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Physicians' inclination towards standard guidelines and regulations on incentive based prescribing practices in Karachi. A mixed methods study design.

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Abstract

Objective: To investigate private General Practitioners' (GPs) interest in continuous professional development (CPD), with a focus on ethical practices

Methods: A mixed method study design conducted a cross-sectional survey of registered private GPs (n=419) in Karachi was conducted in the year 2022 on their professional and ethical practices with perspectives on engagement in training in the year 2022. Qualitative interviews were conducted with 28 GPs to get a deeper understanding of their views on professional development.

Results: The median age of participants was 55 years (IQR 48-63 years) and 361 (86.2%) were males. The median number of years of professional experience was 31.0 years (IQR 24-37 years). It was observed that 116 (27.6%) of GPs saw more than 50 patients per day, and 377 (90%) met with pharmaceutical sales representative (PSR) regularly. Reported awareness of guidelines on ethical practices was 325 (77.6.0%), and willingness to sign a pledge committing to a code of ethics and to be part of a professional network of ethical doctors was high, 389 (~93.0%). However, both qualitative and quantitative data indicated that GPs had limited time for training, despite the interest in filling gaps in knowledge about ethical practice.

Conclusion: Most GPs were willing to engage in CPD activities with a focus on ethics. Many GPs met regularly with PSRs, and CPD may reduce the pharmaceutical industry influence on their prescribing practices.

Keywords: General Practitioner, Ethical practices, Mixed methods

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Introduction

Professional development programmes in healthcare support the provision of quality healthcare by improving professionals' knowledge, skills, and practices. Continuing professional development fosters rigorous standards and strong ethics that are hallmarks of professional practice.[1] Regulations plays a crucial part in ensuring participation in re-validation, monitoring progress, and making Continuing Professional Development (CPD) mandatory.[2] Under-resourced regulatory bodies operating in contexts with large for-profit healthcare sectors, such as Pakistan, face a challenge in monitoring healthcare providers and mandating CPD.

Pharmaceutical companies often sponsor professional development programs or provide information to physicians during visits by sales representatives.[3] The heavy reliance on the pharmaceutical industry for CPD has raised concerns about biases in the information provided.[4] Evidence suggests that pharmaceutical company sponsorship of medical education can influence the content of the programs, highlighting a particular intervention's efficacy while playing down the possible risks.[2] Several studies have documented factors that hinder physicians' active participation in CPD programs; these include, lack of information, unaffordability, lack of time, and remote activity venues, and lack of regulatory policies.[3,5-7] Additional contributing factors, such as fatigue, understaffing, and the perception that some programs may be irrelevant, can also discourage participation.[5] Furthermore, published studies from Pakistan indicate that training provided at undergraduate and post-graduate levels by medical institutes inadequate [6 7] and that practicing physicians suffer from a lack of continuing professional development programs.[8]

The inherent complexities of health care systems, with weak regulatory bodies, insufficient availability of quality education on ethical medical practice, and dominance of private for-profit healthcare providers necessitate ethical self-regulation among GPs.[9]

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To support voluntary engagement in professional development, there is a need to understand physicians' views on attending CPD training and willingness to engage with tools that might improve ethical practice. This could inform strategies to address gaps in ethical practice. The objective of this study is to investigate private General Practitioners' (GPs) knowledge regarding regulatory guidelines, and their interest in continuing professional development particularly focusing on ethical medical practice.

Methods

A mixed method study was conducted from January 2022 to September 2022 using quantitative (cross-sectional survey) and qualitative (interviews) approaches with GPs working in for-profit clinics in Karachi. A list of healthcare providers (n=1695) was obtained from the Sindh Health Care Commission. A systematic sample of 422 GPs was used for 57% response on ethical practices, 5% margin of error, 95% confidence interval, adding 12% to 377 estimated sample size for non-response and missing information.[10] A desk-based and phone-based screening system was used to apply the eligibility criteria. Eligible participants were registered, private primary care providers working in a for-profit clinic located in one of Karachi's six districts. Doctors not having medical practice license, working in welfare clinic, or in any specialist clinic were excluded. This resulted in 422 eligible participants being visited in-person by a trained data collector who took the written informed signed consent and administered a survey. This constituted the baseline survey of a larger study where knowledge, attitudes, and practices in relation to pharmaceutical incentivization were investigated.[10]

Following an in-person explanation from data collectors trained by members of the research team, the participants (GPs) completed an electronic questionnaire (in Urdu or English) at their clinics in Urdu or English following an in-person explanation from data collectors trained by members of the research team. This questionnaire ascertained their demographic and professional characteristics. Professional characteristics included qualifications, history of receiving training/s, years of practice, number of clinics, number of patients seen daily, and number of weekly meetings held with PSRs. Information was also obtained on preference for participation in professional development, e.g. day of the week, duration, location, and type of speakers, focusing on ethical medical practice. Questions about the degree of agreement on moral and religious values, on whether seminars should be held with meals and refreshments, on types of incentives, and on seminar sponsorship were included.

Data from electronic questionnaires were initially exported to MS Excel for translation to English (where needed) and cross-checked by bilingual research team members. Data cleaning and descriptive analyses were then conducted in STATA (version 17). Comparison of characteristics by age groups of GPs was performed using a median for age. Chi square test of significance was used to determine significant differences by age group.

To complement the survey data, a research specialist (SSK) and the team lead (MNN) conducted qualitative interviews with 28 Karachi-based GPs, identified and recruited Eligible physicians were identified from the research team's sampling frame and then purposively sampled to ensure representation from all six districts of Karachi.[11] These interviews aimed to obtain a deeper understanding of GPs' perceptions of their interactions with pharmaceutical companies, knowledge of ethics in medical practice, and the extent to which they believed professional development training could help GPs adopt ethical prescribing. Except for one, all interviews were audiotaped, and each of them lasted around one hour. A professional transcriber helped with English translation and transcription. Each transcript was quality checked by the senior team members. The transcripts were then imported into NVivo (version 12) for thematic analysis.

Results

Of the 422 eligible participants who were approached, a total of 419 GPs agreed to participate in the survey. Demographic and practice-related characteristics of study

Table-1: Overall profile of General Practitioners (GP) by age groups.

Characteristics	Study sample^ (n=419)	Age < 55 years N=196 (%)	Age ≥ 55 years N=221 (%)
Mean Age in years*	54.5±10.1	45.6±7.1	62.1± 4.5
Males (%)	361 (86.2)	162 (82.7)	197 (89.1)
GPs areas of practice by Districts in Karachi (%) *			
Central	94 (22.4)	29 (14.8)	63 (28.5)
East	79 (18.9)	29 (14.8)	50 (22.6)
Korangi	46 (11.0)	26 (13.3)	20 (09.0)
Malir	43 (10.3)	26 (13.3)	17 (7.7)
South	76 (18.1)	39 (19.9)	37 (16.7)
West	81 (19.3)	47 (24.0)	34 (15.4)
Mean Years of experience	29.8 ±9.6	22.2±7.9	36.4±4.8
Attends two or more clinics[1] (%)	73 (17.4)	36 (18.4)	31 (14.0)
Qualifications in primary care in addition to basic MBBS (%) *	74 (17.7)	42 (21.4)	29 (13.1)

^Age variable was missing for two participants; therefore, subgroup total is 417.
1Physicians working at more than one registered clinic. *Significant difference of p<0.05

Table-2: Professional Practices and perceptions of GPs in Karachi

Characteristics	Study sample (n=419)	Age < 55 years N=196 (%)	Age ≥ 55 years N=221 (%)
Self-reported number of patients seen daily (%			
<=50	303 72.3)	150 (76.5)	152 (68.7)
>50	116 (27.6)	46 (23.5)	69 (31.2)
Self-reported number of weekly meetings with Pharmaceutical Sales Representatives^			
0	42 (10.0)	26 (13.3)	16 (07.2)
< 25	315 (75.2)	148 (75.5)	167 (75.6)
25-50	43 (10.3)	17 (08.7)	24 (10.9)
> 50	19 (4.5)	5 (02.6)	14 (06.3)
Acceptability to attend sponsored seminar (%)			
Acceptable	180 (43.0)	86 (43.9)	94 (42.5)
Unacceptable	239 (57.0)	110 (56.1)	127 (57.4)
Religious values play a big role in my daily life including professional conduct (%) *			
Strongly agree	320 (76.7)	146 (74.5)	174 (78.7)
Neutral	56 (13.4)	22 (11.2)	34 (15.4)
Strongly disagree	41 (9.8)	28 (14.3)	13 (5.9)
Preferred duration of seminar on ethics (%)			
One hour	255 (61.2)	124 (63.3)	131 (59.3)
Two hours	125 (30.0)	55 (28.1)	70 (31.7)
Three or more hours	37 (8.9)	17 (8.7)	20 (9.0)
Reported receiving accredited training (any) (%)	367 (87.6)	175 (89.3)	192 (86.9)
Self-reported awareness of ethical guidelines (%)	325 (77.6)	152 (77.6)	173 (78.3)

Footnote: *significant difference of p<0.05, ^borderline significance p=0.057

participants are shown in Table 1. The mean age of GPs was 54.5± 10.1) years and 361 (86.2%) were males. Our analysis by age groups showed a greater proportion of older GPs working in the Central and East districts compared to other districts, with a statistically significant difference in mean years of experience and across the districts (p=0.001) [Table 1].

The self-reported number of patients seen daily did not significantly differ by age groups. There was weak evidence of a statistically significant difference in the number of meetings with PSR between age groups (p=0.057) (Table 2). GPs with additional qualifications like memberships, fellowships or diplomas in general practice were younger in age (p<0.03). Overall 377 (90%) doctors reported meeting with PSRs regularly and 42 (10%) of doctors reported never meeting with PSRs and they tended to be younger in age (Table 2).

Table 3 lists several hypothetical provisions that could be made during or after an ethical training programme and indicates GPs preferences for them. The most popular choices being to sign a pledge committing to a code of conduct on professional ethics was from 389 (92.8%) followed closely by joining a professional network of

Table-3:Survey of General Physicians (n=419) preferences for an ethical training programme.

Suggestions on engagement in ethical training programme posed	GPs supporting the suggestions # (%)
Sign a pledge committing to a code of conduct on professional ethics	389 (92.8)
Become part of a professional network of 'ethical' doctors	388 (92.6)
Receive an official certificate of attendance	373 (89.0)
Display guidelines on ethical medical practice in the clinic	372 (88.8)
Public announcement of who attended	358 (85.4)
Display a certificate of attendance in the clinic	335 (80.0)
Recognition in some other way	322 (76.8)
Training includes meals and refreshments	248 (59.2)
Would you attend a seminar on professional development if your four preferences (day, duration, location, type of expert) were met?	377 (89.9)

ethical doctors was stated by 388 (92.6%) (Table 3). However, most GPs preferred to attend short (1 hour) seminars (Table 2).

Qualitative interviews were also conducted and consistent with our survey, most of the GPs who participated in the qualitative interviews also described the significance of continuing medical education (CME) in relation to ethical medical practice. Some of the GPs believed that CME is one of the factors that helps GPs in Western countries to consider ethics in medical practice.

"There is no proper training programme here. There should be some training every two to three years, as it happens in other countries such as Canada." (GP-19)

However, given the sociocultural context of Pakistan, a few GPs believed the integration of religion with CME could make it more effective:

"Continuing medical education should be conducted. There should be a religious element in them, so it affects doctors' hearts. When twenty-five people are sitting in a room, and you teach good things, they will carry those teachings with them, when they leave. There is a need for such good work. Being tough on doctors will not take us anywhere. Nothing will happen by getting tough with them." (GP-26)

Most of the GPs strongly believed that CME could update their knowledge in medicine, including ethics, which could ultimately translate into their practice, and benefit patients:

"Continuing medical education is helpful. It is good if you are supporting yourself academically. After all, whatever we learn will benefit our patients." (GP-29)

Discussion

This study found GPs to be cognizant of their learning

needs for in-depth understanding and applications in conflict of interest and ethical guidelines. There was widespread willingness among GPs to engage in CPD activities and a high level of interest to be part of a (hypothetical) relevant professional network of ethical doctors. However, indicating time-limitations, the most popular duration of training seminars was 1 hour, which may be insufficient to address complex topics related to ethical practice. A survey of registered GPs, across Pakistan showed lack of trainings, for the gaps encountered in clinical practice, with lack of time and heavy workload as a major barrier to their learning.[12]

GPs are the first line of health care system in Pakistan and provide health care to many populations daily, reflected by the large number of patients they see. Because of their access to a large patient population, GPs are also commonly targeted by PSRs who seek to influence their prescribing towards promoted medicines.[13-14] Our data showed significantly more older doctors in one or two districts than other districts, given that years of experience and increasing age were correlated ($r=0.947$, $p<0.001$), it can be presumptive that experienced and older doctors could be influenced by self-reported more meetings with PSRs than by younger GPs (data not shown). A local study modelled the behaviour of physicians after PSR interaction and identified that PSR can influence the attitude and behaviour of physicians by providing product information and favourable motivations from company.[15] Moreover, conflicts of interest arising as a result of incentivization strategies used by pharmaceutical industries is reported.[13] There is recognition that unethical profit generation and prescribing patterns require continuous regulation in the form of license renewal or similar checks and accountability.[14] Pakistan Medical and Dental Council clearly states in its professional ethics and code of conduct for registered medical and dental practitioners (RMDP):

"If the RMDP has financial or commercial interests in organizations providing healthcare or in pharmaceutical or other biomedical companies, these interests must not affect the way you prescribe for, treat, or refer patients. If RMDP has a financial or commercial interest in an organization to which they plan to refer a patient for treatment or investigation, he/she must tell the patient about his/her interest".

It is also recognized that the practice of medicine must overcome the social, cultural, and administrative challenges to maintain the priority of their knowledge and practice for patients' health, instead of falling in the trap of incentive-based patient care.[16] Besides social and cultural factors, our study design arms (qualitative and quantitative) further displayed a religious perspective amongst GPs in this setting. GPs felt that ethics training with a religious approach rather than a secular approach would be more effective. Engagements with GPs are recommended to be built upon concepts in self-interest and values as solutions to tackle financial conflict of interest.[17]

Our results are encouraging in that they show the willingness of GPs to follow ethical guidelines, although many studies show that relationships with PSRs contravene ethical codes and guidelines.[18] There are opportunities for more CPD that could focus on professional ethics, given the high levels of interest in signing a pledge committing to code of conduct on professional ethics and joining a professional network of 'ethical' doctors. In addition, our results show that younger doctors that had acquired additional qualifications, had fewer meetings PSRs, and were seeing fewer patients than their older colleagues. To ensure these positive trends continue among new generations of GPs, opportunities for CPD on professional ethics needs to be undertaken to uphold safe and patient centred health care and to mitigate a risk that GPs' attitudes and behaviours will be influenced by the incentivization strategies of the pharmaceutical industry.[13-16]

Our study utilized a representative sample with a reasonably good response rate evident from GPs practicing in various city districts. We had a smaller sample of female GPs; this is also reported in another local study[19] and it can be attributed to the fact that most female physicians were limited to maternal and child health care rather than primary care. Another limitation of our study could be the recall bias among the participants for reporting the number of visits by PSR and the number of patients' visits, as GPs seldom keep records of such visits. Incentivization direction could be changed under the regulatory guidelines for improving health care based on evidence generated by records and facilitated follow up. However, we repeatedly ascertained several items and if there was a bias it may have been of smaller magnitude.

Conclusion

GPs in Karachi indicated a high willingness to engage in professional development and other activities to enhance ethical practices, including being active member of ethical professional networks. This provides an opportunity to reduce the influence of PSRs on doctors' prescribing practices.

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Conflict of Interest: None.

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