

Original Article

Socio-economic impact of indwelling urethral Catheter: The experiences of patients discharged from the Volta Regional Hospital of Ghana

Confidence Alorse Atakro (MN, BSc, RGN) ¹

George Sedinam Boni (BSc, RGN) ²

Janet Gross (DNS, BSc, RGN) ³

Abstract

Although catheter-associated urinary tract infection is well researched, little is known about the socio-economic impact of the use of indwelling urethral catheters, including those in Ghana. Therefore, the aim of this study was to explore socio-economic experiences by men with indwelling urethral catheters in the Volta region of Ghana. The study utilized qualitative explorative descriptive design. Data was collected from 19 participants using a semi-structured interview guide. Purposive sampling was used in recruiting participants. Content analysis was carried out. Four thematic categories were identified: interruption in activity levels, financial dependence on family, sexual restriction, and social isolation. The findings indicated that the use of indwelling urethral catheters resulted in several socio-economic consequences for clients. The authors suggested that, in order to improve the quality of life of men with indwelling urethral catheters, the same level of attention paid to catheter-associated urinary tract infections must be extended to assessing the social impact of indwelling urethral catheter usage.

Keywords:

Ghana; indwelling catheter; patients; social impact; urethral catheterisation; urinary tract.

1. *Christian Service University College, Kumasi*

2. *Volta Regional Hospital, Ho*

3. *KY Global Health Services Partnership, US Peace Corps*

Corresponding Author:

1. *Christian Service University College
Post Office Box 3110, Kumasi, Ghana
Tel: +233-244 117 917
Email: caatakro@csuc.edu.gh*

Introduction

Urinary retention is a common urologic emergency in old age (Yenli, Aboah, Gyasi-Sarpong, Azorliade, & Arhin, 2015). A study by Ojewola and others (2017) in Nigeria found that the overall prevalence of benign prostatic enlargement (BPE) was 237 per 1,000 men (23.7%). The age-specific prevalence rates increase from 104 per 1000 men in their fifth decades to 429 per 1000 in men over 90 years (Ojewola et al., 2017). Though intermittent catheterization is the gold standard for the management of urinary problems in men, many men in Africa are managed on indwelling urethral catheters (Nnabugwu, Udeh, Enivwenae, Ugwumba, & Ozoemena, 2014). Many clients in Africa with benign prostatic hyperplasia (BPH) are unable to pay for prostatectomy (Nnabugwu et al., 2014). These clients are usually managed with indwelling urethral catheters until they can raise money for prostatectomy. Many men with indwelling urethral catheters experience problems of urinary tract infections, kidney stone formation, and painful bladder spasms which are related to the long-term use of urinary catheters (Nnabugwu et al., 2014).

Evidence available shows that indwelling urethral catheters are also responsible for several non-infectious complications such as loss of dignity, loss of job, absenteeism in school, erection problems, diminished sexual intercourse and loss of money through hospital bills (Okuerowo, 2007, Griffiths, 2007, Manalo et al, 2011). A qualitative research by Fowler, Godfrey, Fader, Timoney, & Long (2014) identified the theme of shame and embarrassment because the catheter was a constant reminder of chronic illness and vulnerability. Clients are usually embarrassed by a leaking urinary catheter which wets them in public (Fowler et al., 2014).

Though understanding of patient's experience in any area of health care is now recognized as being crucial to good practice, little is known about patients' experiences with indwelling urethral catheters (Chapple, Prinjha, & Mangnall, 2013). In Ghana, a previous study addressed issues of catheter associated urinary infections (Yenli et al., 2015). The majority of men who reported at Komfo Anokye Teaching Hospital in Ghana with urinary problems had benign prostate hyperplasia and were managed on in-

dwelling urethral catheters (Yenli et al., 2015).

There was only one urology clinic in the Volta Region of Ghana at the time of conducting this study. This clinic is located in the Volta Regional Hospital which served as referral centre for all urology cases of which most are problems of BPH. The clinic had only one urologist who doubled as the medical director of the hospital (Volta Regional Hospital, 2016). Urinary problems of most clients who reported at the regional hospital were managed with indwelling urethral catheters as a results of resource constraints on the part of both the health facility and clients. However, a review of available literature revealed a paucity of studies on the experiences of men who are managed with indwelling urethral catheters at the Volta Regional Hospital of Ghana. The purpose of this study was to explore experiences of socio-economic impact of the indwelling urethral catheters among men who were discharged from the Volta Regional Hospital.

Materials and Methods

Design

Qualitative exploratory descriptive design was used to explore the experiences of men with indwelling urethral catheters from January to February 2016. Qualitative exploratory descriptive design allows researchers to understand the experiences of clients with medical conditions (Polit & Beck, 2010). Qualitative explorative descriptive study design was utilized since there is paucity of research into socio-economic impact of indwelling urethral catheters on men in Ghana.

Setting

This study was conducted in the Volta Regional Hospital. Data was collected from men with indwelling urethral catheters who reported for review at the hospital. The Volta Regional Hospital was the only facility with a urology unit in the Volta Region and served as the referral centre for all clients with urology problems in the region. On the average 20 clients with problems of indwelling urethral catheters were reviewed every week at the Hospital (Volta Regional Hospital).

Population sampling and data collection

The study population consisted of men in the Volta region who, during the specified study period, reported to the Volta Regional Hospital with urinary problems and

were being managed on the indwelling urethral catheter for more than two months. Purposive sampling technique was used to recruit 19 men with indwelling urethral catheters. The sampling frame for the study was male patients accessing services at the urology clinic at the Volta Regional Hospital. Data saturation was reached with 19 participants. Patients who met inclusion criteria were recruited through the nurse manager of the urology ward of the Volta Regional Hospital. Inclusion criteria for study were men with indwelling urethral catheters for at least two months and could speak either English, Twi or Ewe and willing to participate in the study. These were the languages the first author who collected the data could speak fluently. Each interview lasted between 30 to 60 minutes. The venue and time for each interview was at the convenience of the participant.

Data analysis

Data were analysed manually by the research team. Holloway and Wheeler's data analysis pattern (Holloway & Wheeler, 2010) was used. The researchers employed the following activities: transcription, validation, cleaning and coding. Data was transcribed verbatim from audio recordings. Transcripts were read several times to identify codes. Similar codes were used to create themes and sub-themes.

Rigour

A semi-structured interview guide was pretested on three patients in a similar health facility. This was to ensure that the data collected answered the research questions. The research team also had prolonged interaction with the participants to ensure in-depth understanding of emerging findings. Peer checking of data transcriptions and coding ensured that the right experiences of the participants were reported. Member checking was done to validate data from the participants.

Ethical consideration

Ethical clearance was sought from the Kwame Nkrumah University of Science and Technology Ethical Review Board. Administrative approval was granted by the Authorities of the Volta Regional Hospital. Participants who agreed to take part in study were given consent forms to sign. Participants were told that participation in the study was voluntary and

that they could withdraw at any point. Identification codes instead of names were used to identify participants to ensure anonymity.

Results

A total of 19 participants on indwelling urethral catheters were recruited. Fifteen participants were within the ages of 60 and 90 years. Twelve participants were married whilst five were widowers. Only two participants were single. Eighteen participants had children. The majority of respondents were retired from their formal jobs.

Four themes were extracted from data analysis: interruption in activity levels, financial dependence on family, sexual restriction and social isolation.

Interruption in activity levels

All clients indicated that their activity levels were disrupted with the indwelling urethral catheter. Though many of the participants were retired from their formal jobs, they engaged in some informal jobs such as farming and helping their wives to sell in stores. Such informal economic activities were disrupted when they were placed on indwelling urethral catheters. The few who were still working also indicated that their activity levels at their formal jobs were affected negatively.

This rubber has actually reduced my activity level at home. I used to farm but I can't go the farm now. This is because I feel pain and carrying the bag in my pocket makes me very uncomfortable. It is really disturbing me and I can't work with it [P4].

It was confirmed that indwelling urethral catheter also had a negative impact on activity levels and work. A participant was restricted to the office rather than go to the field.

...a year ago I started experiencing urine problems. I could not urinate so I came to the hospital and this rubber was passed. It has not been easy for me since that time. It has limited my movement and everything I do. Even my work is affected negatively [P19].

I have had to manage with this rubber for the past 6 months. I go to work but I am not able to involve myself in activities. I am not able to go for barrier duties or patrol. I have had to do only office work now. This is hell [P17].

Financial dependence on family

Many clients on indwelling urethral catheters indicated that they experience economic hardship as a result of the catheter and had to depend on family for support. A considerable number of the participants were retired from their formal jobs but had engaged in other activities that could sustain them economically. Some decided to farm and some also decided to help their wives to sell but the presence of the indwelling urethral catheters made it impossible to engage in such activities. Clients felt more dependent on their partners, family members and their church.

I am on retirement but I was doing some farming. I can no longer farm. I depend on my daughter financially but she also has a family to take care of. She is only a petty trader. Sometimes the small money I have, I send it to the hospital because of problems with the device. Sometimes getting money to come to the hospital is a problem [P2].

Since this rubber was passed, I could no longer work but just sit in the house. I am a Pastor and worked for so many years. But I can't preach now, so I receive some support from my church and children. I have a lot of children and grandchildren. Some are not biological but because I looked after them they now extend their hands to me. At least I used to do some backyard farming but I can't do that now [P12].

It was reiterated that participants depended on their pension allowances, children and wives. Their contributions to the upkeep of their families had reduced.

Currently I am depending on my small pension and the support from my wife who sells in the big market and my children as well. I don't think I can work with the rubber on [P16].

I have a small farm that I cultivate some crops

to support the family. I go to the farm at times but do not work as I used to anymore because of the rubber. My wife does most of the work now. My contribution to money and food at home now is very minimal. I am more dependent on family now [P18].

Sexual restriction

Some participants stated that the indwelling urethral catheters resulted in restricted sexual life. The few younger men on the indwelling urethral catheters reported more sexual concerns than their older counterparts. Some older men also had younger wives and felt they had to perform their sexual responsibilities which were hindered by the urethral catheter.

My woman nearly left me. I could not have sex with my woman. I had a serious problem with her. First I was hiding it from her but later I had to let her know. We had serious quarrels over this. I feel for sex but can't do anything [P4].

As for erection, I do have from time to time even with the catheter on. But you know I can't do anything. Fortunately, my wife is old and not worried about those things [P6].

Some felt for sex and although they had erection, they could not have sex and their wives understood their situation.

I feel for sex but with this rubber in my penis, can I do something? Sometimes I see that I have erection even with the catheter on but I can't do anything. My wife understands. She knows that because of the rubber, I can't do anything. This thing started about one and a half years ago. She has been able to cope till now. I don't have any problem with her yet. I try to ignore when the urge comes [P17].

However, men with younger wives felt their wives were worried about their inability to engage in sex. In such situations, the men felt irresponsible.

I feel for sex but because of the catheter I can't touch my wife. It is sad. My wife is young and I could see how it worries her but God being

so good, we have been managing for the past one year. I feel irresponsible sometimes but she understands [P13].

I feel for sex but I can't do it. My wife is a bit younger than me and it is a worry for me but I can't do anything. If I remove this rubber for a day, I will end up at the hospital because I can't pass urine and that thing is painful. I can't go through it again. I thank God my wife feels for me and has been very supportive [P18].

In view of the inability to have sex, some men were worried that their wives would go after other men.

I feel for sex but can't touch my wife. I am even worried she will go out. A woman is a woman. I really feel sad for myself and her. You know am not performing my responsibilities, hope you understand [laughs]. It is very serious [P15].

Social Isolation

All respondents in this study stated that the indwelling urethral catheter reduced their socialization with friends and family because of the embarrassment the catheter caused when it leaked. They smelled of urine even when they were well dressed

I used to go out to visit my friends and some family members but now I can't. Sometimes the urine smells on me so I don't want people to know I have such a problem. It is not every gathering I go again in the community [P3].

I do go out sometimes but not as I used to do because it is not comfortable to go out to visit people with the catheter. It is difficult because sometimes the urine smells on me. I dress fine and look nice but I smell urine. It is embarrassing [P4].

Participants lamented that it was difficult to position the catheter or bag when they were leaving the house. They were afraid the catheter would fall and embarrass them. They preferred to stay at home.

How to position the bag itself before leaving the house is a problem. It has reduced my en-

agement in community activities. I don't really take part in many activities. When am at home, am a bit comfortable but outside I feel uncomfortable. I feel the rubber will fall, or someone will make people notice that I have a rubber there [P9].

I must say that it is very difficult for me to mingle with my friends or even engage in social activities. I don't feel like doing that. Sometimes how to handle the bag among your colleagues is a great worry. This prevents me from socializing with friends [P14].

The younger participants did not go out to visit any one. They were shy. A 33-year-old participant stated:

I am shy when I go out. A young man like me on catheter. It is some way. So I don't go out to visit anyone. I don't want to engage myself in any activities [17].

Discussion

Though studies of overall quality of life of men with indwelling urethral catheters are very few (Adejumo, & Ilesanmi, 2008), some evidence from literature suggests that problems of the indwelling urethral catheters interfere with daily life of clients (Okuerowo, 2007; Griffiths, 2007;

Manalo, 2011). The focus of most urologists has been on the relief of symptoms of acute urinary retention without paying attention to the socio-economic impact of the indwelling urethral catheters on clients (Mahadik, Vaddi, Godala, Reddy, & Sambar, 2013). The majority of men with indwelling urethral catheters in this study indicated that their activity levels were disrupted because of the management of their urinary problem with indwelling urethral catheters. This is consistent with a study conducted in Nigeria by Okuerowo (2007) which showed that the use of the indwelling urethral catheters led to reduced activities and loss of jobs.

The reduced activities could be the result of the negative physical consequences of the indwelling urethral catheters on the physical health of clients (Adejumo, & Ilesanmi, 2008). The importance of psy-

chological care has been emphasized as essential when providing care to clients with chronic illnesses (Eccleston, Fisher, Law, Bartlett, & Palermo, 2016). Patients are concerned about the effect of physical limitations of ill health and this usually leads to feelings of frustration and loss of dignity (Eccleston et al., 2016; Adejumo, & Ilesanmi, 2008). A number of things can be done to prevent non-infectious complications in men with the indwelling urethral catheters. Emphasis could be placed on good catheter management rather than the use of prophylaxis, to reduce the incidence of catheter associated urinary infections. Healthcare providers could take steps to prevent infections in clients with indwelling urethral catheters by regularly changing indwelling urethral catheters. Clients need to be counselled and educated on necessary coping skills they need in order to keep performing their jobs. Keeping jobs will maintain dignity of clients and prevent financial overdependence on family and friends.

Clients interviewed in this study said that the indwelling urethral catheter affected their sex lives negatively. Many of the clients interviewed were old but had younger wives and therefore felt they needed to perform their sexual marital responsibilities. The few younger men interviewed felt more sexually restricted than their older counterparts did. A study in Nigeria found that a common problem of prolonged catheterization in men was lack of sexual intercourse (Okuerowo, 2007). Similarly, in the Philippines, Prinjha, & Chapple (2014) found that health professionals did not discuss sex with clients or give them any information on sex when they reported for care at urology clinics (Prinjha, & Chapple, 2014). This phenomenon may also exist in Ghana where nurses in urology clinics do not have specialist education in urology nursing and where the number of urologist are very few.

Urology health professionals need to provide men with information on how to maintain sex life with the indwelling urethral catheters. Evidence available shows that meeting the same nurse or care provider could encourage clients to discuss their individual sexual problems with familiar health professionals (Prinjha, & Chapple, 2014). Though the usage of intermittent self-catheters (ISC) is widely utilised in de-

veloped countries, its utilisation in under-resourced countries has been lacking (Nnabugwu et al., 2014). However, a study in Nigeria by Nnabugwu and others (2014) found that 70% of men who were 60 years and below wanted to be taught intermittent catheterisation. In reviewing the success rate of ISC among 309 patients with a mean age of 62 years, Parsons, Narshi, and Drake (2012) recorded a success rate of 86% for patients younger than 65 years and 82% for those 65 years and older. Introduction of ISC in Ghana could help men feel less sexually restricted and allow them to enjoy sexual relationships with their partners (Prinjha, & Chapple, 2014).

Almost all clients with the indwelling urethral catheters stated that the catheters embarrassed them with leakages and bad smells from leaked urine. Many men with the indwelling urethral catheters indicated that they reduced their level of socialisation with community members and friends because of feeling embarrassed with the indwelling urethral catheters. Some men on indwelling

urethral catheters did not know how to handle these catheters outside the home. A systematic review by Hollingsworth and others (2012) identified leakage of catheter bags as a common non-infectious complication of indwelling urethral catheters. Evidence available suggests that non-infectious complication rates including socio-economic impacts associated with long-term catheterization are four times higher than infectious complication (Hollingsworth et al., 2012). Unfortunately, care providers give less attention to non-infectious complications (Hollingsworth et al., 2012). The same level of attention given to catheter associated urinary tract infections should be extended to socio-economic impact of catheter leakages, sexual restrictions and social isolations.

Clients need to be educated to report both infectious as well as non-infectious complication with their indwelling urethral catheters for appropriate education and counselling. Education on ways of handling urethral catheters to prevent leakages will prevent embarrassment and social isolation that clients with indwelling urethral catheters have to deal with daily. Nurses in urology clinics should themselves be updated on the kinds of counselling and education that

will help men improve their overall quality of life with the indwelling urethral catheters.

Implication for nursing practice

Nurse Managers should take steps to improve knowledge of nurses in urology units on prevention of negative social impacts of indwelling urethral catheters. Nurses in urology clinics should take courses in urology nursing to enable them improve the overall quality of care provided clients with indwelling urethral catheters. Clients need education and counselling on maintenance of sexuality, socialization and management of work with the indwelling urethral catheter. Nurses in Ghana should advocate introduction of intermittent urethral catheters, which is the gold standard for managing men with urinary problems.

Conclusion

The use of indwelling urethral catheters has socio-economic consequences for clients. Indwelling urethral catheters lead to reduced activity levels, dependence on family, sexual restrictions and social isolation. Though there have been many researches about catheter associated urinary tract infections, relatively less research has gone into the social impact of the use of indwelling urethral catheters in Ghana. The same level of attention paid to catheter associated urinary tract infection must be extended to the social impact of reduced activity, social isolation, and sexual restrictions in order to improve overall quality of life of clients on indwelling urethral catheters. Further quantitative research is suggested into interventions that prevent the negative social impact of the use of the indwelling urethra catheters.

Conflict of Interest

Authors declared no conflict of interest in the conduct of this study.

Acknowledgement

We are grateful to Volta Regional Hospital and all participants who volunteered to be part of the study.

References

- Adejumo, P. O. Ilesanmi, R. E. (2008). Acute urinary retention and indwelling Urethral Catheters: A qualitative study of men with obstructive prostate enlargement. *West African Journal of Nursing*, 19 (1), 8-14. Retrieved on 30th July 2017 from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=105501568&site=ehost-live>
- Chapple, A., Prinjha, S., & Mangnall, J. (2013). Changing a urethral or suprapubic catheter: the patient's perspective. *British Journal of Community Nursing*. 18(12). Doi 10.12968/bjcn.2013.18.12.591
- Eccleston, C., Fisher, E., Law, E., Bartlett, J., & Palermo, T.M. (2016). Psychological interventions for parents of children and adolescents with chronic illness. *Cochrane Database Systematic Review*. doi:10.1002/14651858.CD009660.pub3.
- Fowler, S., Godfrey, H., Fader, M., Timoney, A. G., & Long, A. (2014). Living with a long- term, indwelling urinary catheter: Catheter users' experience. *Journal of Wound, Ostomy and Continence Nursing*, 41, 597–603. doi 10.1097/WON.0000000000000069
- Griffiths, R. (2007). Strategies for the removal of short-term indwelling urethral catheters in adults, London: *Cochrane Database System*. doi 10.1002/14651858.CD004011.pub3
- Holloway I, Wheeler S. (2010). *Qualitative Research in Nursing and Healthcare*. John Wiley & Sons. Retrieved on 1st January 2017 from <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1119096367.html>
- Hollingsworth, J.M., Rogers, M.A., Krein, S.L, Hickner, A, Kuhn, L., Cheng.Saint, S. (2012). Determining the non-infectious complications of indwelling urethral catheters: A systematic review and meta-analysis, *Annals of Internal Medicine*, 159 (6), 401-410. doi 10.7326/0003-4819-159-6-201309170-00006
- Mahadik, P., Vaddi, S.P., Godala, C., Reddy, V.V.K., & Sambar, V.K. (2013). Factors affecting trial without catheter for first spontaneous acute urinary retention. *International Neurological Journal, Original Article*, 17, 121-126. <http://dx.doi.org/10.5213/inj.2013.17.3.121>
- Manalo, M.J, Lapitan, M.C.M, Buckley, B.S. (2011). Medical interns' knowledge and training regarding urethral catheter insertion and insertion-related urethral injury in male patients. *BMC Medical Education*, 11(73), 1-5. doi 10.1186/1472-6920-11-73

- Nnabugwu, I.I., Udeh, E.I., Enivwenae, O.A., Ugwumba, F.O., & Ozoemena, O.F. (2014). Reducing the burden of regular indwelling urinary catheter changes in the catheter clinics: the opinion of patients and relatives on the practice of self-catheterization. *Patient Preference and Adherence*, 1179-1182. doi 10.214/PPA.566520
- Ojewola, R.W, Oridota, E.S, Balogun, O.S, Alabi, T.O, Ajayi, Al, Olajide, T.A., Ogundare, E.O. (2017). Prevalence of clinical benign prostatic hyperplasia amongst community-dwelling men in a South-Western Nigerian rural setting: A cross-sectional study. *African Journal of Urology*, 23, 109-115. doi 10.1016/j.afju.2016.02.004
- Okuerowo, S.O. (2007). The burden of prolonged indwelling catheter after acute urinary retention in Ikeja. Pubmed. Lagos. doi 10.1186/1471-2490-7-16
- Parsons, B.A., Narshi A., & Drake, M.J. (2012). Success rates for learning intermittent self-catheterisation according to age and gender. *International Urology Nephrology*, 44(4):1127–1131. doi 10.1007/s11255-012-0136-x
- Polit, D.F., & Beck, C. T., (2010). *Essentials of nursing research: Appraising evidence for nursing practice*, (7th ed). New Philadelphia: Lippincott Williams & Wilkins.
- Prinjha, S., & Chapple, A. (2014). Patients' experiences of living with an indwelling urinary Catheter. *British Journal of Neuroscience Nursing*, 10(2), 62. Retrieved on 11th January 2017 from <http://www.magonlinelibrary.com/doi/abs/10.12968/bjnn.2014.10.2.62>
- Volta Regional Hospital (2016). Record Department. Volta Regional Hospital.
- Yenli, E.M.T., Aboah, K., Gyasi-Sarpong, C.K., Azorliade, R., & Arhin, A.A. (2015). Acute and chronic retention among adults at the urology section of the accident and emergency unit of Komfo Anokye Teaching Hospital, Kumasi, Ghana. *African Journal of Urology*, 21, 129-136. doi <http://dx.doi.org/10.1016/j.afju.2014.08.009>