Original Research Study

Studies on Components, Challenges, Attitude and Expertise in Teaching Digital Rectal Examination(DRE) Skill to final MBBS Medico's in Kingdom of Saudi Arabia and Republic of India

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Abstract

In the present study on MBBS final year Students in Kingdom of Saudi Arabia and India

(1). Knowledge of Steps of DRE was present in 77.67% of Male medico's and 86.49% of Female medico's. Only 10.67% Males and 5.76% of Females medico's did not do any DRE ; However 36.89% of Male students and 27.58% of Female students were not supervised by Senior Faculty .

(2). Communication Skill was present in 75.72% of Male and 47.12% of Female medico's. (3). Disease Correct Diagnosis Skill was present in 92.23% of Males & 94.25% of Female medico's.

Keywords: *Intimate physical examinations, Digital rectal examination.*

Background

Process of physical examinations of intimate organs like genitalia, rectum, perineum and breast, is greatly complicated.

Challenges in teaching DRE skill are related to Teacher , Patient , Medical Student and Approach.

Digital rectal examination (DRE) helps detection of abnormalities of the rectum and prostate. Rectal Cancer, Rectal Polyp &Prostate Enlargement-BPH, Prostate Nodule, Prostate Cancer. [1,2,3,4]

Concern has arisen in World over and over- seas that medical students are no longer acquiring the skill of DRE before they graduate. DRE in a clinical setting, doctors are not sufficiently supervised by senior physicians . In the United Kingdom, number of DREs performed by medical students is falling [3], 11–30 (1990); 03-05 (2000)[5,6] ·In Australia," Of the 222 students, 92% accepted DRE had been taught how to perform a DRE, and 81% had received a tutorial on the DRE technique using plastic models.

Challenges in Teaching Dre Skill

Socio Ethics related [8,9]:

1. It involves teaching on private part of patient,

2. Position for DRE needs patients cooperation 3. Real patients are sometimes unfit or unwilling

Patient related:

1. Unwillingness, 2. Resentfulness and unwillingness, 3.Real patients Concern, and expectations related to diagnosis and treatment, 4.Real patients Pain, bleed and discomfort and being too sick, 5. Being only for the benefit of Medical students

Medical Student related [6]:

1. Student may be embarrassed or anxious , 2. Practice opportunities are less , only sporadic or opportunistic,3. DRE requires informed consent and

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appropriate supervision.,

4. Students may be more comfortable with old, child or rural patient.

Teaching Approach related:

1. On real patients, 2. On Teaching associates, 3. On video , 4.On Mannequin (Simulator)

Components Of Dre Skill[10]

1. History Taking Skill- includes a. Self-Introduction, Taking Consent, Establishing Rapport, Washing hands, Putting gloves, Privacy and Comforting patient.

2. Inspection Skill-includes Positioning of patient and legs, Perineum for identifying soiling, Anal fissure, Anorectal Fistulae, Anal growth, Prolapsed piles, Prolapsed rectum.

3. Palpation Skill- includes palpating Anus-verge, Rectum: Cavity, Mucosa, Wall, Prostate: Side to side, Trying to reach above , Overlying Mucosa , Consistency, Tenderness,

Nodularity, Hardness, Median Sulcus, Lateral Sulcus.

4. Disease Diagnostic Skill- Features Diagnostic of Normal and Disease in DRE.

Features Diagnostic of Normal & Disease In Rectum & Prostate during DRE[11,12,13]

(A). DRE features diagnostic in disease in rectum

(A1).Masses or ulcer in wall of rectum- mass is arising from Within /Outside rectal wall.

(A2). Mass: Felt in lumen of Rectum

(A3). Mass in Recto vesical and recto uterine pouch

(A4). Bimanual recto-abdominal examination: for size, shape, nature of pelvic masses.,

(B). DRE features diagnostic of rectum tumour

(B1). Adenoma of rectum : Pedunculated or Sessile, Small or Large .

(BII). Cancer-tumour low rectum(ampulla): Whole lesion : fixed or mobile; with and without local spread.; Papilliferous cancer: soft, frond like , narrow pedicle ;Villous cancer: Impalpable, sessile, soft ; Cancer ulcer: feels hard and bulges into lumen of rectum; Edge everted, Base irregular and friable

(BIII). Cancer-tumour upper rectum : May feel only lower edge of lesion in upper rectum; if patient strains down 2cm of the lesion may become palpable.

(C). DRE features diagnostic of prostate tumour 4

(C1). Normal features :Prostate Gland's Surface is spread 2-3 cm across posterior wall of rectum , Smooth, Rubbery, Symmetrical Bilobed. Rectal mucosa- freely mobile, Median grove or sulcus- shallow : Normal Seminal Vesicle usually not palpable.

(CII). BPH : Prostate gland is smooth surfaced, mucosa mobile, asymmetrical bilobed., enlarged., Rubbery.; Median groove (Central sulcus)- last to disappear in BPH. Prostate gland when hypertrophied bulges in rectum in BPH.

(CIII). Cancer prostate : - Prostate gland is Irregular, Hard, Asymmetrical often unilateral: Edges of gland indistinct, Mucosa may be fixed. Median groove (Central Sulcus) in Ca Prostate- may be distorted or obliterated at early stage of disease.

Material and Method

Objective of Study:

To assess

1. Experience of clinical training for DRE with focus on Reasons for not doing DRE, opportunity, supervision.

2. Awareness and Knowledge of Steps of DRE

3. Communication skill for (a). Ethics and Manners for Intimate physical examination DRE with focus on Consent-privacy-positioning and (b). History taking.

4. Disease diagnosis skill during DRE related to Anus: fissure- fistula- piles and Rectum: Polyp- Cancer.

5. Disease diagnosis skill during DRE related to Prostate : BPH and Cancer .

Study Design: Questionnaire-Based Research

Study

A structured self-completion questionnaire ,as follows, related to DRE was given to Medical Students. They were asked to describe and Choose the correct outcome measure.

1. Perceived barriers to DRE; Socio Ethics related, Patient related, Medical Student related, Teaching Approach related

2. Attitude to DRE: Extent of unease felt?: Did not perform DRE/ Hesitant/ Guilty feeling/ Confident

3. Level of consent? : No consent/ Verbal / Written

4. Number of DREs performed; Degree of supervision?: No supervision/ Supervision Consultant

5. DRE performance by Medico: History Taking Skill, Inspection Skill, Palpation Skill, Disease Diagnostic Skill.

6. Diagnostic capability of Medico for diseases of Anus & Rectum; Diagnostic Accuracy?:

7. Diagnostic capability for diseases of Prostate. Diagnostic Accuracy?

8. Confidence Level?: Unconfident/ Fully Confident

Results

Studies on digital rectal examination skill related Experience and attitudes among final year medical students : Saudi Arab and Indian Experience

1. MBBS Final Year students total 103 Males and 87 Females of medical schools in Kingdom of Saudi Arabia and India Participated in the study.

The break up was as follows: Males 36 only (Year 2015-16 ,Kingdom of Saudi Arabia); 34 Males and 40 Female (Year 2016-17 ,Kingdom of Saudi Arabia);

Males 17 and Females 23 (Year 2017-1817 at NCR, India); and 16 Males and 24 Females(Year 2018-19 at NCR, India.)

2. Experience with DRE was done in

a. Present series by 65% Male and 72.41% Female Medicos.

b. Reason for not doing DRE in most cases was sense of Bothersome, Opposite Sex examination and Sense guilt.

3. Skill evaluation- Awareness and Knowledge of Steps of DRE was present in Present series in 77.67% of Male and 86.49% of Female medicos.

a. DRE was done in present series 1 to 2 times by 90.3% of Male and 94.25% Female medicos .

b. DRE under Supervision was done in present series by 65% male and 72.41% female medicos .

4. Communication skill for Ethics & etiquette-and manners was studied

a. Introduction with patient 75% males, 57.47% female medicos; for Consent taking before intimate examination by males in 45%and Females 57.47%; for Privacy maintenance during intimate clinical examination by 45% male and 57.47% female medicos; proper positioning of patient was done by 81.55% male and 78.16%by female medicos.

b. History taking- related to diseases of Anus-Rectum- Prostate in present series was evident in 81.55% Male and 79.31% female medicos.

5. Disease diagnosing skill for Ano-Rectal benign conditions in present series was present in 92.2% Males and 94.25% female medicos and ; for Ano-Rectal malignant conditions in present series was present in 76.94% Males and 62.06% female medicos.

6. Disease diagnosing skill for Prostate benign hyperplasia in present series was present in 60.47% male and 54.49% female Medicos; for Prostate cancer in present series was present in 61.35% Male and 57.47% female medicos .

Discussion

1. DRE was done in Present series by 65% Male medicos and 72.41% Female Medicos against 83% Medicos reported by Turner KJ5.

2. Awareness and Knowledge of Steps of DRE

a. in present series DRE was done 1 to 2 times by 90.3% of Male and 94.25% Female medicos against 5 or less times by 32.78% DRE /month & >10DRE times by 11.28% by Damien and Bolton.14

b. under Supervision was done in present series by 65% male and 72.41% female medicos against 31% in UK and 52% in Australia. Damien and Bolton.14

3. Communication skill for Ethics and Etiquettes was followed in present series for

a. Introduction with patient 75% males, 57.47% female medicos; for Consent taking before intimate examination by males in 45%and Females 57.47%; for Privacy maintenance during intimate clinical examination by 45% male and 57.47% female medicos; proper positioning of patient was done by 81.55% male and 78.16%by female medicos.

b. History taking- related to diseases of Anus-Rectum- Prostate in present series was evident in 81.55% Male and 79.31% female medicos.

4. Disease diagnosing skill for Ano-Rectal benign conditions in present series was present in 92.2% Males and 94.25% female medicos and ; for Ano-Rectal malignant conditions in present series was present in 76.94% Males and 62.06% female medicos against 19% reported by Turner KJ5, in Oxford University Medicos 45% and in London University Medicos in 53% as reported by Damien Bolton.14

5. Disease diagnosing skill for Prostate benign hyperplasia in present series was present in 60.47% male and 54.49% female Medicos; for Prostate cancer in present series was present in 61.35% Male and 57.47% female medicos against 24% reported by Turner KJ.5

Conclusion

1:MBBS Final Year students total 103 Males and 87 Females of medical schools in Kingdom of Saudi Arabia and India Participated.

The break up was as follows: Males 36 only (Year 2015-16 ,Kingdom of Saudi Arabia); 34 Males and 40 Female (Year 2016-17 ,Kingdom of Saudi Arabia);

17 Males and 23 Females (Year 2017-1817 at NCR, India); and 16 Males and 24 Females(Year 2018-19 at NCR, India.)

2: Skill under evaluation- Knowledge of Steps of DRE-Male -77.67% ; Female -86.49%; Times attended training-Male nil times -10.67%; Male 1-2 times- 90.3% // Female Nil times-5.74% ;

Female 1-2times -94.25%; Times practised under Supervision-Male nil-36.89%; Male 1-2times-65.0%//;Female nil times-27.58%; Female 1-2times -72.41%

3: Communication skill(ethics & etiquette-Introduction-Male 75.72% , Female 47.12% ; Consent-Male 45.63%; Female 57.47% ;Privacy-Male 45.63% , Female 57.47%; Position-Male 81.55%; Female 78.16%

4: Communication Skill(History Taking)- GI Anus, Rectum History: Bleeding, Pain, Discharge- Male 81.55%; Female 79.31%

5: Disease diagnostic skill - Anus, Rectum : Fissure, Fistula, Prolapse: Male (92.23%) & Female (94.25%);

Rectum Polyp-: Male (92.23%) & Female (94.25%); Cancer Rectum-: Male (76.94%) & Female (62.06%)

6: Disease diagnostic skill- prostate: BPH- Male **(60.47%); Female (54.49%); PROSTATE CANCER-Male (61.35%) Female (57.47%)**

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Ethical Clearance: The ethics review was not considered in this study to require approval. Informed consent was obtained prior to the SP training. The participation was voluntary. All participants gave written informed consent

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