Current status of clean intermittent catheterization (CIC) education in South Korea

Jung Hyun Shin[1], Choyi Kim[1], Sohyon Jeon[1], Korean Continence Society[2]

[1]Department of Urology, Ewha Womans University Mokdong Hospital

[2]Korean Continence Society

Hypothesis / aims of study

It is well-known that individualized, step-wise, and centralized intensive education is important for patients' better understanding and compliance to clean intermittent catheterization (CIC).

Example of Stepwise education
(Step 1; Day 1) A short introductory video to perform CIC to help the patients obtain technique.
Patients were then allowed to perform CIC independently with the assistance of the nurse specialist.
(Step 2; Day 2) Patients then performed CIC again in their respective wards under the supervision
of a primary care resident physicians or nurses for the next day.
(Step 3; Day 3–5) Then, without supervision, patients perform CIC independently.
If difficulty was experienced, patients were encouraged to give feedback for further instructions
(Step 4) After discharge, patients were encouraged to visit the outpatient clinic and were given a supplementary explanation at the CIC Center.

However, education circumstances and available infrastructure including place, time, competence of educator and education materials might vary. We investigated the current status of CIC education among various hospitals in South Korea.

Study design, materials and methods

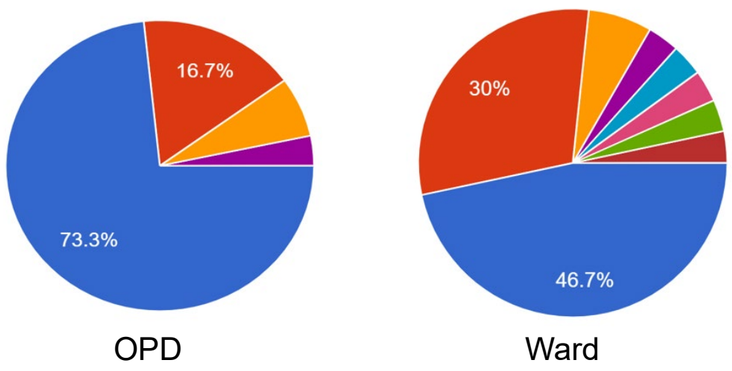
On-line survey via Google® form (https://forms.gle/o3ZJZVrdsieKXX29A) was performed in March 2023. URL-link was distributed three times through e-mail (once) and text message (twice) to clinical practitioners who perform urodynamic study in each hospital.

The subjects to survey were those who were listed up in the address book of Korean Continence Society and their workplace was either secondary or tertiary hospitals. Following parameters were inquired - characteristics of CIC educator and education target, education circumstances including place and materials, types of initially recommended catheters, and education loading; number of cases per month, mean required time for each case, and main problems in current education settings.

Results

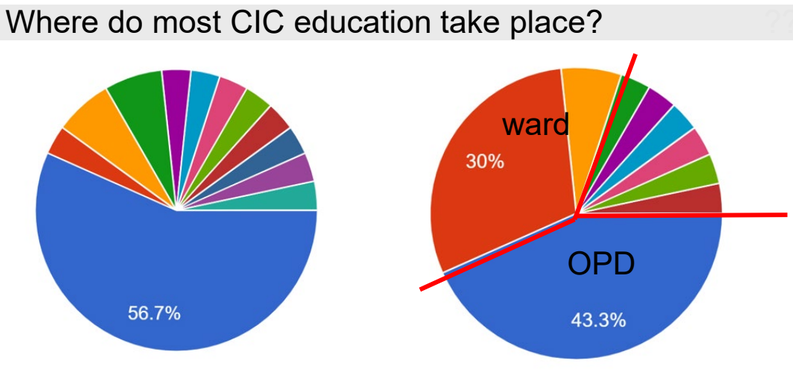
The survey was delivered to a total of 93 clinical practitioners who worked in 60 different hospitals. The overall response rate was 33%.

Q1. Who mainly performs CIC education?



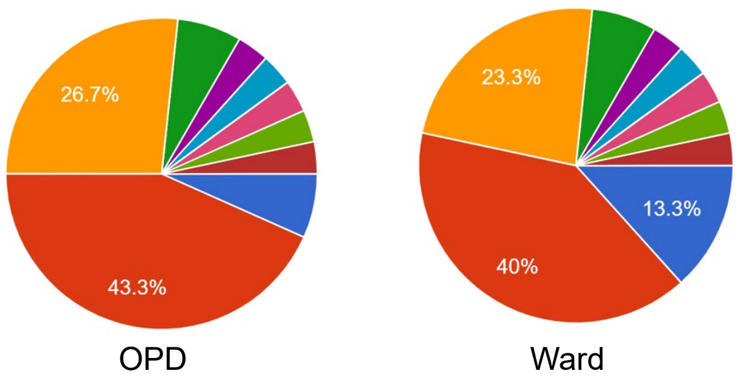
CIC education was mainly performed by clinical practitioners who are in charge of urodynamic study (73.3% and 46.7%), followed by physician assistant (PA) of the urology department (16.7% and 30%).

Q2. Where do most CIC education take place?



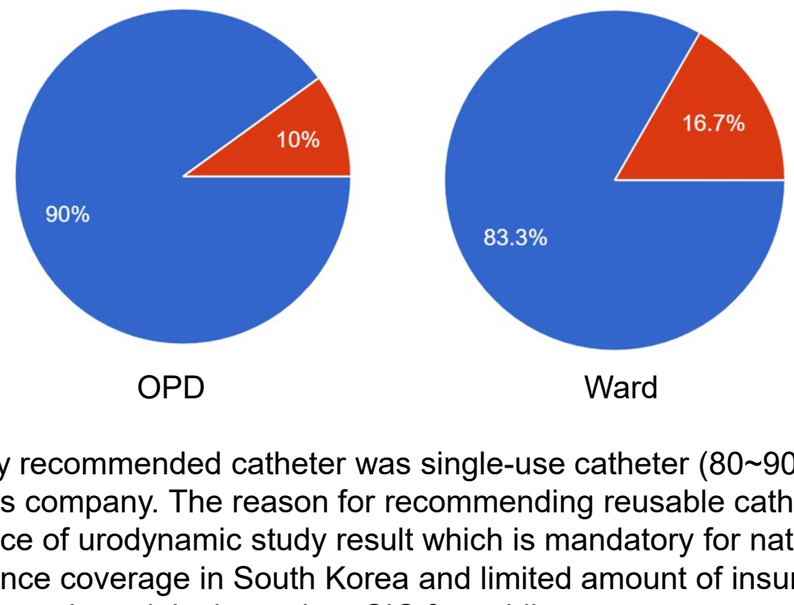
For outpatients, more than half of CIC education was performed in urodynamic study room (56.7%) followed by cystoscopy room and empty clinic office. For inpatients, the proportion of CIC education place was nearly half ward and half outpatient clinic. In both cases, private space solely designated for CIC education was available in less than 3%.

Q3. What is the most commonly utilized source for CIC education?



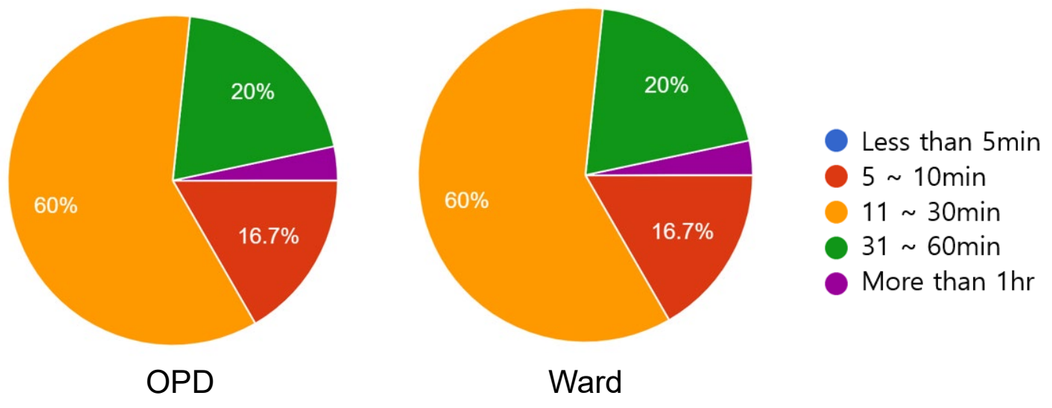
Education materials provided by catheter company were most widely used (about 40%) followed by self-produced materials from each hospital or urology department (27 ~37%). Interestingly, there were no public or formal CIC education materials created by urological associations.

Q4. What is the type of initially recommended CIC catheter?



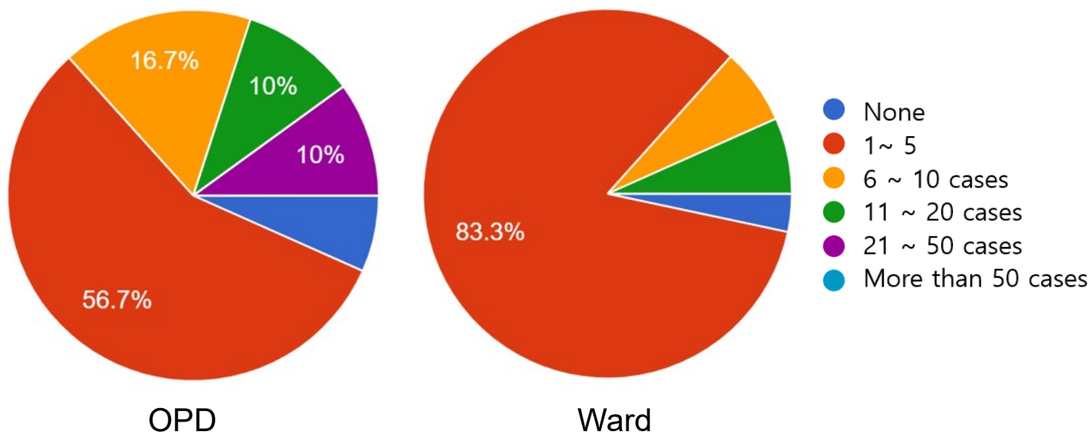
Initially recommended catheter was single-use catheter (80~90%) from various company. The reason for recommending reusable catheters were absence of urodynamic study result which is mandatory for national health insurance coverage in South Korea and limited amount of insurance coverage for those who solely depend on CIC for voiding.

Q5-1. How much time is consumed for initial single session of CIC education?



Finally, mean consumed time for single session CIC education was 11 to 30 minutes in 60%, 31 to 60 minutes in 20%, and 5 to 10 minutes in 16.7%.

Q5-2. How many cases of CIC education take place per month?



The number of CIC education cases depended on hospital volume, but about 70% performed within 10 cases per month.

Most respondents complained about limitations in available time and place to provide detailed education for patients' sufficient understanding on CIC.

Interpretation

Our survey subjects were all nurses. Most urodynamic studies in urology department are performed by nurse practitioners in South Korea. Specialized personnel who solely take charge of CIC education were absent that unpredictable occurrence of CIC education increased the work load among clinical practitioners. In addition, absence of private place for CIC education result in frequent utilization of vacancies in outpatient clinic. Such variabilities in educator and education place hamper stable and full-time CIC education.

Single-session CIC education usually took about median of 20 minutes which was too short for explaining the need, methodology, cautions, and key takeaways about CIC and achieving high-level of patients' understanding.

The number of monthly CIC cases might seem not too much, but considering that there is no education fee for CIC in South Korea, current CIC education fails in successful patients' understanding and only places a physical burden on the educator.

Moreover, limited national insurance coverage of single-use catheter (about 6.7 US dollar per day) restricts patients' selection on types of catheters especially if they require more than four times of CIC per day.

Conclusions

Currently, there were limited human resources, places, and education materials for high-quality CIC education in South Korea. Clinical practitioners mainly complained about limitations in available time and place to provide adequate and satisfactory education for patients. However, hospitals are reluctant to pay attention to hiring additional personnel or creating room for descent CIC education as it does not make any income to the organization. In addition, limited amount of national insurance coverage on single-use catheter hinders free selection of adequate catheters and act as economic burden for those who require more than four catheters per day.

References

1. Oh et al., International Journal of Urology (2006) 13, 905–909