

2013 Annual National Digital Rectal Exam Day: impact on prostate health awareness and disease detection

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Purpose: "Mag-paDRE" is a yearly prostate health public awareness program initiated by the Philippine Urological Association. This study aimed to describe the demographic and clinical data of the participants in the 2013 "Mag-paDRE" program and to identify factors that will further improve prostate health public awareness.

Methods: A descriptive cross-sectional study undertaken to collect and assess the demographic data, International Prostate Symptom Score (IPSS) and digital rectal examination findings of the participants in the "Mag-paDRE" conducted in the 10 Philippine Board of Urology (PBU) different accredited training institutions. Descriptive statistics was used to report the proportion of Filipino men aged 40 or older who presented for their first prostate health evaluation. Clinical profile were reviewed and summarized. The study protocol was registered in the Clinicaltrial.gov under Identifier NCT01886547.

Results: A total of 925 participants from the 10 PBU accredited training institutions were assessed. Among the 10 training institutions the large tertiary government owned medical center had the highest number of participants and target participants recruited; while the private sectors owned tertiary hospitals have the highest proportion of target participants and cases. According to the predetermined definition of this study, 614 (66%) were considered the target population for the "Mag-paDRE" program. The mean age of the target participants was 58.9 ± 9.9 . Only 360 of 614 (59%) were new case, 118 (32.7%) had severe lower urinary tract symptoms (LUTS), 223 (62%) had moderate LUTS, 19 (5.3%) were asymptomatic but with hard prostates, palpable prostate nodules or prostate tenderness. The most bothersome symptoms were incomplete bladder emptying (30.2%), and frequency (22.9%).

Conclusions: Overall, the 2013 "Mag-paDRE" among the 10 training institutions was effective in promoting prostate health awareness. A need to modify the preactivity information dissemination by these institutions can be done to further increase the attendance of targeted population of the prostate health awareness program.

Keywords: Prostate health, Awareness program, Lower urinary tract symptoms

INTRODUCTION

Benign prostatic hyperplasia is one of the most common disease among elderly men [1]. The condition manifests as lower

urinary tract symptoms (LUTS). It significantly disrupts and compromise voiding function with decreases quality of life [2]. In majority of cases early detection with appropriate treatment, can lead to decreased complications [3].

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*The members of the PURA are listed in ACKNOWLEDGMENTS section.

Submitted: 18 January 2014 / Accepted after revision: 6 March 2014

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<http://p-international.org/>
pISSN: 2287-8882 • eISSN: 2287-903X

Lack of awareness, accessibility of the healthcare, and financial constraints are the factors identified that affect men's decision to seek medical advice for LUTS [3,4]. "Mag-paDRE ka" is a yearly public awareness program initiated by the Philippine Urological Association to improve information dissemination on prostate health and to provide free prostate health status assessment. A National Digital Rectal Examination (DRE) Day is declared each year, usually on the 3rd Saturday of June as part of this program. On the said day, males aged 40 years and above are encouraged to visit participating centers where they can be assessed as to the presence of LUTS and undergo a digital rectal examination. Advise and appropriate management, including the need for further diagnostic testing and treatment, are then given.

Since its launch in 1996, no formal evaluation of the Mag-paDRE ka program. This study was done to determine the effectiveness of the 2013 Mag-paDRE ka program in increasing awareness of prostate health and facilitate case detection among Filipino males aged 40 or older who never had any prior prostate evaluation. Specifically, this study aimed to describe the demographic and clinical data of the participants in the 2013 Mag-paDRE ka program in the 10 Philippine Board of Urology (PBU) accredited training programs and to determine the percentage distribution of participants who are the target population of the activity.

MATERIALS AND METHODS

A descriptive cross-sectional study was undertaken to collect and assess the demographic data, International Prostate Symptom Score (IPSS) and digital rectal examination (DRE) findings of the participants in the June 15, 2013 Mag-paDRE ka program conducted in the 10 PBU accredited training institutions.

1. The 2013 Mag-paDRE ka program

Two months prior to the National Digital Rectal Examination Day, the PUA conducted information dissemination campaigns on prostate health. PUA members participated in several aired or taped interviews about prostate disease over selected radio and television talk shows. Leaflets and streamers announcing the National Digital Rectal Examination Day activities were distributed and displayed at participating hospitals two weeks prior to the target date. Letters regarding the DRE project were distributed to hospitals and clinics of both private and government through the hospital directors or their respective Chief Executive Officers. Government as well as nongovernment agencies were sent letters of invitation to avail

of the project's free mass screening.

One month prior to actual event, all urology residents from the 10 accredited training institutions attended two workshops for the proper completion of the Mag-paDRE ka data collection form prescribed by the PUA. The form included the participants' basic demographic data, questions on general medical history, a locally validated and standardized Filipino version [5] of the IPSS and DRE findings. Training for all workshop attendees were done on the standardization of questionnaire administration and response recording and assessment and recording of DRE findings using a prostate model

On the National Digital Rectal Examination Day, all participants were assisted to answer the Filipino version of IPSS. A general physical examination including the DRE was done by urologists. The findings, prognosis and plans were discussed with the participant. For those found to have a significant prostate health condition requiring additional work-up, the necessary arrangements were made to facilitate such.

2. Data collection and processing

All data collection forms were collected nationwide and centrally archived at the PUA secretariat office. Convenience sampling method was applied to include all completed forms from the 10 PBU accredited training institutions. Data extraction was done, encoding the predetermined information needed for this study, which includes basic demographic characteristics of the participants (such as age and educational attainment), family history of prostate cancer, other medical conditions, and history of prior prostate screening/consultation for LUTS or prostate disease. The IPSS scores encoded were stratified according to mild (1-7), moderate (8-19), and severe (20-35). The DRE findings such as approximation of prostate size and prostate characteristic findings were categorized as: normal in size (20 g or less) versus enlarged (>20 g or 2 fingerbreadths in width), nodular versus nonnodular, doughy or hard, and tender versus nontender.

Participants were classified according to the following:

1) Target population for screening or not:

Target population for screening is defined as Filipino males aged 40 years or older, who had no previous consultation for LUTS or prostate cancer screening in the past 12 months.

2) Cases identified as significant LUTS or prostate cancer or not:

Case of LUTS or prostate cancer is defined as Filipino males aged 40 years or older with IPSS >8, or, has an abnormal DRE finding, which is defined as nodular or hard or tender prostate. However, a DRE finding of an enlarged

prostate but nonnodular, doughy in character and non-tender is not considered as a case of LUTS or prostate cancer suspect.

3. Data analysis

Descriptive statistics was used to report the proportion of Filipino men aged 40 or older who presented for their first prostate health evaluation, their demographic data and their clinical profile.

The study protocol was approved by the St. Luke’s Medical Center Institutional Ethics Review Committee and was registered in the Clinicaltrial.gov under Identifier NCT01886547.

RESULTS

A total of 2,310 survey forms from the 2013 “Mag-PaDRE ka” Day were submitted to PUA, 962 of which were from the from the 10 PBU accredited training institutions. 37 forms were excluded due to incomplete dataset for study objective; the remaining 925 forms (96%) were included for data analysis. Majority of the participants’ age ranged from 60–69 years (38%) with the mean age of 60.4±9.85 (standard deviation). Most were married (74%), with secondary school educational attainment (44%) (Table 1). Among the 10 training institutions, Jose Reyes Memorial Medical Center and National Kidney and Transplant Institute, which are the large tertiary govern-

ment owned medical center had the highest number of participants and target participants recruited; while University of Santo Tomas, University of the East, and St. Luke’s Medical Center, which were the private sectors owned tertiary hospitals have the highest proportion of target participants and case detected among the recruited attendees (Table 2). Majority of the participants were informed of the activity through radio broadcasts, fliers and posters.

Among the participants, 565 out of 925 (61%) were the pre-defined cases for further treatment and follow-up. Among the identified cases, 525 (93%) had ≥8 IPSS, and 40 (7%) had abnormal DRE findings (Fig. 1). Among those with moderate to severe LUTS, the most common symptoms according to IPSS are incomplete bladder emptying (36.9%), frequency (29.3%), weak-stream flow (24.6%), and nocturia (24.1%). Clustering the participants according to quality of life-score, 251 (27.2%)

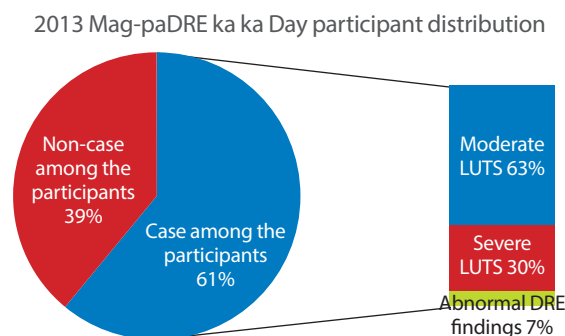


Fig. 1. Distribution chart of the participants and case classifications according to study definition

Table 1. Basic demographic data of the participants

Variable	No. (%)
Age (yr)	
<30	0 (0)
30–39	9 (1)
40–49	130 (14)
50–59	274 (30)
60–69	352 (38)
70–79	142 (15)
≥80	18 (2)
Marital status	
Single	100 (11)
Married	684 (74)
Separated	54 (6)
Widow	87 (9)
Educational attainment	
None	42 (5)
Primary	82 (9)
Secondary	408 (44)
College	364 (39)
Postgraduate	16 (2)
Master	10 (1)
Doctorate	3 (0)
Postdoctorate	0 (0)

Table 2. Distribution among the 10 training institutions, according to target and cases

Institution	Total participants	Target participants, n (%)	Cases among the participants, n (%)
AFPMC	66	49 (74.2)	19 (28.8)
EAMC	101	67 (66.3)	63 (62.4)
JRMMC	199	122 (61.3)	132 (66.3)
NKTI	169	121 (71.6)	110 (65.1)
PGH	86	50 (58.1)	47 (54.7)
SLMC ^{a)}	59	44 (74.6)	40 (67.8)
UE ^{a)}	56	40 (71.4)	39 (69.6)
UST ^{a)}	85	72 (84.7)	58 (68.2)
VMMC	47	17 (36.2)	22 (46.8)
VSMC	57	32 (56.1)	35 (61.4)
Total	925	614 (66.4)	565 (61.1)

AFPMC, Armed Forces of the Philippines Medical Center; EAMC, East Avenue Medical Center; JRMMC, Jose Reyes Memorial Medical Center; NKTI, National Kidney and Transplant Institute; PGH, Philippine General Hospital; SLMC, St. Luke’s Medical Center; UE, University of the East; UST, University of Santo Tomas; VMMC, Veterans Memorial Medical Center; VSMC, Vicente Sotto Memorial Medical Center.

^{a)}Private sector owned tertiary hospitals.

had scores from 5–7, 238 (25.7%) scored 3–4, and 436 (47.1%) had 1–2.

According to the predetermined definition of this study, 614 out of 925 (66%) were considered the target population for the paDRE ka program. The mean age of the target participants was 58.9 ± 9.9 . Among the target population, only 360 of 614 (59%) were new cases. One hundred eighteen of the new cases (32.7%) had severe LUTS, 223 (62%) had moderate LUTS, 7 (1.9%) were asymptomatic but with hard prostates, 8 (2.2%) had palpable prostate nodules and 4 (1.1%) had prostate tenderness. Among the 341 patients with moderate to severe LUTS, the most bothersome symptoms were Incomplete bladder emptying (30.2%), frequency (22.9%), weak-stream flow (19.1%), intermittency (18.8%), and nocturia (18.8%). Among the target population clustered according to quality of life (QoL) scoring, 158 (25.7%) had quality of life score of 5–7, 149 (24.3%) with QoL score 3–4 and 307 (50%) of QoL score 1–2.

DISCUSSION

The PUA prostate health awareness campaign was first implemented two decades ago to increase consciousness for prostate cancer primarily, and for other prostate diseases secondarily. In the Philippines, assessing men's health, particularly, prostate health condition is challenging due to the vast differences in the socioeconomic status, diverse culture and limited health care access. Hence, approaches to increase public awareness and promotion of health care seeking behavior are the keys in improving men's health status [6].

According to the study definition, among the 925 participants of the 2013 "Mag-paDRE ka" Day, more than half (61%) were the identified case, with 57% were reported to have moderate to severe LUTS and 4% were asymptomatic but with abnormal DRE findings. That being mentioned, majority of the participants and target participants have QoL of 1 and 2 (47.1% and 50% respectively), which depicts that the consult were not due to symptomatic consult, but rather due to prostate health awareness. The mean age 60.4 ± 9.85 among the recruited participants in the PaDRE ka Day was consistent with average age of participants reported from the other existing regional and international prostate health awareness program; likewise, it was consistent with the description of international LUTS and prostate cancer epidemiology [7-13].

More importantly, 66% among the participants were the target participants for the "Mag-paDRE ka" Day prostate health awareness program. Particularly, among these target population, more than half were the cases identified with the need for further management, mainly with moderate to se-

vere LUTS (95%), in smaller extent with abnormal DRE findings (5%). The involved target participants were noted at their forth to fifth decades of life, which was similar to the reports from South-East Asian survey depicting age of males start to experience LUTS [8].

Most of the bothersome symptoms reported among the identified cases with LUTS were incomplete bladder emptying, frequency and weak stream, which was contrary to the existing literature that shows the irritative symptoms were the bothersome symptoms that lead to health-seeking behavior among male with LUTS [8,14]. To clarify this aspect of contradicting result, future activity may use more objective parameter such as uroflowmetry and bladder scan to measure the reported obstructive symptoms to clearly describe the prevalence and characteristics of symptoms among the participants [8]. Measuring serum prostate specific antigen among the participant would also render more informative result, which might also set a local reference value. Likewise, further evaluation of participant's knowledge on prostate disease conditions must be performed in the forthcoming "Mag-paDRE ka" event to survey on areas of the participants' knowledge gain and change in prostate health behaviors after event consult and promote informed decision making in the management [15].

It was noted in the demographic characteristics that married men are the highest among the participants who seek consult on the event day; this clearly illustrated and support the notion that the spouse has an important role in the health-seeking behavior among men [16]. Likewise, most of the participants who availed the free consultation service were of secondary school and undergraduate educational attainment, which indirectly depicts that health awareness promotion, is particularly effective in this educational cluster [17,18]. Such that the majority of the participants obtained their source of information regarding the prostate health awareness event mainly from radio station broadcasting, posters and fliers; which seems to be a good media that can reach out to the masses. However, this year's participant census depict that there are still more rooms for improvement, particularly to reach out for the less educated population, which are mainly the less privileged and believed to be the larger portion of the Philippine society.

Among the 10 training institutions, government and university affiliated hospitals were able to recruit higher number of participants; which may be due to easier accessibility for healthcare in these institutions with availability of personnel of more organized in the dissemination of health related promotion as compared to the private sector owned hospital. Likewise, private owned hospital could be intimidating for

the general population to seek consult due to the perception of related high cost of service [18]. Although these institutions were able to recruit actual case intended for identification for this prostate health awareness program. Involvement and collaboration with the local health centers and utilization of barangay health workers in disseminating the prostate health awareness program can be a key to increase percentage of target participants in future activities. Likewise, longer period of pre-activity awareness dissemination through radio-station or even TV station can be a good means to reach out to more target population.

In conclusion, overall, the 2013 Annual National Digital Rectal Exam Day "Mag-paDRE ka" among the 10 training institutions was optimally effective in promoting prostate health awareness among the general population to recruit a significant proportion of target participants and the intended cases for urologic care. A need to modify the preactivity information dissemination by these institutions can be done to further increase the attendance of targeted population of the prostate health awareness program.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

ACKNOWLEDGMENTS

Cooperating agency or collaborators:

Philippine Urological Association Inc. (PUA); Philippine National DRE Committee 2013, Philippine Board of Urology (PBU), Philippine Urological Residents Association (PURA).

*Philippine Urological Resident Association (PURA) Officers: Albert Aquino (Jose Reyes Medical Center), Christopher Pineda (St. Luke's Medical Center), Michael Chua (St. Luke's Medical Center), Ernesto Romero (AFP Medical Center), Jose Fortunato Caringal (East Avenue Medical Center), Ramon Ursua (Jose Reyes Medical Center), Joseph Michael Ursua (East Avenue Medical Center), Jane Lampa (National Kidney Institute), Marlon Martinez (University of Sto. Tomas), Glenn Santoc (National Kidney Institute), Mark Joseph Abalajon (UP General Hospital), Clyde Depanos (Veterans Medical Center), Ryan Cablitas (UERMMC).

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