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FORMAL EDUCATION AND ITS EFFECTS ON SEEKING HEALTH SERVICES AMONG MEN WITH PROSTATE DISORDERS AT MOI TEACHING AND REFERRAL HOSTIAL, ELDORET- KENYA

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## FORMAL EDUCATION AND ITS EFFECTS ON SEEKING HEALTH SERVICES AMONG MEN WITH PROSTATE DISORDERS AT MOI TEACHING AND REFERRAL HOSTIAL, ELDORET- KENYA

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### ABSTRACT

**Background:** Seeking health services is subject to human behaviour, which in turn can be influenced by formal education. We studied formal education and its effects on seeking health service among patients presenting with the three prostate disorders of prostatitis, Benign Prostate Hyperplasia (BPH) and prostate cancer.

**Objective:** To establish the relationship between formal education and seeking of health services among men with prostate disorders.

**Design:** Cross sectional study using interviewer administered questionnaire.

**Setting:** The Urology Clinic of Moi Teaching and Referral Hospital, Eldoret-Kenya.

**Subjects:** One hundred and twenty-six men aged 50 years and above presenting with any of the three prostate disorders during the two years of study.

**Results:** The years of schooling ranged from 5 to 16 years with the majority (55.9%) being in the category of less than or equal to 7 years. Formal education was found to be positively correlated with knowledge on prostate disorders ( $p < 0.001$ ) and was strongest after primary level of education. The proportion of patients presenting early after the onset of symptoms progressively increased with a rise in the level of formal education. Those with no formal education had the highest numbers of comorbidities, complications and history of past admissions to hospital. The adverse events were minimal after seven years of schooling and disappeared altogether after 13 years of schooling.

**Conclusion:** Formal education has positive effects on seeking health services by men with prostate disorders and this is most noticeable after attaining secondary school education and beyond.

## INTRODUCTION

The English word education is etymologically derived from the Latin *ēducātiō*, meaning a breeding, a bringing up or a rearing. Studies of formal education effects on seeking health services among patients have shown differing results. The differences are documented to be due to level of education and other human behaviour determinants such as culture, personal views, attitudes and lifestyle.

The prostate disorders of prostatitis, Benign Prostatic Hyperplasia (BPH) and prostate cancer are the leading urological problems among men aged 50 years and above in the whole world. This study examined the relationship between formal education and the seeking of health services among these men with prostate disorders.

Formal education should improve the schooled as manifest in the lifestyles adopted by those subjected to it<sup>1</sup>. The hallmark of individual improvement would arguably be how they conduct their life affairs since education is an improvement on the basic existential instinct of self-preservation. The formally schooled should, therefore, exhibit better attributes in terms of seeking health care services. However, this is debatable given other intricacies that contribute to the outcome of having attained a given level of formal education. It has been suggested in studies that the level of education correlates well with the knowledge and that an informed patient is a good investment in better healthcare<sup>2</sup> but the local experience has not been adequately investigated and shared.

This study was designed to address the effects of formal education on seeking health services among the aging males in the Western region of Kenya.

## MATERIAL AND METHODS

*Study design:* This was a hospital based cross-sectional study conducted over the two years' period between June 2016 and May 2018.

*Site:* Moi Teaching and Referral Hospital urology clinic.

*Study population:* Men aged 50 years and above in the catchment area of the tertiary hospital.

*Ethical consideration:* Patients who were unwilling to participate were not discriminated against and were offered the needed services like those others in the study. There was no enticement and confidentiality was maintained on patients' identity. The medical information was not available to unauthorized persons and was only used for purposes of the study.

The study had been approved by the Institutional Research and Ethics Committee (IREC) through approval number FAN: IREC 1643.

*Data accrual:* Data collection was by using an interviewer-administered questionnaire. It was coded and transcribed into a spreadsheet before entering into a computer using the Statistical Package for Social Sciences (SPSS) software version 20.0.

*Study variables:* These were level of education as an independent variable while knowledge on prostate disorders, active search of health education, attendance of medical checkups, the health status at presentation and duration of symptoms were the dependent variables. The primary outcome was the relationship between education level and the patient's status at presentation while the secondary outcomes were the effect of education on seeking health information and health services. Discrete data was summarized using frequencies, proportions, ratios and percentages while continuous data was by mean and standard deviations. Inferential

statistics had statistical significance set at p value  $\leq 0.05$ .

## RESULTS

One hundred and sixty-five patients with prostatism presented in the period of study. Thirty-nine were excluded due to concurrent urethral and bladder pathologies. A total of one hundred and twenty-six patients were recruited into the study; 21 with prostatitis, 30 with cancer of the prostate and 75 with BPH.

The participants' ages ranged from 51 to 88 years and mean  $\pm$  Standard Deviation (SD) of  $67.1 \pm 9.7$  years. Most of the patients (35.7%) were in the age group 51-60 years and accounted for two thirds of those formally educated.

The years of schooling ranged from 5 to 16 years with the majority (55.9%) being in the

category of less than or equal to 7 years. None of the participants had attained University level of education.

Thirty-two patients (25.4%) knew about the prostate and its disorders. Formal education was found to be positively correlated to this knowledge of prostate disorders ( $p < 0.001$ ) and was strongest after primary level of education.

The duration of symptoms ranged from one month to four years with more than half (50.8%) the patients having had symptoms for more than one year. The proportion of those presenting within the first one year of symptoms steadily rose from 16% for those who had no formal education to 61% for those with post-secondary education as shown in table 1 below.

**Table 1**

*Level of education and proportion of patients presenting within the first one year of symptoms onset*

Level of Education	$\leq$ One year	>One year	Proportion
No formal education	9	49	0.16
Primary	9	29	0.24
Secondary	3	9	0.25
College trained	11	7	0.61

The level of education acquired in terms of years of schooling were a period of up to 7 years for primary, up to 13 years for secondary and beyond 13 to a maximum 16 years for college education.

The proportion of patients presenting within a year of onset of symptoms progressively increased with a rise in the level of formal

education. The lowest proportion was among those with no formal education and the highest proportion was among the college-trained patients.

Table 2 below shows the relationship between the years of study and health status at presentation

**Table 2***Years of formal education and patient health status at presentation to Urology Clinic*

No of Years in school	Co-morbidity		Complications		Past admissions	
	Absent	Present	Absent	Present	No	Yes
None	35	23	52	6	49	9
≤7	29	6	33	2	33	2
7.1-13	14	1	14	1	15	0
>13	18	0	18	0	18	0

The complications were hypertension (6), anaemia (2) and renal insufficiency (1), giving a total of 9 patients and a complication rate of 7.1%. There were 30 (23.8%) patients with co-morbidities which included diabetes, chronic arthritis and peptic ulcer diseases and 11(8.7%) who had past admissions to hospital since onset of the urological symptoms. The past admissions ranged from one to three times prior to the presentation at the time of the study.

Those with no formal education (none) had the highest numbers of co-morbidities, complications and history of past admissions to hospital. The adverse events were minimal after seven years of schooling and disappeared altogether after 13 years of schooling.

Twenty-two patients (17.5%) actively sought medical attention in form of checkups and health information prior to onset of symptoms. They all had attained education levels of secondary school and beyond and were free of co-morbidities, complications and history of past admissions to hospital.

## DISCUSSION

The true effect of education is the transformation in behaviour and lived experiences that the learner exhibits <sup>3-5</sup>. A person with formal education acquires skills that mould his way of life. Aspects of quality of life tend to improve through preemptive moves such as medical checkups as well as

seeking medical interventions early enough to maximize on benefits. Education too empowers socially, financially and politically to enhance the general well-being of the beneficiary <sup>6</sup>. Health is a crucial segment of life and a determinant of literary any of the other components. A healthy person can achieve set goals and so safeguarding health can be considered a significant life skill acquired through formal education.

This study considered the duration of schooling as an objective variable of formal education and thus a likely indicator of educational impact on the study group. Schiefelbein and Farrell found the level of education attained a good indicator of its value to the learner and extent to which it modified health seeking behaviour<sup>7</sup>.

Our study had a finding on formal education that suggests that those with no or low formal education are disadvantaged on matters health. They had no knowledge on their problem, did not seek health interventions early, had no scheduled medical checkups and presented with co-morbidities, complications and past hospital admissions for the problem. Kabore and others in Ouagadougou had similar findings that the level of education positively correlates with the knowledge and need for early interventions for prostate problems <sup>2</sup>. In this study, formal education beyond basic primary school was essential in seeking health care services, search for health

information and attendance of medical checkups.

Those with no formal education were most at risk in terms of co-morbidities, presence of complications and history of past admission to hospital. They were closely followed by those with less than or equal to seven years of formal education. It is apparent that a critical level of exposure in education is necessary before the benefits of education on health seeking behaviour can manifest in the life of a learner as was found in other studies elsewhere <sup>4, 5</sup>. This study established that the adverse events become minimal after seven years and are eliminated at more than 13 years of schooling. Bennett and colleagues found that people with less than 8 years of education were 4.8 times more likely to develop complications compared to those with more than 11 years of education <sup>8</sup>.

In the context of the study, while formal education appears to confer health advantages, it is those with higher education that reaped maximum benefits. Those with low levels of formal education are comparable to those with no formal education. It suggests that going to school is not enough to take good care of oneself health wise. This has been observed elsewhere. Mouw et al found that the least educated men presenting with prostate disorders had increased risks of developing complications and co-morbidities <sup>9</sup> while Barbosa and others established that an additional four years of education lowered five-year mortality by 1.8 percentage points <sup>10</sup>. As Nilsson et al found out, limited education is the ignorance bliss that ends up in the pains of morbidities and mortalities that the adequately exposed avoid <sup>11</sup>. It is clearly evident that when it comes to benefits of formal education, merely going to school is not sufficient to protect oneself health wise.

## CONCLUSIONS

Formal education has positive effects on seeking health services by men with prostate disorders and this is most noticeable after attaining secondary school education and beyond.

## RECOMMENDATION

Urologists and other health personnel dealing with prostate disorders should bear in mind the adverse effects of low-level formal education with regard to self-care, co-morbidities and complications.

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