

# Abstract 597 Potential causes of nocturia in a low resource population

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## Introduction

We reported recently on the prevalence of unreported urinary incontinence in a low resource setting(1). For this study we validated the UDI 6 (Urinary Distress Inventory) in Afar and Amharic. Out of 195 respondents, 8% of respondents had experienced severe episodes of incontinence in the preceding month. The predominant symptom was urge incontinence whereas other studies have shown stress incontinence to be more prevalent. There was a high prevalence of nocturia which is surprising in this hot dry climate. This study examines possible causes of reported nocturia. We identified these as:

- FGM, which makes voiding difficult and could potentially lead to incomplete emptying and more frequent small urination, There is also one reported study of an association between urge urinary incontinence and FGM(2)
- Coffee intake since coffee is the national drink and the coffee ceremony is practised by all ethnic groups and has great cultural significance
- Drop in temperature at night – at the time of the original study we were experiencing the coldest “winter” for a decade
- The possibility that in the bush where open defaecation is the norm, women might prefer to get up at night to defaecate and would urinate at the same time.
- Ethnicity since the overwhelming majority of our Afar patients have FGM whereas few of the Amharic ones do.

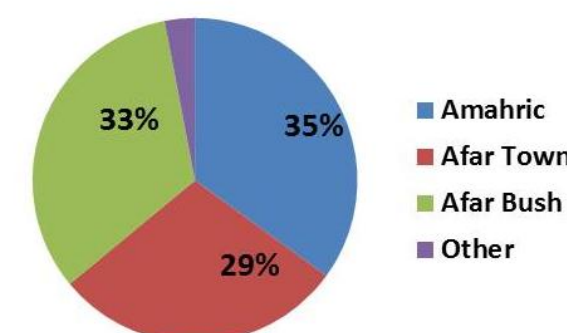
## Methods

Patients attending our gynae clinic and who did not complain of any urinary symptoms were asked at the end of the consultation if they would be happy to complete the questionnaire. Patients in whom a significant problem was identified were offered further investigation, advice and treatment. The previously validated UDI 6 questionnaire was used with addition of questions about number of voids per day and per night to replace question on frequency which was found to have no meaning. In the second and third surveys, patients were asked about their Ethnic group. Place of residence, FGM, parity and coffee intake. They were also asked about dysuria, specifically about a burning sensation on urination which is a common complaint in this population. Owing to the breakdown of our solar water system necessitating several weeks concentration on maintenance, which was then followed by Ramadan, we were unable to repeat the study in warmer weather despite having the hottest summer for a decade So a third phase was undertaken in the warmer part of 2019 In all there were 465 respondents.. As over 98% of our patients are illiterate, the questions were posed orally by the same person for the first tow phases who then coached a second person who posed all the questions for the third phase. The study met the criteria of the declaration of Helsinki.

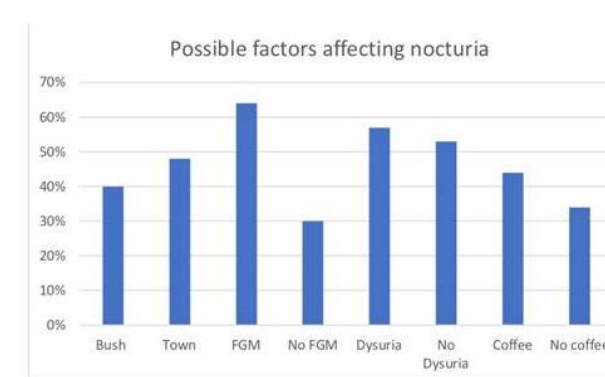
## Results

24% had been troubled by incontinence in the preceding month and for 8% of them, this was moderate or severe. The predominant symptom was urge incontinence. Significantly more patients with FGM has urge incontinence ( $p < 0.05$ ), whereas significantly fewer patient with stress incontinence had FGM ( $p < 0.05$ ). 16 % of the population had not got up at night and 44% had had two or more episodes of nocturia. There was no significant correlation between nocturia and ethnicity, coffee intake, residence in the bush. However there was a significant correlation between nocturia and FGM and also between nocturia and dysuria - ( $p < 0.05$ ). There was no significant difference in nocturia between women living in the bush and women living in the town. Obviously, the numbers are small (465 for the three sets of data collection), but all three surveys have shown a preponderance of urge urinary incontinence, which contrasts with other population studies. This study suggest that the presence of FGM in our population could account for some of the differences. The literature suggests a number of bad outcomes from FGM but it is clear from a study of the serious literature, that much of this is pure conjecture. Because it is difficult to carry out research on women with FGM. Few studies have looked at urinary dysfunction, but all agree on the paucity of data on either the symptoms nor have any benefits of de-infibulation been demonstrated. A recent paper by Effa et al (2) highlights the absence of nay randomised controlled studies or appropriate observational studies in countries where FGM is routinely carried out..

### Ethnicity



This does not reflect the demographic of the region, where 90% of the population are Afar and 87% of them live in the Bush. However is typical of our clinic population. The reason for this is awareness and transportation.



Only presence or absence of FGM is significant ( $p < 0.05$ )

## Conclusions

This study confirms our previous findings of substantial unreported urinary incontinence in our population. It has shown a correlation between FGM and nocturia. FGM could also account for the preponderance of urge urinary incontinence as the dominant unreported symptom.

## References

1. McDougald M, Hamed M, Mayram M. Mohammed M, Omer H: 2018 eposter International Continence Society Annual Meeting, Philadelphia Assessing the prevalence of urinary incontinence in a low resource setting
2. (9) Effa E, Olumuyiwa O, Ihesie A, Meremikwu MM 2017 Inj J Gynecol Obstet 136 (Suppl) 11 30 -33 Defibulation for treating urologic complications of Type III female genital mutilation: A Systemic Review