VALIDATION OF THE TRINIDADIAN PRIMARY CARE ASSESSMENT TOOL – ADULT EDITION (PCAT-AE) AND THE ASSESSMENT OF PRIMARY CARE IN SOUTH-WEST TRINIDAD DURING THE COVID-19 PANDEMIC

A Clinical Research Project

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ABSTRACT

Introduction: This research paper reports on the validation of the Primary Care Assessment Tool–Adult Edition (PCAT-AE) and its use in Trinidad and Tobago during the COVID-19 pandemic. The PCAT-AE assesses the quality of primary health care delivery by measuring four core domains (Accessibility, Longitudinality, Coordination and Comprehensiveness) and three ancillary domains (Family Centredness, Community Orientation and Cultural Competence).

Objectives: 1. To adapt the PCAT-AE for Trinidad and Tobago by assessing its validity and internal consistency

2. To re-analyse the data using the validated Trinidadian version (PCAT-TT)

Methods: A cross-sectional study was conducted in the health centres of three counties under the South-West Regional Health Authority during the period of July 2021 to January 2022. Face validity was assessed by an expert panel and pilot testing. Data was collected via convenience sampling and telephone interviews. Tests for reliability and validity were performed. The data was re-analysed using the PCAT-TT.

Results: There were 369 participants in total. Thirty-three items of the PCAT-AE did not meet the retention criteria and were deleted, resulting in the validated PCAT-TT with 67 items. The data was re-analysed with 359 participants who chose the health centre as their usual source of care. The domains with the lowest scores included Comprehensibility: Services Received, First Contact: Access, Coordination: Information Systems and Community Orientation. The Essential Score (mean score of core domains) was given a "poor" rating while the Overall Score (total mean score) was rated as "reasonable." Predictors of great performance PCAT-TT overall scores were found to be primary school education level or lower, duration of attending health centre ≥5 years, referral to specialists or special services, and health centres located in the counties of St. Patrick and Caroni South.

Conclusion/Recommendations: The PCAT-TT has been proven to be a valid and reliable tool to extensively evaluate primary health care in Trinidad and Tobago. This study was conducted in the health centres of the South-West Trinidad during the COVID-19 pandemic when there were national restrictions in place to limit the spread of the virus which were also reflected in the PCAT-TT scores. Recommendations from this study to strengthen the public primary health care system include improvement in attributes such as accessibility, person-focused care, coordination through information systems, primary health care services and research in the community.

INTRODUCTION

In Trinidad and Tobago, primary health care services are free and universally accessible to all citizens at public health facilities through ninety-six (96) health centres and nine (9) district health facilities located throughout both islands.[1,2] General services provided by these health centres comprise of antenatal and postnatal care, family planning, child health and chronic disease clinics in addition to pharmacy services, home visits, walk-in clinics and referral to secondary care services if needed.[1] All health centres are open daily, while some offer extended opening hours on weekdays and weekends. District health facilities provide additional services in the community including 24-hour urgent care, radiological investigations, and specialty outpatient clinics such as Dermatology, Psychiatry and Diabetic Clinics.

There has been accumulating evidence associating primary care with improved health outcomes, such as lower mortality, reduced expenditure and possible abating of the unfavourable consequences of income disparity on health.[4] In the National Strategic Plan for Trinidad and Tobago (2017 – 2021), strengthening primary health care was seen as one of the solutions to prevent and control non-communicable disease, a major cause of morbidity and mortality in this population.[5] Attributes such as patient-centredness, harmonious coordination between levels of care, health promotion and evidence-based management were highlighted as areas of focus, to promote high-quality primary care.[5] Investments in primary care such as these should be accompanied by assessments of quality, efficiency and patient satisfaction.[6]

Previous research conducted in Trinidad and Tobago using de novo and validated surveys has demonstrated relatively high patient satisfaction ratings with the primary health care system, which positively correlates with the quality of care received.[7-9] However, satisfaction ratings may differ considerably, as it is subject to a person's expectations, and they do not propose specific ways and means to improve the health care system.[3] There is currently no locally validated quality assessment tool to determine if there has been improvement in primary care since the National Strategic Plan was implemented. The Primary Care Assessment Tool–Adult Edition (PCAT-AE) can be used for this purpose.

The PCAT-AE assesses the patients' experience with the primary health care system rather than satisfaction ratings.[3] It has shown to be effective in assessing the breadth and quality of primary health care, as it is consistent with the definition of primary care by the 1978 Institute of Medicine.[4,6] Systematic reviews have shown that the PCAT is one of the instruments with the best coverage of primary health care qualities by measuring nine constructs when compared to other questionnaires, and it is the most adequate tool to evaluate the extent of primary care provision and create new policies to improve family health care.[10,11]

The PCAT-AE was first validated in South Carolina, USA in 2001 and since then has been translated into multiple languages and validated in several other countries such as Canada (Quebec), Latin America (Brazil, Argentina, Uruguay Republic), Asia (China, Japan, South Korea and Vietnam), Europe (Spain) and Africa (Malawi and South Africa).[6,12,13] Validation is necessary as primary health care systems, languages and cultures vary by location, which may make some components of the tool unsuitable if it is not adapted to that setting, and can also lower the number of items making the instrument more concise.[4,13] A locally validated PCAT-AE will be greatly beneficial to the primary health care system of Trinidad and Tobago as an important quality assessment tool for baseline assessment and future evaluations in different settings and locations. Using this tool can identify deficient areas in our primary health care system and strategic proposals can be created to strengthen those areas to provide a higher quality of primary care to our population.

In January 2020, the declaration of the novel coronavirus (COVID-19) as a worldwide public health emergency by the World Health Organization significantly impacted primary health care systems globally.[14,15] Like the UK, primary care in Trinidad and Tobago has strengthened the national response to the COVID-19 pandemic by testing, diagnosing, treatment and surveillance of positive cases, along with crucial prevention strategies such as mass vaccination programmes.[15,16] Furthermore, measures were implemented to limit the spread of the virus such as telemedicine, separate pathways for those with suspected symptoms and the continuation of urgent clinical services.[15,16] Even though telemedicine was implemented to maintain continuity of care, it is likely that patients with non-communicable diseases may be negatively impacted due to decreased disease monitoring and compliance with medications.[16] There is a paucity of

information regarding the impact of COVID-19 on our local primary health care system and the PCAT is a valuable tool for this purpose.

AIMS

1. To culturally adapt the PCAT-AE to the Trinidadian vernacular and primary health care services
2. To assess the face validity and internal consistency of the Trinidadian PCAT-AE as reported by a sample of adults that receive primary care services from the South-West Regional Health Authority (SWRHA)
3. To assess the adequacy of primary care delivered in local health centres of three counties covered by the SWRHA

OBJECTIVES

1. To culturally adapt the PCAT-AE questionnaire by using an expert panel of family physicians with post-graduate training in Family Medicine
2. To pilot test the adapted PCAT-AE with a selected group of patients who attend a local health centre
3. To apply the adapted PCAT-AE to a sample of participants attending local health centres of the SWRHA
4. To assess the face validity and internal consistency of the adapted PCAT-AE by using statistical tests
5. To re-analyse the data using the validated Trinidadian version of the PCAT-AE

METHODOLOGY

STUDY DESIGN

This research project consists of a combined validation and cross-sectional descriptive study design. Validation studies follow similar methods and tests for reliability and validity, and are considered as a different study design rather than cross-sectional.[17]

SETTING

The study was conducted in health centres located throughout the three counties of the SWRHA i.e. St. Patrick, Victoria and Caroni South. The initial adaptation process (expert panel discussion and pilot testing) was conducted over a one month period in July 2021. Data was collected from August 2021 to January 2022.

STUDY POPULATION

The study population included adult outpatients of the local health centres of all three counties of the SWRHA.

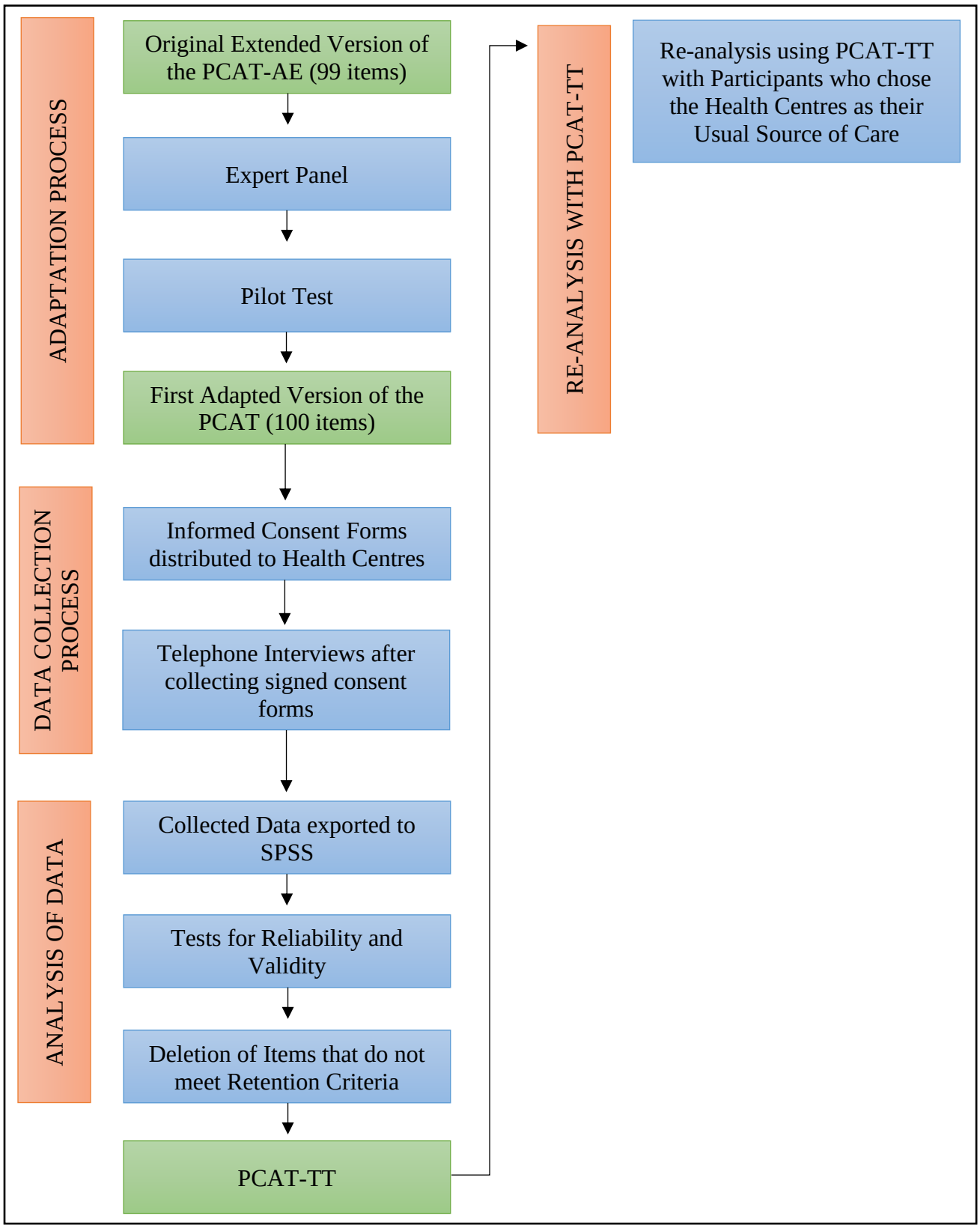
INCLUSION CRITERIA

1. Patients who attend the health centre for a minimum of one year, with at least three previous visits to the same health centre
2. Adult participants who are 18 years or older
3. Participants must speak fluent English
4. Participants must have access to a telephone

EXCLUSION CRITERIA

1. Patients with acute illnesses who require emergency care
2. Patients with flu-like symptoms
3. Patients with severe mental disorders such as dementia and schizophrenia

Diagram One (1): Flow Chart showing the Outline of the Methodology



ADAPTATION OF THE PCAT FOR TRINIDAD AND TOBAGO

Description of Original PCAT-AE

The expanded version of the original tool consists of ninety-nine (99) items with seven (7) domains and nine (9) scales. There are three initial questions to determine the primary source of care and the strength of affiliation with that source, which is scored via an algorithm.[4] Responses to items are scored on a four-point Likert scale (1–definitely not, 2–probably not, 3–probably and 4–definitely) and an option for "Don't know/Can't remember".[4]

The four core attributes are described as follows:[4]

1. First contact, which measures how accessible the primary care source is to the patient and how it is used for their concerns. It is measured via two scales: accessibility and utilisation.
2. Longitudinality which looks at the primary care source and patient relationship over time. It is measured by one scale and the affiliation index.
3. Coordination measures how service between levels of care i.e. health centre and hospital services, are brought together for the patient. It is measured by two scales.
4. Comprehensiveness measures the primary care services that are available and received by patients. It is measured via two scales: services available and services received.

The three ancillary domains are measured by one scale each, which are defined as follows:[4]

1. Family centredness incorporates the family influences on the cause and management of disease
2. Community orientation addresses the primary care provider's understanding of community needs
3. Cultural competence measures the primary care provider's adaptation to foster relationships with patients of different cultural backgrounds

Adaptation Process

The adaptation process served to adapt the US validated PCAT-AE (Expanded Version) to the local primary health care system of Trinidad and Tobago in terms of available services and minor language adjustments to improve comprehensibility by participants. This was done using

an expert panel and pilot test. After this process, an adapted version was produced that was agreed to be suitable for Trinidad and Tobago and was used to collect data from the participants. Details of the adaptation process are as follows:

1. Expert Panel

The expert panel comprised of six physicians working in primary care in the SWRHA with varying post-graduate qualifications including Diplomas and Masters Degrees in Family Medicine, as well as Master of Public Health (MPH) degrees. A google form with the questionnaire was sent to the expert panel and a majority vote was taken to remove, retain or make changes to the items.

The modifications can be seen in Table One (1) but also included:

- The word "PCP" was changed to "Health Centre/General Practitioner (HC/GP) " in the items
- The two following items were removed due to unsuitability in our local setting:
  - G9. Can someone get a test for lead poisoning at your HC/GP?
  - H9. In visits to your HC/GP, did they ever ask if you have a firearm, it's storage or security?
- One new item was added to G – Comprehensiveness – Services Available:
  - G25. Can men over 40 years or older get a screening test for prostate cancer (rectal exam/PSA blood test) at your HC/GP?
- Two new items were added to H – Comprehensiveness – Services Received:
  - H14. Read for females ≥ 40 years: In visits to your HC/GP, did they discuss ways to screen for breast cancer i.e. monthly breast exams or mammograms?
  - H15. Read for males ≥ 40 years: In visits to your HC/GP, did they discuss screening for prostate cancer i.e. PSA blood test?
- In the Coordination core domain, the item E1 "Do you get the results of your lab tests?" was moved from one subdomain to another, i.e. from the behavioural aspect (E) to facility characteristics subdomain (F–Coordination: Information Systems) so that the subdomain of coordination, E, contained items related to referrals to specialist/special services only.

2. Pilot Test

A pilot test was then conducted via telephone by the main researcher with five (5) participants to assess their comprehensibility and understanding of the modified questionnaire. These participants were chosen using a convenience sampling method during a chronic disease clinic at the La Brea Health Centre. The time to administer the questionnaire was also measured. At the end of the questionnaire, the participants were asked about the clarity, familiarity and acceptability of the items.

Three out of five respondents participated in the telephone interview and gave their feedback to the items. The participants reported a clear understanding of the questions asked and found the questionnaire satisfactory. Words were removed from some items such as "sigmoidoscopy" from G18 and "smoke detectors" from H2 due to the absence of those items in our local setting. The questionnaire took approximately 20 minutes to complete via telephone interviews. The non-response rate was 40% and this highlighted the unreliability of conducting telephone interviews, especially during the constraints of the COVID-19 pandemic to both patients and staff.

The minor language changes made to the items after discussion with the expert panel and the pilot test, as shown below in Table One (1).

Table One (1): Language changes made to the original PCAT items

Original Question	Final Question
D11. Does your PCP know about your work or employment?	D11. Do you think that your doctor knows about your work/employment/retirement?
E10. Did your PCP write down any information for the specialist about the reason for the visit?	E10. Did your doctor give you a referral letter or write down any information for the specialist about the reason for the visit?
G1. Answers to questions about nutrition or diet	G1. Is there a dietitian or doctor who answers questions about nutrition or diet at your HC/GP?
G2. Immunizations (shots)	G2. Can someone get immunizations/vaccines (shots) at your health centre/GP?

G3. Checking to see if your family is eligible for any social service programs or benefits	G3. Is there a Medical Social Worker or someone who can check to see if your family is eligible for any social service program or benefits at your health centre/GP office?
G4. Dental Check-up	G4. Can someone get a dental check-up by dentist or dental assistant at your health centre or GP office?
G12. Hearing Screening	G12. Can someone get hearing screening (identification/assessment of hearing problems) at your HC/GP?
G13. Vision Screening	G13. Can someone get vision screening (identification/assessment of visual problems) at your HC/GP?
G17. Pap tests for cervical cancer	G17. Are pap smears done at the HC/GP?
G18. Rectal exams or sigmoidoscopy exams to test for bowel cancer	G18. Can someone get stool tests to screen for bowel cancer at your HC/GP?
G19. Smoking counselling	G19. Can someone get advice to quit smoking at your HC/GP?
H2. Home safety, like getting and checking smoke detectors and storing medicines safely	H2. Have you ever gotten advice for home safety like storing medicines safely from your HC/GP?
H8. Possible exposures to harmful substances in your home, at work or in your neighbourhood	H8. In visits to your HC/GP, did they discuss possible exposures to harmful substances in your home, at work or in your neighbourhood? [Eg. exposure to rats, flood waters, mosquitoes]

DATA COLLECTION METHOD

Data was collected from adult outpatients attending the clinics at seventeen health centres located throughout the SWRHA using telephone interviews to conduct the PCAT-AE after written informed consent was obtained. After the adaptation process as shown in Diagram One (1), the initial questionnaire had 100 items. Demographic information was also collected such as age, gender, race, education level, marital status and source of income. The data was entered into a Google Form which was exported to Microsoft Excel and SPSS for further analysis.

Initially, eight (8) health centres were randomly chosen from two counties to participate in this study. However, due to unavoidable challenges faced during the COVID-19 pandemic especially staffing shortages, seventeen (17) health centres with two or more primary care physicians were chosen to participate in this study to facilitate the data collection process without negatively affecting the regular primary health care service.

The process of obtaining informed consent from the participants was conducted simultaneously at all selected seventeen health centres to be time efficient as well as to avoid overburdening of the staff. This process was conducted over a six month period from August to December 2021 and 40-50 consent forms were distributed to each health centre. Telephone interviews were also conducted concurrently with the collection of signed consent forms from the health centres during the period of September 2021 to January 2022. Signed consent forms were collected from health centres at regular intervals by the main researcher to be time-efficient and reduce the data collection time.

A total of eight hundred (800) consent forms were distributed to the following health centres:

- County St. Patrick: La Brea, Point Fortin, Granville, Chatham, Siparia, Fyzabad, South Oropouche and Penal health centres
- County Victoria: Debe, La Romaine, Lengua, Princes Town, Marabella, Roy Joseph and Ste. Madeleine health centres
- County Caroni South: Freeport and Couva Health Centres

The primary care physicians of selected health centres were trained by the main researcher to conduct informed consent discussions with the participants. A convenience sampling method was used to select participants who attended the health centres for their clinic appointments or walk-in visits. During this time period, telemedicine consultations were used for chronic disease clinics due to the COVID-19 pandemic. Participants were approached after collecting their clinic prescriptions and those who wished to take part in the study would have a discussion with the primary care physician to obtain informed consent. Those who came to the health centre for other clinic appointments or walk-in visits were approached after their consultations.

Participants were assured that the questionnaire would remain anonymous as their names were not recorded on the forms and their answers would be confidential. The signed consent forms were kept in sealed envelopes in locked drawers and collected by the main researcher at regular intervals. Those who refused to participate were assured that their usual care at the health centres would not be affected in any way. A strict COVID-19 prevention protocol was always in effect at this time with frequent sanitizations of pens used to sign consent forms, regular hand hygiene, always wearing face masks and social distancing.

SAMPLE SIZE CALCULATION

There is no consensus for sample size determination in validation studies.[19] In less than ten percent of validation studies, the sample size was determined a priori and more than 80% were determined a posteriori.[19] There is also a high proportion of validation studies (86%) which did not present any thorough explanation for the sample size used.[19] Recommendations include item to subject ratios extending from two (2) to twenty (20), and guidance sample sizes such as fair (100), good (300) or excellent (>1000).[19] Therefore, the sample size for this research was 300 participants, which is a "good" sample size and represents a subject to item ratio of three. Taking into account the 40% non-response rate of the pilot test and the remote geographical locations of some health centres, 800 informed consent forms were distributed to the health centres.

ETHICAL APPROVAL

Ethical approval was obtained by both Ethics Committees of the University of the West Indies and the South-West Regional Health Authority. Permission was granted by the Johns Hopkins Bloomberg School of Public Health to use the expanded version of the Primary Care Assessment Tool – Adult Edition.

DATA ANALYSIS

The collected data was analysed using SPSS Version 28.0.1.0.

Reverse Coding of Item Scores, Unsure Responses and Missing Scores

Values were recoded for certain items according to the Brazil PCAT Manual: C9, C10, C11, C12, D14, and D15. For items with an unsure response, the mid-scale value of 2.5 was assigned. For missing items, the means of the individual items were placed for the corresponding missing scores.

Tests for Validity

Content validity was evaluated prior to data collection using the expert panel and pilot test to assess if the items were appropriate to represent our local primary health care system. Two items were removed (G9 and H9) and while three new items were added (screening for prostate and breast cancers) in keeping with updated primary care practices that are present in primary care practice.

The following validation steps were then performed for all subdomains except A – Affiliation Index:

1. Removal of items with floor/ceiling effects with more than 80% having the highest or lowest scores
2. Calculation of item-total correlation for all items in individual scales and the deletion of items with item-total correlation scores <0.30 or substantial improvement of Cronbach's coefficient alpha for the scale when item is deleted
3. The Cronbach's coefficient alpha was measured for each domain and subdomain to test internal consistency reliability with the minimum value accepted as 0.70.

Re-analysis using the PCAT-TT

After removal of items that did not meet the retention criteria, the validated PCAT-AE for Trinidad and Tobago (PCAT-TT) was used to re-analyse the data using the participants who chose their health centre as their usual source of care. The mean scores for each domain and subdomain, essential score, and overall score using the PCAT-TT were then calculated.

Scoring of PCAT-TT

The scoring method used was in accordance with Brazil PCAT Manual.

The scores for Affiliation Index (A) identified the participants' usual source of care and classified the strength of affiliation with that source. This was determined using an algorithm based on the responses for the three questions as shown below:

- If all three questions were answered using the same place/doctor, this was a score of 4 (very strong affiliation) and that place/doctor was used as the usual source of care for the following questions.
- If the doctor/place stated for the first question was the same as one of responses of the other two questions, this was a score of 3 (strong affiliation) and that place/doctor was used as the usual source of care for the rest of the survey.
- If the doctor/place stated for the first question differed from the answers from the other two questions, which had the same doctor/place for both answers, then this was a score of 2 (weak affiliation) and the place/doctor with the two responses was used as the usual source of care.
- If all three places/doctors were different, this was assigned a score of 1 (very weak affiliation) and the place/doctor stated in the first question was used as the usual source of care. If no place/doctor was stated for any of the questions, the health centre attended by the participant was used as the usual source of care.

The mean score for each scale was calculated by dividing the sum of the means for each item divided by the total number of items.

The Essential Score was calculated as the mean of the sums of the affiliation degree and core domains i.e. Essential Score = $\frac{A+B+C+D+E+F+G+H}{8}$

The Overall Score was calculated as the mean of the sums of all scales plus the affiliation degree i.e. Overall Score = $\frac{A+B+C+D+E+F+G+H+I+J+K}{11}$

Standardized Scores are the mean scores converted to a scale of 10 using the following formula i.e. Standardized Score = $\frac{(Score\ obtained - 1) \times 10}{3}$

Interpretation of Scores

For easier interpretation of the standardized scores, a rubric was used similar to another PCAT publication, as shown in Table Two (2).[21] This rubric does not represent the gold standard for interpretation of scores.[21]

Table Two (2): Scoring Rubric of the PCAT-TT Standardized Scores

Standardized Scores	Classification of Performance	Meaning
9.0 – 10.0	Excellent	No need for improvement
8.0 – 8.9	Very Good	Some areas need improvement
7.0 – 7.9	Good	Several areas need improvement
6.0 – 6.9	Reasonable	Many areas need improvement
< 6.0	Poor	Great need for substantive improvement

Statistical Tests

Binary logistic regression analyses were conducted to determine predictors of great performance PCAT-TT scores for the following variables: age, gender, education level, race, employment status, source of income, duration attending their health centre, location of health centre, and if the participants had a private sector GP/Family Doctor or were referred to a specialist or special service. The PCAT-TT overall score was transformed into a dichotomous result defined as great performance (score ≥3) and poor performance (score <3). This cut-off value of 3 has been used in previous research to differentiate the scores into two categories.[18,20] Those variables with a significant p-value <0.05 were considered to have significant associations with the PCAT-TT overall scores.

RESULTS
PART ONE – VALIDATION STUDY

Characteristics of Study Population

From 800 informed consent forms distributed, 419 signed consent forms were collected and 369 respondents participated in the telephone interviews. The response rate was 46%. Table Three (3) describes the characteristics of the study population.

The majority (64.8%) of participants were female and 62.6% were of an older age group >60 years. More than half (58.8%) were of East-Indian descent and 54.5% were married. Most respondents (55.3%) had a primary school education followed by secondary school (25.5%). Majority of the participants were unemployed (75.3%) comprising of mostly pensioners (52%) followed by those with no source of income (15.2%), government assistance (7.6%) and spousal support (1.6%). Employed persons earning a salary made up 24.7% of total participants. The county with the most participants was St. Patrick (63.2%) followed by Victoria (20.6%) and Caroni South (16.2%). More than half of the participants (55%) attended the health centres for more than 5 years. The bulk of the respondents (90.5%) attended the Chronic Disease Clinic. Only 13% of the participants stated they had a Family Doctor/General Practitioner from the private health sector.

Table Three (3): Characteristics of the Participants

Characteristics		Frequency (N=369)	Percentage (%)
Gender	Female	239	64.8
	Male	130	35.2
Age	18 – 39 years	26	7.0
	40 – 59 years	112	30.4
	> 60 years	231	62.6
Race	East Indian	217	58.8
	African	88	23.8
	Mixed	63	17.1
	Chinese	1	0.3
Education Level	Less than primary school	9	2.4
	Primary School	204	55.3
	Secondary School	94	25.5
	University Degree	36	9.8
	Vocational Training	24	6.5
	Unknown	2	0.5
Marital Status	Married	201	54.5
	Widowed	67	18.2
	Single	53	14.4
	Common-law	29	7.9
	Separated	11	3.0
	Divorced	8	2.2
Employment Status	Unemployed	278	75.3
	Employed	91	24.7

Characteristics		Frequency (N=369)	Percentage (%)
Source of Income	Pension	192	52.0
	Salary	87	23.6
	No Source of Income	61	16.8
	Government Assistance	28	7.6
Health Centre Location	County St. Patrick	227	63.2
	County Victoria	74	20.6
	County Caroni South	58	16.2
Duration Attending Health Centre	1 – 2 years	43	11.7
	2 – 3 years	58	15.7
	3 – 4 years	26	7.0
	4 – 5 years	39	10.6
	5 – 10 years	67	18.2
	10 – 15 years	61	16.5
	> 15 years	75	20.3
Clinic Attended	Chronic Disease Clinic	334	90.5
	Antenatal Clinic	16	4.3
	Walk-in Clinic	16	4.3
	Family Planning	3	0.8
Has a Private Sector Family Doctor/GP	No	321	87.0
	Yes	48	13.0

Validation by Assessment of Single Items

Appendix Four (4) shows the items with their mean scores, standard deviations and tests for internal consistency (item-total correlations and Cronbach's coefficient alpha) for each scale. Items that did not fit the retention criteria were deleted as shown in Appendix Four (4). There were missing scores in four items in H–Comprehensiveness: Services Received. There were two missing scores each for H12 and H14, and three missing scores for H13 and H15. The corresponding mean scores used to replace the missing items were 1.863, 2.415, 2.193 and 2.426 respectively.

In the domain, B–First Contact–Utilization, there was a ceiling effect with B2, however when the item was deleted, the Cronbach's coefficient prominently decreased below the original value of 0.655 and therefore the item was retained. Seven items (C3, C4, C8 – C12) were deleted due to item-total correlations <0.30 leading to an improvement in the Cronbach's coefficient alpha to 0.809. In the domain of D–Ongoing Care, four items (D3, D6, D13 and D15) were removed due to ceiling effects and four items (D1, D2, D5, and D14) were removed due to low item-total correlation scores. All the items in the domain of E–Coordination were retained except E1, which was moved to the other coordination scale F, which assured that the E scale measured the coordination between primary and secondary care. The Cronbach's coefficient alpha for this scale was 0.792.

All the items in F–Coordination: Information Systems were retained, including the addition of E1 and the Cronbach's coefficient alpha considerably improved from 0.601 to 0.651. Seven items (G2, G4, G5, G6, G20, G25) were deleted from G–Comprehensiveness: Services Available which did not meet the retention criteria, and one item (G9) was deleted after Expert Panel review. The Cronbach's coefficient alpha for this scale (G) was 0.864. Seven items (H1, H2, H5, H6, H7 and H15) were deleted from H–Comprehensiveness: Services Received. H9 was removed after Expert Panel discussion. The Cronbach's coefficient alpha for this scale (H) was 0.863 after review.

One item (I3) was deleted from the I – Family Centredness domain, and the Cronbach's coefficient alpha substantially improved from 0.123 to 0.537. Four items (J1, J2, J3, J18) were

deleted from the J – Community Orientation domain with significant improvement in the Cronbach's coefficient alpha from 0.570 to 0.678. All items were retained in K – Cultural Competence, even though there was a ceiling effect (K1), because the Cronbach's Coefficient alpha lessened when the item was deleted.

Internal Consistency

The Cronbach's Coefficient alpha for the scales ranged from 0.537 – 0.881. Four scales had Cronbach's Coefficient alpha <0.7: B – First Contact: Accessibility (0.655), F – Coordination: Information Systems (0.651), I – Family Centredness (0.537) and J – Community Orientation (0.678). The scale with the lowest Cronbach's coefficient alpha was Family Centredness. The validated Trinidadian version "PCAT-TT" has 67 items in total as seen in Table Four (4).

Table Four (4): Number Of Items and Cronbach's Coefficient Alpha Values for Individual Scales in the PCAT-TT.

Domains	PCAT-TT	
	Number of Items	Cronbach's Coefficient Alpha
A – Extent of Affiliation	3	-
B – First Contact: Utilization	3	0.655
C – First Contact: Access	5	0.809
D – Ongoing Care	6	0.702
E – Coordination	12	0.792
F – Coordination: Information Systems	4	0.651
G – Comprehensiveness: Services Available	19	0.855
H – Comprehensiveness: Services Received	8	0.867
I – Family Centredness	2	0.537
J – Community Orientation	2	0.678
K – Cultural Competence	3	0.881
Total number of items	67	-

PART TWO – PCAT-TT RESULTS

From the 369 participants in total, this analysis included 359 participants who chose the health centres as their usual source of care. Ten participants chose their private GP as their usual source of care and were excluded from this analysis.

From Table Five (5), it can be seen that there were standardized scores ≥6 for seven scales: Extent of Affiliation, First Contact–Utilization, D–Ongoing Care, E–Coordination, G–Comprehensiveness: Services Available, I–Family Centredness and K–Cultural Competence. However, there were scores <6 for four scales: J – Community Orientation (5.27), C – First Contact: Access (3.04), F–Coordination: Information Systems (5.33) and H – Comprehensiveness: Services Received (2.24). The standardized Essential Score was rated as "poor" with a score of 5.90 while the Overall Score was rated as "reasonable" with a score of 6.19. These scores were also graphically represented as shown in Diagram Two (2) below.

Diagram Two (2): Bar Graph showing the Standardized PCAT-TT Scores for Individual Domains, and the Essential and Overall Scores.

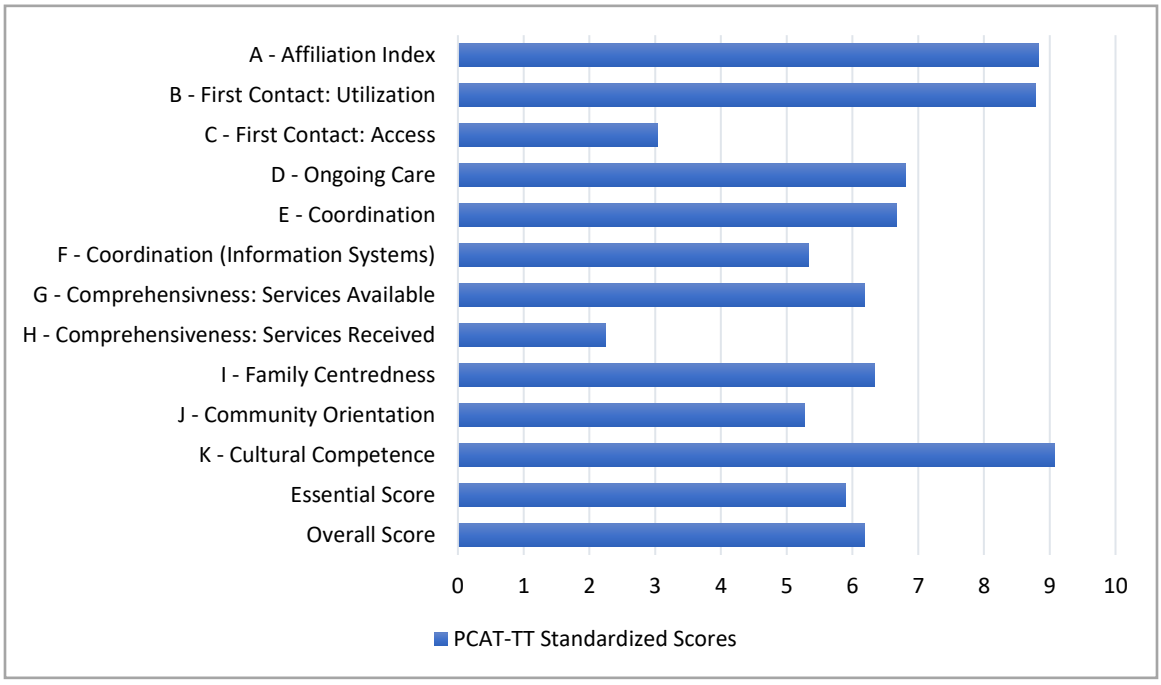


Table Five (5): Mean and standardized scores for each domain, essential and overall scores and the corresponding rubric ratings using the validated PCAT-TT

Domains	PCAT-TT Mean Scores (SD)	Standardized PCAT-TT Mean Scores (SD)	Rubric Rating
A – Extent of Affiliation	3.64 (0.68)	8.83 (2.25)	Very Good
B – First Contact – Utilization	3.63 (0.49)	8.78 (1.64)	Very Good
C – First Contact – Access	1.91 (0.61)	3.04 (2.03)	Poor
D – Ongoing Care	3.04 (0.49)	6.81 (1.63)	Reasonable
E – Coordination	3.00 (0.70)	6.67 (2.32)	Reasonable
F – Coordination (Information Systems)	2.60 (0.68)	5.33 (2.26)	Poor
G – Comprehensiveness (Services Available)	2.86 (0.34)	6.19 (1.14)	Reasonable
H – Comprehensiveness (Services Received)	1.67 (0.67)	2.24 (2.24)	Poor
I – Family Centredness	2.90 (0.78)	6.33 (2.60)	Reasonable
J – Community Orientation	2.58 (0.46)	5.27 (1.52)	Poor
K – Cultural Competence	3.72 (0.49)	9.07 (1.65)	Excellent
Essential Score	2.77 (0.23)	5.90 (0.77)	Poor
Overall Score	2.85 (0.24)	6.19 (0.79)	Reasonable

The mean scores and standard deviations for the individual items of the PCAT-TT are shown in Appendix Five (5). Even though some domains may have higher ratings, the scores of individual items can identify specific areas with lower scores that need improvement.

The scale of E–Coordination also had four items with categorical responses that did not contribute to the mean score of the scale which are shown below in Table Six (6). It can be seen that 17.8% of participants visited a specialist or special service with the majority of those participants, 46.9%, last visited the specialist/special service more than 12 months ago. 82.2% of

participants stated the specialist/special service visit was for a medical condition that doesn't go away or lasts longer than 1 year and 59.4% reported that they visited the specialist/special service before their visit to the health centre.

Table Six (6): Results of the categorical response items in the Coordination subdomain (E).

Item	Responses	Frequency	Percentage (%)
E2. Have you ever had a visit to any kind of specialist or special service?	No	295	82.2
	Yes	64	17.8
E3. When was the last time you have a visit to a specialist or special service?	< 3 months	8	12.5
	3 – 6 months	7	10.9
	6 – 9 months	11	17.2
	9 – 12 months	8	12.5
	> 12 months	30	46.9
E4. Was this visit for a condition that doesn't go away or lasts longer than a year?	No	11	17.2
	Yes	53	82.8
E5. Have you ever visited that specialist or special service before this last visit?	No	26	40.6
	Yes	38	59.4

From Table Seven (7), it can be seen that four factors were significantly associated (p value <0.05) with the increased odds of a great performance PCAT-TT overall score. These included a primary school education level, being referred to a specialist/special service, duration of attending the health centre >5 years which increases in 5 year increments, and attending a health centre located in Counties St. Patrick and Caroni South. In further adjusted analyses, these factors remained statistically significant ($p<0.05$) as predictors of great performance PCAT-TT overall scores as shown in Table Eight (8). There were no significant associations (p value>0.05) with age, gender, race, marital status, employment status, source of income and if the participant had a GP/Family Doctor (private sector).

Table Seven (7): Predictors of Great Performance PCAT-TT Overall Scores

Variable	OR Great Performance PCAT-TT overall score* (95% Confidence Interval)	p-value
Age		
18 – 39 years[#]	1	
40 – 59 years	3.186 (0.893 – 11.366)	0.074
>60 years	2.869 (0.831 – 9.900)	0.095
Gender		
Female[#]	1	
Male	0.884 (0.540 – 1.448)	0.625
Marital Status		
Single[#]	1	
Common-law	0.778 (0.216 – 2.798)	0.700
Divorced	0.667 (0.073 – 6.111)	0.720
Married	1.914 (0.874 – 4.188)	0.104
Separated	3.889 (0.970 – 15.584)	0.055
Widowed	2.074 (0.850 – 5.061)	0.109
Education Level		
Secondary school level or higher[#]	1	
Primary school level or lower	3.842 (2.201 – 6.709)	<0.001
Race		
African[#]	1	
Chinese	0.000 (0.000-.)	1.000
East Indian	1.819 (0.993 – 3.335)	0.053
Mixed	1.184 (0.533 – 2.628)	0.678
Source of Income		
No source of income[#]	1	
Government Assistance	1.738 (0.614 – 4.916)	0.298
Pension	1.460 (0.732 – 2.913)	0.282
Salary	1.269 (0.581 – 2.772)	0.550

Variable	OR Great Performance PCAT-TT overall score* (95% Confidence Interval)	p-value
Employment Status		
Employed[#]	1	
Unemployed	1.173 (0.677 – 2.033)	0.570
Referral to Specialist/Special Service		
No[#]	1	
Yes	5.036 (2.849 – 8.900)	<0.001
Duration Attending HC		
< 5 years[#]	1	
5 – 10 years	4.596 (2.132 – 9.905)	<0.001
10 – 15 years	7.391 (3.496 – 15.626)	<0.001
> 15 years	11.895 (5.807 – 24.367)	<0.001
Health Centre Location		
County Victoria[#]	1	
County St. Patrick	4.723 (2.067 – 10.790)	<0.001
County Caroni South	3.045 (1.139 – 8.145)	0.027
Has a Private Family Doctor/GP		
No[#]	1	
Yes	1.491 (0.729 – 3.049)	0.274

reference group, *Great performance = PCAT-TT score ≥3

Table Eight (8) – Predictors of Great Performance PCAT-TT Overall Scores using Adjusted Odds Ratios

Variable	+aOR Great Performance PCAT-TT overall score* (95% Confidence Interval)	p-value
Duration Attending HC		
< 5 years#	1	
5 – 10 years	5.033 (2.205 – 11.492)	<0.001
10 – 15 years	8.920 (3.921 – 10.293)	<0.001
> 15 years	13.126 (5.970 – 28.859)	<0.001
Health Centre Location		
County Victoria#	1	
County St. Patrick	5.211 (2.250 – 12.071)	<0.001
County Caroni South	3.100 (1.140 – 8.427)	0.027
Referral to Specialist/Special Service		
No#	1	
Yes	5.397 (2.959 – 9.845)	<0.001

reference group, *Great performance = PCAT-TT score ≥3

+ adjusted for age, gender and education level

DISCUSSION

In this study, we sought to validate the Primary Care Assessment Tool–Adult Edition for use in Trinidad and Tobago and assess the quality of primary health care during the COVID-19 pandemic. Abiding by a standard psychometric validation procedure, the PCAT-TT has been proven to be a valid and reliable tool to extensively evaluate primary health care in Trinidad and Tobago. The integrity of the original PCAT-AE structure was preserved in the PCAT-TT with 67 valid items within the fundamental constructs of primary care i.e. four core domains (First Contact, Ongoing Care, Coordination and Comprehensiveness) and three ancillary domains (Family Centredness, Community Orientation and Cultural Competence). Similar validation studies have been carried out in Vietnam and Brazil, resulting in more concise versions with 70 and 87 items respectively, while preserving the original structure of the tool and modifying the items to their local primary health care systems.[12,13]

On testing the reliability of the instrument, four scales had Cronbach's coefficient alpha values of 0.537 – 0.655 after removal of items which are adequate levels of reliability.[23,24] This was similar to the Brazil PCAT-AE validation study, where all original scales were retained for conceptual significance, even though three scales produced low Cronbach's coefficient alpha values ranging from 0.15 to 0.63.[12] As our primary health care system progresses in the future, if more details in some domains are required, then items that did not fit the retention criteria may be reinstated and the validation process can be repeated.[4,13] With the deletion of items such as unavailable services in our setting, the validated tools may not have the same measure of authenticity as the original tool.[17]

However, a systematic review published in 2016, compared the standardized PCAT scores of 42 international studies, including validated versions as they all have satisfactory psychometric properties, and revealed essential scores ranging from 3.72 to 7.84 and overall scores ranging from 3.66 – 7.41.[27] In our study, the essential score was found to be 5.90 and the overall score was 6.19. Poor performance scores were found in four subdomains: First Contact: Access, Coordination: Information Systems, Comprehensiveness: Services Received and Community Orientation. This study was conducted during the COVID-19 pandemic when our primary health

care system supported and strengthened the nation's COVID-19 response on top of maintaining continuity of care with clinic patients.[26] Since this is the first time the PCAT-TT has been used, there are no previous results to compare what the scores would have been prior to the COVID-19 pandemic.

Nonetheless, one advantage of the PCAT is that individual items in each domain can be closely scrutinised to determine where improvements can be made. On closer evaluation of the individual items of the PCAT-TT, areas that need improvement were found to be accessibility to primary health care when the health centres are closed, patient-centred care, coordination between primary and secondary care using information systems, primary health care services and research in the community. This study was conducted during the COVID-19 pandemic when there were national restrictions in place to limit the spread of the virus and thus, the low scores seen for reduced opening hours on evenings and weekends, lengthy delays in seeing specialists and decreased services offered in primary care can be attributed to the challenges faced during the COVID-19 pandemic at that time.

Recommendations to improve the quality of primary health care from this study include further research to assess the need for telephone hotline to access primary care when the health centres are closed, improvement in information systems to facilitate coordination between primary and secondary care, and educating the public regarding available services at the health centres when COVID-19 restrictions are lifted. Additionally, training of the primary health care staff to perform these services and conduct person-focused consultations are also advised. Further research is also recommended to assess if patients' needs are being met and to determine other important health problems in the local communities.

Predictors of great performance PCAT-TT overall scores were found to be primary school education level or lower, duration of attending the health centre ≥5 years with the association increasing as the duration increased to >15 years, health centre location in the counties of St. Patrick and Caroni South, and referral to a specialist or special service. This corroborates with previous research in USA where participants who had a longer duration ≥5 years with their usual source of care and referral to a specialist was positively correlated with great performance PCAT

overall scores.[3] The age of the participants was not found to be significantly associated with the PCAT-TT overall scores, contrasting with previous research conducted in Trinidad and Tobago, where increasing age was positively associated with satisfaction levels in primary care.[7-9]

This is the first study conducted in Trinidad and Tobago assess the quality of the primary health care system during the COVID-19 pandemic. The PCAT-TT is a pertinent tool in our local setting and there are many uses for this valid and reliable quality assessment tool. The information obtained from using the PCAT-TT can be discussed with key informants for further investigations and quality improvement initiatives such as the need for a primary care telephone hotline. The PCAT-TT results from this study can be used as a baseline assessment and should be included in the next strategic plan of the SWRHA to assist the recovery of the primary health care system after restrictions are lifted. Further longitudinal research can be conducted using the PCAT-TT instrument and the data can be used for future national strategic plans and health reforms. This instrument can also be used in other regional health authorities to assess the adequacy of their primary care systems in addition to private providers such as general practitioners and family physicians. The PCAT-TT can also be combined with outcomes of primary health care services in future research to evaluate how primary care characteristics are related to health outcomes.

There were several limitations in this study which include recall and response biases as this research was centred exclusively on participants' self-reports, however this is an appropriate method to evaluate their experiences with the primary health care system. Additionally, the study was restricted to one region under the SWRHA and therefore the results may not be generalized to other regions. However, the primary health care system and functions of the local health centres are similar throughout Trinidad and Tobago, and therefore the PCAT-TT can be used in other locations nationally. Also, there is no previous research using the PCAT in Trinidad and Tobago, and therefore there are no scores prior to the COVID-19 pandemic to make a definite comparison. In this study, the majority of the participants attended the chronic disease clinics, and health centres with more doctors present were conveniently selected to participate due to restrictions in place during the COVID-19 pandemic at the time the study was conducted, resulting in a selection bias. Also, this research measured the participants' actual experience with

the primary health care system during this time and not health-related outcomes such as control of non-communicable chronic diseases and mortality.

CONCLUSION

Abiding by a standard psychometric validation procedure, the PCAT-TT has been proven to be a valid and reliable tool to extensively evaluate primary health care in Trinidad and Tobago. The PCAT-TT preserved the integrity of the original PCAT-AE structure with 67 valid items within the fundamental constructs of primary care i.e. four core domains (First Contact, Ongoing Care, Coordination and Comprehensiveness) and three ancillary domains (Family Centredness, Community Orientation and Cultural Competence). On re-analysis using the PCAT-TT with the participants who chose the health centres as their usual source of care, there were "poor" scores in four domains: Accessibility, Coordination: Information Systems, Services Received and Community Orientation. The essential score received a "poor" rating while the overall score was rated as "reasonable." This study was conducted in the health centres of the South-West Trinidad during the COVID-19 pandemic when there were national restrictions in place to limit the spread of the virus. Recommendations from this study to strengthen the public primary health care system include improvement in attributes such as accessibility, person-focused care, coordination through information systems, primary health care services and research in the community. Significant predictors of great performance PCAT-TT overall scores were found to be primary school level education or lower, duration attending health centre >5years, location of health centres in the counties of St. Patrick and Caroni South, and referral to specialists or special services. The PCAT-TT identified gaps in our delivery of primary health care which can then be used to inform policies and strategic plans to make improvements and aid in the recovery of our primary health care system after the COVID-19 pandemic. The PCAT-TT provided a baseline evaluation and can be used to monitor progress as well as assess the quality of primary care delivered by other Regional Health Authorities.

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APPENDIX

Appendix One (1): Ethical Approval by the Ethics Committee of the University of the West Indies

THE UNIVERSITY OF THE WEST INDIES
ST. AUGUSTINE, TRINIDAD AND TOBAGO, WEST INDIES
CAMPUS RESEARCH ETHICS COMMITTEE
TELEPHONE: (1-868) 662-2002 ext. 82755 E-mail: campusethics@sta.uwi.edu

March, 10 2021

Dr. M. Shastri Motilal
Sara Krystal Ramjit
Department of Para-clinical Sciences,
Faculty of Medical Sciences
Email: Shastri.Motilal@sta.uwi.edu

Dear Dr. M. Shastri Motilal,

Ref: CREC-SA.0824/03/2021

Title: VALIDATION OF THE TRINIDADIAN PRIMARY CARE ASSESSMENT TOOL – ADULT EDITION (PCAT-AE) AND THE ASSESSMENT OF PRIMARY CARE IN SOUTH-WEST TRINIDAD

I am pleased to advise that your application for research on the above captioned topic has met the criteria for Exemption from Review from the Campus Research Ethics Committee, St. Augustine.

Sincerely,

Professor Jerome De Lisle
Chair
Campus Research Ethics Committee

Appendix Two (2): Ethical Approval by Bio-Ethics Committee of the South-West Regional Health Authority

SOUTH-WEST REGIONAL HEALTH AUTHORITY
Independence Avenue, Paradise Pasture, San Fernando, Trinidad & Tobago, West Indies.
Phone: PBX (868) 653-4295 / 9096 / 0724 / 8078, 652-6810, 657-9872
Fax: PBX ext 2301
Email: info@swrha.co.tt Website: www.swrha.co.tt

"Your Partners in Health"

July 13, 2021

Dr. Sara Krystal Ramjit
Primary Care Physician II
La Brea / Guapo Health Centre Cluster
SWRHA

Ref: 1/3/40-115

Dear Dr. Ramjit,

Re: Approval to conduct Research Project

Please be advised that permission has been granted for you to conduct your research project entitled: ***"Validation of the Trinidadian Primary Care Assessment Told – Adult Edition (PCAT-AE) and the Assessment of Primary Care in South-West Trinidad".*** It should be noted the South-West Regional Health Authority thanks you for selecting our health care facilities to conduct your research. However, it is important to note that this Region has a **confidentiality policy**.

At the completion of the research project, **a final report must** be submitted to the Ethics Committee for our records **within two (2) months**.

Also note that research findings would be reviewed by the CEO who would then determine if the research is acceptable for publication **before data collected can be published or presented in any way outside of your assignment. A copy of the final report together with approval must be submitted to the Policy Planning and Research Department, SWRHA with the request for publishing addressed to the Chief Executive Officer, SWRHA.**

Kindly note, ethics approval does not mean the researcher can proceed to collect data without approval from the Head of Department before data can be collected. Any deviation from this can result in ethics approval being withdrawn.

The Authority wishes you the very best in your future endeavours.

"Your Partners in Health"

K Thomas Elbourne

Mrs. Kathyann Thomas-Elbourne
GM-Nursing/Secretary –Bioethics Committee

KTE/sn

Appendix Three (3): Informed Consent Form

THE UNIVERSITY OF THE WEST INDIES
ST. AUGUSTINE, TRINIDAD AND TOBAGO, WEST INDIES
CAMPUS RESEARCH ETHICS COMMITTEE
TELEPHONE: (1-868) 662-2002 ext. 82755 E-mail: campusethics@sta.uwi.edu

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CONSENT TO PARTICIPATE IN RESEARCH

Complete Protocol Title: VALIDATION OF THE TRINIDADIAN PRIMARY CARE ASSESSMENT TOOL – ADULT EDITION (PCAT-AE) AND THE ASSESSMENT OF PRIMARY CARE IN SOUTH-WEST TRINIDAD

Principal Investigator: Dr. M. Shastri Motilal

Co Investigator(s): Sara Krystal Ramjit, , , , , , , , ,

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1. Identification of project

a. What is the purpose of this research?
This research aims to adapt a primary care assessment questionnaire to the local population (adults) of Trinidad and Tobago and to assess the quality of primary care provided in local health centres of the South West Regional Health Authority.

b. How long it will take to complete this project?
The research will be conducted for a total duration of three months

c. Why am I selected for this research?
Because you are an adult who attends the health centre clinics such as chronic disease, antenatal or walk-in clinics

d. Why is this document for obtaining informed consent important?
This document is not only an invitation for you to either consenting or declining to participate in the research after understanding thoroughly about the research, but also a legal document which governs your participation in this research.

2. Description of Procedures

a. What am I expected to do in this study?
We need you to understand the implications of participating in this research and once you are satisfied, we will enroll you. We will give you the guidelines and protocols as described below until the duration for the study.

b. Which procedures are investigational, which are routine? What is the expected duration, how frequently I have to participate and where will the activities take place?
Your participation in this research will include answering a questionnaire to assess the quality of primary care received in your health centre. The questionnaire would be carried out by trained research assistants, via telephone interviews at your convenience, in light of the COVID-19 pandemic. The interview will take approximately 40 minutes to complete.

c. How many participants are involved in the study approximately?
The estimated total number of participants in this research is 300 participants.

3. Risks and Discomforts

a. What are the risks or discomforts that may result from my participation in the study?
This study does not pose any risks to your health, only the availability of your time would be needed to respond to the questionnaire.

b. What help and treatments are available if any adverse reactions occur? How can I access them? Is there any compensation available if serious adverse effects occur?

This study does not pose any risks to your health.

c. Are there any potentially beneficial treatments or procedures that are withheld for the purpose of the study?
This research is not withholding any treatments due to you.

4. Termination of Research

a. Are there any anticipated circumstances under which the study/participation may be terminated by the researchers without regard my consent?
There are no anticipated circumstances under which participation may be terminated by the investigator without regard to the participant's consent. For any other reason if the Ethics Committee cancels the approval, the study may be aborted. But you will be informed of all the events.

5. Benefits

a. What are the benefits to me (and the wider society) by this study?
There is no direct benefit to the participant, however the outcomes of this study may lead to improvement in the quality of primary care provided to adults in local health centres in the future.

6. Alternatives

a. Does this study involve more than minimal risk? Are there any appropriate alternative procedures or courses of treatment that might be advantageous to me?
This study does not involve more than minimal risk.

b. Do I have the right to pursue the alternatives?
We emphasize that your participation is voluntary. If you do not wish to participate in this research, your care at your health centre will not be affected and you will not be treated differently by the health centre staff. You can refuse to participate in this research or stop at any time during the questionnaire without any consequences.

7. Confidentiality

a. How will confidentiality be maintained regarding my data? Who will have access to the data, how the data will be reported and /or published?
For research purposes, the researchers guarantee that your name will be kept on this consent form only and that no information about you or your family will be revealed to anyone else. The questionnaire will be anonymous as your name, clinic number or any contact information would not be recorded on the questionnaire. Your primary care physicians would not be informed of your responses on the questionnaire. The data will be kept confidential in a researcher's computer which is password protected for a duration of 5 years. A research article will be published in a scientific journal, but no confidential information will be reported and/or published.

8. Cost and Payments

a. Are there any costs involved and are there any compensations provided?
There are no costs or compensations involved in this research.

9. Freedom to Withdraw

a. Do I have the freedom to withdraw from the study anytime?
Yes, participation in this study is voluntary and you are free to withdraw at any time if any problems occur, or if you simply change your mind. You also have the option to exclude from the study data, should you decide to withdraw.

b. Will withdrawing from the study have any impact on my treatment?
No, refusal to participate or withdrawal thereafter will not adversely affect your relationship with the investigator(s) or your right to any other treatment or services available to them at the University of the West Indies or its affiliated institutions.

10. Opportunity to ask questions

a. Do I have to right to ask questions anytime during the study? Whom should I contact?
You have the right to ask questions and we will answer before the start of or anytime during the study The name and telephone number of the person who can be contacted for answers to questions about the study is Dr. Sara K. Ramjit (753-9942).

CONSENT

I have read and understood this explanation. The researcher has also explained the study to me. I have had a chance to ask questions and have them answered to my satisfaction. I agree to take part in this study. I have not been forced or made to feel like I had to take part.

By signing this document, I agree that I have read and received a copy of this document.

I must sign this Consent Form. I will be given a signed copy of the form to keep.

Print Name of Subject

Signature of Subject Date

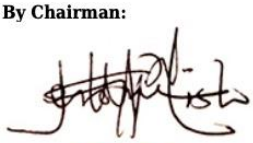
INVESTIGATOR'S STATEMENT AND SIGNATURE
I have explained the purpose of the research, the study procedures, including those that are investigational, the possible risks and discomforts, and the potential benefits, and have answered all questions regarding the study to the best of my ability. In my opinion, the participant understands these issues and has voluntarily agreed to participate in the study.

Signature of Person conducting the informed consent discussion Date

Role of person named above in the research project

Signature of Second Witness Date

By Chairman:



This document was approved by Campus Ethics Committee on:
March, 10 2021
This document expires on:
March, 10 2022

Appendix Four (4): Results of Validity and Reliability Testing of the Original PCAT-AE

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
B – First Contact – Utilization							0.655	Not Assessed	
B1. When you need a regular general check-up, do you go to your health centre/GP first before going somewhere else?	3.733	0.5827	0.3	2.2/78.3	0.481	Not Assessed			Retained
B2. When you have a new health problem, do you go to your health centre/GP first before going somewhere else?	3.808	0.4584	0.0	0.8/82.7	0.553	Not Assessed			Retained
B3. When you have to see a specialist, does your doctor at your health centre/GP have to approve or give you a referral letter?	3.332	0.8301	20.9	2.7/56.4	0.468	Not Assessed			Retained
C – First Contact – Access							0.611	0.809	
C1. Is your health centre/GP office open on Saturday and Sunday?	1.507	0.9459	7.6	73.7/8.7	0.438	0.594			Retained
C2. Is your health centre/GP office open on at least some weekday evenings until 8PM?	1.477	0.8582	11.9	71.8/6.2	0.418	0.597			Retained
C3. When your health centre/GP office is open and you get sick, would someone from there see you the same day?	3.575	0.6588	4.9	1.9/65.6	0.104	Not Assessed			Deleted
C4. When your health centre/GP office is open, can you get advice quickly over the phone if you need it?	2.713	0.6574	52.6	4.6/13.3	0.147	Not Assessed			Deleted
C5. When your health centre/ GP office is closed, is there a phone number you can call when you get sick?	2.317	0.6519	60.2	13.0/4.9	0.361	0.388			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
C6. When the health centre/ GP office is closed on a Saturday or Sunday and you get sick, would someone from there see you the same day?	2.187	0.8211	47.7	23.8/8.1	0.527	0.721			Retained
C7. When your health centre/GP office is closed and you get sick during the night, would someone there see/talk with you that night?	2.178	0.8078	49.6	23.8/7.6	0.507	0.697			Retained
C8. Is it easy to get an appointment for a general check-up there?	3.527	0.6557	5.1	1.9/60.4	0.132	Not Assessed			Deleted
C9. Once you get to your health centre/GP office, do you have to wait more than 30 minutes before you are checked by the doctor or nurse?	2.545	0.8234	4.3	14.9/7.0	0.104	Not Assessed			Deleted
C10. Do you have to wait a long time or talk to too many people to make an appointment at your health centre/GP?	3.035	0.5794	5.4	2.2/17.1	0.272	Not Assessed			Deleted
C11. Is it difficult for you to get medical care from your health centre/GP when you think it is needed?	3.161	0.6525	2.4	3.8/27.1	0.271	Not Assessed			Deleted
C12. When you have to go to your health centre/GP, do you have to take time off from work or school to go?	3.308	1.1075	0.3	14.9/66.4	0	Not Assessed			Deleted
D – Ongoing Care							0.639	0.702	
D1. When you go to your health centre/GP, are you taken care of by the same doctor or nurse each time?	1.572	0.8305	7.0	61/4.9	0.029	Not Assessed			Deleted
D2. Do you think your doctor understands what you say or ask?	3.778	0.4743	1.1	0.5/79.9	0.284	Not Assessed			Deleted

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
D3. Are your questions to your doctor answered in ways that you can understand?	3.795	0.4448	0.3	0.5/80.8	0.315	Not Assessed			Deleted
D4. If you have a question, can you call and talk to the doctor or nurse who knows you best?	2.224	0.7613	44.2	18.7/7.0	0.061	Not Assessed			Deleted
D5. Does your doctor give you enough time to talk about your worries or problems?	3.699	0.5433	1.1	0.8/73.4	0.39	0.259			Deleted
D6. Do you feel comfortable telling your doctor about your worries and problems?	3.797	0.4582	0.5	0.5/81.6	0.396	Not Assessed			Deleted
D7. Do you think that your doctor knows you very well as a person, rather than someone with a medical problem?	2.533	0.6503	50.1	6.2/8.7	0.337	0.387			Retained
D8. Do you think that your doctor knows who lives with you at home?	2.481	0.6581	55.0	9.5/6.5	0.404	0.460			Retained
D9. Do you think that your doctor knows what problems are most important to you?	3.604	0.7884	3.8	5.4/74.5	0.542	0.512			Retained
D10. Do you think that your doctor knows your complete medical history?	3.659	0.7071	3.3	3.8/76.2	0.465	0.415			Retained
D11. Do you think that your doctor knows about your work/employment/ retirement?	2.835	0.8396	38.5	8.1/24.9	0.286	0.354			Retained
D12. Would your doctor know if you had trouble getting or paying for medicines that you needed?	3.175	0.9288	13.8	8.8/46.3	0.278	0.326			Retained
D13. Does your doctor know about all the medications you are taking?	3.848	0.4121	1.1	0.5/86.4	0.24	Not Assessed			Deleted
D14. Could you change your health centre/GP if you wanted to?	3.442	0.847	14.1	4.9/64.5	0.034	Not Assessed			Deleted

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
D15. Would you change from your health centre/GP to somewhere else if it was easy to do?	3.751	0.6136	4.9	2.4/82.7	0.118	Not Assessed			Deleted
E – Coordination							0.792	0.792	
E1. Do you get the results of your lab/blood tests?									Moved to F
E2. Have you ever had a visit to any kind of specialist or special service? [Example: hospital clinics, physiotherapy, medical social worker]	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed			Retained
E3. When was the last time you have a visit to a specialist or special service? (months/years)	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed			Retained
E4. Was this visit for a condition that doesn't go away or lasts longer than a year?	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed			Retained
E5. Have you ever visited that specialist or special service before this last visit to your health centre/GP?	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed			Retained
E6. Did your doctor suggest you go to the specialist or special services?	3.441	1.1114	0.0	3.0/76.5	0.43	0.435			Retained
E7. Did your doctor know you made these visits to the specialist or special services?	3.603	0.8959	2.9	8.8/79.4	0.504	0.528			Retained
E8. Did your doctor discuss with you different places you could have gone to get help with that problem?	2.301	1.1659	19.1	35.3/23.5	0.498	0.497			Retained
E9. Did your doctor or someone working with your doctor help you make the appointment for that visit?	2.493	1.167	22.1	30.9/26.5	0.495	0.486			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
E10. Did your doctor give you a referral letter or write down any information for the specialist about the reason for the visit?	3.324	1.0537	2.9	11.8/64.7	0.382	0.393			Retained
E11. Does your doctor know what the results of the visit were?	3.081	1.2051	4.4	20.6/55.9	0.561	0.547			Retained
E12. After you went to the specialist or special service, did your doctor talk with you about what happened at that visit?	3.059	1.1924	2.9	22.1/51.5	0.614	0.584			Retained
E13. Does your doctor seem interested in the quality of care you get from that specialist or special service?	2.735	0.983	26.5	13.2/27.9	0.529	0.540			Retained
F – Coordination (Information Systems)							0.601	0.651	
F1. When you go to your health centre/GP, do you bring any of your own medical records, such as immunization records or reports of medical care you had in the past?	1.661	0.9893	0.5	63.1/8.4	0.416	0.399			Retained
F2. Could you look at your medical record if you wanted to?	2.275	1.0858	21.4	36.3/15.2	0.566	0.633			Retained
F3. When you go to your health centre/GP, is your medical record always available?	3.28	0.6400	13.8	1.1/39.0	0.306	0.320			Retained
E1. Do you get the results of your lab/blood tests?	3.247	0.9774	2.7	17.3/61.2	0.316	0.417			Retained
G – Comprehensiveness (Services Available)							0.828	0.855	
G1. Is there a dietitian or doctor who answers questions about nutrition or diet at your HC/GP?	3.347	0.7281	11.4	2.7/48.5	0.359	0.338			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
G2. Can someone get immunizations/vaccines (shots) at your health centre/GP?	3.863	0.3964	0.8	0.5/87.8	0.191	Not Assessed			Deleted
G3. Is there a Medical Social Worker or someone who can check to see if your family is eligible for any social service program or benefits at your health centre/GP office?	2.962	0.726	42.8	3.0/26.8	0.414	0.378			Retained
G4. Can someone get a dental check-up by dentist or dental assistant at your health centre or GP?	2.748	1.1386	13.6	22.5/34.4	0.258	Not Assessed			Deleted
G5. Can someone get treatment by a dentist at your HC/GP?	2.602	1.0853	20.6	22.5/26.8	0.254	Not Assessed			Deleted
G6. Can someone get family planning advice or birth control methods at your HC/GP?	3.573	0.6035	12.2	0.3/64.5	0.251	Not Assessed			Deleted
G7. Can someone get counselling or treatment for substance or drug abuse at your HC/GP?	2.809	0.6358	48.0	2.2/16.3	0.546	0.591			Retained
G8. Can someone get counselling for mental health problems at your HC/GP?	2.789	0.6353	46.6	2.7/14.9	0.620	0.651			Retained
G9. Can someone get a test for lead poisoning at your HC/GP?	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed			Deleted
G10. If someone has a cut that needs stitches, can they get stitches done at the health centre/GP?	3.431	0.609	6.5	1.1/49.1	0.333	0.319			Retained
G11. Can someone get counselling and testing for HIV/AIDS at your HC/GP?	3.009	0.6619	33.9	1.4/25.2	0.526	0.567			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
G12. Can someone get hearing screening (identification/assessment of hearing problems) at your HC/GP?	2.24	0.788	50.7	22.0/6.2	0.389	0.365			Retained
G13. Can someone get vision screening (identification/assessment of visual problems) at your HC/GP?	2.243	0.8527	45.8	24.1/8.7	0.420	0.393			Retained
G14. Can someone get treatment for an allergic reaction at your HC/GP?	3.259	0.5639	9.5	0.8/32.5	0.457	0.484			Retained
G15. Can someone get treatment for a sprained ankle (splinting/wrapping with a bandage) at your HC/GP?	3.438	0.5783	5.1	0.8/48.0	0.349	0.325			Retained
G16.Can someone get removal of warts at your HC/GP?	2.434	0.6938	53.7	9.5/8.9	0.466	0.532			Retained
G17. Are pap smears done at the HC/GP?	3.115	0.6834	33.3	1.1/32.8	0.447	0.396			Retained
G18. Can someone get stool tests to screen for bowel cancer at your HC/GP?	2.541	0.5236	68.0	3.5/6.2	0.527	0.572			Retained
G19. Can someone get advice to quit smoking at your HC/GP?	2.931	0.7372	30.1	2.2/25.5	0.273	0.349			Retained
G20. Is care for pregnant women available at your HC/GP?	3.804	0.4203	2.4	2.4/81.6	0.207	Not Assessed			Deleted
G21. Can someone get care for an ingrown toenail at your HC/GP?	2.694	0.6199	55.3	2.7/12.7	0.437	0.510			Retained
G22. Can someone get advice on what to do in case someone in their family is disabled and can't make decisions about their care at your HC/GP?	2.787	0.5406	54.5	1.1/11.9	0.479	0.530			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
G23. Can someone get advice on changes in mental or physical abilities that are normal with getting older at your HC/GP? [Example: memory loss, frequent falls]	2.778	0.5645	54.7	1.4/12.7	0.522	0.579			Retained
G24. Can someone get suggestions for nursing home care for someone in their family at your HC/GP?	2.687	0.5163	62.1	1.1/9.2	0.418	0.488			Retained
G25. Is there a supplemental milk and food programme for Women, infants and children (WIC) services at your HC/GP?	2.946	0.7098	49.3	2.7/26.0	0.075	Not Assessed			Deleted
G26. Can men over 40 years or older get a screening test for prostate cancer (rectal exam/PSA blood test) at your HC/GP?	2.841	0.6468	53.4	2.4/18.4	0.352	0.357			Retained
H – Comprehensiveness (Services Provided)							0.819	0.867	
H1. In visits to your HC/GP, have you ever gotten advice about healthy and unhealthy food or getting enough sleep?	3.402	0.7282	8.9	2.7/51.5	0.192	Not Assessed			Deleted
H2. Have you ever gotten advice for home safety like storing medicines safely from your HC/GP?	3.107	1.009	11.7	11.9/44.3	0.185	Not Assessed			Deleted
H3. Have you ever gotten advice on seatbelt use or child safety seats from your HC/GP?	1.710	1.0016	8.7	64.5/11.4	0.627	0.638			Retained
H4. Have you ever gotten advice on ways to handle family conflicts that arise from time to time from your HC/GP?	1.486	0.7489	10.6	68.0/2.4	0.583	0.584			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
H5. Have you ever gotten advice about appropriate exercise for you at your HC/GP?	3.297	0.8148	7.9	6.5/45.5	0.264	Not Assessed			Deleted
H6. Have you ever gotten blood tests to check cholesterol levels at your HC/GP?	3.540	0.8191	3.0	7.0/68.3	0.283	Not Assessed			Deleted
H7. In visits to your HC/GP, did they check on and discuss the medications you are taking?	3.607	0.6749	0.8	3.8/68.6	0.308	0.164			Deleted
H8. In visits to your HC/GP, did they discuss possible exposures to harmful substances in your home, at work or in your neighbourhood? [Eg. exposure to rats, flood waters, mosquitoes]	1.607	0.8308	14.4	56.1/6.5	0.608	0.647			Retained
H9. In visits to your HC/GP, did they ever ask if you have a firearm, it's storage or security?	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed	Not Assessed			Deleted
H10. In visits to your HC/GP, did they discuss how to prevent hot water burns?	1.383	0.6786	11.4	74.3/1.9	0.537	0.578			Retained
H11. In visits to your HC/GP, did they discuss how to prevent frequent falls?	1.579	0.9120	13.8	67.5/5.7	0.594	0.645			Retained
H12. READ FOR FEMALES ONLY: In visits to your HC/GP, did they discuss how to prevent osteoporosis or fragile bones?	1.925	0.9624	20.4	48.5/6.3	0.607	0.718			Retained
H13. READ FOR FEMALES ONLY: In visits to your HC/GP, did they discuss care for menstrual or menopause problems?	2.254	1.1951	6.8	44.8/19.2	0.584	0.700			Retained

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
H14. READ FOR FEMALES ≥ 40 YEARS: In visits to your HC/GP, did they discuss ways to screen for breast cancer i.e. monthly breast exams or mammograms?	2.415	1.2484	10.3	38.3/28.5	0.606	0.731			Retained
H15. READ FOR MALES ≥ 40 YEARS: In visits to your HC/GP, did they discuss screening for prostate cancer i.e. PSA blood test?	2.426	1.2641	8.5	39.5/28.7	Insufficient sample size	Not Assessed			Deleted
I – Family Centredness							0.123	0.537	
I1. Does your doctor ask you about your ideas and opinions when they are planning treatment/care for you or a family member?	2.44	1.0749	8.4	25.5/20.9	0.175	0.385			Retained
I2. Has your doctor asked about illnesses or problems that might run in your family?	3.363	0.7860	2.2	6.0/49.9	0.235	0.384			Retained
I3. Would your doctor meet with members of your family if you thought it would be helpful?	2.031	0.8444	13.8	27.1/8.7	-0.163	Not Assessed			Deleted
J – Community Orientation							0.570	0.678	
J1. Does anyone at your health centre/GP office ever make home visits?	2.237	0.8534	44.2	25.5/7.3	0.350	0.202			Deleted
J2. Do you think that your doctor knows about the important health problems of your neighbourhood?	2.45	0.5525	59.6	7.0/3.3	0.403	0.218			Deleted
J3. Does your doctor get opinions and ideas from people or patients that will help to provide better health care?	2.569	0.5081	66.7	3.3/5.7	0.266	Not Assessed			Deleted

Item	Item mean	Standard Deviation	% Unsure Responses	Floor/ Ceiling Effect	Item-total correlation before review	Item-total correlation after review	Cronbach's coefficient alpha before review	Cronbach's coefficient alpha after review	Item Retained/ Deleted
J11. Does your HC/GP do surveys of patients to see if their services are meeting people's needs?	2.576	0.4956	60.4	4.1/3.5	0.306	0.396			Retained
J12. Does your HC/GP do surveys in the community to find out about health problems that they should know about?	2.572	0.5451	53.1	6.2/3.0	0.318	0.508			Retained
J18. Does your HC/GP ask patients or your family members to be on their Board of Directors or advisory committee?	1.988	0.6959	49.1	30.6/0.3	0.264	Not Assessed			Deleted
K – Cultural Competence							0.881	Not Assessed	
K1. Would you recommend your health centre/GP to a friend or relative?	3.793	0.4803	0.8	0.8/81.8	0.752	Not Assessed			Retained
K2. Would you recommend your health centre/GP to someone who does not speak English well?	3.706	0.5463	1.9	1.1/74.3	0.811	Not Assessed			Retained
K3. Would you recommend your health centre/GP to someone who uses folk medicine, such as herbs or homemade medicines, or has special beliefs about health care?	3.664	0.6186	3.8	1.9/72.9	0.742	Not Assessed			Retained

Appendix Five (5): Mean Scores and Standard Deviations of Individual Items in the PCAT-TT

Item	N	Mean	Std. Deviation
A – Degree of Affiliation	359	3.649	.6764
B – First Contact – Utilization	359	3.633	.4914
B1. When you need a regular general check-up, do you go to your health centre/GP first before going somewhere else?	359	3.740	.5787
B2. When you have a new health problem, do you go to your health centre/GP first before going somewhere else?	359	3.813	.4500
B3. When you have to see a specialist, does your doctor at your health centre/GP have to approve or give you a referral letter?	359	3.345	.8267
C – First Contact – Access	359	1.912	.6087
C1. Is your health centre/GP office open on Saturday and Sunday?	359	1.453	.8925
C2. Is your health centre/GP office open on at least some weekday evenings until 8PM?	359	1.440	.8264
C5. When your health centre/ GP office is closed, is there a phone number you can call when you get sick?	359	2.298	.6345
C6. When the health centre/ GP office is closed on a Saturday or Sunday and you get sick, would someone from there see you the same day? [Explanation: Is there someone that can be called out from HC/GP to see you?]	359	2.189	.8215
C7. When your health centre/GP office is closed and you get sick during the night, would someone there see/talk with you that night? [Explanation: Is there someone that can be called out from your HC/GP office to see or speak to you to give medical advice at that time?]	359	2.181	.8089
D – Ongoing Care	359	3.044	.4877
D7. Do you think that your doctor knows you very well as a person, rather than someone with a medical problem?	359	2.514	.6385

Item	N	Mean	Std. Deviation
D8. Do you think that your doctor knows who lives with you at home?	359	2.465	.6447
D9. Do you think that your doctor knows what problems are most important to you?	359	3.607	.7912
D10. Do you think that your doctor knows your complete medical history?	359	3.670	.6964
D11. Do you think that your doctor knows about your work/employment or retirement?	359	2.826	.8429
D12. Would your doctor know if you had trouble getting or paying for medicines that you needed?	359	3.180	.9323
E - Coordination	64	3.003	.6962
E6. Did your doctor suggest you go to the specialist or special services?	64	3.422	1.1382
E7. Did your doctor know you made these visits to the specialist or special services?	64	3.641	.8567
E8. Did your doctor discuss with you different places you could have gone to get help with that problem?	64	2.305	1.1568
E9. Did your doctor or someone working with your doctor help you make the appointment for that visit?	64	2.461	1.1557
E10. Did your doctor give you a referral letter or write down any information for the specialist about the reason for the visit?	64	3.312	1.0783
E11. Does your doctor know what the results of the visit were?	64	3.086	1.2037
E12. After you went to the specialist or special service, did your doctor talk with you about what happened at that visit?	64	3.063	1.1902
E13. Does your doctor seem interested in the quality of care you get from that specialist or special service?	64	2.734	.9758

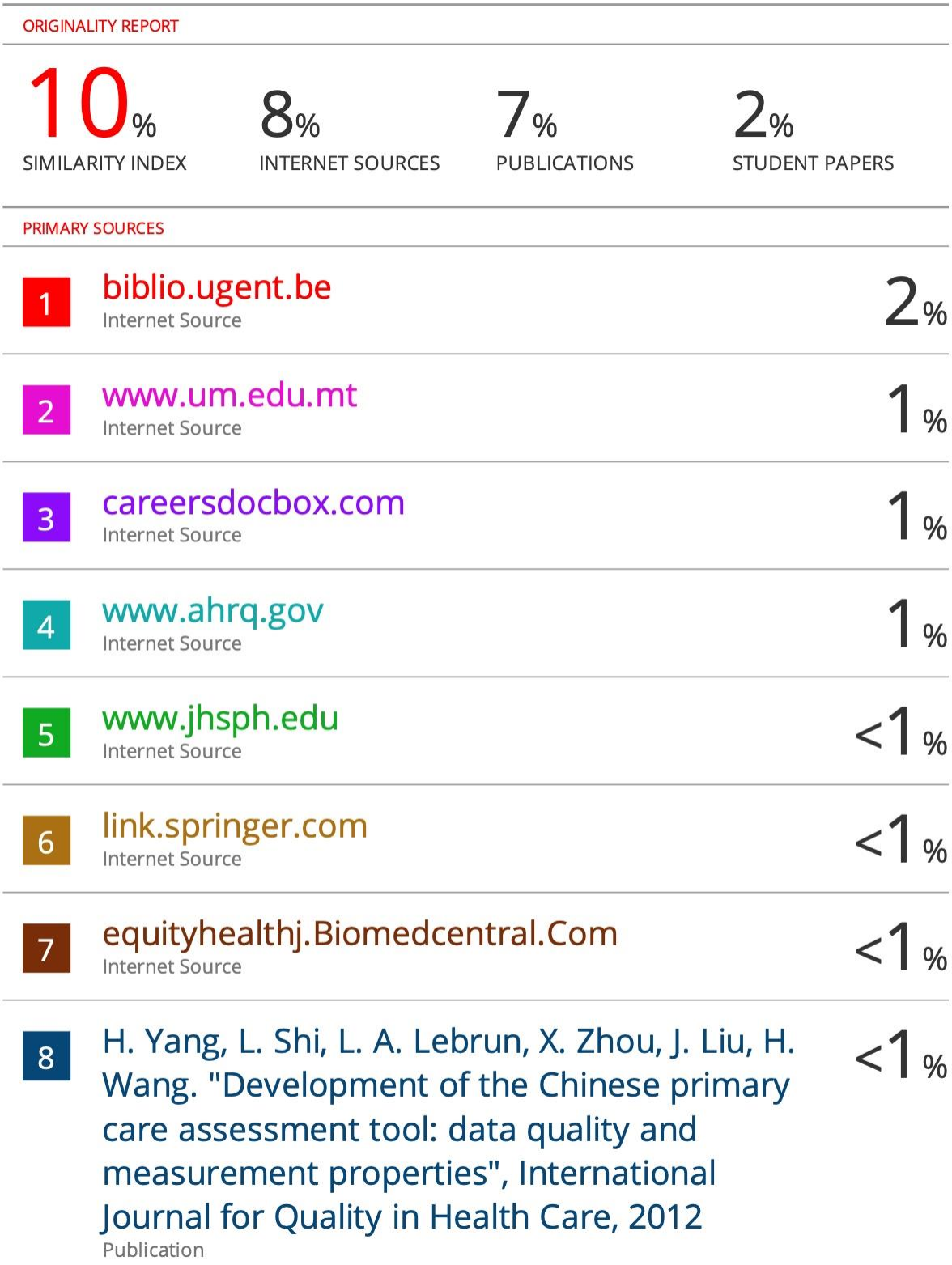
Item	N	Mean	Std. Deviation
F – Coordination (Information Systems)	359	2.600	.6826
F1. When you go to your health centre/GP, do you bring any of your own medical records, such as immunization records or reports of medical care you had in the past?	359	1.632	.9731
F2. Could you look at your medical record if you wanted to? [medical files/notes]	359	2.258	1.0933
F3. When you go to your health centre/GP, is your medical record always available? [medical file/notes]	359	3.276	.6380
E1. Do you get the results of your lab/blood tests?	359	3.233	1.1321
G – Comprehensiveness – Services Available	359	2.858	.3397
G1. Is there a dietitian or doctor who answers questions about nutrition or diet at your HC/GP?	359	3.358	.7164
G3. Is there a Medical Social Worker or someone who can check to see if your family is eligible for any social service program or benefits at your health centre/GP office?	359	2.967	.7142
G7. Can someone get counselling or treatment for substance or drug abuse at your HC/GP?	359	2.805	.6272
G8. Can someone get counselling for mental health problems at your HC/GP?	359	2.790	.6328
G10. If someone has a cut that needs stitches, can they get stitches done at the health centre/GP?	359	3.425	.6094
G11. Can someone get counselling and testing for HIV/AIDS at your HC/GP?	359	3.007	.6532
G12. Can someone get hearing screening (identification/assessment of hearing problems) at your HC/GP?	359	2.221	.7761
G13. Can someone get vision screening (identification/assessment of visual problems) at your HC/GP?	359	2.228	.8485

Item	N	Mean	Std. Deviation
G14. Can someone get treatment for an allergic reaction at your HC/GP?	359	3.253	.5629
G15. Can someone get treatment for a sprained ankle (splinting/wrapping with a bandage) at your HC/GP?	359	3.439	.5769
G16.Can someone get removal of warts at your HC/GP?	359	2.425	.6961
G17. Are pap smears done at the HC/GP?	359	3.121	.6758
G18. Can someone get stool tests to screen for bowel cancer at your HC/GP?	359	2.536	.5125
G19. Can someone get advice to quit smoking at your HC/GP?	359	2.930	.7414
G21. Can someone get care for an ingrown toenail at your HC/GP?	359	2.677	.6073
G22. Can someone get advice on what to do in case someone in their family is disabled and can't make decisions about their care at your HC/GP?	359	2.784	.5312
G23. Can someone get advice on changes in mental or physical abilities that are normal with getting older at your HC/GP? [Example: memory loss, frequent falls]	359	2.770	.5675
G24. Can someone get suggestions for nursing home care for someone in their family at your HC/GP?	359	2.682	.5159
G26. Can men over 40 years or older get a screening test for prostate cancer (rectal exam/PSA blood test) at your HC/GP?	359	2.831	.6420
H – Comprehensiveness – Services Received	359	1.672	.6717
H3. Have you ever gotten advice on seatbelt use or child safety seats from your HC/GP?	359	1.666	1.0369
H4. Have you ever gotten advice on ways to handle family conflicts that arise from time to time from your HC/GP?	359	1.446	.7356

Item	N	Mean	Std. Deviation
H8. In visits to your HC/GP, did they discuss possible exposures to harmful substances in your home, at work or in your neighbourhood? [Eg. exposure to rats, flood waters, mosquitoes]	359	1.673	.8966
H10. In visits to your HC/GP, did they discuss how to prevent hot water burns?	359	1.350	.6704
H11. In visits to your HC/GP, did they discuss how to prevent frequent falls?	359	1.552	.8880
H12. READ FOR FEMALES ONLY: In visits to your HC/GP, did they discuss how to prevent osteoporosis or fragile bones?	232	1.850	.9399
H13. READ FOR FEMALES ONLY: In visits to your HC/GP, did they discuss care for menstrual or menopause problems?	232	2.166	1.1801
H14. READ FOR FEMALES ≥40 YEARS: In visits to your HC/GP, did they discuss ways to screen for breast cancer i.e. monthly breast exams or mammograms?	207	2.388	1.2452
I – Family Centredness	359	2.900	.7781
I1. Does your doctor ask you about your ideas and opinions when they are planning treatment/care for you or a family member?	359	2.439	1.0762
I2. Has your doctor asked about illnesses or problems that might run in your family?	359	3.362	.7820
J – Community Orientation	359	2.581	.4551
J11. Does your HC/GP do surveys of patients to see if their services are meeting people's needs?	359	2.585	.4920
J12. Does your HC/GP do surveys in the community to find out about health problems that they should know about?	359	2.577	.5496
K – Cultural Competence	359	3.721	.4949
K1. Would you recommend your health centre/GP to a friend or relative?	359	3.787	.4857

Item	N	Mean	Std. Deviation
K2. Would you recommend your health centre/GP to someone who does not speak English well?	359	3.703	.5496
K3. Would you recommend your health centre/GP to someone who uses folk medicine, such as herbs or homemade medicines, or has special beliefs about health care?	359	3.673	.6044

Appendix Six (6): Turnitin Report



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