Introduction of Play service to improve child patients preparedness and requirement of sedation in Magnetic resonance imaging.

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Introduction
Many children are faced with anxiety during hospitalization. The need of painful medical procedures, the strange environment of radiology suite and the noise generated by the imaging machine of Magnetic resonance imaging (MRI) are very distressing to the children and will pose additional stresses to them. Sedation, in oral or intravenous route, has to be administered to most children to ensure good quality of images and this constitutes risks in the MRI study. Play service intervention aims to prepare the child to achieve cooperation and relay emotions thus reducing the need of sedation and achieving better outcome in the imaging.

Objectives
To assess the effectiveness of Play service in preparing the children before the MRI procedure to reduce the need of sedation and relay child emotions.

Methodology
Intervention by Play Specialists from Playright (Non-Government Organization) to organize a preparation play session focusing on the painful venous catheter cannulation and pictorial explanation of imaging procedures of MRI have been introduced in the Department since 1/10/2013. Further enhancement with earlier intervention on the day of MRI booking was started from 1/4/2014. The service targets at children aged 4 years old and above. Children with severe developmental delay and behavioural problems of Attention Deficit and Hyperactivity Disorder and Autism were excluded. Assessment of emotions was performed with questionnaires by the Play Specialists.

Result
48 Play intervention sessions for 47 patients aged 4 to 13 years old were performed. Three patients failed MRI study including 2 children who were not suitable to receive sedation owing to upper respiratory tract infection. The success rate of competing MRI study with Play intervention was 94%. Of 45 patients successful in completing MRI study, 18 received the additional early Play intervention on the MRI booking day while 27 had Play intervention only on the MRI study day. In the group with early
intervention, 56% (10/18) did not require sedation; 1% (1/18) required both oral and intravenous sedation and 61% had negative emotions before the preparation Play. In the group with no early intervention, 33% (9/27) of the patients did not require sedation; 22% (6/27) required both oral and intravenous sedation and 76% had negative emotions before the preparation Play. In both groups, none has negative emotions and all children had positive emotions during Play preparation and after completion of the MRI study.