Journal of Health Informatics in Developing Countries
http://www.jhidc.org/
Vol. 17 No. 2, 2023

Submitted: July 25th, 2023 Accepted: Sep 28th, 2023

Knowledge, Attitude, and Practice of Healthcare Practitioners towards Clinical Practice Guidelines: Findings from a Cross-sectional Survey

Mohammed Saeedi[1,*], Abdulaziz Khalid AlMubarak[1], Vittoriana Crisera[1], Ahood Qubissi[1], Ziad Memish[2]

[1] National Center for Evidence-Based Medicine, Saudi Health Council, Riyadh, Saudi Arabia.

[2]College of Medicine, Alfaisal University, King Saud Medical City, Ministry of Health, Riyadh, Saudi Arabia

Abstract

Background: Despite the potential benefits of clinical practice guidelines (CPGs), utilization and uptake by medical professionals vary widely and frequently fall short of expectations. We conducted this research to analyze the knowledge, attitude, and practice of healthcare workers in Saudi Arabia. We identified the factors related to low or inadequate CPGs knowledge, practice, and attitude among healthcare workers.

Methods: In this cross-sectional study, we engaged 396 healthcare professionals from both public and private healthcare establishments. We utilized an online self-administered questionnaire to evaluate their knowledge, attitudes, and practice of CPGs. A multifaceted logistic regression analysis was carried out to identify factors associated with varying knowledge levels, low attitudes, and inadequate practice of CPGs. We used SPSS 23.0 to analyze the data.

Results: Overall, most participants, 83.3%, indicated they possess a broad understanding, and 78.3% reported having received training in the necessary skills to utilize CPGs. A significant 80.5% of the healthcare professionals concurred with the tenets of their organization's guidelines, and an overwhelming 94.2% agreed that adherence to these CPGs would enhance care delivery. About 80% of respondents agreed that the recommendations or activities outlined in the CPGs were easily adaptable in their practice. Additionally, it was observed that individuals of Saudi nationality (OR: 2.91; 95% CI: 1.64, 5.17), those employed in government sectors (OR: 2.27; 95% CI: 1.16, 4.45), and those with over a decade of experience (OR: 1.89; 95% CI: 1.06, 3.37) demonstrated a correlation with lower knowledge levels. Furthermore, females exhibited a 1.94 times higher likelihood of demonstrating less positive attitude towards healthcare CPGs compared to their male counterparts (OR: 1.94; 95%CI: 1.10, 3.40).

Conclusion: In the present study, healthcare professionals demonstrated satisfactory knowledge, attitude, and understanding of clinical guidelines. The causes for variations in knowledge influenced by nationality, years of experience, and different organizational affiliations warrant further exploration in ensuing studies.

Keywords: Knowledge, attitude, practice, healthcare professionals, clinical practice guidelines.

*Mohammed Saeedi -General Manager, National Center for Evidence-Based Medicine, Saudi Health Council, Riyadh, Saudi Arabia; Email: m.saeedi@shc.gov.sa .

1. Introduction

Clinical Practice Guidelines (CPGs) are becoming more and more significant in healthcare since they offer suggestions based on data that are intended to standardize and enhance patient care [1]. Clinical Practice Guidelines are evidence-based recommendations that aim to help healthcare practitioners provide the best possible patient care [2]. By encouraging the use of suitable and effective interventions, minimizing needless differences in care, and boosting the effectiveness of healthcare delivery, CPGs can enhance patient outcomes [3]. Studies have revealed that despite the potential advantages of CPGs, usage and uptake by medical professionals vary greatly and frequently fall short of expectations [4-10].

Numerous studies have identified the qualities of guidelines, patient factors, and environmental factors as factors that affect the acceptance and implementation of CPGs [11, 12]. The adoption of CPGs by healthcare professionals can be impacted by guideline qualities like clarity, accessibility, and relevance. Adherence to CPGs may also be impacted by patient characteristics, such as preferences, expectations, and clinical complexity. The application of clinical practice guidelines can also be impacted by environmental factors such as company culture, leadership support, and resource availability [11, 13-16].

Overall, there is lack of data and dearth of studies on knowledge and attitude of healthcare professionals regarding CPGs, mainly in Saudi Arabia. To overcome these gaps, we undertook this study to assess the knowledge, attitude, and practice of healthcare professionals in Saudi Arabia. We also aimed to determine the factors associated with low or inadequate knowledge, practice, and attitude of healthcare professionals regarding CPGs. The study will shed light on the degree to which CPGs are being disseminated and utilized by healthcare providers to improve patient outcomes, as well as explore the determinants of CPGs uptake, including guideline characteristics, patient factors, environmental and institutional factors. The findings of the study will inform policy makers and clinicians regarding the implementation of CPGs in Saudi Arabia and other similar contexts.

2. Subjects and Methods

2.1 Study design and setting

We undertook a cross-sectional study to assess the level of awareness and utilization of CPGs, identify the factors that influence their implementation, and explore their impact on patient outcomes and healthcare quality in Saudi Arabia among healthcare professionals. We identified healthcare professionals working in both public and private healthcare facilities.

2.2 Study participants and sample

The target participants were approached through the Saudi Commission for Health Specialties, where all healthcare professionals were required to be registered and licensed to practice in Saudi Arabia.

We selected healthcare providers using simple random sampling technique, using the sampling frame of eligible public and private healthcare facilities. A multistage random sampling was conducted, and questionnaires were sent by email. A total of 6,498 participants received the questionnaire, using google docs to create the link. We calculated the sample size by keeping a confidence level of 95%, margin of error of 5%, and response rate of 50%. With these assumptions and parameters, we required a minimum of 377 study participants to achieve the goal of the study.

2.3 Data collection tool

We developed an online self-administered questionnaire (adapted from Gagliardi et al., 2019) and distributed the online questionnaire via email among healthcare professionals in Saudi Arabia, including physicians, nurses, and pharmacists [20]. The survey questionnaire consisted of two sections. The first section included questions about clinician demographic and background information (including two close-ended items that can be considered determinants: attitudes regarding guidelines and experience with CPGs). The second section consisted of 26 close-ended items that asked participants questions about clinician-specific and guideline-specific determinants of CPGs use. This section assessed the participants' level of awareness and utilization of CPGs. Participants were asked to indicate their familiarity with selected CPGs, frequency of use, and whether they believe CPGs improve patient outcomes.

2.4 Ethical Considerations

The current study was conducted in accordance with the ethical principles outlined in the Helsinki Declaration. All study participants were informed about the study's purpose and benefits, and were asked to provide informed consent before participating which was incorporated in the beginning the self-administered questionnaire. Participation in the study was voluntary, and participants had the right to withdraw at any time without penalty. An IRB approval was granted from MOH with registration number IRB00010471, on November 14, 2019.

2.5 Statistical Methods

In order to delineate the attributes of the research cohort, we articulated frequencies and proportions pertaining to categorical variables such as gender, nationality, type of profession, physician specialty, and type of organization among others. By utilizing a series of queries related to knowledge, attitude, and practice, we formulated a scoring system across these three domains. A binary outcome variable was then conceived, representing inadequate knowledge, low attitude, and inadequate practice, as determined by a score falling below the 25th percentile. Participants scoring beneath this threshold were identified as possessing low knowledge, low attitude, and inadequate practice of clinical guidelines

and the converse was also true. A bivariate logistic regression analysis was employed to ascertain the solitary predictors of inadequate knowledge, attitude, and practice. Prior to the execution of the multivariable regression analysis, potential determinants were examined for multicollinearity. Subsequently, a multivariable logistic regression analysis was carried out to identify factors correlated with low knowledge, low attitude, and inadequate practice of clinical guidelines. The analytical results were represented as crude or unadjusted odds ratios (OR) and adjusted odds ratios (aOR) accompanied by 95% Confidence Intervals (CIs). The data was examined using SPSS 23.0 software.

3. Results

3.1.Sociodemographic characteristics of the healthcare professionals

Table 1 outlines the sociodemographic characteristics of the healthcare professionals who participated in this study. A majority of the respondents (58.6%) were of the male gender, paralleled by a similar ratio of non-Saudi individuals (58.6%). Approximately 56.6% of the study participants reported working in Government organizations, with 45.7% possessing over a decade of professional experience. The medical specialties mainly represented were internal medicine and general practitioners (6.8% each), followed by pediatrics (5.1%). Physicians constituted 35.4% of the cohort followed by nurses (16.4%) and pharmacists (14.1%), as shown in Table 1

Table (1) Sociodemographic characteristics of the HealthCare Professionals Participated in the Survey (n=396)

Characteristics	n	%
Gender		
• Male	232	58.6
• Female	164	41.4
Years of Experience		
• 0-10 Years	215	54.3
• > 10 Years	181	45.7
Working Organization		
• Governmental	224	56.6
• Private sector	116	29.3
Nationality		
• Saudi	164	41.4
• Non-Saudi	232	58.6
Nationality categories		
• Saudi	164	41.4
• Egyptian	67	16.9
• Filipino	38	9.6
• Indian	34	8.6
• Sudanese	21	5.3
• Jordanian	14	3.5
• Pakistani	14	3.5
• Syrian	9	2.3
• British	6	1.5
• Malaysian	5	1.3
• Yemeni	4	1

• Irish	3	0.8
• American	2	0.5
• Bangladeshi	2	0.5
• Nigerian	2	0.5
• Palestinian	2	0.5
• Bahrain	1	0.3
• Canadian	1	0.3
• Chinese	1	0.3
• Indonesian	1	0.3
• Lebanese	1	0.3
• South African	1	0.3
• Tanzanian	1	0.3
• Tunisian	1	0.3
Physician Specialty		
• Anesthesia	5	1.3
• Emergency Medicine	7	1.8
• Family Medicine	13	3.3
• General Practitioner	27	6.8
• Internal Medicine	27	6.8
• OB/Gyn	17	4.3
• Other	1	0.3
• Pediatric	20	5.1
• Public Health	2	0.5
• Surgery	14	3.5
Profession Category		
• Physician	140	35.4
• Dentist	38	9.6
• Nurse	65	16.4
• Pharmacist	56	14.1
• Lab	26	6.6
• Other	59	14.9

3.2.Knowledge, Attitude, and Practice of Healthcare Professionals for Using Clinical Practice Guidelines

3.2.1. Knowledge Related Findings

Table 2 presents the healthcare professionals' acquaintance with the utilization of CPGs. Overall, 83.3% of the study participants, agreed that they possess general knowledge about the clinical condition that is needed to use guidelines and 78.3% affirmed they were trained in the requisite skills (i.e., technical, procedural, cognitive, etc.) for guidelines application. Approximately 73.7% of the healthcare professionals expressed ease in extracting information from guidelines due to their user-friendly design and layout. About three fourths (75.5%) of the healthcare professionals agreed that the wording of the recommendations is clear and unambiguous. More than three-forth (78.1%) of the study participants, confirmed that guidelines transparently illustrate the underlying evidence supporting the recommendations, and 80.1% agreed that recommendations are consistent with the available evidence.

Table(2) Knowledge, Attitude, and Practice of HealthCare Professionals for Using Clinical Practice Guidelines (n=396)

Knowledge Related Questions	Disagree		Neutral		Agree		Not Sure	
	n	%	n	%	n	%	n	%
I possess general knowledge about the clinical condition that is needed to use guidelines	13	3.4	46	11.6	330	83.3	7	1.8
I was trained in the skills (i.e., technical, procedural, cognitive, etc.) needed to use guidelines	35	8.8	40	10.1	310	78.3	11	2.8
It is easy to find information in the guidelines because the format and layout are easy to navigate	41	10.3	50	12.6	292	73.7	66	16.7
The wording of the recommendations is clear and unambiguous	30	7.6	51	12.9	299	75.5	16	4.0
The guidelines include or are accompanied by implementation tools (clinician summary, patient summary, algorithm, medical record forms, etc.) Implementation tools included in or with the guideline (clinician summary, patient summary, algorithm, chart forms, etc.) are helpful to me, my practice or organization, or my patients	35	8.8	60	15.2	280	70.7	21	5.3
The guidelines clearly describe underlying evidence supporting the recommendations	28	7.1	46	11.6	309	78.1	13	3.3
The recommendations are consistent with the available evidence	19	4.8	47	11.9	317	80.1	13	3.3
The guidelines describe whether patient preferences were collected and influenced the guideline questions, methods, or recommendations	49	12.4	64	16.2	251	63.3	32	8.1

3.2.2. Attitude Related Findings

Table 3 shows the attitude of healthcare professionals regarding the utilization of CPGs. It reveals that a substantial majority, precisely 80.5% of the healthcare professionals agree with the content of their organization's guidelines, with 94.2% affirming that adherence to the guideline will enhance quality of care delivery and patients' outcomes. Furthermore, a significant proportion (over 85%) expressed confidence in their competencies to apply these guidelines (86.9%), viewing the adherence to guideline-recommended procedures or actions as an integral part of their professional duties (88.4%). Nearly three-fourths (72.3%) agreed that their organization provides support (leadership, resources, assistance, etc.) needed to use the guidelines with 79.8% agreeing that guidelines' recommendations align with their patients' values and preferences. However, only 68.9% and 62.7% of the study participants agreed that their patients do or are likely to accept and follow the recommendations in the guidelines, and that they have the autonomy to make changes needed to follow guidelines, respectively.

Table (3) Knowledge, Attitude, and Practice of Healthcare Professionals for Using Clinical Practice Guidelines (n=396)

Attitude Related Questions	Disagree		Neutral		Agree		Not Sure	
	n	%	n	%	n	%	n	%
I agree with the content of my organization guidelines	19	4.9	47	11.9	319	80.5	11	2.8
Following the guideline will improve care delivery	13	3.3	9	2.3	374	94.2	0	0
Following the guideline will improve patient outcomes	8	2.1	15	3.8	373	94.3	0	0
I am confident that I possess the skills (i.e., technical, procedural, cognitive, problem-solving, etc.) needed to use guidelines	18	4.6	25	6.3	344	86.9	9	2.3
It is among my self-acknowledged professional responsibilities to follow the procedures, actions or activities recommended in the guidelines	19	4.9	22	5.6	350	88.4	5	1.3
My organization provides support (leadership, resources, assistance, etc.) needed to use the guidelines	45	11.3	49	12.4	286	72.3	16	4.0
The recommendations in the guidelines are consistent with my patients' values and preferences	17	4.3	51	12.9	316	79.8	12	3.0
My patients do, or are likely to accept and follow the recommendations in the guidelines	31	7.8	62	15.7	273	68.9	30	7.6
I have the autonomy to make changes needed to follow the guidelines	62	15.7	66	16.7	248	62.7	20	5.1

3.2.3. Practice Related Findings

Table 4 illustrates the practice of healthcare professionals use of CPGs. Almost all healthcare professionals (93.7%) agreed that adherence to guidelines confers advantages to themselves, their practice, organization, or to the patients they serve. On the other hand, a mere 21% of healthcare professionals agreed that compliance with guidelines could potentially bring about disadvantages to themselves, their practice, organization, or patients. About 68.1% agreed that their colleagues within their organization put these guidelines to use, while only 37.7% of colleagues outside of their organization use guidelines. Around 80% of the study participants indicated that the steps, actions, or activities recommended in the guidelines are feasible to assimilate into their practice, as shown in Table 4.

Table (4) Knowledge, Attitude, and Practice of Healthcare Professionals for Using Clinical Practice Guidelines (n=396)

Practice Related Questions	Disagree		Neutral		Agree		Not Sure	
	n	%	n	%	n	%	n	%
Following the guideline brings advantages to me, my practice or organization, or my patients (i.e., supports communication and decision-making, etc.)	13	3.4	10	2.5	371	93.7	2	0.5
Following the guideline brings disadvantages to me, my practice or organization, or my patients (i.e., time, costs, etc.)	284	71.7	19	4.8	83	21	10	2.5
Colleagues in my own organization use the guidelines	33	8.4	60	15.2	270	68.1	33	8.3
Colleagues outside of my organization use the guidelines	40	10.1	98	24.7	149	37.7	109	27.5
The procedures, actions or activities recommended in the guideline are easy to incorporate in my practice	27	6.8	44	11.1	314	79.3	11	2.8

3.3.Factors associated with low/inadequate knowledge: Univariate and multivariate analysis:

Table 5a demonstrates the elements linked to low/inadequate knowledge, as revealed by both univariate and multivariate analyses. Upon examination, factors including nationality, type of organization, and duration of professional experience were identified as being correlated with low knowledge at both univariate and multivariate levels. The multivariate analysis specifically highlighted that Saudi healthcare practitioners were 2.91 times more susceptible to possess marginal or inadequate knowledge compared to their non-Saudi counterparts (OR: 2.91; 95% CI: 1.64, 5.17). Similarly, healthcare professionals employed in government organizations were 2.27 times more prone to exhibit limited or insufficient knowledge compared to their peers working in private sector organizations (OR: 2.27; 95%CI: 1.16, 4.45). In addition, it was discerned that practitioners with professional tenure of 0-10 years were 1.89 times more likely to demonstrate deficient or inadequate knowledge compared to those with over 10 years of experience (OR: 1.89; 95% CI: 1.06, 3.37) as detailed in Table 5a. However, the current study found neither gender nor professional designation to be significant determinants of inadequate knowledge.

3.4.Factors associated with low/inadequate attitude: Univariate and multivariate analysis:

Table 5b demonstrates the results pertaining to factors linked with low/inadequate attitude towards healthcare guidelines. The univariate analysis identified factors such as gender, nationality, and years of experience as linked with low/inadequate attitude towards healthcare guidelines. More precisely, the multivariate analysis revealed that females were 1.94 times more susceptible to display low attitude towards healthcare guidelines compared to males (OR: 1.94; 95%CI: 1.10, 3.40). Similarly, healthcare professionals of Saudi nationality were 1.71 times more likely to exhibit a low attitude towards health care guidelines compared to their non-Saudi counterparts (OR: 1.71; 95% CI: 0.96, 3.01). Additionally, healthcare professionals with fewer years of experience (0-10 years) were 1.75 times more likely to demonstrate a low attitude towards healthcare guidelines compared to those with more than 10 years of experience (OR: 1.75; 95% CI: 0.99, 3.08) as depicted in Table 5b. Notably, we did not find the type of organization and type of profession as significant predictors of low attitude towards healthcare guidelines.

3.5.Factors associated with low/inadequate practice: Univariate and multivariate analysis:

Table 5c shows the determinants connected to low/inadequate practice, as discerned by both univariate and multivariate analyses. The type of organization surfaced as the sole significant independent predictor of low/inadequate practice towards healthcare guidelines. More precisely, the multivariate analysis revealed that healthcare professionals working in government organizations were 0.52 times likely to display low or inadequate practice compared to their counterparts in private sector organizations

(OR: 0.52; 95%CI: 0.30, 0.92), as illustrated in Table 5c. In contrast, gender, nationality, years of experience, and type of profession did not emerge as significant predictors of low practice towards healthcare guidelines in the current study.

Table (5) Factors associated with low knowledge, inadequate attitude, and low practice: Findings from univariate and multivariate analysis (n=396)

5a - Inadequate/low Knowledge about healthcare guidelines								
Characteristics	**Univariate Analysis**				**Multivariate Analysis**			
	OR	**95% CI**		**P-value**	**AOR**	**95% CI**		**P-value**
Gender								
Male	1				1			
Female	1.34	0.84	2.13	0.21	0.83	0.46	*1.48*	0.53
Nationality								
Non-Saudi	1				1			
Saudi	4.00	2.46	6.51	<0.0001	2.91	1.64	*5.17*	***<0.001***
Organization								
Private	1				1			
Government	2.788	1.484	5.239	0.001	2.27	1.16	*4.45*	***0.02***
Years of Experience								
> 10 Years	1				1			
0-10 Years	2.70	1.64	4.441	<0.0001	1.89	1.06	*3.37*	***0.03***
Profession Type								
Physicians/Dentists	1				1			
Non-Physicians	1.127	0.709	1.793	0.612	1.12	0.63	*1.98*	0.71
5b - Inadequate/low Attitude towards healthcare guidelines								
Gender								
Male	1				1			
Female	1.928	1.206	3.08	0.006	1.94	1.10	*3.40*	***0.02***
Nationality								
Non-Saudi	1				1			
Saudi	2.292	1.429	3.676	0.001	1.71	0.97	*3.006*	***0.06***
Organization								
Private	1				1			
Government	1.402	0.798	2.465	0.240	1.13	0.62	*2.06*	0.68
Years of Experience								
> 10 Years	1				1			
0-10 Years	2.09	1.279	3.404	0.003	1.75	0.99	*3.08*	***0.05***
Profession Type								
Physicians/Dentists	1				1			
Non-Physicians	0.934	0.57	1.49	0.78	0.67	0.38	*1.19*	0.173
5c - Inadequate/low Practice								
Gender								
Male	1					1		
Female	0.91	0.56	1.47	0.69	0.69	0.39	1.24	0.22
Nationality								
Non-Saudi	1				1			
Saudi	1.30	0.81	2.11	0.28	1.37	0.76	2.46	0.29
Organization								
Private	1				1			
Government	0.55	0.32	0.93	0.025	0.52	0.30	0.92	***0.02***
Years of Experience								

> 10 Years	1				1			
0-10 Years	1.30	0.80	2.11	0.29	1.03	0.59	1.80	0.92
Profession Type								
Physicians/Dentists	1				1			
Non-Physicians	1.04	0.64	1.68	0.87	1.21	0.70	2.11	0.49

4. Discussion

We undertook the current study to assess the knowledge, attitude, and practice of healthcare professionals in Saudi Arabia. We explored the factors contributing to less optimal knowledge, attitude, and practice about clinical guidelines. Overall, we found that more than three forth of the healthcare professionals acknowledged possessing general knowledge about clinical guidelines. Likewise, a similar proportion of the healthcare professionals reported that guidelines clearly describe underlying evidence that supports the recommendations. The knowledge of healthcare professionals was aligned with their attitude towards using clinical guidelines. The professionals' knowledge seemed congruent with their attitudes towards employing these guidelines, with over three-fourths expressing agreement with the guidelines' content and confidence in their application. However, only two-thirds of the healthcare professionals felt empowered to make adjustments to these guidelines. Regarding the practice, nearly every professional concurred that adherence to guidelines offers benefits. However, two-thirds of the healthcare professionals reported using guidelines within their respective organizations and only one-third of the health care professionals reported that their colleagues outside their organization use guidelines.

Our study revealed critical elements linked to inadequate or low knowledge about CPGs. Specifically, healthcare professionals of Saudi nationality, employed in governmental institutes, and with less than 10 years' experience were found to have low knowledge about CPGs when compared with non-Saudi professionals working in private sector organizations with over a decade of experience. Likewise, healthcare professionals of Saudi nationality, with less than 10 years' experience, and females professionals, demonstrated a comparably low attitude towards CPGs. However, when it comes to practical application, healthcare professionals within private sector organizations were observed to have insufficient adherence to these guidelines.

In alignment with global studies [17-19], our study also reveals a prevalent positive perspective towards clinical guidelines. Our results parallel those of a prior study conducted by Wahabi, H.A., et al in 2011 in Saudi Arabia [9], which also showed a significant positive disposition of healthcare professionals towards CPGs. Similar to our research, participants in the previous study also expressed a lack of sufficient autonomy to modify guidelines. Furthermore, the study identified the length of professional experience as a key factor influencing adherence to guidelines. Specifically, healthcare professionals with more than

15 years of experience exhibited a higher likelihood of implementing guidelines compared to their counterparts with less experience. These findings echo the results of our study, although in our case, the years of experience were found to be a significant determinant of knowledge and attitude towards clinical guidelines rather than practice [9]. One potential interpretation of these similar outcomes could be that as healthcare professionals age and engage with a greater number of patients, they acquire more knowledge and skills. This could also be attributed to postgraduate training experiences that can potentially enhance healthcare professionals' knowledge. However, our results diverge from some other studies conducted by different researchers [20-22].

Our findings regarding Saudi healthcare professionals being less knowledgeable about healthcare guidelines are in accordance with prior studies conducted in Saudi Arabia that assessed knowledge, attitude and practice about management of Diabetes and MERS-Cov [22, 23]. A potential rationale for the knowledge disparity by nationality might stem from non-Saudi physicians having received supplementary training and exposure in their home countries before relocating to Saudi Arabia. However, our current study did not gather data concerning the factors contributing to knowledge differences by nationality. Hence, future research should delve deeper into exploring the reasons the consistent findings regarding nationality-based knowledge discrepancies.

4.1. Strengths and Limitations

This research represents a pioneering endeavor, scrutinizing the knowledge, attitude, and practice of clinical guidelines among healthcare professionals in Saudi Arabia. We endeavored to randomly select participants from both private and governmental entities, an approach that could potentially extend the applicability of our findings to countries with similar socio-economic contexts as Saudi Arabia. Additionally, the response rate and sample size of our study were satisfactory and comparable to corresponding research studies.

Nevertheless, the interpretation of our findings must consider certain constraints. Primarily, due to the cross-sectional design of our study, the investigation of temporal relationships among variables associated with low knowledge was not feasible. Furthermore, the self-administered nature of our online questionnaire may have introduced self-reporting or response bias. It is plausible that the pressures of the healthcare environment may have influenced the professionals' responses, hence, the completeness and accuracy of their responses cannot be unequivocally guaranteed.

5. Conclusion

Overall, knowledge, attitude, and practice of healthcare professionals about clinical guidelines was found to be adequate in the current study. However, Saudi healthcare professionals working in government

organizations with less experience appear to have low knowledge and also show inadequate attitude towards clinical guidelines. The reasons for these factors need to be explored in future studies. The findings of the current study have important implications, suggesting that before developing strategies to implement CPGs, knowledge and attitude of healthcare providers need to be explored. Since healthcare professionals are front line workers who implement CPGs and closely work with patients, it is important that in future they should be involved in developing or modifying the guidelines. In other words, healthcare professionals should be empowered to make amendments to the guidelines, whenever possible.

6. Declarations

6.1 Conflict of Interest Statement

The authors have no conflict of interests to declare.

6.2 Funding Disclosure

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

6.3 Acknowledgements

We would like to express our profound gratitude to Dr Samia AlHabib, Dr Abdullah AlZahrani and Ms. Wedad AlMadani for their invaluable contribution to the study. Their relentless efforts in circulating the survey, collecting data and maintaining effective communication with the Saudi Commission for Health Specialties have greatly influenced the success of this study. Their dedication and passion have not only enriched this work but also advanced our collective understanding in the field.

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