

Health Professionals' Engagement in Continuing Medical Education at Kordofan University, Sudan

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Abstract Background: Continuing professional development (CPD), which extends beyond undergraduate and postgraduate education, is crucial to healthcare since it usually keeps health professionals with updated knowledge and skills. This research aims to assess the extent of health professionals' engagement in CPD programs at the University of Kordofan. In addition, it endeavored to determine the factors that drive employee engagement in CPD and identify any barriers that hinder their participation. **Methods:** This study utilized a cross-sectional study that was carried out at the University of Kordofan. A total of 73 individuals, including all staff members of the health sciences colleges, have participated. **Results:** This study recruited 73 health professionals, 57.5% male and 42.5% female. The majority (57.5%) strongly agreed that CPD empowers participants for personal growth. Additionally, 43.8% agreed that CPD activities require enough time, and 54.8% strongly agreed that resources are needed to attain CPD goals. Furthermore, 47.9% stated they experience job-related difficulties and strongly agreed that workplace support is vital for CPD utilization. Most participants mentioned lack of CPD study time (38.4%), financial restrictions (32.9%), and lack of CPD activity information (30.2%) as CPD participation hurdles. Family and social obligations (34.2%) and CPD ignorance (28.8%) were also major obstacles. Lack of study time was a barrier for 41.9% of women and 35.8% of men. **Conclusion:** Prominent difficulties that hinder participation in CPD include financial constraints, time limitations, lack of desire, excessive work demands, and family responsibilities. To overcome these obstacles, CPD organizers should customize programs to correspond with the motivations and learning preferences of adult learners.

Keywords: Continuous Professional Development, Motivation, Barriers, Health Professionals Staff, University of Kordofa

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1. Introduction

Continuing professional development (CPD) refers to the process of acquiring knowledge and skills beyond what is learned in undergraduate and postgraduate higher education. It is of great importance in the health service. It provides essential assistance to healthcare professionals, allowing them to remain informed about the most effective methods and fix any deficiencies in their knowledge or practice [1,2] CPD differs from formal stages of medical and health professions education by prioritizing self-directed and practice-based learning activities instead of supervised training [3].

Effective CPD systems must empower healthcare personnel to provide patient-centered care, collaborate in interprofessional teams, use evidence-based medicine, and

quickly access instructional resources via health information technologies. They should also help professionals use quality improvement resources and collect and analyze patient data for decision-making [4]. CPD educators create and providers deploy CPD systems. Mutual agreements on professional certifications and CPD systems will help the global healthcare workforce become more mobile [5,6].

Healthcare service providers, medical education institutes, recognized training institutions, medical schools, Educational Development Centers (EDCs), and university-affiliated health training institutes are CPD providers. General hospitals and other health organizations are included. CPD practitioners say it improves employability and career development by updating and expanding skills [3].

CPD promotes autonomy, self-direction, goal-setting, and practice-based learning [6,7]. Self-directed learning (SDL) in CPD requires taking charge of new evidence and

competency [8,9]. SDL is currently a primary prerequisite for medical board certification and MOC in Canada and abroad [10,11]. After reviewing, planning, implementing, and evaluating, CPD learners reflect [12].

Lack of self-motivation, perceived topic irrelevance during study days, time constraints, financial constraints, distance to CPD activities, and limited resources were the main hurdles to CPD participation. Insufficient understanding about learning activities, personnel shortages, poor study day notification and communication, and lack of support all inhibited participation [13]. Knowledge, skills, attitudes, and confidence are commonly assessed in CPD surveys to determine impacts [14,15].

The objective of this study was to examine the extent to which University of Kordofan Health Professionals Staff engage in continuous professional development activities. Additionally, the study sought to determine the factors that motivate individuals to participate in CPD and the obstacles that hinder their involvement.

2. Materials and Methods

Study Design: This study used a cross-sectional, descriptive design and was carried out at the University of Kordofan in El Obeid City, North Kordofan State. The study population was comprised of health professionals from the University of Kordofan's faculties of medicine, medical laboratory sciences, and nursing sciences. The sample size was calculated to be 82, which reflected the total number of staff members during the study. Part-time employees and those who relocated outside Sudan throughout the research period were removed. Data were gathered by face-to-face interviews with a structured questionnaire. The questionnaire was divided into six sections labeled with capital letters (A to F): A) Sociodemographic characteristics, B) Participation in CPD activities, C) Knowledge about the CPD cycle, D) Factors influencing motivation for CPD, E) Barriers to participation in CPD, and F) Questions about CPD future plans. The collected data was analyzed using the Statistical Package for the Social Sciences (SPSS), which included both descriptive and inferential statistics.

Ethical Considerations: The SMSB Research Committee Unit provided technical ethical approval for this project, and authorization to collect data was obtained from the Deans of the faculties. Following an explanation of the study's aims, participants provided informed permission.

3. Results

A total of 73 academic health staff members had engaged in the CPD study, resulting in a response rate of 89%. The remaining workers were unapproachable. The majority of participants had expertise in diverse medical disciplines (49.3%), with Medical Laboratory Sciences (21.9%) and Nursing (11.0%) being the next most common specializations. Additional areas of expertise comprised Biochemistry (9.6%), Pharmacology (2.7%), Anatomy (2.7%), Physiology (1.4%), and Public Health (1.4%). Table 1, Figure 1, provide an extensive summary

of the socio-demographic characteristics of the participants. The participants were predominantly male, with 57.5% of them being male. A significant portion, 46.7%, belonged to the age group of 41-50 years. The majority of the sample consisted of married participants, accounting for 85.0%. Almost half of the participants (50.7%) possessed MD degrees, while a significant portion (42.5%) had more than 10 years of work experience.

Table 1. The socio-demographic characteristics of the participants

Variable	Gender		Total
Age	Males	Females	
20 – 30 years	0	1	1
31 – 40	10	14	24
41 -50	23	11	34
51 -60	7	5	12
> 60	2	0	2
Marital status			
Single	1	5	6
Married	39	23	62
Divorced	2	2	4
Widow	0	1	1
Education level			
Masters	8	16	24
MD	29	8	37
PHD	5	7	12
Work Experience			
<5 years	5	10	15
5 - 10	17	10	27
> 10	20	11	31

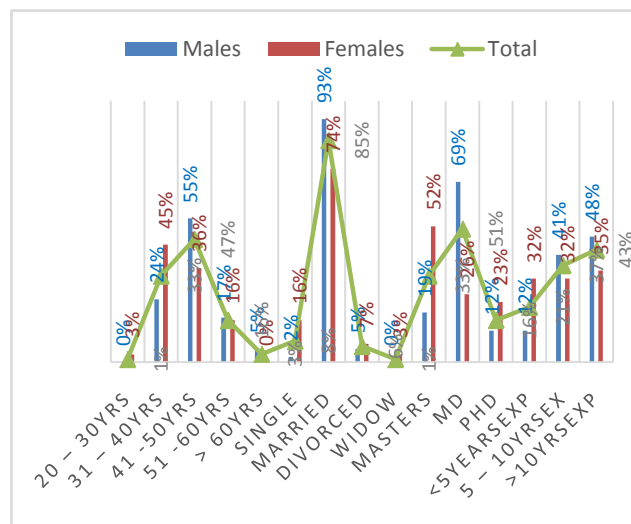


Figure 1. Description of the study population by proportions of demographical characteristics

No one who took part in the study said they didn't regularly use some kind of computer or laptop. The following frequencies of attendance were recorded for the CPD events that the study participants participated in during the last year: once (21.9%), 2-3 times (43.8%), 4-5 times (11.0%), and more than five times (5.5%). Roughly one-fifth (17.8%) skipped all events.

With 47.9% of the total, participants attended workshops as their primary continuing professional development (CPD) activity. Next on the list were courses at 11%, specialty-related topics at 8.2%, conferences at

5.5%, and skills training at 1.4%. As shown in Figure 2, the most common reason for choosing the specified CPD categories was a desire to learn more about the subject (53.4%).

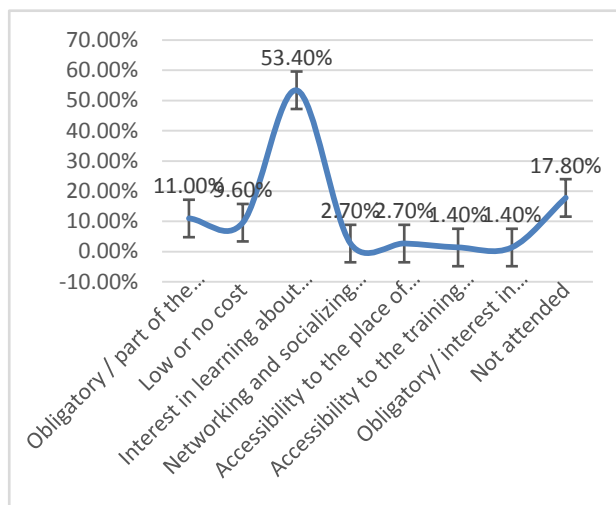


Figure 2. Causes of selecting the CPD types

In terms of the venues for CPD activities, the majority of participants (61.6%) attended inside the State. Additionally, 31.5% participated at the institution, while 30.1% attended another university or institute. A portion of the participants attended events at the regional level

(12.3%) or at the international level (5.5%), while a small number attended both local activities within their university and regional activities (2.7%).

Table 2 provides a comprehensive overview of the study participants' perspectives on the driving elements that influence their decision to engage in CPD. 57.5% of the participants strongly believed that CPD effectively prepared them for individual development. Additional characteristics that motivated participants included having an ample amount of time (43.8%), access to tools such as computers, internet, and financial means (54.8%), job challenges (47.9%), and support from the workplace in terms of encouragement and time allocation (47.9%).

A majority of the participants, comprising over fifty percent, expressed strong agreement or agreement with individual obstacles to CPD, which encompassed restricted study time (58.9%) and financial constraints (54.8%). In addition, around 42.5% of respondents provided scant details regarding CPD activities, while 45.2% addressed family and social commitments, and 41.1% discussed their perception of CPD. Nevertheless, the study participants expressed either strong disagreement or disagreement regarding the notion that lack of self-motivation, unavailability of a computer/laptop, and issues with internet connectivity at home (41.1%) hindered the adoption of CPD, as indicated in Table 3, Figure 3.

Table 2. Factors motivating participants towards CPD activities as perceived by the study participants

Factors	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %
CPD prepare the participants to practice individual development	57.5	41.1	1.4	0	0
Sufficient times is needed to practice CPD activities	43.5	43.8	12.3	1.4	0
Resources (computer, internet access, financial resources) are crucial to participate in CPD activities	54.8	35.6	5.5	4.1	0
Challenges in job motivate individual to uptake CPD activities	45.2	47.9	4.1	1.4	1.4
Support (encouragement and sufficient time) from the workplace to carry out CPD plans is required to uptake CPD activities	47.9	39.7	11.0	1.4	0

Table 3. Individual anticipated barriers to practice CPD activities

Barrier	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %
lack of CPD study time	20.5	38.4	17.8	19.2	4.1
Inability to pay the cost of CPD activities / financial constraints	21.9	32.9	21.9	17.8	5.5
Lack of information about CPD activities	12.3	30.2	23.3	27.4	6.8
Family and social commitment	11.0	34.2	16.4	30.2	8.2
Lack of self – motivation	16.4	21.9	15.1	31.5	15.1
Knowledge (perception) about CPD	12.3	28.8	16.4	24.7	17.8
Not having computer / laptop	15.1	19.2	12.3	43.8	9.6
No or poor internet connectivity at home	9.6	31.5	17.8	32.9	8.2

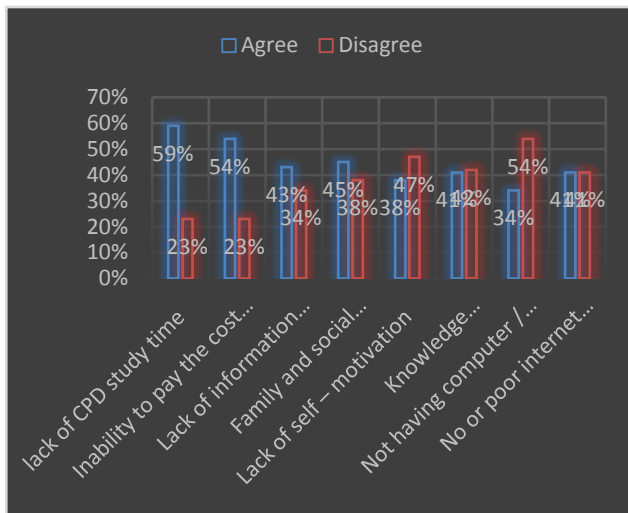


Figure 3. Individual anticipated barriers to practice CPD activities

Table 4, Figure 4, present the viewpoints of the survey participants regarding the expected obstacles in adopting CPD in their jobs. Approximately two-thirds of respondents cited the lack of support from supervisors, insufficient staffing, inadequate financial resources, challenges in taking leave, and workplace issues with internet connectivity as the primary obstacles.

Table 4. Job anticipated barriers to practice CPD activities

Barrier	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %
Lack of supervisor support	16.4	49.3	9.6	19.2	5.5
Staff shortage	15.1	53.4	16.4	12.3	2.7
Lack of financial support	17.8	32.9	21.9	23.3	4.1
Difficult to get leave	19.2	28.8	20.5	27.4	4.1
No or poor internet connectivity at the workplace	20.5	31.5	19.2	26.0	2.7

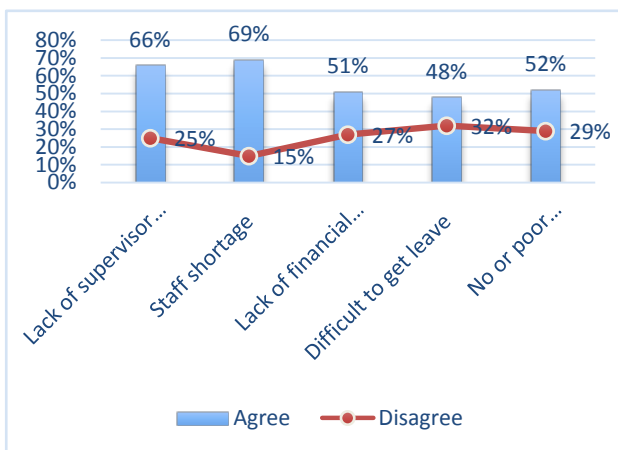


Figure 4. Job anticipated barriers to practice CPD activities

Over 50% of the participants identified restricted learning facilities, inaccessibility to learning sites, lack of

appropriate learning activities, and low quality of learning activities as the primary barriers to CPD activities. Consult Table 5 Figure 5 for specific information.

Table 5 Barriers related to the CPD Activities

Barrier	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %
Limited learning facilities	16.4	41.1	15.1	26.0	1.4
Inaccessibility to the learning place	15.1	39.7	20.5	19.2	5.5
Lack of relevant learning activity	15.1	37.0	23.3	20.5	4.1
Lack of quality learning	12.3	39.7	21.9	21.9	4.1

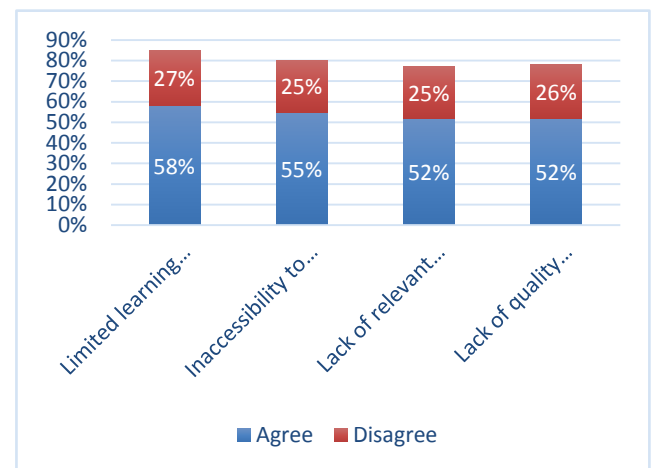


Figure 5. Barriers related to the CPD Activities

Based on educational attainment, 59.1% of individuals with a master's degree express intentions to participate in CPD activities, including workshops. By comparison, a mere 36.1% of those with MD degrees have intentions to pursue career paths aligned with their specialization. This figure is similar to the number of PhD holders (36.4%) who want to participate in future workshops.

4. Discussion

CPD is an ongoing educational process that necessitates health professionals to consistently maintain and enhance their skills, performance, and knowledge throughout their careers [16]. The purpose of the CPD procedure is to incentivize every healthcare practitioner to stay updated with advances in their field and to guarantee public trust in the quality of their services [17]. The present study sought to examine the adoption of CPD activities among Health Professional Staff, by identifying the factors that drive motivation towards CPD and the obstacles that impede staff participation. The majority of participants in this study were male, predominantly aged between 31 and 40 years, and 85% of them were married. The socio-demographic characteristics of the participants in this

study closely matched those of a previous study conducted in Lebanon. The previous study investigated the perspectives, motives, and attitudes of pharmacists regarding mandated continuous education (CE) [18].

In this study, most of the participants had previously participated in CPD events, with the majority attending such activities 2-3 times within the past year. While CPD is not mandatory under Irish regulations, the Irish Medical Council made professional competence a legal requirement in 2011 [14]. Based on our research, the majority of participants engaged in CPD by participating in workshop activities, whereas just a small percentage of 5.5% attended conferences. The presence of multiple obstacles highlighted in our findings may explain this pattern.

The typical elements that drive individuals to participate in CPD activities have a significant impact on the adoption of CPD [19]. The participants in the present study highlighted the importance of these motivational variables. A majority of the participants expressed strong agreement with the effectiveness of CPD in facilitating their personal growth, but a majority also believed that sufficient time is essential for engaging in CPD activities. Furthermore, a significant majority expressed a unanimous belief in the significance of having the means to access computers, the internet, and financial resources to support their continuous professional development efforts. Participants also recognized difficulties associated with job incentives when engaging in independent CPD activities. Moreover, there was a unanimous consensus that workplace assistance, which encompasses both motivation and ample time, is crucial for the adoption of CPD.

The results of our study show that participants' motivation levels varied from agreement to high agreement. This suggests that individuals are more likely to participate in CPD activities when they perceive support, have convenient access to CPD programs, and are given enough time. Providing CPD materials and enforcing workplace norms are essential for fostering CPD engagement. In order to properly plan and administer CPD programs, it is crucial for Medical Councils and CPD organizers to comprehend the diverse aspects that motivate and demotivate individuals [19].

In this study, the majority of participants acknowledged that several individual barriers hindered their attendance at CPD events. These barriers included limited time allocated for CPD studies, financial constraints preventing payment for CPD activities, and inadequate information about available CPD activities. Furthermore, obstacles such as familial and social obligations, as well as individuals' beliefs about their own knowledge in CPD, were recognized as significant roadblocks.

In contrast, the majority of participants expressed disagreement about the notion that a lack of self-motivation, the unavailability of a computer or laptop, or inadequate internet connectivity at home posed obstacles to engaging in CPD activities. This discovery is consistent with previous research conducted at the University of Gezira-Sudan [20] and in Sudan, which also examined CPD in radiography practice, attitudes, and barriers [17]. Additionally, a study conducted in Lebanon among pharmacists to identify obstacles to CPD participation [21] yielded comparable results.

Our study revealed that when it comes to obstacles to engaging in CPD activities related to their jobs, all participants unanimously identified a lack of designated CPD study time, inadequate financial support, and subpar internet services at their workplaces as the main barriers. The results align with previous research, which has identified insufficient staffing, excessive workloads, insufficient money, and limited study time as perceived obstacles to CPD [22].

Participants faced several obstacles when it came to engaging in CPD activities, particularly those linked to learning. The participants unanimously acknowledged that their involvement in CPD activities was impeded by common obstacles such as inadequate learning facilities, challenges in accessing learning locations, and a dearth of relevant and high-quality learning activities. The results of this study reflect the difficulties encountered by healthcare practitioners working in Africa [23], who frequently encounter obstacles in obtaining ongoing medical education as part of their CPD. In order to promote the adoption of ongoing professional development among all healthcare workers, it is crucial to create a thorough strategy focused on identifying areas where more learning and development are needed. This plan should focus on augmenting and refining the quality and efficiency of individuals in their existing positions, facilitating smooth transfers to new roles or careers, and ensuring continuous improvement of skills and knowledge while adhering to professional standards and regulatory requirements. During our study, participants expressed their primary requirements and provided rationales for their CPD objectives, specifying the specific activities and preferred locations for CPD participation, with a preference for workshops.

When gaps are discovered, it is essential to create and conduct relevant learning activities. The selection of CPD activities should be based on the specific needs that have been recognized, emphasizing the need of strategic planning for the implementation of CPD.

5. Conclusion

The most significant obstacles that were identified were financial constraints, time limitations, lack of enthusiasm, excessive workload, and family obligations. Understanding these requirements is essential for the efficient organization and execution of CPD initiatives. Furthermore, it is crucial for the staff to recognize any deficiencies and requirements for CPD initiatives.

The study also found age, educational achievement, and gender differences in CPD activities, emphasizing the importance of considering these factors when designing CPD programs. Adult learners' motivations and barriers to CPD activities should also be considered.

Internet access at work is necessary for online CPD.

1- Managers must address academic staff financial issues and provide accessible learning environments.

2- Health practitioners should be required to participate in CPD to improve healthcare and education.

3- The university should create and activate EDCs and CPD centers for ongoing professional development.

Limitations

The study participants were solely from a government institution, and their viewpoints may vary from those employed at private institutes. Therefore, the extent to which the study results can be applied to other situations or populations may be minimized.

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