



**Supplementary Figure 1.** (A) Tokens used for the token-reward system. (B) QR code for an informational brochure and an inquiry from a parent in the WeChat app. (C–F) Example content in the informational brochure for hypospadias. Translations of text in Supplementary Figure 1: (B) Healthcare worker: Hello parents, this is our health education content, please scan the code to watch, if you have any questions, please send to the group, we will answer. Parent: Hello, today I observed a white substance coming from inside the catheter, do we need to go to the hospital? Healthcare worker: Hello [child's parent], you don't need to be too nervous in this situation, generally this situation is caused by not drinking enough water, [the child] can drink more water and observe. It is recommended to encourage the children to drink more water daily to produce more urine to achieve the purpose of natural flushing. (C) Department of Urology, \*\*; Hypospadias Health Mission. (D) What is hypospadias? Hypospadias is caused by hypoplasia of the anterior urethra, which leads to a penile deformity in which the urethral orifice cannot reach the normal position. That is, the opening can appear from the proximal side of the normal urethral orifice to the perineum, and some cases are accompanied by downward curvature of the penis. Hypospadias is a common malformation in the urogenital system of children. The incidence rate among male boys is 3.2/1,000, or one in every 300 male boys born. (E) What are the symptoms of hypospadias? (1) Ectopic urethral orifice: The urethral orifice can be ectopic in any part from the proximal end of the normal urethral orifice to the perineal urethra. The closer the urethral opening is to the scrotum or perineum, the more severe the hypospadias will be. (2) Hypocursion of the penis: That is, the penis bends to the ventral side, most of which are mild hypocursion. Hypospadias combined with obvious hypocursion of the penis, accounting for about 35%. According to the angle between the penis head and the longitudinal axis of the penis body, the downward curvature of the penis can be divided into: mild, less than 15°; moderate, 15°–35°; severe, greater than 35°. The latter two have difficulty having sexual intercourse in adulthood. (3) Abnormal distribution of prepuce: The prepuce on the ventral side of the glans penis failed to fuse in the midline, so it has a V-shaped defect, the prepuce frenulum is absent, and the prepuce piles up in a cap-like manner on the dorsal side of the glans penis. Hypospadias is divided into four types according to the location of the urethral orifice: type I, glans and coronary groove type; type II, penile body type; type III, penile scrotal type; type IV: perineal type. (F) What are common associated deformities of hypospadias? The most common accompanying malformations with hypospadias are indirect inguinal hernia and incomplete testicular descent, accounting for 9%. Prostatic sac is one of the complications of severe hypospadias, with an incidence of about 10% to 15%. It can cause urinary tract obstruction, infection and intra-cystic stones. It can also cause epididymis and orchitis. Children with severe hypospadias may be complicated with penile scrotal transposition, penile torsion, small penis and duplicate urethra.