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RESEARCH ARTICLE

Social media and electronic communication usage by South African dietitians

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Objectives: This study investigated to what extent South African dietitians make use of social media and electronic communication and their compliance with the ethical guidelines set by the Health Professions Council of South Africa (HPCSA).
Design: Cross-sectional descriptive design.
Setting: South Africa.
Subjects: Registered South African dietitians.
Methods: Data were collected using an online survey ($N = 125$) and an observational checklist for selected digital platforms ($N = 135$). Both parts assessed demographic characteristics, usage of digital platforms and awareness or adherence to ethical guidelines.
Results: Most participants used Instagram (45.5%) and Facebook (31.6%) as these platforms were regarded as user friendly, quick and suitable for their target audiences. Barriers to social media usage included time constraints (53.0%) and being unfamiliar with some platforms (37.3%). Enablers to social media usage included better reach of target population (61.4%) and ease of use (56.6%). The majority of survey participants were aware of the HPCSA Ethical Guidelines for Good Practice ($n = 68/75$, 90.7%). Overall compliance with the HPCSA guidelines was observed, yet nearly half (37/89, 41.6%) of the dietitians who shared information on digital platforms never provided references. Forms of touting/canvassing were observed on 20.7% ($n = 28/135$) of the platforms, while 15.6% of dietitians ($n = 21$) sold products on their websites, mostly meal-plans and supplements.
Conclusion: South African dietitians actively engage with digital platforms to a varied extent, highlighting the importance of being cognisant of, and applying, the HPCSA Ethical Guidelines for Good Practice. The study can be useful in guiding future research on this unexplored, emerging topic.

Keywords: social media; electronic communication; dietitian; ethical guidelines; South Africa

Introduction

Access to the Internet has radically changed the way people connect, communicate and obtain information. In January 2022, 62.5% of the world's total population had Internet access and 58.4% were social media users.[1] The South African population spent on average 10 hours 46 minutes per day online.[1] The power of social media such as Facebook, Twitter and Instagram lies in the direct transmission of information,[2] sharing of information, and the ability to generate content easily and provide social support in an online community.[3,4]

Nutrition and healthy eating is one health-related topic receiving high interest on social networks, thus social media offers a platform to facilitate behaviour change.[5] Unfortunately, the nature of social media lends itself to the upsurge in nutritional misinformation available from unreliable sources,[6,7] as persons without nutrition education or credentials are actively providing nutrition advice on social media.[6] Information of poor quality or poorly communicated information can contribute to negative health behaviours and adverse health outcomes.[3,7,8] Research shows that people who relied on social media for health information did not confirm its accuracy with health professionals and had a lower knowledge score compared with those who relied on doctors and scientific journals for information.[3]

Tele-nutrition, where nutritional services are delivered digitally, is a complex and evolving area of dietetic practice.[9] Social media, an essential component of tele-nutrition, offers dietitians a platform to proactively participate, promote evidence-based information,[6,10,11] foster strong interpersonal relationships and encourage conversations with clients concerning misinformation encountered online.[3,10] Recent studies show that the interactive use of digital platforms offers healthcare practitioners a viable alternative[2,12] to interact with clients in real time[4] and to address specific needs of clients when in-person consultation is not possible, without compromising the clinical outcomes.[13]

Being able to rely on credible and trustworthy sources can help individuals make better nutritional decisions, reduce risky behaviours, and adopt healthy behaviours.[3,10] It is important to establish trust by consistently providing scientific information in an unbiased manner.[14] While the use of digital platforms provides dietitians with numerous opportunities to communicate with clients and network with colleagues,[3,6,8,10,11,13,14] inappropriate use of social media may have negative implications for the credibility of the profession.[15]

Internationally, dietetic professional associations have recognised the important role of social media in dietetics' professional practice and provide support in the form of guidelines and mentoring by dietitians who practice tele-nutrition successfully.[6,11] South African dietitians have as a guide the 'Guidelines for Good Practice in the Healthcare Professions: Ethical and Professional Rules of the Health Professions Council of South Africa'[16] and the 'Social Media and Communication Guidelines' published by the Association for Dietetics in South Africa (ADSA)[17] to promote integrity, transparency,

respect, responsibility and confidentiality when using digital platforms.[18]

The literature has highlighted the dire need for more research to gain a better understanding of the role of digital platforms for dietitians and the benefits thereof, as well as challenges and risks of social media usage.[2,17,19] This study investigated how SA dietitians engage with social media and electronic communication platforms (hereafter referred to as digital platforms), and to what extent they are using them in their practice. Enablers and barriers to successful utilisation of digital platforms were identified and dietitians' awareness of the Health Professions Council of South Africa (HPCSA) Ethical Guidelines for Good Practice were recorded. Selected websites and social media platforms hosted by dietitians were assessed for compliance with these guidelines.

Methods

Study design and sampling

A cross-sectional, descriptive study collecting quantitative data was undertaken. An online survey was distributed to registered dietitians via ADSA, SASPEN (South African Society for Parenteral and Enteral Nutrition) and NSSA (Nutrition Society of South Africa). To help increase the response rate, dietitians were encouraged to inform their colleagues about the study. The sample size was computed by estimating a proportion in the population of registered dietitians ($n = 3843$ as of July 1, 2021). By using a 95% confidence interval and a margin error of 9%, a sample size of $n = 119$ was calculated to be representative of the population. Dietitians and community service dietitians registered with the HPCSA who provided informed consent were eligible to take part in the study. Student dietitians were excluded.

Multi-stage sampling was used for assessing dietitians' digital platforms. The researchers compiled lists of registered dietitians stratified per province using the 'find a dietitian' function on the ADSA webpage as well as doing a Google search. A total of 135 social media platforms and/or websites from dietitians were selected from each province using simple random sampling. Whenever the goal of assessing 15 websites/platforms per province was not achieved, additional platforms from more densely populated provinces were used. The content analysed consisted of all information posted or shared on the digital platform from January 2021 until March 2022.

Ethical considerations

This study was approved by the Health Research Ethics Committee at Stellenbosch University (Ethics reference number: U21/11/147) and was conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, and the Department of Health Ethics in Health Research: Principles, Processes and Studies (2015). Participation in this study was voluntary. Confidentiality and anonymity were maintained by removing personal information and allocating participant codes for data analysis purposes. Survey participants gave informed consent by means of a 'click to assent' box included on the first page of the survey.

Data collection

This study consisted of two parts. One part involved distributing a self-administered online survey to registered dietitians across South Africa. In the second part the content on dietitians' digital platforms was assessed by completing an observational checklist to determine compliance with the HPCSA guidelines. Data collection was performed during January–March 2022.

Self-administered online survey

The self-administered survey was developed by the researchers, based on current literature pertaining to this study objectives and the HPCSA guidelines on the use of social media. The SUNSurvey online platform was used to administer the survey electronically and it could be completed in 10–15 minutes. The survey consisted of 4 sections consisting of 37 questions in the format of closed multiple choice and five-point Likert scale questions. Questions covered the following areas: demographic information on the dietitians, social media and electronic communication interactions and the impact of COVID-19, enablers and barriers to the use of digital platforms in dietetic practice, and lastly awareness of the HPCSA and ADSA guidelines.

Content validity was assessed by sending the survey to three registered SA dietitians who have a large social media following and are actively using social media. These dietitians assessed whether the questions were relevant and appropriate in accordance with the aim and objectives of the study. A pilot study was conducted in January 2022 to ensure that the electronic link was active, and that data were captured correctly. To assess face validity, the self-administered electronic survey was sent to 10 conveniently sampled fourth-year dietetic students who were not participating in this study. The participants provided feedback regarding any technical problems experienced, time to complete the survey, language level and clarity of questions. Minor adaptations were made to the survey based on the feedback.

Observation of online platforms

An observation checklist was completed by the researchers to gather background information and to determine whether the content on the digital platforms was compliant with the HPCSA guidelines. The observation checklist consisted of 18 questions, with a section for the researcher to make comments or notes. All the questions in the checklist were closed-ended to enhance consistency.

Researchers were standardised and trained in completion of the observational checklist. Two dietitians' social media platforms and websites were selected through convenient sampling. The researchers collectively completed the checklist for each dietitian, to standardise interpretation of information and check that information collected through the questions was in line with the study objectives. For quality control purposes, 10% of completed observational checklists were randomly selected and checked against the digital platform's content during the main study.

Data analysis

The data from the online survey were captured automatically via SUNSurveys and exported into Microsoft Excel (Microsoft Corp, Redmond, WA, USA). Data from the observational checklist were independently captured by two researchers onto an Excel spreadsheet and compared before data analysis. Responses to open-ended questions were regarded as quantitative data and common themes were identified where possible.

Statistica (data analysis software system), version 13 (http://tibco.com) was used to analyse the quantitative data.

Table 1: Gender and age range of dietitians: self-reported ($N = 125$) and observed ($N = 135$)

Variables	Self-reported in questionnaires *n* (%)	Observed on digital platforms *n* (%)
Gender		
Female	121 (96.8)	131 (97.1)
Male	4 (3.2)	4 (2.9)
Age range		
20–30	42 (33.6)	27 (20.0)
31–40	48 (38.4)	30 (22.2)
41–50	26 (20.8)	13 (9.6)
51–60	6 (4.8)	2 (1.5)
61–70	3 (2.4)	
Not available		63 (46.7)

Summary statistics were used to describe the variables. Distributions of variables were presented using frequency tables. Medians or means were used as the measures of central location for ordinal and continuous responses and standard deviations as indicators of spread.

Results

Demographic information

The 125 dietitians included in the online survey were mostly female ($n = 121/125$, 96.8%) (Table 1) with a mean age of 35.4 years [SD ±20.4]. Most ($n = 86/125$, 68.8%) of the participants had a Bachelor's or honours degree, and half ($n = 64/125$, 51.2%) were employed at a private practice. Participants had a mean of 9.6 years' (SD ±7.1; range 1–42 years) work experience, mostly in urban areas ($n = 90/125$, 72.0%). Dietitians from all nine provinces participated in the study with the majority from the more densely populated areas, namely the Western Cape and Gauteng ($n = 44/125$, 35.2%; $n = 32/125$, 25.6% respectively). Of the 125 participants, 75/125 (60.0%) completed the self-administered questionnaire in full.

Social media and electronic communication platforms used by SA dietitians

The majority of the participants ($n = 99/125$, 79.2%) made use of digital platforms for professional use, mostly Instagram ($n = 45/99$, 45.5%) (Figure 1). Reportedly, both Instagram and Facebook ($n = 69/99$, 69.7% and $n = 68/99$, 68.7% respectively) were preferred as social media platforms for engaging with clients and disseminating information, whereas Facebook was favoured for promoting participants' businesses ($n = 60/99$, 60.6%) (Table 2).

The majority of participants have been using social media platforms in a professional capacity for up to two years (Instagram, $n = 45/99$, 45.5%; and Facebook, $n = 26/99$, 26.3% respectively). Most of those who used websites in a professional capacity have used them for up to four years ($n = 42/99$, 42.4%).

A third of the participants ($n = 33/99$, 33.3%) used digital platforms for professional purposes for <1 hour per day. Most used 1–3 hours per week to create content for digital platforms ($n = 70/99$, 70.7%). Participants chose certain digital platforms if they were user friendly ($n = 73/99$, 73.7%), quick ($n = 54/99$, 54.5%) and suitable for their target audiences (52/99, 52.5%) (Table 3). The most common reasons why some participants refrained from using digital platforms for professional purposes were if it was not relevant to their clients ($n = 37/99$, 37.4%), they did not have the necessary skills ($n = 26/99$, 26.3%) or if the platform was not user friendly ($n = 27/99$, 27.3%) (Table 3).

Enablers and barriers to successful social media and electronic communication usage

According to the survey responses of those participants who completed the questionnaire in full, the characteristics that would facilitate the use of social media were: better reach of digital platforms ($n = 51/83$, 61.4%), easy to use ($n = 47/83$, 56.6%) or using platforms preferred by the younger generation ($n = 37/83$, 44.6%) (Table 3, Figure 2). Some personal challenges/barriers to using digital platforms were not having enough time ($n = 44/83$, 53.0%); being unfamiliar with some of the platforms ($n = 31/83$, 37.3%); and lack of active participation ($n = 18$, 21.7%) (Table 3).

Utilisation of digital platforms

Half of the participants had <500 followers ($n = 41/83$, 49.4%), with 12.0% ($n = 10/83$) reporting 1 000–1 500 followers. Most dietitians reported that between zero and 25% of their clients were referred to them, or heard about them, through social media and/or other electronic communications ($n = 60/83$, 72.3%). In an open-ended question, participants indicated that clients responded best to recipes and other food-related content ($n = 19/83$, 22.9%), nutrition and educational information ($n = 13/83$, 15.7%), reels/short videos ($n = 9/83$, 10.8%) and personal-related content ($n = 9/83$, 10.8%).

The most common form of content posted online was educational information ($n = 70/99$, 70.7%), followed by nutritional facts and information ($n = 62/99$, 62.6%). The content on digital platforms reportedly targeted a variety of audiences, mainly females ($n = 38/83$, 45.8%) and adults between 25 and 49 years of age (25–34 years: $n = 61/83$, 73.5%; 35–49 years: $n = 59/83$, 71.1%). Participants indicated that their digital platforms mostly featured general information pertaining to diabetes mellitus ($n = 32/83$, 38.6%) and gastrointestinal conditions ($n = 28/83$, 33.7%) (Table 4).

Varying numbers of participants completed the questions concerning the impact COVID-19 had on their performance. The use of digital platforms has increased ($n = 54/83$, 65.1%) since the outbreak of the COVID-19 pandemic, albeit only somewhat ($n = 30/93$, 32.3%), through posting content more often than before ($n = 32/80$, 40.0%). The most common changes made to digital platforms due to the COVID-19 pandemic were to improve the quality of the online content ($n = 13/67$, 19.4%), increasing frequency of postings ($n = 10/67$, 14.9%) and offering online consultations ($n = 8/67$, 11.9%). Most participants ($n = 82/83$, 98.8%) intended to continue using digital platforms in a professional capacity to disseminate information after COVID-19 pandemic restrictions were lifted.

Compliance with the HPCSA ethical rules of conduct

Seventy-five (75/125, 60.0%) participants completed questions relating to the relevant guidelines on ethical use of digital platforms. The majority of these participants ($n = 68/75$, 90.7%) were familiar with the HPCSA guidelines and half of them ($n = 39/75$, 52.0%) reportedly made sure to follow these guidelines every time they posted information. Fewer participants ($n = 59/75$, 78.7%) were aware of the ADSA guidelines. Two-thirds ($n = 47/75$, 62.7%) of the participants were aware that

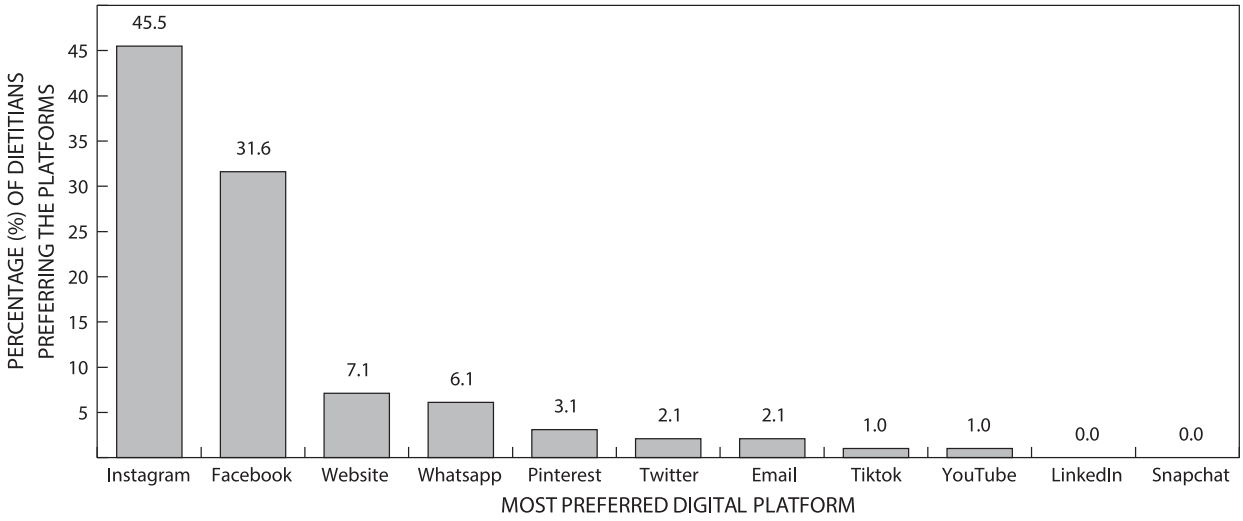

Figure 1: Digital platforms most preferred by South African registered dietitians ($n = 99$).

information posted online can never be permanently removed. In response to an open-ended question, participants indicated that the most challenging aspect in the HPCSA guidelines was the prohibition of advertising and promoting dietetic services ($n = 10/75$, 13.3%). Most participants (ranging from 69.3–85.3%) identified unacceptable digital communication practices according to the HPCSA guidelines. The statement 'posting information without providing scientific evidence' was the most accepted ($n = 64/75$, 85.3%) (Table 5).

Most of the participants ($n = 53/75$, 70.7%) found paid partnerships/brand endorsements and financial incentives received acceptable if the product/brand is in line with scientific principles. Similarly, they disagreed with the statement 'It is always acceptable if I declare it' ($n = 52/75$, 69.3%). Nine ($n = 9/75$, 12.0%) participants indicated collaborating with branded products as they stated up-front on their digital platforms that their posts were pertaining to paid partnerships, advertisements or sponsorships.

A third ($n = 28/75$, 37.3%) of participants sometimes recognised misinformation being posted on the platforms of other registered dietitians. Most ($n = 68/75$, 90.7%) of the participants have never reported nutritional misinformation found on other registered dietitians' accounts. The reasons provided include time constraints ($n = 8/75$, 10.7%), it was too much effort ($n = 5/75$, 6.7%) or they did not know where or how to report the misinformation ($n = 6/75$, 8.0%). Seven participants did report nutritional misinformation found on other registered dietitians' accounts ($n = 7/75$, 9.3%). They indicated in an open-ended question that they personally messaged the dietitians and requested that they review the social media post or correct it. One reported the social media posts to Instagram and not to the HPCSA for a quicker response. Examples of the nutritional misinformation reported were pertaining to weight loss tea, product endorsement and supplements.

Table 2: Self-reported ($N = 99$)[#] use of digital platforms to disseminate information and/or promote the dietetic practice, as well as observed usage ($N = 135$)

Digital platforms	Self-reported in questionnaires ($N = 99$)		Observations on digital platforms ($N = 135$)
	To disseminate information *n* (%)	To promote the dietetic practice *n* (%)	*n* (%)
Website	53 (53.5)	52 (52.5)	70 (51.9)
Instagram	69 (69.7)	53 (53.5)	22 (16.3)
Facebook	68 (68.7)	60 (60.6)	35 (25.9)
LinkedIn	30 (30.3)	22 (22.2)	7 (5.2)
Twitter	18 (18.2)	9 (9.1)	0 (0)

Other platforms used (< 6%) included WhatsApp, TikTok, YouTube, Pinterest, blog posts, email.

[#] Participants could choose more than one option.

Observation of digital platforms hosted by dietitians in terms of adherence to relevant guidelines

In the second part of the study, 135 digital platforms provided by registered dietitians residing in the nine provinces of South Africa were assessed, namely 70 websites/blogs and 65 social media platforms. The findings reported are based on observations only. Facebook was the most used social media platform ($n = 35/65$, 53.8%), followed by Instagram ($n = 22/65$, 33.8%) and LinkedIn ($n = 7/65$, 10.8%) (Table 2). The target audiences of these digital platforms were females ($n = 51/135$, 37.8%), parents and caregivers of children < 4 years old ($n = 46/135$, 34.1%) and adults aged between 25 and 49 years (25–34 years: $n = 65/135$, 48.1%; 35–49 years: $n = 58/135$, 43.0%) (Table 4). Apart from two dietitians, it was clearly stated on dietitians' profiles that they were registered dietitians and were offering their professional views ($n = 133/135$, 98.5%).

More than half ($n = 72/135$, 53.3%) of the dietitians did not offer virtual consultations as a service on their digital platforms but they did post educational information ($n = 78/135$, 57.8%) and nutritional facts/information ($n = 70/135$, 51.9%). The majority ($n = 125/135$, 92.6%) of digital platforms observed did not promote any dietary trends or fad diets ($n = 135/135$, 100%) nor did they provide specific health advice ($n = 134/135$, 99.3%). General advice pertaining to diabetes mellitus ($n = 41/135$, 30.4%), gastrointestinal conditions ($n =$

Table 3: Reasons why dietitians use specific digital platforms and enabling or challenging factors for usage

Reasons for choosing certain digital platforms[#] ($n = 99$)	($n = 99$) n (%)	Enablers for using digital platforms[#]	($n = 83$) n (%)
User friendly	73 (73.7)	Easy to use some platforms	47 (56.6)
Quick	54 (54.5)	Saves time	15 (18.1)
Cost effective to create and distribute content (for professional dissemination use)	40 (40.4)	Cost savings (i.e. not having to rent a physical office space)	24 (28.9)
Data friendly, therefore cost effective	14 (14.1)	Good data/Wi-Fi connectivity	19 (22.9)
Target audience (clients) use this platform	52 (52.5)	Younger generation prefers social media	37 (44.6)
Reach more people	35 (35.4)	Better reach of online platforms	51 (61.4)
Type of content that the platform focuses on	23 (23.2)	Knowledge on how to use social media platforms	34 (41.0)
Interactivity of platform	24 (24.2)	Good feedback and easier interaction/engagement on posts	26 (31.3)
Visual appeal of platform	31 (31.3)		
Reasons for not choosing certain digital platforms[#]	**($n = 99$) n (%)**	**Barriers/challenges for using certain digital platforms[#]**	**($n = 83$) n (%)**
Low engagement	20 (20.2)	Lack of active participation	18 (21.7)
Not relevant to my target audience	37 (37.4)	Clients do not enjoy online consultations	12 (14.5)
Type of content creation is not in my skill set	26 (26.3)	Client base not growing	9 (10.8)
Slow	2 (2.0)	Not technically inclined	11 (13.3)
Poor reach	16 (16.2)	Unfamiliar with some of the platforms	31 (37.3)
Not user friendly/confusing	27 (27.3)	Not enough time	44 (53.0)
Not interactive	11 (11.1)	Data/Wi-Fi connectivity issues	6 (7.2)
Not visually appealing	9 (9.1)	Lack of trust in technology	3 (3.6)
Other	21 (21.2)	Maintaining confidentiality	11 (13.3)

[#]Participants could choose more than one option.

41/135, 30.4%) and weight management ($n = 36/135$, 26.7%) was given (Table 4).

In compliance with the HPCSA guidelines pertaining to confidentiality and respect, most dietitians who posted information concerning clients always refrained from doing so without their consent ($n = 21/26$, 80.8%). Dietitians maintained professional conduct as they did not make any informal or derogatory remarks regarding clients ($n = 67/135$, 49.6%) and respected clients' differing opinions ($n = 47/135$, 34.8%); (Table 5).

Of the dietitians ($n = 89/135$, 65.9%) who shared factual information on digital platforms, nearly half (37/89, 41.6%) never provided references. Information posted online was within the dietitians' scope of practice, thus regarded as knowledge-based (always: $n = 102/135$, 75.6%; most of the time: $n = 17/135$, 12.6%). False information was seldom posted ($n = 121/135$, 89.6%) (Table 5). If it did happen, this mistake was mostly corrected ($n = 13/14$, 92.9%).

The majority ($n = 116/135$, 85.9%) of digital platforms assessed did not promote branded items, nor were they involved in paid partnerships ($n = 122/135$, 90.4%). Ten dietitians ($n = 10/135$, 7.4%) promoted the use of branded products but did not appear to receive an incentive, while another three dietitians ($n = 3/135$, 2.2%) declared that they accepted financial incentives to endorse a product or brand. Products available for sale on dietitians' digital platforms ($n = 21/135$,15.6%) mostly included meal plans ($n = 7/21$, 33.3%) or supplements ($n = 5/21$, 23.8%).

Some 20% of the digital platforms ($n = 28/135$, 20.7%) appeared to engage in some form of touting/canvassing as defined in the HPCSA guidelines for instance, offering discounts on first-time consultations ($n = 4/135$, 3.0%). Other discounts offered included free consultations or discounts on family consultations, free calls to a medical aide or free growth-monitoring consultations ($n = 14/135$, 10.4%). Some dietitians mentioned obtaining their degree cum laude ($n = 6/135$, 4.4%) or referred to the superiority of their skills ($n = 4/135$, 3.0%). A few ($n = 3/135$, 2.2%) referred to the superior quality of service provided; for instance, by stating that they 'work with top athletes and celebrities'.

Discussion

Findings from this study highlighted the complexity of telenutrition as widely described in other studies[2,3,9] and the need for in-depth knowledge of guidelines pertaining to ethical use of electronic communication.[15,20] South African dietitians have mostly been using digital platforms for less than two years, which coincides with the period of lockdown due to the outbreak of COVID-19 in 2020. There was congruence in various aspects of the findings of the self-administered questionnaire and observed practices on dietitians' digital platforms.

Eight out of 10 South African dietitians participating in this study use digital platforms in a professional capacity, but for relatively short periods (< 1 hour per day). Globally, the number of dietitians using digital platforms in a professional capacity varies, ranging from 41% in the UK and Ireland[15] to 92% in Brazil.[4] Instagram and Facebook were the most preferred platforms used by participants in this study to promote their practice and disseminate nutritional information. These platforms were regarded as user friendly and suitable for their target audiences. Literature indicates there is no single digital media platform preferred by dietitians worldwide (Instagram

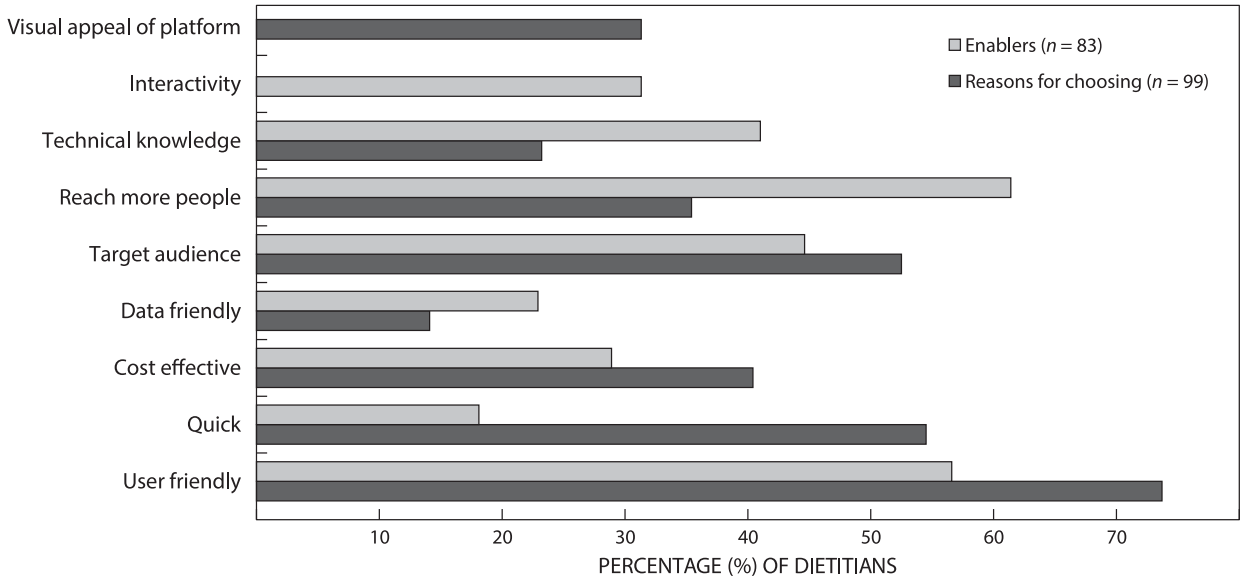

Figure 2: Reasons why dietitians use specific digital platforms and enabling factors for usage.

in Brazil,[4] Facebook in Australia[21] and America[19,22,23]). A systematic review by Chen and Wang concluded that different social media platforms are used for different purposes. For instance, Pinterest being used for health care quality education, Twitter for gathering news and information on conferences, and LinkedIn for career advancement.[3].

Enablers and barriers to successful social media and electronic communication usage

The main target group of participants in this study, namely adults aged between 25 and 49 years, is well targeted as current literature recognises these adults as the most frequent users of social media.[24] Participants regarded better reachability of platforms to their target groups and ease of use of platforms as enabling factors to encourage their social media usage. Dietitians in other countries find social media useful in the professional context to build professional networks of dietitians, attract clients by explaining and promoting their services, facilitate direct contact between professional and client,[4,10] and to offer the ability to communicate internationally and remotely in real time.[10,21]

One of the main barriers to successful digital platform usage identified by the participants was time constraints, which corresponds with the limited time they spend creating new content for electronic communication (1–3 hours per week). It was also evident from the observations of the digital platforms that some platforms had sporadic posts and low engagement. In addition to time constraints in general,[21] the current literature shows that excessive time spent browsing social media could create another barrier.[4]

The reported increase in digital platform usage and engagement with clients during the hard lockdown due to the COVID-19 pandemic in 2020 may indicate that SA dietitians had more time to participate in professional activities and create a digital platform presence, for instance by offering online consultations. Sbardoletto *et al*. noted that 'the prevailing conditions brought about by the COVID-19 pandemic can be regarded as an enabling factor for the use of digital platforms', as evidenced in the greatest growth for users of social networks during 2020.[4] Globally dietitians felt more motivated to increase their social media usage in a professional capacity in order to reach more clients during the COVID-19 pandemic.[4] They achieved this goal by increasing the frequency of sharing information regarding nutrition and health in general on social networks,[4,23] spent more time in direct contact with the client per tele-nutrition session[23] and started using tools such as live video streams, polls and question stickers on social networks.[4]

Some South African dietitians admitted that a lack of knowledge concerning the use of social media platforms prevented them from practising tele-nutrition. This challenge could gradually diminish as the younger generation of dietitians who are more inclined to be better skilled in technology enter the profession.[15] In the meantime, dietitians who are proficient users of digital platforms could act as mentors to upskill new users.[21] If dietitians have a thorough knowledge of digital platforms they could embrace the positive roles and utilise the impact of social network usage according to the specific needs of their clients.[4,10,14] By building a relationship of trust[1,14] clients feel supported to make informed decisions and adopt healthier behaviours.[9,10]

Dietitians' knowledge of and adherence to the HPCSA ethical rules of good conduct

It was encouraging to see that 9 out of 10 South African dietitians were not only cognisant of the HPCSA guidelines, but mostly adhere to them. Yet, one out of five digital platforms were observed engaging in touting/canvassing. Furthermore, two-thirds of the digital platforms offered information, nearly half of which never provided scientific references, which could lead to the proliferation of misinformation. Dietitians need thorough training on the HPCSA Ethical Guidelines for Good Practice by which they are bound to maintain legal obligations, as well as ethical and professional standards when utilizing digital platforms.[16,18,20] While the same ethical and legal standards apply to both online and offline communication,[9,20] dietitians remain accountable to the Professional Board for Dietitians at all times.[9,20]

Table 4: Dietitians' area of interest and information present on dietitians' digital platforms: self-reported ($N = 125$) and observed ($N = 135$)

Variables	Self-reported in questionnaires ($N = 125$) *n* (%)	Observed on digital platforms ($N = 135$) *n* (%)
Area of interest [#]	($n = 83$)	
Teenagers (13–17 years)	20 (24.1)	21 (15.6)
Young adults (18–25 years)	36 (43.4)	39 (28.9)
Adults (25–34 years)	61 (73.5)	65 (48.1)
Adults (35–49 years)	59 (71.1)	58 (43.0)
Parents/caregivers (and in turn their children aged 5–12 years)	22 (26.5)	40 (29.6)
Parents/caregivers (and in turn their babies aged 0–4 years)	19 (22.9)	46 (34.1)
People aged above 50 years old	28 (33.7)	21 (15.6)
Females	38 (45.8)	51 (37.8)
Athletes	15 (18.1)	28 (20.7)
Diabetics	32 (38.6)	41 (30.4)
Gastrointestinal conditions	28 (33.7)	41 (30.4)
Vegetarians	14 (16.9)	6 (4.4)
Weight management		36 (26.7)
Non-communicable diseases	1 (0.1)	29 (21.5)
Other	16 (19.3)	
Information on digital platforms[#]	($n = 99$)	
Nutritional facts/information (healthy swaps, calorie comparisons etc.)	62 (62.6)	70 (51.9)
Educational information	70 (70.7)	78 (57.8)
Personal-related content/life updates	17 (17.2)	24 (17.8)
Creating recipes	29 (29.3)	49 (36.3)
Fitness-related content	6 (6.1)	10 (7.4)
Services offered		51 (37.8)
Professional development		15 (11.1)
Communicate with colleagues		21 (15.6)
Other/miscellaneous content		51 (37.8)

[#]Participants could choose all relevant options.

There were no observations made that any of the dietitians violated clients' privacy by explicitly posting or sharing any personal information. Less than 10% of the participants were concerned about maintaining confidentiality when using digital platforms. However, the use of digital platforms introduces additional challenges pertaining to the right of the client to confidentiality and privacy.[2,3,9,14,20] There is no control on how fast or far information shared on digital platforms can spread,[20] and once information has been shared it cannot be removed and may have undesired consequences even at a later stage.[7] It is clear that adherence to ethical guidelines and regulations regarding ethical, legal and technological issues is of the essence.[3] According to the observational checklist, almost all the dietitians established their credibility by stating their credentials as registered dietitian on the digital platforms. Building trust is crucial to give clients peace of mind that science-based nutritional information will be provided within the dietitians' scope of practice. It is important for healthcare professionals to know their limitations and acknowledge when it is in the best interest of the client to refer them to other healthcare professionals.[20] For participants in this study, the biggest challenge was abiding by the HPCSA guidelines concerning advertising of professional services. This was confirmed by the presence of touting/canvassing observed on dietitians' digital platforms as mentioned earlier. The rigid HPCSA guidelines prevent health professionals from employing more sophisticated and lucrative marketing principles as utilised by the industry and large cooperatives.[7]

Some 90% of the participants have never identified or reported nutritional misinformation found on other dietitians' digital platforms. Some of the reasons for not reporting such transgressions include a lack of time to report it or being unaware of the correct reporting procedure. The HPCSA guidelines are clear that professionals have the moral obligation to bring inappropriate online behaviour of colleagues to their attention in a discreet manner and that professionals ought to act quickly to protect clients from risk. When the right of a client is violated, it needs to be reported to the HPCSA.[16,20] Professionals ought to ask themselves before posting on digital platforms whether sharing certain information is legally and morally defensible, whether it reflects the professional conduct expected of them and whether it will benefit their patients and, importantly, should question their own intention in posting it.[20] Peregrin cautions health professionals that tele-nutrition might not be suitable for clients with limited access to required technology, for instance Internet access or a computer with webcam. Also, clients with varying degrees of health literacy may not feel comfortable receiving health information on a digital platform[9] and to that, language barriers could be added. There is a real danger that if the Internet connection was lost before the dietitian had completed the assessment and instruction to the patient, this could be a safety concern.[9] Undergraduate training should highlight the benefits and risks of communicating on digital platforms[20] but continuous education is essential to update knowledge and take advantage of new opportunities offered by new developments in technology.[3]

Table 5: Dietitians' responses regarding the acceptability of certain social media practices ($n = 75$) and observed compliance of digital platforms ($N = 135$) with the Health Professions of South Africa (HPCSA) ethical rules of conduct

Guideline	Self-reported in questionnaires (agree/ disagree) ($n = 75$)	Observed on digital platforms ($N = 135$)			
	Agrees *n* (%)	Always *n* (%)	Most of the time *n* (%)	Never *n* (%)	Not applicable* *n* (%)
Specific health advice particular to an individual is not given over social media	53 (70.7)	72 (53.3)	1 (0.7)	0 (0)	62 (45.9)
Patient confidentiality (unless consent is given) For example, the patient they are referring to is not named unless they specifically state that consent was given by the patient	63 (84.0)	21 (15.6)	5 (3.7)	3 (2.2)	106 (78.5)
No informal and derogatory comments are made about patients	57 (76.0)	67 (49.6)	0 (0)	1 (0.7)	67 (49.6)
Misinformation For example, scientific references are given with the post	64 (85.3)	31 (23.0)	21 (15.6)	37 (27.4)	46 (34.1)
Respect that other people may disagree and not share the same opinion For example, do not engage in a negative way with others who disagree with them in their comments		47 (34.8)	0 (0)	0 (0)	88 (65.2)
Knowledge is specifically in their scope of practice For example, the healthcare professional shares only information that they are knowledgeable about and have a special interest in	52 (69.3)	102 (75.6)	17 (12.6)	0 (0)	16 (11.9)
If false information is released, they address it and correct this mistake in a clear and professional manner	58 (77.3)	13 (9.6)	0 (0)	1 (0.7)	121 (89.6)

* Information not available or relevant to the digital platform.

Recommendations for future research

Future studies should not only address privacy concerns and other barriers related to the use of digital platforms by dietitians but also evaluate the impact of tele-nutrition and the clinical effectiveness in the short and long term. Especially in South Africa, it is crucial to investigate the effectiveness of various platforms for different users from broader geographical settings and diverse backgrounds. New insights could be garnered by exploring the complexities of the topic using qualitative approaches.

Limitations of the study

The study was conducted online, thus researchers were unable to probe for clarification of questions or responses. Responses to closed-ended questions could have prevented participants from providing additional information. It is possible that time constraints prevented some participants from completing all questions in the survey. The power calculation was not reached for all sub-sections of the questionnaire, thus varying *n*-values were used to report findings of this descriptive study.

Conclusion

This study has shown that South African dietitians actively engage with digital platforms to a limited extent in a professional capacity. More education on the optimal use of digital platforms will support dietitians to fulfil the obligation of fighting nutritional misinformation, potentially improve health outcomes and ultimately provide evidence-based health information to the broader community. A thorough understanding of the HPCSA guidelines is crucial to protect the integrity of the dietetic profession. The study can be useful in guiding future research on this emerging topic and to develop an understanding of the quality and long-term impact of nutrition information disseminated through digital platforms in South Africa.

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