# METHOD OF EDUCATING CHILDREN ON MEDICAL PROCEDURES

## 1. Field of Invention

The present invention is related to a method for educating children, such as young patients, on the various medical procedures that he/she or someone close him/her may have to undergo as part of their medical treatment or as part of general education. Primarily, it can assist in breaking down the communication barrier between the child and his/her guardian and/or medical practitioners. In addition, it may also be used by the general schools to engage their students on medical-related topics.

## 2. Background

Children, especially young patients, are often affected by a sense of immanent justice, which is a sense of self-reproach that their falling ill is a form of punishment for their misdeeds. Such unhealthy mindsets and the resulting stress could potentially cause young patients to reject medical treatment as a form of rebellion. Medical practitioners have highlighted the importance of preparing children psychologically for the impending treatment.

Traditionally, this problem is resolved by hiring play specialists, who utilizes toys to explain these medical procedures to them. The problem is also sought to be resolved by having volunteers bring cheer to these young patients by engaging them in games. However, these traditional methods are either expensive or are temporary fixes to the problem. The present method, on the other hand, would allow the play specialists, nurses and doctors to better communicate the medical procedures to the children at a lower cost. Furthermore, such a method would be more appealing to the child, as it utilizes a soft toy in the shape of a rabbit to engage the child on an aesthetic front, allowing the child to overcome his/her psychological barrier in relation to medical procedures.

A child is also often confused when placed in a situation wherein someone close to him/her is now lying in a hospital bed and has tubes extending out of his/her body. The present method would allow parents/guardians/medical practitioners to engage the child and effectively communicate to him/her in their discussion on the present scenario and draw the child into discussing his/her fears.

The prior art in this field indicates that there is a strong desire to better engage the child in explaining the procedures that they or someone close to them are going to be subjected to. It should also be noted that huge amount of research and thought has been spent in this field over the years. Presently, the technology has culminated into various toys and/or methods for the purposes of educating these children.

However, most of the present inventions are usually unappealing or scary looking. Current prior art are bulky in design, scary with a choice of human-like face (with consideration of Uncanny Valley studies, Masahiro Mori 1970) and expensive.

However, in the opinion of the inventor, most of the present inventions are either too expensive or are unappealing to a child. This implies that the demand for a better method with a more aesthetically pleasing toy with tactile properties, that can engage the child more effectively is required to better educate the child on the various medical procedures. Hence, it is the inventor's goal that this method will provide a more cost-effective and time-efficient method of educating the child on the various medical procedures.

In addition, it should be noted that predecessors of this invention tend to utilize human-like features for the accompanying toy, which may result in creating fear in a child instead (with consideration of Uncanny Valley studies, Masahiro Mori 1970). This defeats the very purpose of engaging the child in educating him/her on the various medical procedures that he/she or someone close to him/her may be facing soon.

## 3. Objects of Invention

It is a primary object of this invention to provide a toy which is aesthetically pleasing and engaging to the young child.

It is a further object of this invention to provide a method to educate the young child on the various medical procedures that he/she is likely to undergo.

It is a still further object of this invention to provide a toy which has tactile properties to give it an intuitive touch, and which can enable the child to develop their social and motor skills.

It is a still further object of this invention to provide a mechanism which may be used to create a more realistic representation of the medical procedure(s).

It is still a further object of this invention to provide a method of storing the necessary instruments, which may be used as another form of engagement of the child.

Still other objects and advantages of this invention will become clear upon review of the following description and the appended drawings.

4. Summary of Invention

The invention provides a rabbit toy, which has a puzzle-like middle to contain the various instruments that can be used along with the toy to enact out the medical procedures. In situations where the medical instruments vary in its sizes and the puzzle-like middle is not a feasible option for storing them, a backpack is also provided to contain the instruments instead.

The invention also includes a toy stethoscope, which provides an audio sound similar to that of a heartbeat. The "heartbeat" sound will be played when the stethoscope's senor end presses against the rabbit's chest / heart area. This process allows the child to engage further in the process by playing the role of a doctor. The toy stethoscope consists of a pair of earpiece, a circuit board hidden in the middle and a sensor at the end. A magnet / metal piece is hidden within the Rabbit's chest area (either within the body or on the clothing itself) – this metal / magnet piece will trigger the sensor to play the "heartbeat" sound.

The invention also includes a toy stethoscope, which provides an audio sound similar to that of a heartbeat, allowing the child to engage further in the process by playing the role of a doctor. The toy stethoscope consists of a pair of earpiece, a circuit board hidden in the middle and a sensor at the end. This sensor - upon contact with a magnet or metal piece - will activate a "heartbeat" sound at the earpiece. The magnet / metal piece can be hidden in doll's cloth body or the doll's clothes. Further, the rabbit toy features a hidden re-fillable bag, which can be used to simulate the imagery of "blood" flowing through the veins and/or tubes. The hands of the rabbit toy will be kept soft to allow the easy insertion of needles.

Despite the conscious choice to keep the doll's face non-human, i.e. a rabbit, the basic human anatomy of 2 hands, 2 legs and 1 torso is kept in the doll. This is to facilitate communicate between child patients and caregivers or medical professionals – allowing the child to physically point out where their body hurt when they are unable to articulate sufficiently.

The internal human organs are created in 2 ways. First, printed in various layers of transparency or stickers to reflect different groups of organs. Eg. Digestive organs transparency layer, respiratory organs transparency layer. Second, the cloth stuffed with cotton is sewed together to create colourful renditions of the organs. It is a soft, playful and children can familiarize themselves with the organs by arranging them.

Additionally, the human anatomy will be made and printed on stickers, which can then be used on the rabbit toy to illustrate the positioning of these organs. The rabbit toy can also feature an illuminating source to simulate medical procedures such as x-rays or act as an additional tool used to illustrate the position of the human anatomy with the use of transparency sheets.

The invention aids in explaining medical procedures to a child and guide them to ask questions on the same, preparing them psychologically for procedures that they may need to undergo. It is also an effective way to prepare the child for an injection, as the invention allows the child to have sight of the needle and understand how it would be used. It similarly assists in getting the child to effectively communicate their ailments to the medical practitioners, such as indicating on the toy (with the basic human anatomy of 1 torso, 2 hands + 2 legs) physically where the pain is felt on which part of the body specifically, etc.