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Defining the relationship between clinician-rated ECOG performance status and patient-reported health-related quality of life scores in men with metastatic hormone-naïve prostate cancer

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Abstract

Background Performance status and health-related quality of life (HRQoL) are important parameters in the management of metastatic prostate cancer. The clinician-rated Eastern Cooperative Oncology Group performance status (ECOG-PS) may not relate with the patient-reported HRQoL because the later puts into consideration some aspects of health that are not captured by the former. The aim of this study is to define the relationship between clinician-rated ECOG-PS and the patient-reported HRQoL in men with metastatic hormone-naïve prostate cancer (mPCa).

Methods An analytical cross-sectional study recruiting patients presenting with mPCa in Enugu, southeast Nigeria. Two clinicians agreed on an ECOG-PS score for each study participant who in turn completed the Functional Assessment in Cancer Therapy – Prostate (FACT-P) and the EuroQol EQ-5D-5 L questionnaires with interviewer-assistance where necessary. Other medical information was retrieved from the records. ANOVA and chi-square tests were used to compare available data across ECOG-PS ratings and ordinal logistic regression was used to determine the FACT-P questionnaire items that related significantly with the ECOG-PS scores.

Results Of the 224 participants (mean age: 70.62 ± 7.34), about 60.7% had ≥ 12 years of formal education and 84.9% had ISUP grade ≥ 3 cancer. In all, 22.8%, 55.8%, 21.0% and 0.4% were ECOG-PS 1, ECOG-PS 2, ECOG-PS 3 and ECOG-PS 4 respectively. The mean FACT-P score, health utility index (HUI) and visual analogue scale (VAS) scores were 80.18 ± 17.56, 0.524 ± 0.324 and $60.43 \pm 9.91\%$ respectively. The FACT-P score ($p = 0.002$), HUI ($p < 0.001$) and VAS score ($p < 0.001$) varied significantly across the ECOG-PS ratings. Within the FACT-P, only questionnaire items GP3 ($p = 0.024$) and GP7 ($p < 0.001$) of the PWB domain, and items GF5 ($p = 0.009$) and GF6 ($p = 0.003$) of the FWB domain related strongly with the ECOG-PS categories.

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Conclusion There are indications that HRQoL questionnaire items that have to do with impairment in physical and role functioning relate strongly with ECOG-PS categories.

Keywords Metastatic prostate cancer, ECOG, Performance status, HRQoL, FACT-P, EQ-5D-5L

Background

Men diagnosed with metastatic hormone-naïve prostate cancer have a number of clinical features that impact negatively on health-related quality of life (HRQoL). Bone pain, fatigue, lower urinary tract symptoms, poor sleep, anaemia and depression are some reported reasons for poorer HRQoL in this disease condition [1–3]. It is therefore necessary that the HRQoL at every point during treatment be put into consideration in deciding therapeutic interventions [4, 5]. With appropriate patient profiling, interventions with unacceptable risk benefit ratio are better avoided or introduced with great caution [6–8].

The Eastern Cooperative Oncology Group performance status (ECOG-PS) scoring for physical abilities of patients assists clinicians in ranking patients based on degree of physical functioning and selfcare [8]. It has been found to relate closely with prognosis in malignant disease conditions, though there exist concerns of significant inter rater variabilities in its use [9]. Essentially ECOG-PS assessment makes use of observed level of patient's physical activity and capability of selfcare as proxy for capacity to cope with recognized toxicity associated with any therapeutic intervention under consideration [9, 10].

From the patient's perspective, health-related quality of life (HRQoL), a patient-reported outcome measure, assesses physical, social and emotional well-being. In addition, HRQoL evaluates any other important aspect of health in the disease condition of interest. In determining HRQoL, the patients' responses to a set of validated questions about their level of functioning are analyzed to produce an aggregate score [10]. The ECOG-PS scale and the HRQoL scales appropriate for specific diseases such as Functional Assessment for Cancer Therapy – Prostate (FACT-P) in prostate cancer should complement each other [10, 11]. Similarly, the non disease-specific HRQoL scale such as EuroQol EQ-5D-5 L that assesses level of mobility in addition to pain and anxiety should also relate to a reasonable extent with clinician-rated ECOG-PS [12]. However, there are indications that the patients' ratings of quality of lives in disease conditions put into consideration some aspects of health and functioning that may not be adequately captured by the clinician-rated level of functionality expressed in terms of performance status scoring [13]. In the case of metastatic hormone-naïve prostate cancer, ECOG-PS ratings may not correlate reasonably with FACT – P, a prostate cancer-specific HRQoL scale. or with EuroQol EQ-5D-5 L

scale, a non-specific HRQoL scale. The influence of the scores from the social/family and emotional well-being domains as well as the prostate cancer specific subscale scores in FACT-P scale may affect its relationship with the clinician-rated ECOG-PS. Higher social/family support, healthier emotions and lower burden of prostate cancer-related symptoms could positively influence patient-reported physical functioning to the extent that the later demonstrated a low correlation with ECOG-PS [14]. Similarly, the influence of the anxiety/depression subscale of the EQ-5D-5 L scale may have a bearing on the scale's relationship with ECOG-PS ratings. It is therefore imperative to evaluate the nature of the relationship between ECOG-PS ratings and these patient-reported outcome measures.

The aim of this study is to evaluate, among men presenting with metastatic hormone-naïve prostate cancer, the relationship between the clinician-rated ECOG-PS and the patient-reported HRQoL using the prostate cancer specific FACT-P tool and the non cancer specific EQ-5D-5 L tool.

Methods

This was an analytical cross-sectional study of men diagnosed with metastatic hormone-naïve prostate cancer in the 3 public hospitals in Enugu southeast Nigeria where tertiary urology services could be accessed. The study population was men > 40years of age who presented with metastatic hormone-naïve prostate cancer (a population of about 302 patients per annum in the preceding 3years). The presence of distant metastasis was established with Computerized Tomography (CT) scan or with Magnetic Resonance Imaging (MRI).

Using an appropriate sample size formula [15] and deploying the standard deviation value as reported by Orakwe and colleagues in 2018 [16] the estimated sample size was 207 participants after correcting for the finite population. From August 2022 to April 2023, participants were recruited with informed written consent from the 3 hospitals using proportionate allocation of sample size based on the mean number of prostate cancer patients that presented at each of the hospitals per annum in the preceding 3years.

Two clinicians in each hospital with more than 5years experience in uro-oncology agreed on an ECOG-PS rating for each study participant. The clinicians used the observed level of physical functioning of the patient to determine each patient's ECOG-PS in line with established guide which varies from ECOG 0 (full functioning

at the pre-disease level) to ECOG 5 (death) [17]. Each participant completed the internationally-validated FACT-P questionnaire and the EQ-5D-5 L questionnaire with the aid, where necessary, of a research assistant who had received prior tutelage in the appropriate administration of the questionnaires.

The FACT-P questionnaire has 5 subscales that use sets of questionnaire items to capture in the preceding 7days, the physical well-being (PWB), social/family well-being (SFWB), emotional well-being (EWB), functional well-being (FWB) and additional concerns in prostate cancer (prostate cancer subscale PCS). There are 39 items in all (7 items each in the PWB, SFWB and FWB domains, 6 items in the EWB domain and 12 items in the PCS). Response to each item is assigned score 0–4 resulting in a range of scores of 0–28 for PWB, SFWB and FWB domains, 0–24 for EWB domain and 0–48 for the PCS. The total range of scores is 0–156 [18]. Higher domain

Table 1 Summary of socio-demographic and clinical characteristics of study participants

Parameter	Value
Mean age (yrs)	70.62 ± 7.34
Mean BMI (kg/m^2)	24.10 ± 3.43
Mean tPSA (ng/ml)	91.65 ± 66.43
Median tPSA (ng/ml)	83.70(IQR 47.90–107.00)
Formal Education Attainment	
Less than Secondary Level: n(%)	88 (39.3%)
Secondary Level and Higher: n(%)	136 (60.7%)
Symptoms at Study Entry	
LUTS: n(%)	216 (96.4%)
Bone Pain: n(%)	204 (91.1%)
Weight Loss: n(%)	169 (75.4%)
Acute/Chronic Urinary Retention: n(%)	101 (45.1%)
Paraparesis/Paraplegia: n(%)	47 (23.0%)
Haematuria: n(%)	35 (15.6%)
Need for Blood Transfusion: n(%)	18 (8.0%)
ISUP Grade	
Grade 1: n(%)	24 (10.7%)
Grade 2: n(%)	10 (4.5%)
Grade 3: n(%)	34 (15.2%)
Grade 4: n(%)	55 (24.6%)
Grade 5: n(%)	101 (45.1%)
ECOG-PS Score	
ECOG 1: n(%)	51 (22.8%)
ECOG 2: n(%)	125 (55.8%)
ECOG 3: n(%)	47 (21.0%
ECOG 4: n(%)	1 (0.4%)
Mean FACT-P Score	80.18 ± 17.56
Mean HUI	0.524 ± 0.324
Mean VAS	60.43 ± 9.91

[BMI: body mass index; tPSA: total serum prostate-specific antigen; LUTS: lower urinary tract symptoms; ISUP: international society of urological pathology; ECOG-PS: eastern cooperative oncology group – performance status; FACT-P: functional assessment for cancer therapy – prostate; HUI: health utility index; VAS; visual analogue scale]

and total scores indicate better domain well-being and better HRQoL respectively.

The EQ-5D-5 L questionnaire has 5 domains as well. These address mobility, self-care, usual activities, pain/discomfort and anxiety/depression. In each domain, the participant chooses a statement from 5 likert statements that best describes their condition for the day. The likert statements are assigned weights 5, 4, 3, 2, to 1. When choices are aggregated, a participant's health state could be from as poor as 55,555 to as good as 11,111 [19]. The VAS component of the EQ-5D-5 L questionnaire is an independent scale of 0–100 upon which the participant is expected to indicate their level of health for the day [19].

In addition, the age, body mass index (BMI), serum total prostate-specific antigen (tPSA), ISUP grade of tumour and level of formal education attained were noted. In the absence of formal data on level of income for patients in our setting, each participant completed a household characteristic and living standards (HCLS) questionnaire modified from the household questionnaire of the Nigerian Demographic and Health Survey [20]. Responses to the items in this HCLS questionnaire were used to create wealth indices for study participants (see Appendix 1). With the wealth indices, participants were segregated into wealth quintiles using principal component analysis (PCA). The Ugandan health value set was used to derive each participant's health utility index (HUI) from the health states [18]. From the Ugandan health value set, the corresponding HUI for 55,555 and 11,111 are −1.116 and 1.000 respectively [21].

The data obtained was summarised using mean ± SD, median (IQR) and proportions as appropriate. Analysis of variance (ANOVA) and crosstab analysis were used to compare continuous and categorical clinical parameters across ECOG-PS categories. Variations in the FACT-P scores, the EQ-5D-5 L derived health utility indices (HUI) and the EQ-5D-5 L derived visual analogue scale scores for value attached to health (VAS) across the clinician-rated ECOG-PS were assessed using ANOVA. Ordinal logistic regression analysis was used to determine the questionnaire items within the FACT-P domains that were significantly related to the clinician-rated ECOG-PS. Significance was set at $p < 0.05$. All analyses were done using the SPSS® Statistics version 23 (IBM Co., Armonk, NY, USA). The study was cleared by the health research ethics committee of the institution and was conducted in accordance with responsible ethical standards.

Results

There were 224 participants from 48years to 96years of age. They were all Nigerians who resided in the south-eastern region. Table 1 is a summary of the socio-demographic clinical data obtained.

The participants were categorized according to the ECOG-PS ratings of the clinicians. Table 2 presents comparison of the clinical and quality of life variables of interest across the various ECOG-PS ratings. One participant only was ECOG 4 and was subsequently dropped from further analyses.

The variations of the scores for each FACT-P questionnaire item across the ECOG-PS ratings is available as Appendix 2.

Further analyses reveal that there exist strong evidences of consistent associations between the dimensions of EQ-5D-5 L as indicated by participants and the ECOG-PS ratings (Table 3). This observation is consistent with the observation in Table 2 that HUI varies consistently with the ECOG-PS ratings.

The output of the ordinal logistic regression analysis for questionnaire items in the physical well-being (PWB), functional well-being (FWB) domains and the prostate cancer subscale (PCS) of FACT-P that significantly predict ECOG-PS ratings is shown in Table 4. Other variables included in the regression analysis were age, wealth class and formal education attainment of participants. Also included in the regression analysis was the International Society of Urological Pathologists (ISUP) grade of the cancer. The regression model shows a good fit (χ^2 120.893; df 38; $p < 0.0005$). The variables bring about a 30.7% improvement in the prediction of the outcome compared to the null model.

Discussion

In the clinical management of metastatic prostate cancer, health-related quality of life (HRQoL) is an important consideration [4, 6]. Assessment of performance status (PS) remains a recognized index of physical functioning, an aspect of quality of life assessment, from the clinician's perspective [8]. However, such performance status ratings may not be representative of the health-related quality of life from the patient's perspective. There are indications from some studies that clinician-rated performance status may not have consistent association with the domains of patient-reported HRQoL [22, 23]. This is particularly so for patient reported outcome domains that may not have direct conceptual relatedness to physical functioning [23].

This study reveals that the mean age of these men presenting with metastatic hormone naïve prostate cancer in these hospitals was 70.62±7.34years. This age is similar to findings from similar studies elsewhere [24, 25]. The median serum total prostate-specific antigen (tPSA) of 83.70(IQR 47.90–107.00) is also similar to findings from other studies as well [25]. The high levels of tPSA observed from this study are in keeping with high cancer burden usually reported in blacks with metastatic prostate cancer at first presentation [26, 27]. A high proportion (84.9%) of ISUP≥3 patients among participants is also in keeping with observations from cohorts of men presenting in advanced stages of prostate cancer [28]. It is not unusual to have more aggressive cancers in the advanced stages of prostate cancer possibly because the disease becomes more aggressive over a period of time [29, 30].

With respect to clinical features at presentation, it is observed from this study that lower urinary tract symptoms (LUTS), bone pain and weight loss are the prevalent clinical features in metastatic prostate cancer. Similar

Table 2 Comparison of the clinical variables of participants across the various clinician-derived ECOG-PS ratings

Clinical and QoL Variables	ECOG 1 (*n* = 51)	ECOG 2 (*n* = 125)	ECOG 3 (*n* = 47)	Test of Significance
Age (yrs)	70.57 ± 6.08	70.90 ± 7.85	70.40 ± 6.63	F = 0.096; p = 0.91
BMI (kg/m^2)	24.14 ± 2.68	24.14 ± 3.78	24.01 ± 3.23	F = 0.028; p = 0.97
tPSA (ng/ml)	75.06 ± 48.86	91.02 ± 74.83	110.99 ± 54.87	F = 3.657; p = 0.027
ISUP 1 (*n* = 24)	9 (4.0%)	11 (4.9%)	4 (1.8%)	X^2 = 16.47; p = 0.036
ISUP 2 (*n* = 10)	3 (1.3%)	6 (2.7%)	1 (0.4%)	
ISUP 3 (*n* = 34)	13 (5.8%)	18 (8.1%)	3 (1.3%)	
ISUP 4 (*n* = 55)	13(5.8%)	31 (13.9%)	11 (4.9%)	
ISUP 5 (*n* = 100)	13 (5.8%)	59 (26.5%)	28 (12.6%)	
PWB Mean Domain Score	19.06 ± 4.39	15.99 ± 4.15	13.23 ± 4.38	F = 23.08; p < 0.001
SFWB Mean Domain Score	15.21 ± 4.76	15.31 ± 5.21	16.69 ± 4.76	F = 1.47; p = 0.232
EWB Mean Domain Score	17.00 ± 3.71	16.53 ± 3.57	15.70 ± 3.91	F = 1.57; p = 0.210
FWB Mean Domain Score	12.31 ± 5.07	9.97 ± 5.03	9.09 ± 4.61	F = 5.90; p = 0.003
PCS Mean Score	23.90 ± 6.87	22.10 ± 6.64	19.91 ± 7.22	F = 4.206; p = 0.016
Mean FACT-P Score	87.66 ± 17.08	79.94 ± 17.49	74.56 ± 16.04	F = 7.360; p = 0.002
Mean HUI	0.709 ± 0.172	0.542 ± 0.248	0.207 ± 0.419	F = 41.490; p < 0.001
Mean VAS	66.65 ± 8.54	60.08 ± 8.01	51.53 ± 10.67	F = 36.672; p < 0.001

[ECOG: eastern cooperative oncology group; BMI: body mass index; tPSA: total serum prostate specific antigen; ISUP: international society of urological pathology; PWB: physical well-being; SFWB: social/family well-being; EWB: emotional well-being; FWB: functional well-being; PCS: prostate cancer subscale; FACT-P: functional assessment for cancer therapy – prostate; HUI: EuroQol health utility index; VAS: EuroQol visual analogue scale]

Table 3 Association between clinician-rated ECOG-PS ratings and the participant-reported quality of life within the EQ-5D-5 L domains

EQ-5D-5 L Dimensions		ECOG 1 (n = 51)	ECOG 2 (n = 125)	ECOG 3 (n = 47)	Total (n = 223)	Test of Significance
Mobility	5	0	0	2 (4.3%)	2 (0.9%)	χ^2=63.19; π<0.001
	4	0	12 (9.6%)	13 (27.7%)	25 (11.2%)	
	3	6 (11.8%)	38 (30.4%)	18 (38.3%)	62 (27.8%)	
	2	26 (51.0%)	64 (51.2%)	13 (27.7%)	103 (46.2%)	
	1	19 (37.3%)	11 (8.8%)	1 (2.1%)	31 (13.9%)	
Self-Care	5	0	0	1 (2.1%)	1 (0.4%)	χ^2=56.68; π<0.001
	4	1 (2.0%)	4 (3.2%)	12 (25.5%)	17 (7.6%)	
	3	3 (5.9%)	21 (16.8%)	13 (27.7%)	37 (16.6%)	
	2	25 (49.0%)	76 (60.85)	19 40.4%)	120 (53.8%)	
	1	22 (43.1%)	24 (19.2%)	2 (4.3%)	48 (21.5%)	
Usual Activities	5	0	0	1 (2.1%)	1 (0.4%)	χ^2=53.55; π<0.001
	4	1 (2.0%)	9 (7.2%)	13 (27.7%)	23 (10.3%)	
	3	8 (15.7%)	59 (47.2%)	24 (51.1%)	91 (40.8%)	
	2	38 (74.5%)	52 (41.6%)	9 (19.1%)	99 (44.4%)	
	1	4 (7.8%)	5 (4.0%)	0	9 (4.0%)	
Pain/Discomfort	5	0	3 (2.4%)	1 (2.1%)	4 (1.8%)	χ^2=51.73; π<0.001
	4	1 (2.0%)	11 (8.8%)	17 (36.2%)	29 (13.0%)	
	3	22 (43.1%)	68 (54.4%)	26 (55.3%)	116 (52.0%)	
	2	19 (37.3%)	38 (30.4%)	2 (4.3%)	59 (26.5%)	
	1	9 (17.6%)	5 (4.0%)	1 (2.1%)	15 (6.7%)	
Anxiety/Depression	5	0	0	0	0	χ^2=20.75; π=0.002
	4	0	3 (2.4%)	2 (4.2%)	5 (2.2%)	
	3	1 (2.0%)	11 (8.8%)	12 (25.5%)	24 (10.8%)	
	2	27 (52.9%)	69 (55.2%)	24 (51.1%)	120 (53.8%)	
	1	23 (45.1%)	42 (33.6%)	9 (19.1%)	74 (33.2%)	

[ECOG: Eastern Cooperative Oncology Group]

Table 4 FACT-P questionnaire items that are significantly related to clinician-rated ECOG-PS ratings in metastatic hormone naïve prostate cancer

Parameter	Estimate	OR	95% CI of OR		*p*-value
			Lower	Upper	
GP3: Because of my physical condition, I have trouble meeting the needs of my family	0.420	1.52	1.06	2.19	0.024
GP7: I am forced to spend time in bed	0.680	1.97	1.43	2,73	< 0.001
GF5: I am sleeping well	0.431	1.54	1.11	2.13	0.009
GF6: I am enjoying the things I usually do for fun	-0.796	0.45	0.27	0.77	0.003
Age of Participant	-0.004	1.00	0.94	1.05	0.883
Level of Formal Education Attained	-1.240	0.29	0.04	2.21	0.232
ISUP Grade of Cancer ≥ 3	-1.465	0.23	0.08	0.67	0.007
Wealth Index	0.766	2.15	0.69	6.75	0.189

[GP3 and GP7 are items 3 and 7 respectively in the physical well-being domain of FACT-P; GF5 and GF6 are items 5 and 6 in the functional well-being domain of FACT-P; ISUP: international society of urological pathologists]

observations have been reported from our previous study and by other researchers [1, 2, 28].

The FACT-P scores, the health utility scores derived from the EQ-5D-5 L utility index and the VAS are relatively low in this cohort in comparison to reports elsewhere [31, 32]. The lower values from this study may be attributed to higher cancer burden, burdensome cancer associated symptoms, comorbid conditions, and/or poorer social support systems [14]. Despite the lower scores however, there are strong evidences that the

FACT-P derived HRQoL scores, the HUI and VAS utility scores reported by participants in this study varied with the clinician-rated ECOG-PS: the better the participant-reported HRQoL (higher FACT-P/HUI/VAS scores), the higher the clinician-rated performance status (lower ECOG-PS ratings). So, as reported from other previous studies, these tools are assessing similar or closely related concepts in the participants [20, 32, 33]. The concept of physical functioning assessed with ECOG-PS rating appeared to align reasonably with the aggregate

patient-reported quality of life in metastatic cancer in this cohort.

However, upon teasing out the scores in the well-being domains, the observed variation of FACT-P scores is not reflected in every well-being domain within the FACT-P HRQoL tool. Specifically, the social/family well-being (SFWB) and the emotional well-being (EWB) domains are not seen to vary with the clinician-determined ECOG-PS. While deteriorating levels in the PWB and FWB domains correlate strongly with deteriorating ECOG-PS ratings, there is no evidence that such are the observations with the SFWB and EWB domains. Our observations are similar to the observations of Bergerot and colleagues [13], thereby supporting the assertion that ECOG-PS rating determined by the clinician may not be reflective of some aspects of patient-reported quality of life in some disease conditions. For instance, variation in pain was not observed by De Vincentis and colleagues to reflect in the psychological status of men with advanced prostate cancer evaluated using specific items of the EORTC QoL questionnaires C30 and BM22 [34].

From this study as well, similar but less obvious pattern of association is observed with responses to the EQ-5D-5 L questionnaire. It is observed that the association between the ECOG-PS ratings and the anxiety/depression domain is much less consistent than is seen with other domains. Understandably, clinician-rated ECOG-PS is essentially an assessment of level of physical functioning and selfcare, and so it is limited in its capacity to assess social and mental dimensions of health. The implication of the observation is that the social and mental dimensions of health should be more appropriately assessed where necessary through additional tools [13]. The suggestion by Choi and colleagues [18] that in determining HRQoL as a patient-reported outcome measure, combination of disease-specific and non disease-specific tools may give better assessment than either in isolation is valuable.

Focusing more closely on the questionnaire items within the PWB and the FWB domains, it is observed from our study that GP3 and GP7 items of the PWB domain as well as the GF5 and GF6 items of the FWB domain relate strongly with the ECOG-PS categories as determined by the clinician. In other words, having problems meeting the needs of the family on account of extant condition (GP3) and spending longer times in bed due to the debilitating illness (GP7) stand out as items in the PWB domain that evidently relate with the clinician-rated ECOG-PS. Similarly, failure to enjoy the things one would usually do for fun (GF6) is a FWB domain item that significantly relate to the assigned ECOG-PS. The response to sleeping well in item GF5 appear to have mirrored the response to item GP7.

Though the prostate cancer subscale (PCS) scores appeared to deteriorate with worsening ECOG-PS ratings, none of the domain questionnaire items evidently relate with ECOG-PS when items in the PWB and the FWB domains are controlled for. Responses to questionnaire items which assess pain, bowel symptoms, urinary symptoms, sexual functions as well as emotional and other social aspects of health do not seem to vary with performance status ratings by the clinician. This observation may as well be a reflection of the observation of Msaouel and colleagues that more global issues arising from symptoms appear to matter more in patients' responses to HRQoL questionnaire items [35].

Limitations
The administrations of the FACT-P and the EQ-5D-5 L questionnaires were mostly interviewer-assisted because of limited comprehension of the questionnaire items and preferences provided. In addition, the Ugandan health value set was used to derive health value indices for participants in this study in the absence of a Nigerian health value set.

Conclusions
There are indications from this study that clinician-rated ECOG-PS for men with metastatic prostate cancer relates strongly with the physical well-being domain, the functional well-being domain and the prostate cancer subscale of the FACT-P tool. Clinician-rated ECOG-PS also relates strongly with the non specific EQ-5D-5 L derived HUI and VAS for value attached to health. There are no evidences that the variations in the social and emotional well-being domains of health in men with metastatic prostate cancer do reflect the clinician-rated ECOG-PS. Similarly, many clinical features of interest in advanced prostate cancer such as pain, bowel function, urinary function and sexual function as captured in FACT-P tool are not seen to be associated with clinician-rated ECOG-PS.

It is recommended therefore that these limitations of clinician-rated ECOG-PS be put into consideration in patient assessment and in management decisions regarding therapeutic or palliative interventions.

Abbreviations
ADT	Androgen deprivation therapy
BMI	Body mass index
LUTS	Lower urinary tract symptoms
tPSA	Total prostate-specific antigen
ISUP	International Society of Urological Pathologists
ECOG-PS	Eastern Cooperative Oncology Group - performance status
EQ-5D-5L	EuroQol 5 Dimensions 5 Levels
HUI	EuroQol Health Value Index
VAS	EuroQol Visual Analogue Scale
FACT-P	Functional Assessment for Cancer Therapy - Prostate
PWB	Functional well-being
EWB	Emotional well-being

SFWB   Social / Family well-being
FWB   Functional well-being
PCS   Prostate cancer subscale

Supplementary Information
The online version contains supplementary material available at https://doi.org/10.1186/s12955-024-02318-y.

Supplementary Material 1

Supplementary Material 2

Data availability
Dataset generated in this study and analyzed in this manuscript is available at Mendeley® Dataset (doi: https://doi.org/10.17632/z3pjkhdrbn.1).

Declarations

Ethics approval and consent to participate
The study was approved by the health research ethics committee of the University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu. Each participant gave a written informed consent.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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