ANIMALS AND NATURE -A VALUABLE RESOURCE FOR **CHILDREN AT THE HOSPITAL**

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hildren suffering from illnesses that might prohibit them from connecting to animals and nature, are offered equivalent digital experiences with the help of staff from Nordens Ark zoo. This is a three-year project with the aim of giving children at two hospitals in Sweden experiences connected to animals and nature, even though they are unable to visit the zoo.

There is research indicating that seeing or being in nature can have a pain-relieving effect on humans¹. The natural environment and animals have been used in therapy for depression, and to increase well-being in different situations^{1,2}. Over some years, we at Nordens Ark ran caretaker courses for those caring for people with disabilities. The aim was to encourage the caretakers to increase the number of activities spent in nature and with animals. This research was evaluated and published3. One of the main results from the study was that it revealed a more conscious exploring and sensory experience whilst spending time in the natural environment. Following these positive experiences, we wanted to expand our efforts to include children who for various reasons are hospitalised and have difficulties spending time in nature or with animals.

In this project, funded by the Swedish Inheritance Fund, we collaborate with two hospitals and their play therapies to meet children both at the hospital but also virtually. Play therapy is available for children and young people, up to the age of eighteen, who are in contact with the hospitals. They are characterised by rooms where children and families can play, process and prepare

for upcoming medical examinations or treatments together with professional play therapists. Children who are unable to visit these rooms are visited by play therapists in their hospital department or care room. The play therapists focus on the healthy part of the children and young people by offering adapted play and meaningful activities. In this context, Nordens Ark contributes with experiences and knowledge about animals and nature.

During the first year we developed an interactive web application together with consultants to inspire and educate children about some of the species that we work with at Nordens Ark. In our efforts for the children to meet different types of species we have chosen one mammal, one bird and one amphibian where we are engaged in both ex situ and in situ conservation. Our aim is to raise more funding to increase the number of species in the web application.

Three different film series have been produced together with a professional filmmaker. The first series consists of short films with facts about animals. In the second series, one of our educators meets zookeepers and experts working with the animals in our zoo, and in the third series a 13-year-old boy helps the keepers to take care of different animals at the zoo. These films are available for the children on tablets that the project has funded and are kept by the staff at the play therapies. The most popular film series is the one in which the 13-year-old boy helps the keepers. It is apparent that it is more engaging for children to watch someone of an equal age.

We also started to visit the hospitals and meet children individually once a week. During these visits we bring a virtual reality (VR) headset and invite children to experience the enclosure of our red pandas by using VR-technique. One of the goals for our second year of the project is to produce more films that can be experienced through VR. It is evident from our conversations with the children that seeing the enclosures with VR "is almost like being there". At one of their play therapies, the children's treatment schedules are adjusted to allow them to meet with the educator from Nordens Arks, where they have the opportunity of meeting our educator individually. Our experience so far is that many children appreciate the visits from us.

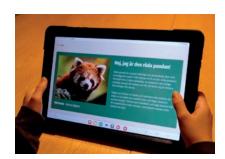
One of the goals we wish to achieve during year two and three is to have digital guided tours with a GoPro camera for the children who are unable to visit the park due to their health restrictions. During these tours the children can ask the guide questions and request what they would like to see. Not everything in the project is digital. We have bought a lot of books about animals and nature that are placed at the hospitals and are suitable for children of different ages. Also, board games and hobby equipment connected to animals and nature are provided. The educator brings

different items from the zoo at every visit, such as feathers from birds at the park, skulls and horns, soft toys and equipment to follow animals that are released in the wild.

For children who are well enough to visit Nordens Ark at the end of the project period, we will plan individual visits tailored to each child. During these visits the children's parents and siblings will be invited and our hope is to give them an incredible day with many happy memories to share. We believe this will be beneficial for the children as well as their families. It gives the child something to look forward to during their treatment and is also a shared experience for siblings and parents.

To relate our experiences with personnel from other hospitals, we plan to organise a workshop at the end of the project. The workshop will preferably take place at Nordens Ark during the third year of the project, or at a national conference for persons working with children in play therapies all over Sweden.

We encourage other zoos to engage in out-reach activities for people who have limited access to zoos or nature. These activities can increase quality of life and fulfil dreams for people.



Interactive webpage with information about the red panda © Nordens Ark



Nordens Ark educator and one of the play therapists together with one of the children visiting the play therapy © Nordens Ark



Virtual reality experience where the tablet shows what the child with the VR-headset is experiencing © Nordens Ark

References

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