

# Use of a Quality Index Tool to assess the completion of medico-legal forms for rape survivors in South Africa

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# THE SOUTH AFRICAN CONTEXT

- In South Africa, rape is defined as “Any person ("A") who unlawfully and intentionally commits an act of sexual penetration with a complainant ("B"), without the consent of B, is guilty of the offence of rape.” (The Criminal Law (Sexual Offences and Related Matters) Amendment Act, 2007 (Act No. 32 of 2007))
- This law is applicable to all forms of sexual penetration without consent, irrespective of gender
- The number of rape cases reported to police in South Africa peaked in **2012/13 at 48 408 cases** (South African Police Service Statistics)
- Since then it has dropped by 3.9% to **41 503 cases** in **2015/16** (South African Police Service Statistics)
- Under-reporting of rape cases is well documented in SA (1:9 – population based survey) (Jewkes & Abrahams, 2002)
- The *South African National Sexual Assault Policy (2005)* states that survivors of rape can present directly to a health facility and have an examination and then decide whether to report to police or not
- Examinations can be conducted by doctors or nurses
- There are initiatives to train health care providers in post-rape management and care (Christofides et al. 2005; Jina et al. 2013)

# Medico-legal forms are used to document findings from a clinical examination after rape

**ORIGINAL TO POLICE**  
060182936JJ

**REPORT BY AUTHORISED MEDICAL PRACTITIONER ON THE COMPLETION OF A MEDICO-LEGAL EXAMINATION**  
To be completed in legible handwriting and signed on every page

**A. DEMOGRAPHIC INFORMATION**

1. Police Station: \_\_\_\_\_ 2. Case No.: \_\_\_\_\_ 3. Investigating officer: Name and number: \_\_\_\_\_ 4. Time: \_\_\_\_\_ Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

10. Physical practice address or stamp: \_\_\_\_\_

**B. GENERAL HISTORY**

1. Relevant medical history and medication: \_\_\_\_\_

**C. GENERAL EXAMINATION**

1. Condition of clothing: \_\_\_\_\_ 2. Height (cm): \_\_\_\_\_ 3. Mass: \_\_\_\_\_ 4. General Body Build: \_\_\_\_\_

5. Clinical findings: In every case the nature, position and extent of the abrasion, laceration or other injury must be described and noted together with its probable date and manner of causation. The position of all injuries and wounds must also be noted on the sketches.

6. Mental health and emotional status: \_\_\_\_\_

7. Clinical evidence of drugs or alcohol: \_\_\_\_\_

**II. CONCLUSIONS**

Signature of medical practitioner: \_\_\_\_\_

**12. PERINEUM**

**IN CASE OF ALLEGED SEXUAL OFFENCE**

1. Number of deliveries: \_\_\_\_\_ 2. Duration of pregnancy (if applicable): \_\_\_\_\_ weeks \_\_\_\_\_ days \_\_\_\_\_

3. First date of last menstruation: \_\_\_\_\_ 4. Duration of period: \_\_\_\_\_ 5. Duration of cycle: \_\_\_\_\_

6. Number of consensual sexual partners during last 7 days: \_\_\_\_\_ 7. Condoms: Yes  No

8. washed  douched  showered  unaltered  changed clothing

**CLINICAL EXAMINATION (State clinical findings)**

1. Pubic hair: Tanner stage 1-5: \_\_\_\_\_ 2. Mons pubis: \_\_\_\_\_

3. Frenulum of clitoris: \_\_\_\_\_

4. Para-urethral folds: \_\_\_\_\_

5. Labia minora: \_\_\_\_\_

6. Bleeding: \_\_\_\_\_

7. Increased friability: \_\_\_\_\_

8. Orientation: Transverse  Vertical

9. 16. Clitoris: \_\_\_\_\_

10. 19. Bruising: \_\_\_\_\_

11. Bleeding: \_\_\_\_\_ Tears: \_\_\_\_\_

12. Discharge: \_\_\_\_\_

13. Erosion: \_\_\_\_\_ Discharge: \_\_\_\_\_

14. Bleeding: \_\_\_\_\_ Other: \_\_\_\_\_

**F. SAMPLES TAKEN FOR INVESTIGATION**

1. Urine sample for pregnancy test: POSITIVE  NEGATIVE

2. Swab collection kit: \_\_\_\_\_

**G. ANAL EXAMINATION (State clinical findings)**

1. Reflex dilatation: \_\_\_\_\_ 2. Rectovesicular/vesicular: \_\_\_\_\_

3. Spontaneous eversion of anal canal: \_\_\_\_\_ 4. Bruising/haemorrhoids: \_\_\_\_\_

5. Cupping: \_\_\_\_\_ 6. Tags: \_\_\_\_\_

7. Thickening of anal verge: \_\_\_\_\_

8. Tone (sphincter grip): \_\_\_\_\_

**H. MALE GENITALIA**

1. Pubic hair: Tanner stage 1-6: \_\_\_\_\_ 2. Prepuce and frenulum: \_\_\_\_\_


3. Scrotum: \_\_\_\_\_ 4. Epididymus: \_\_\_\_\_

5. Penile discharge: \_\_\_\_\_ 6. Sperm: \_\_\_\_\_

7. Circumcision: \_\_\_\_\_ 8. Urethral orifice: \_\_\_\_\_

9. Signature of medical practitioner: \_\_\_\_\_

**Signature of Medical Practitioner**



# BACKGROUND

- Medico-legal forms are critical for the legal progression and outcome of the case (Jewkes et al, 2013)
- The quality of how these forms are completed is therefore pertinent
- There are many references to poorly completed medico-legal forms in South Africa (Smythe et al., 2005; Muller & Saayman, 2003; Christofides et al., 2003)
- Although assumptions are made on what comprises a well completed medico-legal form, the measure of quality is not clear
- A Quality Index Tool (QIT) was developed through a Delphi process with South African medical and legal experts on factors they thought contributed to the quality of the completed medico-legal forms

# OBJECTIVE

- The aim of this study was to identify factors associated with higher quality in the completion of medicolegal forms using the quality index tool (QIT)

# QUALITY INDEX TOOL (QIT)

Items rated on dimensions such as legibility and completeness

Most items were scored on a Likert scale of 1 to 3

J88 CAS Number		PLEASE CIRCLE THE APPROPRIATE SCORE			
ISSUES OF QUALITY IDENTIFIED BY EXPERTS (>81.25% AGREEMENT =13 or more of 16)					
GENERAL ISSUES COMPROMISING QUALITY					
1	The healthcare worker's handwriting is illegible.	COMPLETELY ILLEGIBLE = 1	PARTIALLY LEGIBLE = 2	CLEARLY LEGIBLE = 3	
2	Medical Abbreviations are used on the form without explaining what they mean.	MANY ABBREVIATIONS = 1	SOME ABBREVIATIONS = 2	NO ABBREVIATIONS = 3	
3	Medical jargon is used on the J88 form.	A LOT OF MEDICAL JARGON USED = 1	SOME MEDICAL JARGON USED = 2	NO MEDICAL JARGON USED = 3	
4	Where there is an error that has been corrected on the J88 form, it has <b>NOT</b> been initiated by the healthcare worker.	MANY UNINITIALED ERRORS = 1	SOME UNINITIALED ERRORS = 2	NO UNINITIALED ERRORS = 3	NO ERRORS = 3
<b>GENERAL HISTORY [SECTION B ON J88 FORM]</b>					
5	Disabilities, learning disorders, behavioural disorders and communication difficulties, when recorded, are clarified.	NO PROBLEMS ARE CLARIFIED = 1	SOME PROBLEMS ARE CLARIFIED = 2	ALL PROBLEMS ARE CLARIFIED = 3	NONE RECORDED = 2
6	In the case of <b>children</b> , their exact words are used to describe the history.	NONE OF THE HISTORY RECORDED IN CHILD'S OWN WORDS = 1	SOME OF THE HISTORY RECORDED IN CHILD'S OWN WORDS = 2	ALL OF THE HISTORY IS RECORDED IN CHILD'S OWN WORDS = 3	
<b>GENERAL EXAMINATION [SECTION C ON J88 FORM]</b>					
7	The patient's mental health and emotional status are described as "Normal" without further explanation	NOT EXPLAINED = 1	EXPLAINED = 2	NOT NORMAL = 2	
8	When mental health and emotional status are <b>NOT</b> normal, the statement is explained or clarified/ not completed	EXPLAINED = 2	NOT EXPLAINED = 1	NORMAL = 1	
9	When the patient is described as "intoxicated" or "drunk", the clinical features of intoxication are indicated	INDICATED = 2	NOT INDICATED = 1	NOT INTOXICATED OR DRUNK = 2	
10	Injuries documented are adequately described in size, shape, borders and type of force (blunt vs sharp).	INJURIES NOT DESCRIBED = 1	INJURIES PARTIALLY DESCRIBED = 2	INJURIES FULLY DESCRIBED = 3	NO INJURIES RECORDED = 1
11	There is a concluding statement summarising the General Examination findings.	IRRELEVANT OR NO SUMMARY OF GENERAL EXAM FINDINGS = 1	PARTIAL SUMMARY OF GENERAL EXAM FINDINGS = 2	CONCLUSIVE SUMMARY OF GENERAL EXAM FINDINGS = 3	
<b>HISTORY IN CASE OF ALLEGED SEXUAL ASSAULT [SECTION D ON J88 FORM]</b>					
12	The relevant parts of Section D on the J88 form is completed in <b>male</b> patients. (ONLY COMPLETE IF PATIENT IS MALE).	TRUE = 2	FALSE = 1		
13	When "condom use" is ticked, it is clarified whether it was used with a consensual partner or during the sexual assault.	TRUE = 2	FALSE/ NOT COMPLETED = 1		

GYNACOLOGICAL EXAMINATION [SECTION E ON J88 FORM]		ONLY COMPLETE THIS SECTION IF PATIENT IS FEMALE			
14	A digital examination was conducted and documented as the number of fingers inserted in <b>female</b> patients.	TRUE = 1	FALSE = 2		NOT COMPLETED = 2
15	Boxes under the gynaecological examination are left blank/ completed with ticks or crosses or "N/A", and <b>NOT</b> explanatory statements, in <b>female</b> patients.	ALL BOXES LEFT BLANK/ HAVE TICKS/ NAD/ N/A = 1	SOME BOXES LEFT BLANK/ HAVE TICKS/ NAD/ N/A = 2	ALL BOXES HAVE EXPLANATORY STATEMENTS = 3	
16	Boxes under the gynaecological examination are completed with "Normal"/ "NAD"/ "intact"/ "none"/ "no injuries"/ "nil", in <b>female</b> patients, and <b>NOT</b> explanatory statements.	ALL BOXES HAVE "NORMAL" = 1	SOME BOXES HAVE "NORMAL" = 2	ALL BOXES HAVE EXPLANATORY STATEMENTS = 3	
17	In <b>female</b> patients, there is a concluding statement about the sexual assault history and gynaecological examination after "Samples taken for Investigation" - Section F on J88 form.	IRRELEVANT OR NO SUMMARY OF HISTORY & GYNAE EXAM FINDINGS = 1	PARTIAL SUMMARY OF HISTORY & GYNAE EXAM FINDINGS = 2	CONCLUSIVE SUMMARY OF HISTORY & GYNAE EXAM FINDINGS = 3	
<b>ANAL EXAMINATION [SECTION G ON J88 FORM]</b>					
18	Section G is <b>NOT</b> completed, or "NAD" or "N/A" etc. are written with no other explanation.	TRUE = 1	FALSE = 2		
19	There is a concluding statement of anal examination findings or lack thereof.	PRESENT = 2	ABSENT = 1		
<b>MALE GENITALIA [SECTION H ON J88 FORM]</b>		COMPLETE THIS SECTION ONLY IF PATIENT IS MALE			
20	Section H is <b>NOT</b> completed or "NAD" or "N/A" are written with no other explanation.	NOT COMPLETED/ NAD/ N/A = 1	COMPLETED = 2		
21	There is a concluding statement of male genitalia findings or lack thereof.	PRESENT = 2	ABSENT = 1		
22	The <b>FINAL</b> concluding statement excludes sexual abuse because of a "normal examination". (ONLY IF EXAMINATION WAS NORMAL).	TRUE = 1	FALSE = 2		NO FINAL CONCLUDING STATEMENT = 1
<b>DIAGRAMS TO DENOTE INJURIES</b>					
23	Diagrams that are not completed are crossed out.	ALL UNCOMPLETED DIAGRAMS NOT CROSSED OUT = 1	SOME UNCOMPLETED DIAGRAMS NOT CROSSED OUT = 2	ALL UNCOMPLETED DIAGRAMS ARE CROSSED OUT = 3	
24	When diagrams are crossed out, there is <b>NO</b> signature in the two relevant signature boxes.	NO SIGNATURES = 1	ONE SIGNATURE PRESENT = 2	BOTH SIGNATURES PRESENT = 3	
<b>TOTAL SCORE</b>					

ACCEPTABLE SCORES FOR EACH PATIENT CATEGORY (>= 75%)	
FEMALE CHILD	>= 41 out of 55
FEMALE ADULT	>= 39 out of 52
MALE CHILD	>= 38 out of 50
MALE ADULT	>= 35 out of 47



# METHODOLOGY

- 2828 medico-legal forms were captured as part of a nationally representative study of case progression after rape between January and December 2012
- A multi-stage sampling strategy was implemented
- Police dockets were sampled from police stations throughout the country
- We randomly sampled 160 medico-legal forms from the national study using a random number generator
- The quality of the medico-legal forms were scored using the QIT by 4 researchers
- Scores were converted into a percentage for comparison across males/females, adults/children as denominators varied
- Inter-rater agreement was assessed (Kappa=0.86)
- Provider and patient factors such as being a doctor or nurse, and adult or child were captured from medico-legal forms without capturing any identifying information



# STATISTICAL ANALYSIS

- The data was entered into STATA 13 for analysis
- ANOVA, t-tests and multiple linear regression models identified patient and provider factors associated with higher quality in the completion of forms i.e. a higher QIT %
- In addition, a logistic regression model was built to test whether a higher QIT% was associated with having a better written conclusion on the medicolegal form
- For all modelling, variables with a p value of  $\leq 0.2$  were included in the multivariable models
- All models controlled for the province where the forms were completed
- Ethics clearance was granted by Wits University ethics committee (IRB)



# RESULTS:

- The mean QIT percentage was 72.1% (65.0 - 79.2%)
- Patient & provider characteristics from medico-legal forms (n = 160)

<b>PATIENT CHARACTERISTICS</b>		
<b>SEX</b>	<b>NUMBER</b>	<b>%</b>
Male	6	3.8
Female	154	96.2
<b>ADULT/ CHILD</b>		
Adult	94	58.8
Child	66	41.2
<b>PROVIDER CHARACTERISTICS</b>		
<b>DOCTOR/ NURSE</b>		
Completed by doctor	124	77.5
Completed by nurse	36	22.5

# RESULTS:

## Bivariate Analysis of factors associated with QIT%

	n	Mean of QIS%	Standard Deviation	Range	p value
<b>PATIENT CHARACTERISTICS</b>					
Male	6	74.2	6.8	(67.4 - 81.0)	0.17
Female	154	72	7.1	(64.9 - 79.1)	
Adult	94	<b>73.4</b>	6.9	(66.5 - 80.3)	<b>0.04</b>
Child	66	<b>70.9</b>	7.1	(63.8 - 78.0)	
<b>PROVIDER CHARACTERISTICS</b>					
Completed by doctor	124	<b>70.6</b>	6.6	(64.0 - 77.2)	<b>&lt;0.01</b>
Completed by nurse	36	<b>77.3</b>	6.4	(70.9 - 83.7)	



# RESULTS:

Multiple linear regression model of QIT %\*

	Coefficient	95% CI		p value
Nurse (doctors as comparison)	5.12	2.50	7.70	<b>&lt;0.01</b>
Child (adults as comparison)	-2.02	-3.80	-0.10	<b>0.04</b>

\*Controlled for presence of injuries and province

# RESULTS:

Logistic regression analysis of factors associated with a better conclusion on the medico-legal form

	Odds Ratio	95% CI		p value
QIS	1.15	1.06	1.20	<0.01
Nurse (doctor as comparison)	3.83	0.82	11.85	0.09
<b>ANAL INJURIES (NOT COMPLETED AS COMPARISON)</b>				
Completed, no injuries	0.89	0.62	12.76	0.93
Completed, injuries	3.43	0.20	58.80	0.40
<b>PERSONAL INJURIES (NOT COMPLETED AS COMPARISON)</b>				
Completed, no injuries	0.88	0.34	2.27	0.80
Completed, injuries	2.24	0.23	21.59	0.49



# CONCLUSION

- None of the forms achieved a QIT% above 80%, indicating an overall need for improvement in the completion of medico-legal forms
- Quality of completion of forms was better for adult patients
- Forms completed by nurses achieved better scores
- A higher quality score was associated with having a better conclusion in terms of the examination findings
  - This indicates that the tool can work as an indicator of overall quality, which is significant for the legal progression of the case (Jewkes et al., 2009)

# LIMITATIONS

## LIMITATIONS OF THE TOOL

- The QIT measures accuracy of the completion of a medico-legal form but does not measure the interpretation of the results

## LIMITATIONS OF THE STUDY

- Small sample size, especially for male patients (n=6)
  - This reflects the proportion of male patients reporting rape in South Africa
  - This study was not powered to detect a difference between male and female patients

# RECOMMENDATIONS

- The QIT has highlighted areas of the medicolegal document that are considered important for case progression
- More training is required for providers, especially doctors, in documenting findings, particularly among children
- Further research into the quality of the completion of medico-legal documentation of rape is needed



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