attend specialised training. It also does not include written goals regarding the founding team and its role in work organisation and effective family participation

and collaboration. Another disadvantage is that it focuses on developing the child's cognitive abilities.

The data obtained from the physiotherapists and occupational therapists shows that this group of practitioners valued the integration of the intervention process by a multidisciplinary team and the possibility of using the programme as a reference point for physiotherapy due to its natural gradation of the main competencies and the order of the objectives, their arrangement, clarity and delineation of the bases of the main objectives of occupational therapy. It contains the exact segmentation of the jobs and serves as a job list in addition to the detailed segmentation of the targets. The comments relating to the large and small motion segments indicated that it was not possible to apply these practices to children with severe and multiple mental disabilities and the practitioners had to rely on other standards and programmes.

The data gathered from the language and communication specialists showed that these practitioners valued the programme's ability to tailor the interventions to children with intellectual disabilities or with intellectual and motor disabilities, taking into account individual differences, organising goals from easy to difficult and setting short-term goals in the individual educational plan. They value the programme's comprehensiveness, accuracy, clarity of goals and attention to linguistic details. One of the negative aspects of the system is that the programme needs to be adapted to the Arabic language which differs from English. It is also unsuitable for use with non-verbal children and children with severe disabilities.

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Khiryah Munchi received the B.E. and M.E. degrees, in Special Education- Intellectual Disability from the Department of Special Education, Faculty of Education, Umm Al-Qura University, Saudi Arabia. Her research interest includes early intervention strategies; educational programmes relate to the educational experiences of children with intellectual disabilities.

Nizar Bagadood obtained his BA in Special Education-Intellectual Disability from the Department of Special Education, Faculty of Education, King Abdul-Aziz University, Saudi Arabia. He joined the Graduate School of Education, Bristol University, UK, and received his MEd & MPhil/Ph.D. in the field of Special and Inclusive Education. His specific interests relate to the educational experiences of students with intellectual disabilities and the role of special education provision in supporting them. Nizar continues to work closely with schools and teachers and is committed to the principles of inclusion, social justice and participation in every aspect of the work, including designing research that is meaningful and important to the people he works with.