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ETHICAL ISSUES ASSOCIATED WITH THE PROVISION OF MEDICAL ADVICE BY MEDICAL INFLUENCERS ON SOCIAL MEDIA

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A Research Report in the MSc (Med) in Bioethics and Health Law

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Date : 14 October 2025

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Dedication

This project is dedicated to my parents whose resilience made it possible to not only dream but to persevere to get here.

Acknowledgements

My sincerest gratitude goes firstly to my supervisor Dr Miniggio for your time, invaluable guidance and patience without which this body of work would not amount to what it is today.

To my family, your unwavering support and love have inspired and motivated me to keep going. I could not have done this without your reassurance.

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Lastly, I want to express my deepest gratitude to my darling husband. I could not have chosen a better partner to journey with. You have pushed and motivated me just as much as you have held and comforted me.

Abstract

Social media platforms are revolutionising the ease of communication and facilitating the formation of connections, such that deep and intimate communities are established and maintained online. Notably, there is a rise in healthcare practitioners actively participating on social media as medical influencers, to shape the health behaviours of their followers. The growing practice of medical influencers sharing medical advice in these virtual communities brings forth several ethical issues which are not fully addressed in current literature but are actively impacting healthcare practice. The ethical issues identified revolve around aspects of informed consent, the corresponding virtues and duties of healthcare practitioners in the dual identity of medical professional and medical influencer, and lastly, the potential breach of private and confidential information. Current ethical guidelines on the use of social media by healthcare practitioners published by the Health Professions Council of South Africa do not sufficiently address these unique interactions, and future research is needed to help establish regulatory and ethical guidelines to ensure the virtuous, professional and ethical practice of medical influencers providing medical advice virtually.

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CHAPTER 1: INTRODUCTION

1.1. Background

The advent of social media platforms is impacting all aspects of our modern lives, including the consumption of medical information. The online influencer industry has seen explosive growth on social networking sites (SNS) such as Facebook, Instagram, X (formerly known as Twitter) and TikTok in sharing short-form videos and viral content. These trends depict social media users recording and posting themselves doing popular activities (Rouse, 2019, n.p).

This growth is driven, in part, by the allure of becoming an online content creator and social media influencer which holds the promise of social prominence, flexibility in work hours and potential monetary gain (Ng et al., 2024, p.231). Social media influencers are individuals who have built an online identity and following, impacting their followers' attitudes and behaviours (Hudders, De Jans and De Veirman, 2021, p.327-328). Social media influencers are considered to have specialised knowledge and expertise or a particular niche and build their social media reputation around this expertise to impact how others behave (Geyser, 2017, n.p; Hernandez and Leker, 2022, p.3). The key features of successful social media influencers are reach, impact and intimacy. In this context reach refers to having amassed a substantial following and impact refers to the ability to influence people's decision-making as social media influencers are deemed key opinion leaders. An intimate bond and consistent interactions between the influencer and followers are important to foster similarity, familiarity and likeability for the creation of a parasocial (one-sided) relationship (Hudders, De Jans and De Veirman, 2021, p.334). For this project, the terms social media and SNS are used

interchangeably. The online influencer industry is valued to be worth 10 billion US dollars and various types of influencers are categorised by the number of followers and the rate of online engagement, from nano-influencers (with less than 1000 followers) to mega influencers (with over 1,000,000 followers) (Haenlein et al, 2020, p.5).This industry primarily targets the younger generation who have replaced television with streaming services such as Netflix, opt for Spotify services instead of traditional radio and get their news and entertainment from Instagram[3] and Tiktok[4] (Song, 2024, p.1).

Unsurprisingly, the use of social media has also extended to healthcare, with 65% of healthcare professionals (HCPs) using SNS for professional reasons and 85% of individuals reporting their use of SNS as a means of accessing healthcare practitioners and seeking health-related information (Keller et al., 2022, p.203). HCPs are also following these social media trends and creating medical content with some HCPs now gaining recognition as medical influencers. Medical influencers are individuals who share health-related content, participate in online discussions on medically related topics and can influence how the public engages with health issues (Guo, Simpson and Bernardi, 2024, p.1). For this research project, I limit my evaluation to healthcare practitioners who also act in the role of medical influencers.

There are numerous examples of medical influencers with a substantial online following who create and share health-related information and advice on SNS. Some of these medical influencers include, amongst others, Dr Youn (@doctoryoun), with 1.2 million followers on Instagram, Dr Emeka (@doctor.emeka) with 249 thousand

[3] There is an interesting profile of age on these online platforms. It is estimated that 60% of Instagram users in the United States of America are below the age of 34 years (Haenlein et al, 2020, p.6).
[4] It is estimated that 40% of TikTok users in the United States of America are below the age of 19 years (Haenlein et al, 2020, p.6).

followers on TikTok and dermatologist Dr Shah (@dermdoctor) with over eighteen million followers on TikTok (Gabriele, 2023, n.p).

The motivation to become a medical influencer can range from patient advocacy, providing a platform for medical education and engagement with health-related issues to combating health-related misinformation (Ng et al., 2024, p.231; Rothfischer, 2021, p.1). Medical influencers may also be driven by the aspiration to build significant followership or garner popularity, self-promotion, driving potential clients towards their services, widening their professional profile or for financial benefit (Ng et al., 2024, p.231; Hernandez and Leker, 2022, p.1-2; Rothfischer, 2021, p.1). In 2020 the rise of medical influencers became increasingly prominent as a number of HCPs were driven by the desire to combat COVID-19 misinformation, raise awareness and eagerly share health information with the public at a time when healthcare was not readily accessible (Ng et al., 2024, p.231). One notable medical influencer who emerged during this period is Dr Benjamin Schmidt, affectionately known as Doc Schmidt on TikTok. Motivated by a desire for medical education, this doctor creates relatable content to showcase a more human dimension to the medical profession appealing to both HCPs and the public. His content features videos ranging from comical practices in medicine to more informational healthcare topics (Schmidt, 2023, p.2796).

Nonetheless, how several high-profile HCPs have made use of social media platforms has sparked controversy. For instance, scientist Tim Noakes was charged with unprofessional conduct for providing nutritional advice endorsing a High-fat, low-carbohydrate diet (LCHF) to a follower of his on a social media platform (The Noakes Foundation, 2017, n.p). The advice was provided as a response on X to a breastfeeding mother’s inquiry regarding the LCHF and garnered different opinions

from experts, although Noakes was ultimately found ‘not guilty’ by the Health Professions Council of South Africa (HPCSA) (The Noakes Foundation, 2017, n.p). Another high-profile case is that of Roxanne Grawe, popularly known as Dr Roxy who is notorious for livestreaming medical procedures and answering questions from the online audience during the live broadcasts (Campinoti and Frehse, 2023, n.p). Her social media presence led to the State Medical Board of Ohio permanently revoking her medical licence stating concerns with the lack of informed consent, issues with privacy and confidentiality as well as complaints from patients that sustained complications from her medical procedures (Campinoti and Frehse, 2023, n.p). Some of her patients blame the practice of live streaming their procedures as a reason for the complications they sustained (Newman, 2023, n.p).

It is significant to note that the level of success and prominence of medical influencers is marked by the number of followers, ‘views’, and ‘likes’ garnered on the online platform; the bigger the numbers are, the greater the opportunities for professional growth. A large following also increases the likelihood of being monetised on social platforms like YouTube and TikTok, subsequently allowing influencers to benefit financially from the content they create and post. These monetary and popularity benefits of being medical influencers have also paved the way for individuals lacking formal medical qualifications to effortlessly misrepresent themselves as medical experts. One such example is Matthew Lani, a popular TikTok personality who, despite lacking the necessary medical qualifications, gained a significant following for providing medical advice, recording himself on hospital premises and selling medication on social media under the guise of being a doctor (Kupemba, 2023, n.p).

Importantly, the rise of medical influencers is reshaping online engagement on SNS and impacting the healthcare-related decisions of their followers. Rather than sharing medical information in a unidirectional flow from the HCP to a wider online audience, medical influencers are building online communities of loyal followers which fosters online connections and interactions and, in some cases, long-lasting, trusting and influential connections or relationships. A new phenomenon is thus unfolding in which HCPs who decide to engage in online medical content creation and the provision of medical advice within their dedicated medical networks find themselves navigating dual roles; those of conventional healthcare providers and those of online medical influencers. In this project, I focus on HCPs who also function as medical influencers with dedicated online communities facilitated through social media platforms and utilise these networks to provide medical advice online.

Current ethics literature and codes of ethics have not fully addressed the unique ethical issues posed by this emerging online medical influencer community interaction, nor the dissemination of medical advice. This project aims to identify the ethical issues that arise from medical influencer's interactions through online virtual communities and the provision of medical advice on these social media platforms.

1.2. Research Question

What are the key ethical issues associated with the dual role of HCPs as medical influencers and the provision of medical advice on social media platforms?

1.3. Rationale for the study

There is a gap in current literature that identifies and critically discusses the specific ethical issues that arise when HCPs assume the dual role of healthcare practitioner and medical influencers on social media within their online network of followers. This

gap also extends to the ethical issues arising from providing medical advice on these online platforms in line with current trends. The significance of this exploration is identifying areas of future research, which will assist policymakers in enhancing and refining existing guidelines, ensuring ethical engagement within the virtual medical network and during the dissemination of medical advice.

1.4. Research Aim

In this project I aim to identify, describe, and critically discuss the ethical issues that arise from the distinct interactions within online medical networks on social media platforms and from the provision of medical advice by HCPs in the role of medical influencers on these platforms.

1.5. Research Objectives

1.5.1. To provide a brief overview of the scope of the existing literature about the ethical issues associated with the provision of medical advice by HCPs in their role as medical influencers on social media.

1.5.2. To describe and critically discuss the ethical issues related to the relevance of informed consent when HCPs provide medical advice via social media.

1.5.3. To describe and critically discuss the ethical issues related to the implications of HCPs acting as medical influencers on the goals of healthcare and the virtues of HCPs.

1.5.4. To describe and critically discuss the ethical issues related to professionalism and the duties of HCPs in the dual role of medical influencers in virtual networks and the provision of medical advice online through the social contract framework.

1.5.5. To describe and critically discuss the ethical issues related to privacy and confidentiality associated with online interactions and medical advice provision by HCPs as medical influencers using the principles of autonomy, nonmaleficence, beneficence and justice.

1.5.6. To provide an analytical, normative, and summative discussion of the key ethical issues identified and discussed and make recommendations regarding the provision of medical advice via social media.

1.6. Research Design

In this study, I utilise the form of a Type 2 project which involves a critical and in-depth overview of literature related to the dual role of HCPs as medical influencers and the provision of medical advice by HCPs on social media in this dual capacity. I provide a normative, descriptive, and analytical critique of the ethical issues in this context.

1.7. Research Method

In this Type 2 project I use the research method described below:

The typical research methods and standards applicable to philosophical research are employed. This includes discussing findings from literature which is ethically analysed. This primarily involves the interpretation and critical analysis of the most important texts, postings, and relevant government legislation to answer the research question. The analysis of the relevant texts will include the definition and clarification of concepts, the identification and criticisms of assumptions, the analysis and evaluation of theoretical frameworks, and the articulation of the most reasonable interpretation of significant concepts found in the sources of literature retrieved from but not limited to, research articles, books, computer accessible databases

> Government legislation and other academic search engines for gathering your research data. (Steve Biko Centre for Bioethics, 2024, p.10)

There are no human or animal participants used in this project and no new data will be gathered or analysed (Steve Biko Centre for Bioethics, 2024, p.10).

Keywords searched: social media, social networking site, medical influencer, content creator, doctor-patient relationship, virtue ethics, informed consent, privacy, confidentiality

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

In this chapter, I provide a review of the existing literature on the use of social media by HCPs for health-related purposes, including the provision of medical advice. I also critically evaluate whether current ethics literature and the latest ethical guidelines on social media published by the HPCSA sufficiently address the unique aspects of the online medical influencer landscape.

2.2. Literature review on the use of social media by healthcare practitioners and patients

Sharing medical advice and medical information is a longstanding professional practice in healthcare. The distinction between medical information sharing and medical advice is crucial as these two terms can be confounded and I set out to distinguish the two before reviewing the relevant literature. Medical advice refers to the provision of a professional medical opinion regarding the management of an illness or injury, the prevention of an illness and the restoration of health; it involves providing a diagnosis and or prescribing treatment or disease prevention (Verve College, 2025, n.p). Medical advice on SNS is usually provided through brief interactions in the comment section of a post, replying to a person's message privately or making a public response video to a follower's questions. By contrast, medical information sharing is a right to freedom of speech and involves the provision of general, factual, and scientific information to the public (Verve College, 2025, n.p). An important distinction is that medical information sharing is general and directed to a broad audience, whereas medical advice is specifically tailored and directed to an individual or a particular group (Verve College, 2025, n.p). Given this, interactions with a particular group including

responding to comments and direct messaging with the online medical community would fall under the definition of medical advice.

A multitude of articles discuss the ethical pitfalls related to the use of conventional social media by HCPs. These ethical debates range from evaluating the concern surrounding privacy and confidentiality online, to inappropriate self-disclosure and blurring the lines between physician-patient relationships. Additionally, the importance of separating one's social and professional online identity, violations of the HCP-patient relationship and potential conflicts of interest have been raised (Macauley, Elster and Fanaroff, 2021; Kubheka, 2017, p.387; Ferlito and Mametja, 2021, p.6). More recently, there has been a proposal towards a revision of the Hippocratic oath in view of maintaining its relevance in the new digital healthcare era (Mesko and Spiegel, 2022, p.1). While these ethical discussions are relevant in the context of medical influencer communities, ethical aspects unique to SNS engagements remain underexplored.

A pertinent example of this type of engagement is the case of Tim Noakes who responded on X to a mother inquiring whether the LCHF diet he endorses is suitable when breastfeeding and the effects this diet would have on her child. In response, Noakes advised the mother to wean the baby on the LCHF diet. Following complaints from another HCP, the HPCSA charged Noakes with misconduct for providing unconventional nutritional advice on social media. After a lengthy hearing with witness testimony, the HPCSA ultimately found Noakes 'not guilty' of any wrongdoing (The Noakes Foundation, 2017, n.p).

Different stakeholders have shared their opinions on the incident and the HPCSA ruling which I explore in further detail in the section to follow.

Joe Adams, chair of the independent panel in Noakes' hearing, shares that when individuals seek medical advice online, the assumption is that the individual's needs are not urgent otherwise, they would seek assistance from a personal doctor or physician (Juta Medical Brief, 2017, n.p). These assumptions indirectly perpetuate the belief that users of social media platforms are ignorant or vulnerable, which is not necessarily the case (Juta Medical Brief, 2017, n.p). According to the panel, the interaction between Noakes and the mother does not lend itself to a credible doctor-patient relationship and without this relation, neither Noakes nor the mother incurs the privileges or liabilities resulting from the implementation of this medical advice (Juta Medical Brief, 2017, n.p).

Those opposing the ruling relay how the advice is not evidence-based and contradicts nutritional guidelines, posing a danger to the mother and baby's health due to lack of medical evaluation before providing this advice (Juta Medical Brief, 2017, n.p). The widespread accessibility of this advice shared on a public platform raises further concerns as others could apply the same principles in their contexts, posing additional consequences (Juta Medical Brief, 2017, n.p). Due to the controversy surrounding a case of this nature, different experts offered contrasting opinions, causing division and affecting the profession's reputation. The independent panel ruled it was not proven that Noakes had provided the medical advice in his capacity as a HCP but rather in his capacity as an author and advocate of the LCHF diet (Juta Medical Brief, 2017, n.p). Concerning the regulations and legislature, it is not proven that Noakes had contravened regulation R237 of 6 March 2009 which regulates the scope of the profession of medicine or any ethical or other regulatory stature (Juta Medical Brief, 2017, n.p). It is important to note that at the time of the incident, the HPCSA did not have dedicated ethical guidelines for social media usage for HCPs which were

subsequently published in 2019. Tim Noakes' current biography on X includes a disclaimer noting that he shares scientific information, not medical advice.

Likewise, plastic surgeon Roxanne Grawe, a TikTok personality affectionately known as Dr Roxy is notorious for livestreaming medical procedures and answering questions from the online audience during some of these live broadcasts (Campinoti and Frehse, 2023, n.p). Some common reasons Grawe's patients consulted with her include her relatability as a mother and a woman who is friendly, feminine and quite established in a field that is often masculine, sterile and cold (Newman, 2023, n.p). One of her patients details how she followed Grawe on TikTok and found the doctor relatable and empowering through her content and was eager to have her procedure captured on social media for public consumption, a decision she now regrets as she reports Grawe was distracted by the camera during the process (Newman, 2023, n.p). Her licence has been revoked by the State Medical Board of Ohio because of her online presence and patients' health-related complications sustained from procedures she performed.

An expert witness on Grawe's medical hearing, Dr Surfield, states that filming in the operating room is not a deviation from the standard of care as it is often done for conferences and teaching purposes amongst many others, however, filming and the presence of observers should not be a distraction for surgeons during a procedure (Newman, 2023, n.p).

Grawe in her defence argued that it was her priority to be relatable to patients and livestreaming procedures removed the mystery of surgical operations and was a way to help people make informed decisions (Newman, 2023, n.p). Grawe's following on social media garnered such prominence that her clients are often referred to as "Dr. Roxy's Foxys", a testament to her influence on these networks.

Lastly, another popular example from Australia is the case of the dubbed Cowboy Surgeons. This group consists of Dr Danile Lanzer, with over 30 years of experience, Dr Aronov and Dr Darbyshire operating at Lanzer's clinics (Ferguson, Day and Toft, 2021, n.p). There is a class action lawsuit with over 900 former patients of Lanzer and his associates who have amassed popularity on social media for sharing some eccentric photos and video content taken during surgical procedures. Some of the defendant's detail concerns with the breach of confidentiality after their procedures were shared on the doctors' SNS (Ferguson, 2023, n.p; Ferguson, Day and Toft, 2021, n.p). One such video is of a former patient who consented to have the procedure filmed and shared on Instagram under the condition that no personal identifiers could be shown. However, after seeing footage of the video posted, she noticed her tattoo was visible alluding to the fact that she was identifiable after all (Ferguson, Day and Toft, 2021, n.p). Other videos depict the surgeons playing around with human tissue in the operating theatre as a trend.

The cases of Doc Schmidt, Tim Noakes, Dr Roxy and the 'Cowboy Surgeons' highlight the dual impacts of medical influencers on society. On one hand, medical influencers can promote healthcare and humanise professionals who are otherwise perceived as distant. Furthermore, these virtual medical networks can be a useful tool in establishing connections between HCPs and the public, removing the traditional barriers between the two demographics for a more integrated approach that can advance healthcare goals. On the contrary, these online medical networks can pose confidentiality, trust and reliability issues between the medical profession and the public.

The performative and attention-driven nature of social media influencing can blur the lines between seemingly harmless participation in online trends and the transgression of professional and ethical standards. The dynamic of online popularity and reward may compel influencers to engage in eccentric and unconventional methods to maintain relevance and engagement.

The cases I have pointed to indicate how medical influencers hold a position of authority in virtual spaces and can shape public perceptions and behaviours, given their professional status. With the growing interest in using social media for information and advice sharing, a critical analysis of the ethical implications of medical influencers sharing advice online is warranted.

Thus far, I have explored several ways HCPs make use of social media. In the remainder of this chapter, I critically analyse whether the existing guidelines for conventional social media use sufficiently address the online landscape of medical influencers creating online communities of followers and facilitating active engagements and discussions on these social platforms.

2.3. Current ethical guidelines for the use of social media by healthcare practitioners

The HPCSA has published guidelines to assist HCPs in navigating online interactions. While strides have been made by the HPCSA since the 2014 case of Tim Noakes to guide HCPs in the social media space, there are still unexplored areas given the fast-paced nature of developments and engagements on SNS. Furthermore, the ethical discussion in current ethics literature and guidelines published by health professional bodies such as the HPCSA are framed within the context of one-way communication between the HCP and a broad audience of online followers. However, as previously

mentioned, medical influencers are reshaping the online landscape by creating virtual communities of followers that facilitate active participation and contributions on SNS.

The HPCSA ethical guidelines on social media contained in Booklet 16, provide a general ethical standard of professional conduct for the use of social media platforms by HCPs. The guideline states that HCPs' conduct on social platforms is still expected to meet their professional and ethical standards whether the content is accessible publicly or limited to a specific audience such as in the case of a private account (HPCSA, 2019, p.6, 2.2). To ensure that there are no blurred lines between personal and professional information, the HPCSA encourages HCPs to have separate professional and personal accounts to maintain a clear distinction between the two (2019, p.10, 7.11). Nonetheless, within the context of the medical influencers, this distinction may be difficult to maintain given that their success on SNS relies heavily on creating a personal brand and presenting themselves as relatable to attract online audiences, as we have previously seen in the case of Dr Roxy and Dr Schmidt.

In addition, there are clear actions that are discouraged by the HPCSA concerning HCPs' social media activities, including posting photographic material of any surgical procedure or any treatment rendered to a patient (2019, p.10, 8.4.1). However, as seen in the cases of Dr Roxy and the ‘Cowboy Surgeons’, HCPs are posting themselves and their patients during medical procedures as a form of health education and self-promotion on SNS. HCPs are further advised to avoid sharing derogatory comments about patients or colleagues or any form of biased or prejudiced content, including racist, sexist or homophobic comments even when it is presented as a form of satire (HPCSA, 2019, p.10, 8.4). Platforms like TikTok use a lot of comedy and satire to appeal to online audiences, and medical influencers following viral trends may

inadvertently find themselves posting content that is biased or prejudiced for engagement.

Due to the high regard of the medical profession, HCPs are advised to be wary that content they share in their personal capacity can tarnish their professional reputation, credibility and employment (HPCSA, 2019, p.10, 8.1-8.3). As previously discussed, medical influencers like Dr Roxy and the Cowboy Surgeons are an example of how HCPs' online conduct can affect the profession's reputation negatively and bring accusations of unethical conduct. Furthermore, HCPs are advised to include disclaimers on their social media accounts to indicate that the views expressed in content shared do not represent the health profession's views, this however does not absolve them of responsibility of professional conduct (HPCSA, 2019, p.10, 8.9). Despite this, in the context of the medical influencer community, the effectiveness and relevance of such disclaimers remains uncertain. This would be particularly true for those loyal followers that have built a sense of trust and a feeling of belonging to the medical influencer's online community, potentially diminishing the impact of these disclaimers.

The HPCSA also recommends that information that is made accessible to the public must be to a minimum and comprising only of the crucial details needed (2019, p.8) . What is more, recipients of such information need to understand that the information provided is in confidence to protect patients' rights (HPCSA, 2019, p.8, 6.5-6.6). This can be challenging in the online community as followers continually engage with the medical influencer and with each other and often seek further information or clarity on certain health related topics.

In addition, section 7 of the HPCSA booklet specifically deals with the provision of medical advice online. These guidelines advise against the provision of medical advice on social media especially in the absence of a pre-existing medical relationship between the HCP and patient, with the exception in an emergency or life-threatening dilemma (HPCSA, 2019, p.9). Nonetheless, if HCPs proceed to give medical advice online, it should be done with discretion ensuring that the advice is general, evidence-based and scientifically correct, and provide a disclaimer that no action should be taken before the individual personally consults with a relevant HCP (HPCSA, 2019, p.9). It is evident that the HPCSA does not expressly prohibit the provision of medical advice on social media but rather discourages it, thus leaving room for individual discretion.

Lastly, the HPCSA booklet 11 outlines possible conflicts of interest that may arise from the usage of SNS by HCPs. Touting is a practice that is used in marketing to entice the public to use a particular service that falls outside the primary product, and it is discouraged for HCPs to use social media to attract potential patients (HCPSA, 2019, p.11, 9.2-9.3). Canvassing, which is the use of personal attributes or superior knowledge, quality of service or professional guarantees to promote and attract others to one's service is also discouraged for HCPs (HCPSA, 2019, p.1, 9.4). Adhering to this recommendation can be challenging since medical influencers need to distinguish themselves as more knowledgeable or experts in the medical fraternity to garner a larger following.

Adding to the complexity is the growing marketing strategies used by pharmaceutical companies that have shifted from disease-focused marketing campaigns to lifestyle

and health-related campaigns that target medical influencers as a medium to reach their online audiences and potential clients (Willis and Delbaere, 2021).

In sum, several ethical issues significant to the online medical influencer space arise. While most of these issues have been addressed by ethics literature and existing codes of conduct, there are nonetheless certain unique and evolving nuances inherent to the type of engagement on SNS which remain unaddressed and are highlighted below.

Evaluating the role of informed consent in the online medical influencer community.

The nature of the engagement in the online medical networks combined with medical advice provided on SNS has a significant influence on the decision-making process of followers within these online communities. This raises questions about the need to adapt elements of informed consent to cater for the unique features of social media interactions between medical influencers and their online audiences.

Defining the professional virtues in the dual healthcare practitioner-medical influencer identity.

The indistinctness between the personal and professional identity in the medical influencer networks creates the potential for ambiguity regarding the virtues and ethical responsibilities towards the goals of healthcare in these dual HCP/ influencers identities.

Clarifying the duties of HCPs when engaging in the medical influencer network.

The involvement of HCPs in content creation presents a new set of issues regarding professionalism and has potential for disrupting the implied relationship between professionals and society.

Addressing privacy and confidentiality concerns in the provision of online medical advice.

SNS interactions are shifting the narratives around privacy with increased sharing of individual's private lives. Furthermore, the types of photos and video content shared by medical influencers on SNS, the increasing trend of live streaming of medical procedures and the provision of medical advice on these platforms are creating considerable risks to maintaining privacy and confidentiality of patients, colleagues or employers.

CHAPTER 3: EVALUATING THE ROLE OF INFORMED CONSENT IN THE ONLINE MEDICAL INFLUENCER COMMUNITY

3.1. Introduction

The interactive communities that medical influencers are establishing on SNS are significantly evolving the nature of engagement with their audience and contributing to the creation of online connections. These connections, in some instances, may be influential and long-lasting. Furthermore, it is becoming increasingly evident that medical influencers play a significant role in the decision-making of the public, especially the youth, regarding their health. In this chapter, I explore the doctrine of informed consent in the context of online interactions on these social media platforms in view of identifying the ethical issues that arise when medical advice is shared on these platforms.

3.2. Informed consent in healthcare provision

The provision of medical advice in traditional clinical consultations is a structured and longstanding practice by HCPs to enhance patient autonomy in decision-making. The advice provided in the traditional clinical context is based on a comprehensive assessment of the patient's needs. The patient's consent is required prior to comprehensive clinical assessment, treatment and provision of the appropriate medical advice. Acquiring informed consent before the provision of medical care is vital for ensuring that patients understand the medical procedures, removing paternalism for a mutually shared responsibility between the doctor and patient (Kilbride and Joffe, 2018, p.2). Informed consent is one of the key pillars of medicine which is crucial to the relationship between the doctor and patient in modern medicine.

This is the *sine qua non* of medicine, clinical and biomedical research and medical law. The foundation of informed consent in bioethics is underpinned by the principle of respect for autonomy (Faden and Beauchamp, 1986, p.7). Respect for autonomy asks that a “person who has the capacity for rational agency be allowed and encouraged to exercise that capacity through self-determination” (Gauthier, 1993, p.21).

Several criteria need to be fulfilled in the process of obtaining informed consent; these are the disclosure of information, an evaluation of the individual's capacity and understanding as well as voluntariness in the decision-making process which I delve into next (Kuhse and Singer, 2009; Eyal, 2011, n.p). Firstly, HCPs ought to ensure the individual possesses the capacity to understand and appreciate the medical information provided to them enough to reason through and make a voluntary medical decision (Cocanour, 2017, p.994). Secondly, the HCP should disclose sufficient information such as the diagnosis, treatment options and alternative interventions available and the associated risks and benefits, at the appropriate literacy level of the patient (Cocanour, 2017, p.994). Lastly, patients should make voluntary decisions free from coercion and manipulation even when their choice is contradictory to what may be medically indicated for them (Cocanour, 2017, p.993).

Conflicting interests from HCP should be disclosed where they exist. The informed consent process is crucial to protect patients from exploitation and allow them autonomy over their health choices. Concurrently, it protects HCPs from assuming unjustifiable liability arising from risks associated with medical interventions when the process is followed thoroughly.

Having discussed the elements of a valid informed consent, in the section to follow, I focus on the different uses of social media by medical influencers in their online communities for medical purposes, including the provision of medical advice. This is an important exploration in underlining the significance of informed consent in these interactions.

3.3. Medical advice provision and informed consent in social media communities

The emerging trend of medical influencers providing medical advice on social media raises unique issues regarding the role of informed consent in these communities. In the sections to follow, I bring to light the willingness of patients and HCPs alike to interact through these platforms and the impact these online interactions have on the decision-making and autonomy of their audiences.

Innovations in social media platforms are facilitating public health research, recruitment of research participants, patient communication and education, and the establishment of networks for professional development (Ventola, 2014, p.491). In their study, Fisher and Clayton found that 56% of patients desired for their providers to use some form of social media for appointments, reporting diagnostic results, sharing health information, and answering general questions (2012). Social media is also useful for personal and professional networking and advocacy for patients and HCPs alike (Chretien and Kind, 2013, p.1413). Interestingly, a 2022 study shows that 62% of medical students are willing to interact with patients on social media and 61.9% are willing to provide medical advice to patients online using these networking services (Soubra et al., 2022, p.4).

Furthermore, a 2024 study found that 33.7% of patients used social media to obtain information about undergoing orthodontic treatment while 27.8% found social media useful in this regard (Ijaz et al., 2024, p.36). This accentuates the importance that social media has in providing accessible health-related information and education in instances where patients are curious about a procedure or diagnosis. It is worth noting that individuals who seek health-related information and treatment online are more active and motivated to learn and apply new health behaviours and tend to have better control and decision-making regarding their health (ZENGİN, 2023, p.276).

A recent study further affirms the emerging practice of HCPs sharing medical advice online, as well as advertising and sharing promotional content on these SNS (ZENGİN, 2023, p.282). According to this study, 9.2% of the stories shared by medical influencers on SNS related to medical products, while 21.1% was advice about supplements (ZENGİN, 2023, p.280). Furthermore, 22.8% of the influencers posted stories containing some form of marketing for various products and services, including medically related content (ZENGİN, 2023, p.282). Medical advice regarding treatment was shared in 2.5% of the stories and 8.0% was doctors' advice or recommendation about a product or service (ZENGİN, 2023, p.281). The growing practice of medical influencers sharing medical advice and product recommendations within online medical networks warrants an ethical evaluation of this practice to protect both the public and practitioner's interests.

Another survey found that 67.4% of young women seeking acne information on social media prefer to consult accounts run by medical doctors, followed by 53.5% of accounts owned by social media influencers who are not medically trained (Ertekin et al., 2024, p.4). From this survey, only 11.6% of the participants had not followed

recommendations for acne treatment or acne products from social media (Ertekin et al., 2024, p.4). Furthermore, 20.1% of these participants admit to having changed the treatment prescribed by their personal doctor in place of recommendations they sought from SNS (Ertekin et al., 2024, p.4). This study highlights how social media plays a significant role in the decision-making of the public, especially the youth regarding their health. Medical information and treatment provided by a HCP (who has assessed, diagnosed and provided a treatment plan that suits the individual's needs) is at times superseded by recommendations and advice from social media influencers (Ertekin et al., 2024, p.4).

The results from these studies suggest a growing willingness among HCPs and the public to rely on social media to access health-related information. Some medical influencers already utilise these platforms to share medical advice, recommendations and treatment insights to some extent, with the youth as the primary audience. Given the increasing reliance on social media for health-related information and advice, in the following section, I examine the strategies used on social media platforms and their effect on the relationships between influencers and their followers.

3.4. The transformation of influencer-follower relationships on social media

The COVID pandemic facilitated the rise of medical influencers, who used SNS for health promotion and to combat misinformation during a time of uncertainty (Ng et al., 2024, p.231). At the core of medical influencing is the ability to affect others' behaviour and choices by leveraging the algorithms embedded in SNS and one's qualifications and expertise (Hernandez and Leker, 2022, p.3). To succeed as a medical influencer, one needs to establish a sense of community and familiarity with their online audience. This is achieved by implementing various strategies to increase engagement ('views",

likes, comments and ‘shares’) with their content. I explore these different strategies and their influence on the evolving relationship between medical influencers and followers.

Medical influencers’ online presence is partially shaped by their authenticity, personal attributes, and interpersonal skills. Medical influencers sharing their personal stories or the experiences of their patients and online followers make them more relatable (Vijaya, 2025, p.925). The use of their professional expertise and experience as medical professionals favourably boosts their credibility as medical influencers (Vijaya, 2025, p.925). An example of this is the case of Dr Roxy, whose personal attributes as a mother and leading professional in a male-dominated industry helped grow her TikTok following and even facilitated some followers becoming actual patients (Newman, 2023, n.p). Platforms like TikTok utilise algorithms to track content with the most engagement and push it towards newer, broader audiences, thereby increasing its reach. To maintain or gain new followers, which is the currency of SNS, medical influencers need to tailor their content to align with the platforms’ algorithm. Medical influencers can build their online relationships to increase engagement with their content by interacting with their followers in comment sections, sharing or reposting other creators’ content, or hosting live question-and-answer segments on their profiles. These actions help deepen the relationship between influencers and followers, fostering credibility and trustworthiness. Therefore, accessibility and relatability can build trustworthiness and credibility, which in turn promote popularity on social media.

The relationship between medical influencers and followers is often described as parasocial, where followers perceive greater intimacy than exists in reality (Kaňková, Binder and Matthes, 2024, p.2). Traditionally, parasocial relationships referred to

celebrities and their fans. Social media has extended this concept to influencers, creating more nuanced online relationships. Unlike celebrities, who mostly have one-way communication with fans, social media enables direct, two-way interaction. Followers can comment, like, share, or message influencers, which further reinforces the sense of accessibility and relatability for the audience and the perceived closeness of the relationship (Iqbal, Bukhari and Ashfaque, 2025, p.367).

Social media platforms facilitate this by feeding users with content they engage with most (Iqbal, Bukhari and Ashfaque, 2025, p.370). This can foster a sense of familiarity and emotional commitment to influencers (Iqbal, Bukhari and Ashfaque, 2025, p.379).

The prioritisation of virality and engagement is transforming the relationship between medical influencers and their followers. The promotion of reciprocal engagement presents a nuanced dilemma for medical influencers navigating online communities. Increased engagement between medical influencers and followers through comment sections and live streams can promote the maturation of the parasocial relationship and blur the lines between personal and professional boundaries. The interactions between medical influencers and followers can affect how this relationship is perceived online, especially by vulnerable populations. Studies prove that younger people seek medical information online with 20.1% of particpants having replaced the treatment regimen prescribed by a HCP with recommendations from social media (Ertekin et al., 2024, p.4).

A sense of authenticity and emotional connection with influencers helps shape consumer preferences (Iqbal, Bukhari and Ashfaque, 2025, p.379). In this context, medical influencers' professional credibility and online presence can shape the behaviour and adoption of medical advice. Followers can develop a close relationship

with medical influencers, blurring the boundaries between general and directed medical advice. During COVID, we observed how the public can easily adopt both unconventional and straightforward harmful medical practices in the name of seeking help. This poses a responsibility for medical influencers to ensure they share scientific, evidence-based information and to evaluate how they engage with their online audience.

For this reason, I evaluate the role of informed consent in digital space where the roles of medical influencer-follower intersect with the responsibilities of the medical professional.

3.5. The elements of informed consent in virtual medical interactions between medical influencers and followers

Social media engagements are often brief and superficial, lacking the nuances specific to traditional doctor-patient interactions during consultations. This restricts the extent to which information is shared, received and possibly understood and the process of obtaining consent. However, these SNS have become a new avenue of medical information sharing where individuals can seek medical advice from HCPs in the absence of a traditional doctor-patient relationship, as seen in the Tim Noakes case explored in the introductory chapter. In the next section, I explore how the elements of informed consent juxtapose with the practices upheld by medical influencers on social media platforms.

The interaction on X between Noakes and the mother in question is brief, with Noakes providing a direct answer to the mother's inquisition. This conversation lacks the crucial procedure of obtaining informed consent before the provision of medical care that is otherwise expected from in-person consultations. A new set of vulnerabilities is

exposed when medical influencers give medical advice through comment sections, live videos, short stories, or short-form videos. The brief and informal nature of communication between medical influencers and their audience on these platforms falls short of the standard of valid informed consent expected in clinical practice, which is the focus of the section below.

Full information disclosure

In contrast to medical advice provided by HCP in a traditional doctor-patient relationship, medical advice on SNS either caters for a broad audience in a generalized manner or is limited to a direct response to an individual online inquiry or a debate in the comment section. Furthermore, the superficial interactions limit the medical influencers' ability to evaluate the individual's literacy and level of understanding to provide the relevant information suitably. It is also challenging for medical influencers to share the full scope of information they would otherwise divulge in personal consultations. Consequently, in the absence of full disclosure of information, the individual receiving the advice may make health-related decisions based on incomplete or contextually inappropriate medical information, which in turn negatively impacts autonomous decision-making.

The element of full disclosure involves an explanation of the condition, proposed and alternative treatments and the risks and benefits associated with each option. Through video, photo or comment section interactions, HCPs are unable to conduct the relevant assessment to ascertain the diagnosis or differential diagnoses due to a limited and often completely absent presentation of the signs and symptoms needed to fulfil this. Consequently, without a diagnosis, it becomes difficult to provide relevant and appropriate medical advice. This is also a restriction on the disclosure of the relevant

available treatment options and alternatives, including the benefits and risks of each option, increasing the risk of medical influencers disseminating oversimplified, generalized, or incomplete medical advice and medical information.

The nature of social media influencing also increases the likelihood of authoritative persuasion. In efforts to remain relevant to their audience and gain followers on these platforms, HCPs may intentionally or unintentionally utilise authoritative persuasion when providing medical advice online. Dennis Wrong (2004, cited in Gardner 2004, p.31) defines authoritative persuasion as the use of one's perceived or actual status or power to persuade a behavioural change in another individual. Ethical concerns with authoritative persuasion arise when medical influencers use their professional status to persuade individuals to comply with their advice, without full disclosure or consideration for what the individual may alternatively want for themselves.

Apart from adequate disclosure of information in a medical interaction, HCPs must ensure that the receiver of such information has capacity and is able to understand such information, which I explore next.

Evaluation of capacity and understanding

The capacity of individuals is differentiated into legal and mental capacity. Legal capacity refers to the lawfully recognised rights of a person in making self-determined decisions and carrying out responsibilities (Cambridge Dictionary, 2023, n.p). Mental capacity is the capability of an individual in understanding information received, retaining said information and analysing and weighing options to make a decision (National Health Service, 2024, n.p). The lack of mental capacity can impact a person’s decision-making regarding medical care.

Virtual medical networks limit the interaction between HCPs and patients even in established practices of online consultation. Due to the nature of online communities, it is often assumed that when individuals initiate an interaction with a medical influencer online, the person can understand and appreciate the medical information provided to them. This assumption is usually motivated by the individual being able to ask a question and respond appropriately. However, social media restricts medical influencers' accessibility to patients and is not conducive for evaluating whether the individual can understand and appreciate the medical advice provided. As previously seen in the Noakes case, there is a brief communication and accessibility to the mother asking for medical advice in the comment section thus restricting the ability to evaluate whether she understands the advice. This also limits the evaluation of the mother's ability to reason through the decision she ultimately makes, especially concerning the associated risks and benefits.

Moreover, many youths are reliant on social media platforms for medical advice, and they are a vulnerable group with possible limited capacity and lack decision-making competence, which could further predispose them to misinterpret medical advice and cause further harm and potential health complications.

Given the pre-existing vulnerabilities of patients along with the power imbalance between medical influencers and their followers in online interactions, there's a need to evaluate the influence of SNS interactions on voluntariness, which is the focus of the last section of this chapter.

Evaluation of voluntary decision-making

Similarly to the evaluation of capacity and competence, interactions on SNS do not allow for sufficient communication and contact with an individual to determine whether their decisions are voluntary or coerced. It may be assumed that if an individual establishes contact with an influencer for advice, they have autonomy in decision-making to make contact, inquire and implement the advice received voluntarily. This may prove challenging for medical influencers to determine objectively without seeing the patient, posing an ethical dilemma for them as HCPs. It is recommended by HPCSA that HCPs include disclaimers on their social media profiles to indicate to followers that the views expressed are not representative of the profession (HPCSA, 2019, p.10, 8.9).

Some medical influencers include disclaimers that the content shared is for educational purposes and no action should be taken without a prior consultation with a HCP. However, it is not evident whether these disclaimers are effective in prompting followers to consult with a HCP, especially where it concerns the youth. As highlighted in the study by Ertekin et al. (2024, p.4), young participants reported modifying the treatment provided by their HCP in favour of recommendations from medical influencers. Given that young people are impressionable, trends-based platforms like TikTok can influence them to implement online advice without consideration for disclaimers, raising concerns about the extent to which medical influencers can guide followers on health-related matters without compromising their decision-making capacity.

Another ethical consideration is how the viral nature of social media creates the potential for medical influencers to use manipulation and persuasion to increase their followers and the number of ‘likes’ and ‘views’ in a type of authoritative persuasion.

This persuasion may occur when medical influencers use personal stories or experiences in view of promoting themselves or their brands, which could lead followers to misconstrue opinion with evidence-based medical advice and risks the dissemination of misinformation or misguided medical advice.

Having discussed the criteria that need to be fulfilled during the informed consent process, it becomes evident that medical advice provision by medical influencers fails to meet this standard. In the last part of this chapter, I present the key ethical issues that need to be addressed in respect to informed consent in SNS interactions.

3.6. Unresolved issues regarding the role of informed consent in online medical networks

The practice of medical influencers providing medical advice to individuals on social media raises the question of how to best adapt the elements of informed consent with the unique features of social media interactions between medical influencers and their online audiences?

3.7. Conclusion

In this chapter I highlighted how the nature of the online engagement between medical influencers and their followers is blurring the lines between entertainment, medical education, medical information sharing and medical advice provision. Although the online medium of communication is not ideal, this does not absolve HCPs from the responsibilities they have in the context of medical advice provision. Furthermore, the level of participation in these independent online communities and the types of trustful connections that may at times develop warrant a re-evaluation of the need to integrate, at least in part, some of the elements of informed consent.

CHAPTER 4: DEFINING THE PROFESSIONAL VIRTUES IN THE DUAL MEDICAL IDENTITY

4.1. Introduction

The advent of social media and the growing involvement of HCPs in the role of medical influencers raises unique questions about whether this emerging role aligns with the virtues expected from HCP. Additionally, there are questions about the impact of these online interactions and medical advice provision on the goals of healthcare.

I begin this chapter with an exploration of virtue ethics and its significance in healthcare provision and later compare the fundamental virtues necessary in healthcare practice with the key traits needed to succeed as a medical influencer. I then analyse the potential ethical conflict in the dual role of HCP and medical influencer and evaluate how the goals of healthcare practice may be affected.

4.2. Virtue Ethics

Virtue ethics is an ethical theory concerned with the attainment of attributes that make individuals virtuous human beings. Virtue ethics originates from Greek philosophers Plato and Aristotle's take on virtue to guide individuals to make moral decisions. Plato argues that it is essential for one to cultivate good character or virtues to attain *eudaimonia*, that is, a fulfilling, flourishing or good life (Rueter, 2023, n.p). Plato further says that this good character can be attained through education and self-control, and Aristotle's concept adds that only through habitual action can this character be developed (Rueter, 2023, n.p). This implies that virtues can only be refined and ingrained in a person's character through consistent application and not merely being virtuous sporadically. Ultimately, virtue by Platonian and Aristotelian concepts is concerned with the attainment of living a fulfilled life *(eudaimonia)* through the

cultivation of good character traits which can only be developed through habitual practice.

A virtue is defined as “an excellent trait of character” (Hursthouse and Pettigrove, 2018, n.p). It is a disposition possessed by an individual to notice, expect, value, feel, desire, choose, act, and react in certain characteristic ways (Hursthouse and Pettigrove, 2018, n.p). While the list of virtues is vast, some examples of virtues include courage, charity, honesty and humility. Virtues are regarded as the midway between the two contradictory extremes of excess and deficiency regarded as the vices (Pellegrino, 1995, p.256; Gardiner, 2003, p.279-298). Some examples of vices include pride, gluttony, greed and cowardice, to name a few. Although virtue represents an excellence in character, the possession and expression of a virtue is seldomly in absolute perfection but is rather measured to a matter of degree, as such an honest person, for example, may have areas of blind spots where their honesty may fall short (Hursthouse and Pettigrove, 2018, n.p). A significant facet where individuals may fall short of perfect virtue is through the lack of *phronesis,* which is moral or practical wisdom (Hursthouse and Pettigrove, 2018, n.p). This practical wisdom gives precedent for individuals to have the knowledge and comprehension to do the right thing in any circumstance, thereby being virtuous in all or most scenarios and prioritising living in fulfilment (Hursthouse and Pettigrove, 2018, n.p).

An objection against virtue ethics is the lack of codified principles- which are rules that are clearly defined and with procedural instructions to ascertain what is moral in a context- thereby failing to provide an action-guidance for the agent (Hursthouse and Pettigrove, 2018, n.p). Critics of virtue ethics argue that this theory is not clear or

concise enough to base the morality of actions, given its lack of nuanced principles, and is thus too vague to be applied consistently (Oakley, 2009, p.99).

Another objection is that any person can perform a virtuous act without being intrinsically virtuous, making it difficult to determine an individual's motivation, that is, whether one is acting from a virtuous disposition or merely what they know is expected of them (Hursthouse and Pettigrove, 2018, n.p). The last point of contention is how can one determine which virtue takes precedence when several virtues contrast to one another (Oakley, 2009, p.99).

However, proponents of virtue ethics consider that moral decision making is an intricate and context dependant process that is not restricted by rigid principles but should include character traits as well as "actions, choices, and decisions, and (sometimes brief) emotional responses or reactions" (Garcia, 2020, p.473). Hursthouse shows that virtue ethics extends beyond merely assessing character to include the actions and intentions of the individual, through an analysis of the interplay between virtue and vice (Hursthouse 1999, p.33). She writes: "not only does each virtue generate a prescription- do what is honest, charitable, generous- but each vice a prohibition- do not do what is dishonest, uncharitable, mean" (Hursthouse, 1999: 39).

Lastly, *phronesis* or practical wisdom is helpful in scenarios where virtues conflict since *phronesis* enables individuals to make a judicious determination as to which virtue takes precedence over another in that context.

From a virtue ethics perspective, medicine is inherently a moral practice (Pellegrino, 2006, p.65; Timimi, 2012, p.1). MacIntyre (1984, p.187) considers a practice to be:

> …"any coherent and complex form of socially established cooperative human activity through which the goods internal to that form of activity are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and the human conceptions of the ends and goods involved, are systematically extended".

Medicine in such a view is considered a practice with distinct standards of excellence. Within a practice, the internal goods can be determined and achieved only by taking part in the activities specific to the practice, while the external goods are not specific to the practice and can be acquired by other means (MacIntyre 1984, p.188-190). The internal goods of the practice of medicine aim towards the well-being of the patient while the external goods in the practice aim towards self-promotion in the form of financial benefit, prestige and social status (Pellegrino, 2006; Cruess and Cruess, 2008, p.585).

The delineations of right and wrong that is guided by its final goal, termed *telos* can be determined (Pellegrino, 2006, p.65; Timimi, 2012, p.1). Pellegrino further explains that virtue ethics is helpful as "it links moral excellence (the moral virtues) with the kind of person the physician should be and with the excellence of the work he does specific to his profession" (2002, p. 380). In virtue ethics relating to medicine, HCPs are expected to develop and display attributes that make them virtuous practitioners. Medicine's ultimate *telos* is to benefit its patient, and for this reason, HCPs need to cultivate certain virtues habitually to achieve this goal (Oakley, 2009, p.98). Virtues in turn "help a professional to serve a profession's purpose(s) well" (Spielthenner, 2017, p.20).

Unlike principle-based theories which focus on rules and duties, virtue ethics encourages HCPs to practice medicine from a deeply entrenched disposition to act good. Virtue ethics can help to establish the type of character traits a HCP ought to have, especially in advancing the doctor-patient relationship to flourish (Oakley, 2009, p.99).

Pellegrino puts it simply that the standard for a virtuous person "is the good person, the person whom one can rely habitually upon to be good and to do the good under all circumstances" (1995, p.254). The primary focus is on the person doing an act or a good deed, what motivates them to do the good and what their habitual actions are (Pellegrino, 1995, p.254). A virtuous person maintains a consistent standard of moral conduct, that is, their conduct does not change under different circumstances. However, it is not sufficient for the action be good, but the intentions and the motivations behind the said action ought to be good and moral as well.

Next, I explore the professional virtues expected from HCPs and, later, the character traits suited for medical influencers.

4.3. Virtues of Healthcare Practitioners

The expectation on HCPs is to act virtuously as per the *telos* of the profession. Fundamental to medicine is the ability to provide healing, a disposition that, when executed properly, earns one the status of being a good or virtuous HCP (Pellegrino, 1995, p.268).

Pellegrino (1995, p.268) proposes a list of seven virtues that reinforce one another and are essential to medicine and the healing relationship between HCPs and patients. Pellegrino's list of virtues is not in order of importance or preference but rather

informed by the nature of the doctor-patient encounter (Pellegrino, 1995, p.270). The virtues essential for HCP are *fidelity to trust and promise; effacement of self-interest; intellectual honesty; justice; prudence; compassion and benevolence* (Pellegrino, 1995, p.269).

Fidelity to trust and promise refers to the importance of truthfulness between a HCP and a patient in establishing a healing relationship (Pellegrino, 1995, p.269). The effacement of self-interest, that is, prioritising others' interests above one's own is crucial to avoid the exploitation and manipulation of vulnerable patients by self-interested HCPs (Pellegrino, 1995, p.269). Benevolence is the intention and actions of HCPs to act in the best interest of the patient (Pellegrino, 1995, p.269). HCPs also need to be compassionate, that is, they need to be aware of and be able to empathise with a patient concerning their illness and have a desire to alleviate their suffering (Pellegrino, 1995, p.269, Perez-Bret, Altisent and Rocafort, 2016, cited in Ntshingila, 2022, p.1). Intellectual honesty points to the HCPs' ability to appreciate the limits of their knowledge or lack thereof when practising their profession to protect patients (Pellegrino, 1995, p.269). Commutative justice in virtue ethics requires that HCPs provide what is owed to the specific needs of a particular patient (Pellegrino, 1995, p.270). Prudence is practical wisdom in weighing alternatives to the medical problem in unprecedented and even stressful circumstances (Pellegrino, 1995, p.269).

These virtues guide and inform how HCPs practice medicine ethically by developing good character instead of strictly following principles or rules. This proposed list of virtues is meant as guide to HCPs in terms of the types of character traits they ought to develop and possess to be ethical practitioners in the virtue ethics perspective.

In my understanding of virtue ethics, the virtues of fidelity to trust; effacement of self-interest, benevolence, compassion, intellectual honesty, justice, and prudence are essential for HCPs to develop in advancing the goals of healthcare practice and ensuring excellence in ethical healthcare provision. Thereupon, it is a requirement for HCPs to consistently display these virtues to be better practitioners and to make the healing relationship welcoming for the ill and vulnerable patient.

Having explored the virtues essential to the healing relationship between HCPs and patients, I now contrast these virtues with the key traits required from medical influencers to flourish on social media platforms.

4.4. Character Traits of Medical Influencers

To illustrate the implications of HCPs as medical influencers, I now discuss the character traits expected from medical influencers to succeed in this role. Social media influencers must capture their audience and maintain their following by being *authentic, accessible*, and *intimate* with their content (Khamis, Ang and Welling, 2017, p.202). To maintain consistent engagement and following base, influencers should tailor their content to meet their audience's expectations in line with their niche (Yilmaz et al.,2020, p.3038). The online audience within medical influencers' networks seeks medical content that is genuine and caters to their health needs.

As previously mentioned, the success of social media influencers is tracked by the number of views, likes and followers one has (Khamis, Ang and Welling, 2017, p.197). An investigation into the different attributes that physician vloggers adopted during their vlogs[5] revealed that four traits were most favoured and these include being

[5] Vlogging is the creation of a blog in the form of video content and most prominent on YouTube and recently on TikTok.

*approachable, knowledgeable, pedagogical***,** and *popular* (Atef, Fleeckers, and Aleperin, 2023, p.11). These physician vloggers sought to be approachable to their audience and fostered this by availing themselves to answer audience questions and requests and offering their contact details or SNS handles for ease of access (Atef, Fleeckers, Aleperin, 2023, p.11). The knowledgeable attribute of physicians was demonstrated in their quest to appear credible as medical professionals and revered as a reliable source of health information (Atef, Fleeckers, Aleperin, 2023, p.14). The physicians also aimed to present a pedagogical attribute by using clear and concise explanations that a non-medical professional can understand (Atef, Fleeckers and Aleperin, 2023, p.17). Lastly, physicians pursued popularity by sharing their credentials, recognitions and awards (Atef, Fleeckers, Aleperin, 2023, p.19). Not only was the success of these vloggers measured by the 'likes', 'shares' or positive comments left on their content, but also measured by how patients familiar with their online presence received them in a real-life setting (Atef, Fleeckers and Aleperin, 2023, p.21). These are the character traits that HCPs in their capacity as medical influencers need to portray for a successful online presence. There is a constant need to refine and repackage these traits to maintain ongoing engagement online.

Having discussed the virtues expected of HCPs and the key traits of successful medical influencers, I turn my attention to evaluate the potential conflict that may arise as HCP navigate the role of medical influencers.

4.5. Potential conflict between the virtues of healthcare practitioners and the key traits of medical influencers

Although medical influencing is a relatively new phenomenon, HCP that take on this influencing role should remain primarily guided by traditional virtues expected from their professions while creating online medical content and sharing medical advice on

SNS. However, the types of traits that translate to online success in the role of medical influencer and which facilitate the creation of successful and meaningful online medical communities might be in discord with the expected traditional virtues and expected virtuous behaviours of HCPs.

Furthermore, as shown earlier in chapter one, the medical influencing industry is characterized by enticing external goods which hold the prospective of social media prominence, significant monetary gain and opportunities for professional growth (Ng et al., 2024, p.231; Hernandez and Leker, 2022; Rothfischer, 2021). These appealing external goods might be inadvertently pursued at the expense of the traditional virtues and expected virtuous behaviour, and in turn negatively impact on the goals of healthcare.

It is thus important that these potential conflicts between the traditional virtues of HCP and the desired traits of medical influencers be analysed in view of identifying the potential for ambiguity and conflicts regarding the ethical responsibilities in this dual medical identity. This is the aim of the section to follow.

Fidelity to trust

HCPs are expected to advance the goals of healthcare in every interaction with patients and to maintain a credible and valuable doctor-patient relationship. To achieve this, they ought to empower themselves continuously with relevant information and health advancements in their field to remain competent and effective in their practice. The desirable virtue of fidelity to trust and promise, include being trustworthy, truthful, and maintaining loyalty to trust (Pellegrino, 1995, p.268; Carvajal, 2020, cited by Rachmawati, Hasanbasri and Hakimi, 2023, pp.322-323). These virtues allow patients to trust HCPs, knowing that their interests are safeguarded to maintain mutual

trust between doctor-patient. HCPs are expected to share health-related information that is true and to remain honest in the information and advice they provide.

Fidelity to trust may be compromised when medical influencers provide advice that causes harm to individuals or presents unconventional information. This can tarnish the profession's reputation. Medical influencers are encouraged to portray an authentic image when creating content and engaging in online medical communities (Khamis, Ang and Welling, 2017, p.202). The trait of authenticity refers to "speaking the truth but more broadly presenting oneself in a genuine way and acting in a sincere way; being without pretence; taking responsibility for one's feelings and actions" (Peterson and Seligman, 2004, p.20). While authenticity is also considered an important virtue for HCPs, its application in the medical influencer context is different. In their pursuit to appear authentic, medical influencers may be inclined to create personal, entertaining and relatable content. This might include sharing a glimpse in their daily activities as HCPs or personal struggles with health or disease, aiming to engage on a more human level with the followers, as previously shown in the case of Doc Schmidt.

Authenticity, as displayed in the online medical influencer context, can blur the boundaries between the professional and personal identity in the dual practitioner-influencer role. This increases the risk of online audiences interpreting personal experiences or views and anecdotal opinions as evidence-based health information or medical advice. In the advent of adverse effects or injury due to an individual following advice from medical influencers, questions regarding professional accountability are unclear, given the evolving nature of the relationship between medical influencers and followers. Furthermore, the professional fraternity can suffer reputational damage as

a consequence of a medical influencer's actions. Medical influencers may receive sponsorships from companies to promote certain products or endorse treatments under the guise of personal experiences and authenticity, which does not align with the virtue of fidelity to trust. This further erodes public trust in the medical profession.

Effacement of self-interest

From a virtue ethics perspective, the motivation that drives HCPs to share medical advice on these SNS is significant because virtuous HCPs should not be motivated by self-interest but by the best interest of the patient. Popularity represents a fundamental trait for medical influencers who want to build an engaging and influential online community. Although some medical influencers may be genuinely motivated by the desire to educate and promote healthy behaviours, the financial gain is often directly proportionate to the level popularity on SNS.

Conflict arises between the virtue of effacement of self-interest that prioritises patients interests versus the pursuit of popularity which is intrinsically tied to self-promotion and personal branding. The aspiration towards gaining online popularity and personal branding might lead to self-promoting behaviours that prioritise viral content to maximise 'likes', 'views' and engagements instead of serving public and patient interest online. This ethical concern becomes even more pronounced when medical influencers create sponsored medical content or medical advice that is unscientific, thereby further undermining the virtue of effacement of self-interest.

Intellectual honesty

The intellectual honesty required of HCPs is for them to be knowledgeable while also recognising when they lack the experience or the expertise to appropriately help a

patient. The exercise of this virtue is important, as HCP that venture outside their scope of expertise could cause harm to patients. Medical influencers seek to create content and engage with heath related topics or share medical information and advice that demonstrates their niche areas of expertise (Yilmaz et al.,2020, p.3038). This is done in view of enhancing their online credibility which may attract a larger following as they are perceived as a reliable and knowledgeable source of medical information. However, in the pursuit to maintain their image of credibility, medical influencers may be reluctant to admit professional limitations and may even discuss or advise followers in health-related topics outside their scope of expertise. Unlike conventional healthcare practice, the medical influencer industry lacks dedicated formal regulatory structures, and medical influencers do not need to provide evidence of formal medical education, certifications, or experience to share health information and medical advice online. Complicating matters further, the lack of regulatory oversight on social media allows any individual, regardless of qualification or expertise, to gain credibility and notoriety. Lastly, unlike peer-reviewed healthcare literature, SNS content is unregulated, increasing the risk for the spread of misinformation or misleading information.

A potential ethical conflict is created when the pressure to enhance credibility in online medical interactions comes at the expense of intellectual honesty. This potentially leads to the dissemination of misleading medical advice and medical information, erosion of trust and possible harm to those online followers that rely on the content provided by medical influencers for their health-related decisions.

Prudence

Prudence is an essential virtue for HCPs which ensures that decisions are based on sound judgement and thoughtful deliberation in balancing the risks and benefits of each option and ensuring the best interest of each patient is served (Pellegrino, 1995, p.269). One of the key traits of medical influencers is to be seen as accessible and responsive to a broad online audience. To maximise engagements, medical influencers are expected to respond promptly with medical opinions and advice for their online followers. Medical influencers might also be tempted to offer advice that garners the most attention and 'likes' tailoring their content towards trending healthcare topics to extend their reach with potential followers.

The potential ethical conflict arises when the drive of medical influencers to seem accessible, the urgency to respond and the desire to be at the front-line of healthcare debates compromises thoughtful deliberation and careful reasoning in their online responses and interactions. Medical influencers that do not deliberate carefully on the medical information and advice that they disseminate or on the responses that they provide on SNS, may fail to consider the complexities and nuances of healthcare related issues, potentially misleading their followers and online audience.

Compassion and benevolence

Two indispensable virtues for HCPs are compassion (showing care to those in need) and benevolence (ensuring that the best interest of the patient is achieved). Compassion allows HCPs to relate to what a patient is feeling and to demonstrate an understanding of the ill patient's condition (Pellegrino, 1995, p.269). It is an invaluable virtue for establishing and maintaining a working doctor-patient relationship.

Benevolence is considered the overarching virtue in the healing profession of medicine “since the patient obviously seeks to be helped and not harmed” (Pellegrino, 1995, p. 269).

Medical influencers motivated by patient advocacy and health promotion also need to demonstrate some level of compassion and benevolence in efforts to foster sincere connections with their followers and ensure engagement with their content. However, given the broad audience of the medical influencer community, compassion is expressed through relatable and often intimate content that appeals at an emotional level to their followers. This is also evident when medical influencers relate their medical expertise to the personal experiences of their online community. Benevolence is expressed by ensuring the accessibility of beneficial health-related information that reaches a large audience. The COVID-19 pandemic is an example of such a case where health education and promotion by medical influencers greatly benefited the community and helped to combat misinformation.

Potential ethical conflict arises when medical influencers exploit their position to emotionally appeal to their audience through sensationalized storytelling of their health issues and personal anecdotes at the expense of evidence-based healthcare information.

In summary, social media has reshaped the way that HCPs interact with their online audience and widened the accessibility to professionals. While these advancements present an avenue for further medical advances and improved health information accessibility, they also bring forth conflicts between the virtues expected from healthcare practitioners and the character traits most valued by medical influencers.

4.6. Unresolved ethical issues associated with the professional virtues of HCPs in a dual identity

The evolving nature of social media and integration of medicine into these platforms through medical influencing bring forth new ethical issues. The responsibilities of HCPs in the dual role of medical professional and medical influencer need to be clarified. More specifically the virtues that medical influencers need to develop and uphold in their dual practitioner-influencer role need to be established and integrated to ensure ethical conduct.

4.7. Conclusion

From a virtue ethics perspective, HCPs are expected to develop and exercise a set of virtues that will assist them in achieving the goals established for healthcare provision, in view of ensuring the well-being of the patient. The involvement of HCPs as medical influencers in SNS communities can provide valuable health education, promotion and advocacy, and valuable support for patients and the online audience. However, medical influencers require certain traits to succeed in the influencer industry while simultaneously upholding the professional virtues expected from them as HCPs. The goals of medical influencers need to be clearly defined to allow for the identification of the virtues that advance these goals, which should importantly not be misaligned with the goals and virtues of healthcare. This duality HCP/influencer has potential to advance the goals of healthcare if executed virtuously.

CHAPTER 5: THE DUTIES OF HEALTHCARE PRACTITIONERS WHEN ENGAGING IN THE MEDICAL INFLUENCER NETWORK

5.1. Introduction

The medical fraternity is a noble profession, and its societal functions are highly esteemed. With this esteemed status comes both responsibilities and benefits to being a member of the profession as an exchange between medicine and society. The social contract is the basis of this transaction. This chapter is dedicated to exploring the social contract and the professionalisation of medicine which informs the duties of HCPs and the evolving role of medical influencers in sharing medical advice on SNS. Additionally, in this chapter I identify the ethical issues that medical influencing presents to traditional medical practice.

5.2. The Social Contract

The social contract is an ethical theory with diverse contributions and different ideals from its supporters. The most notable contributors to this theory are Thomas Hobbes, John Locke, and Jean-Jacques Rousseau (D'Agostino, Gaus and Thrasher, 2017, n.p). Hobbes's development of the social contract is founded on the idea that in man's state of nature, every individual is free to act purely out of self-interest, resulting in chaos and disorder (Youvan, 2023, p.7). To resolve this chaos, individuals collectively renounce their rights to restore trust, peace and order that is otherwise not found in this state of nature (Youvan, 2023, p.7-8; Shea, 2023, p.97). This contract necessitates the existence of a governing authority to establish order and cooperation in a civil society (Youvan, 2023, p.7). John Locke proposes a foundationally similar conjecture and hypothesises that individuals have natural rights like the right to life, liberty and property, and these rights cannot be completely relinquished to an authority

(Shea, 2023, p.98). Instead, the ruling authority ought to secure the protection of these rights. Another distinguishing factor of Locke's theory is that individuals need to consent to the authoritative ruling in return for protecting their rights (Shea, 2023, p.98). Rousseau, in contrast, considers the status of nature as tranquil and uncomplicated, however, the growth in populations creates discord and conflict between due to scarcity of resources (Youvan, 2023, p.5). Ultimately, man's solution to resolving this conflict is to form communities with shared values, norms and structures that collectively represent the 'general will' of the community's interests (Youvan, 2023, p.5-6). This agreement of the 'general will' thus forms the social contract for society's moral basis (Youvan, 2023, p.5-6).

A key critique of the social contract is its inaccuracy in historical fact regarding the state of nature as humans have always lived socially and in communities (Youvan, 2023, p.18). Another criticism is that it is an assumption that the social contract was entered into freely without coercion (Youvan, 2023, p.18). What is more, the social contract may not be applicable universally as different societies have varying values and what may be considered moral in one community may be deemed otherwise in another (Youvan, 2023, p.18). Lastly, critics of Hobbes' theory of society needing an absolute governing entity to enforce order and cooperation may lead to the abuse of power and tyranny by this authority if left to rule without confrontation (Youvan, 2023, p.8).

The social contract is thus a set of implied rules that society agrees upon to maintain peacefulness and ensure all interests are safe guarded. This contract is the basis for which societal norms have come to be established, and a set of expectations fixed

upon active participants in society. I now turn to explore the link between the social contract and medicine's professionalism.

5.3. The social contract and professionalism in medicine

Medicine is strongly interlinked with professionalism and to set a foundation for this section, I first explain professionalism and its evolving relationship with medicine. Professionalism in the Western world has its foundations in the Middle Ages with the existence of guilds and universities (Cruess and Cruess, 2000, p.185). During this period the only professions that were recognised and protected were medicine, law and theology (Newsome and Langley, 2014, p.497). To enter these professions, individuals were required to take an oath and thereafter were considered important members in society due to their professional status. The distinguishing factor between other occupations and these professionals was that professionals were responsible for the liberty, health and spiritual well-being of those they served (Newsome and Langley, 2014, p.497). Those without appropriate qualifications and training could not participate in the profession, and membership was only conferred upon the attainment of the specific skills and qualifications (Newsome and Langley, 2014, p.498).

Professional institutions were granted self-regulation status in exchange for their members conducting themselves according to professional standards and acting in the best interest of the public (Newsome and Langley, 2014, p.498; Kelly, Mullan and Gruppen, 2016, p.531). Due to this prestigious regard for professionals, laypeople could not question their expertise, reinforcing a paternalistic nature where the professional knows best (Newsome and Langley, 2014, p.498). Professional members were expected to be selfless, treat others as they would like to be treated, continue upskilling and uphold excellence without compromising standards and values

(Newsome and Langley, 2014, p.498). If a professional acted negligently or against the code of conduct of the professional entity, they were disciplined and sanctioned accordingly by their peers (Newsome and Langley, 2014, p.498). These agreements between professional entities that oversee the professions and the government form an implied social contract between society and professionals (Kelly, Mullan and Gruppen, 2016, p.531). Professions could retain autonomy and self-regulation in exchange for being altruistic and acting in the best interest of the public (Kelly, Mullan and Gruppen, 2016, p.531).

This self-disinterest is particularly important for medical professionals as they are highly trusted by the public requiring higher standards of conduct. This is what influenced the formation of professional ethics and councils like the American Medical Association Council on Ethical and Judicial Affairs and the HPCSA which regulates healthcare in South Africa (Kelly, Mullan and Gruppen, 2016, p.531).

Medical professionalisation began with the recognition of the burden practitioners hold in bettering society's health needs. Benefits are bestowed upon those belonging to noble professions such as medicine. I further explore medicine's social contract with society in the following section.

5.4. Medicine's social contract with society through professional councils

Medicine as a profession has an implicit contract with society through the establishment of guilds and professional membership entities which oversee the training of medical professionals. The practice of medicine is in a social context such that it should benefit the society it serves (Bhugra, 2014, p.144). The contract between medicine and society allows professional councils and societies to conduct the training and evaluation of members and to negotiate with the government in maintaining

autonomy in their operations. The professionalisation of medicine in Western society began with healthcare delivery becoming more complex and nuanced, requiring more systems to streamline its services (Cruess and Cruess, 2008, p.583). The existing relationship between medicine and society is reciprocal and involves the independence of professionals and society to retain certain rights, responsibilities and privileges (Cruess and Cruess, 2008, p.583). People are susceptible to different ailments and illnesses that require the effective expertise of HCPs to restore health; HCPs in turn need the public's trust to carry out their service of healing and restoration (Welie, 2011, p.347). This forms the basis of the social contract between HCPs and society.

To maintain a high standard of practice and to ensure that professionals are qualified and skilled in their work, the establishment of councils is mandatory in certain professions. For example, HCPs need to undergo rigours training inclusive of theory and practical exams under supervision before they can be registered with the HPCSA and recognised as independent practitioners. Failure to meet these requirements means one cannot practice as a HCP.

Councils like the HPCSA are established to ensure that HCPs act in accordance with the contractual obligations expected of them and to enforce the prioritisation of the public's health above all other interests. Subsequently, these councils also protect HCPs in their profession by negotiating with the government for certain privileges and protections. The ethical guidelines published by the HPCSA serve as a point of reference for HCPs to determine what their duties are and how to conduct themselves with respect to their profession. Booklet 16 of the HPCSA guides HCPs on the ethical usage of social media. While the ethical codes of conduct are explicitly documented,

the social contract between the profession and society remains unwritten. This creates a point of tension between professionals and society especially given the fluid nature of social norms.

5.5. Professional duties of healthcare practitioners

Having discussed professionalism and its introduction into medicine, next I explore the different components that make up a HCP's duties as a professional and how these can be exercised in their role as a healer.

Medical professionals must focus on the patient and their well-being first and foremost. The first component needed for a HCP is competence. HCPs ought to be well-skilled and thorough in the clinical assessment and application of treatment inclusive of advancing technologies in medicine (Barondess, 2003, p.145). To be a competent practitioner means one can produce a differential diagnosis through reasoning and clinical experience (Barondess, 2003, p.145).

Secondly, HCPs must be able to engage with patients and the public affected by illness empathetically and jointly make decisions with the patient regarding the best evaluation and management of their condition (Barondess, 2003, p.146).

Thirdly, HCP must also be reliable in providing personalised care and avail themselves to the needs of society even when utilising new technologies and channels of communication (Barondess, 2003, p.146). The clinical relationship between the HCP and the patient must always be dignified and highly respected by the HCP who is cognisant of the vulnerability of ill patients who need the HCP's healing expertise (Barondess, 2003, p.146).

The fourth component is the ability to act with agency in advocating for and assisting patients to navigate the healthcare system which may otherwise be cumbersome (Barondess, 2003, p.146). It is also the responsibility of HCPs to ensure timely quality access to healthcare (Barondess, 2003, p.146).

While disease is biological and occurs at a physiological and molecular level, illness is a human event. Illness relies on the individual's experience of the disease and is characterised by symptoms and other social and psychological disturbances (Barondess, 2003, p.146). HCPs ought to recognise the duality of disease and illness and the differences between the two to be able to manage each aspect with care and consideration (Barondess, 2003, p.146).

The fifth key component central to professionalism is concern for quality and the dedication to apply valid clinical processes to the appropriate medical problem and to uphold high standards of care (Barondess, 2003, p.146). Lastly, HCPs also need to be accountable and transparent to the public and their patients as this aids in upholding the trust placed upon them by virtue of their profession.

Crucial to this project’s topic are the expectations for HCPs to be primary sources of objective medical advice and to promote the public good (Cruess and Cruess, 2008, p.585; Bhugra, 2014, p.144).

Because the social contract is reciprocal, medicine as a profession also has certain expectations from society and the government that need to be fulfilled. HCPs need the trust of society and the state to carry out their obligations competently (Cruess and Cruess, 2008, p.585). In return for their competence, HCPs require autonomy in conducting professional training and duties (Cruess and Cruess, 2008, p.585). As key

players in healthcare, HCPs and medical entities should be allowed to contribute to public policy where it concerns health and wellness (Cruess and Cruess, 2008, p.585).

In return for the altruistic contribution of medicine, society is expected to have shared responsibility for their health by leading healthy and balanced lifestyles to lessen the unnecessary burden of healthcare on HCPs (Cruess and Cruess, 2008, p.585). Furthermore, to ensure the timely and accurate diagnosis and management of conditions, HCPs expect to work in an adequately funded and well-equipped healthcare system conducive to productivity (Bhugra, 2014, p.146). Overall, HCPs are rewarded with financial and non-financial benefits for their contribution to society in upholding their end of the social contract. These non-financial benefits include respect, high esteem and status in society (Cruess and Cruess, 2008, p.585).

There are varying elements that make up a HCP's duty in exercising the profession. These include strong interpersonal and communication skills and empathy, alongside clinical expertise to address both the disease and illness aspects of a patient. The role of a healer is intricate requiring a level of trust and autonomy. Although the social contract is implied rather than explicitly documented, nevertheless, it should be mutually beneficial. For this reason, the government must ensure that HCPs have supportive working conditions and resources needed to carry out their duties.

Thus far, I have provided the different obligations that HCPs, society and the government need to fulfil to make the social contract valid and mutually beneficial. I now explore the duties of medical influencers and compare them with those of HCPs in the context of sharing medical advice on SNS.

5.6. Duties of medical influencers in online medical networks

Social media influencers vary in expertise and the niche of content they create and share with their audiences. This variety exposes them to different obligations in carrying out the content creation. For this section, I will focus exclusively on the duties and goals specific to medical influencers on social media. Medical influencers create and share health-related content in the form of photos and videos to influence public behaviour. This content is intended to educate the public and can also serve as supplementary resource for other HCPs and medical students.

Given that influencing on SNS platforms like TikTok and Instagram is largely audiovisual, medical influencers seek to create content that is impactful and influential in their area of work (Atef, Fleerackers and Alperin, 2023, p.7). For success on SNS, social media influencers need to have a specific niche, and, in this instance, medical influencers capitalise on their medical background to showcase their expertise. This expertise makes medical influencers key opinion leaders in medical-related information and the use of technology in health (Atef, Fleerackers and Alperin, 2023, p.7). Due to the delivery of health information through social media platforms, medical influencers need to be future-focused and technologically savvy (Atef, Fleerackers and Alperin, 2023, p.7).

Medical influencers also need to leverage the use of technology to drive viewership and engagement with their content by continuously improving and following current social media trends. This involves the use of ‘hashtags’, popular music or dances and satire in their content. If we recall from chapter two, Doc Shmidt uses humour in his posts and notes how this comedic content can be memorable and more engaging for his audience (Schmidt, 2023, p.2797).

The indication of success as a medical influencer is also marked by brand-affiliated content (Atef, Fleerackers and Alperin, 2023, p.7). Influencers often post marketing content for brands and the same is similar for medical influencers. Companies seek individuals whose content aligns with their brand perception or who have a high engagement rate to promote or advertise their products to drive revenue and product visibility. This is done in exchange for free products for most nano-influencers and money for influencers with larger followings. Payment can vary as pricing is subjective and set by influencers as they see fit; this means one can charge varying amounts using different markers[6].

Medical influencers are expected to be skilful with using SNS and possess strong interpersonal skills to strategically grow their online following. Their success depends on mastering the preferred social media platform and effectively engaging with audiences to influence health behaviours.

Having explored the different components that HCPs need in their capacity as medical professionals and medical influencers, next I compare the two in reference to the provision of medical advice on social media. Thereafter, I highlight unresolved areas of conflict that require further attention.

5.7. Professionalism in the capacity of medical influencers when providing medical advice on social media

The social contract between medicine and society requires HCPs to advance the well-being of their patients, by fulfilling their dual roles of healer and professional. HCPs are expected to be competent in assessing and managing different conditions

[6] Influencers can charge per post or number of posts, the number of engagements or views the sponsored post receives or the number of posts shared over a certain period. The larger the following, the more money influencers can charge as it is often regarded as an indication of their reach.

(Barondess, 2003, p.145). In a clinical setting, HCPs are expected to provide factual and evidence-based medical advice with consideration for each person's social, economic and psychological background. Considering that virality is a commodity in digital spaces, some medical influencers may resort to providing unconventional medical advice to remain relevant online.

The relationship between a HCP and a patient should always be treated with dignity, requiring HCPs to navigate the intricacies of providing service to vulnerable populations without compromising their ethical duties. Unlike clinical practice, where HCPs are required to engage in continued professional development, medical influencers are not necessarily held to the same standards. What is more, HCPs consider the socioeconomic and the biopsychosocial needs of their patients which is not feasible in online interactions due to limited contact with the online followers and audience. Whereas HCPs are held accountable for the practice of medicine and complications arising from negligence, medical influencers are not necessarily held to the same standard of professional oversight.

Some medical influencers such as the ‘Cowboy Surgeons’ are complicit in perpetuating unprofessional practices on social media in the guise of patient advocacy. Videos and live streams of these surgeons carrying human tissue and tossing it around in the operating theatre are a testament to the misuse of access to social media and harming the professional reputation (Campinoti and Frehse, 2023). The eccentric nature and engagement-driven content on social media influences the increased practice of medical influencers performing unconventional and unprofessional conduct to pursue virality.

Nevertheless, both HCP and medical influencers share certain duties and societal expectations that can contribute to professionalism in healthcare.

Medical influencers interact with many people through comments and stories, which can be advantageous to enhance access to health-related information. The ease of access to medical influencers can be leveraged by HCPs in their clinical practice.

5.8. Unresolved issues in the professional duties of healthcare practitioners in the role of medical influencers

Medical influencing and the provision of medical advice on SNS is currently taking place within minimal regulatory frameworks and oversight regarding the professional duties. Considerations of popularity and virality which is the current commodity in the SNS spaces might be pursued by medical influencers at the expense of the social contract that obligates HCPs to uphold their duties, even in their newfound online influencing role.

5.9. Conclusion

This chapter aimed to highlight medical practice as an established profession with a set of duties and corresponding benefits to encourage a harmonious relationship between HCPs and the public. However, as HCPs are assuming a new identity in the digital landscape as medical influencers, ethical issues arise in maintaining this relationship and ensuring the core duties of medical practice are protected. The fundamental duties such as clinical expertise, competence and reliability, patient advocacy and good interpersonal skills cannot be compromised for the sake of success as a medical influencer on SNS.

CHAPTER 6: THE IMPLICATIONS FOR PRIVACY AND CONFIDENTIALITY IN THE PROVISION OF ONLINE MEDICAL ADVICE

6.1. Introduction

The growing trend among medical influencers to post patient-related content that is readily accessible and designed to be trending can inadvertently compromise the confidential information entrusted to them by patients. There are numerous videos on SNS depicting HCPs using real-life patients for demonstrative purposes. Although most HCPs make efforts to conceal the identity of such patients or any other self-identifying information, the risk of breaching privacy and confidentiality on SNS continues to rise.

In this chapter, I explore the ethical implications for potential breaches in privacy and confidentiality associated with medical influencers providing medical advice online. To achieve this, I utilise the principles of respect for autonomy, nonmaleficence, and beneficence proposed by Tom Beauchamp and James Childress.

6.2. Privacy and confidentiality in relation to the principles of biomedical ethics

Privacy and confidentiality have been central topics of ethical discourse for many years and continue to evolve with time. In this section, I define privacy and confidentiality and what these two concepts constitute in the bioethical sphere. I then explore how maintaining privacy and confidentiality in health-related activities respects the four principles of biomedical ethics advanced by Beachamp and Childress. Lastly, I explore how potential breaches of privacy and confidentiality on SNS can undermine the principles of biomedical ethics.

Privacy has a broad history in the social, legal, ethical, political and even anthropological fields (Roessler and DeCew, 2023, n.p). Privacy is a crucial and universally respected concept defined as “the right to be let alone” (Lukács, 2016, p.256). For this project, privacy concerns the control of one’s information and respecting a person’s right to determine what and how their personal details are shared.

Confidentiality has a long history and can be traced back to Hippocratic Oath. Confidentiality is the “implied promise between doctors and patients that what is said during the consultation will be kept in confidence” (Knight and Papanikitas, 2018, p.639). Trust is pivotal in accessing healthcare services and confidentiality ensures that the trust between HCPs and patients is maintained for sustaining the relationship between the two (Knight and Papanikitas, 2018, p.639). HCPs must ensure that private information shared with them in confidence remains confidential. Social media has shifted the narratives around privacy with increased sharing of persons' private lives and intimate information we would otherwise not be privy to.

In the following section, I explore how maintaining privacy and confidentiality respects the principles advanced by Beachamp and Childress. The principles of nonmaleficence, beneficence and respect for autonomy serve as a model for how HCPs conduct themselves in the healing relationship. The principle of justice is excluded from this discourse as its relevance and application to privacy and confidentiality issues is limited.

The two principles of beneficence and nonmaleficence have a history stemming from the Hippocratic era (Varkey, 2021, p.18; Ginghină, 2023, p.115). Hippocrates is attributed to the separation of medicine from philosophy in an era where disease was

believed to be a punishment from God (Gupta, 2015, p.82). Key paragraphs relevant to this chapter from the Hippocratic oath relates to the specific prohibition of sharing any information about a patient or those close to the patient, keeping with ensuring confidentiality of information shared in private (Ginghină, 2023, p.116).

I begin with the principle of nonmaleficence as the application of the maxim *primum non nocere* directly translated to ‘above all, do no harm’ (Beauchamp, 2010, p. 38). HCPs are expected to have the practical wisdom to weigh the benefits versus harm that could result from a medical treatment or health-related decision (Varkey, 2021, p.18). The principle of nonmaleficence is often used concomitantly with the principle of beneficence. It is insufficient for HCPs to avoid causing harm (nonmaleficence), they should strive to promote the health of those they serve as per the beneficence principle (Varkey, 2021, p.18).

In the context of privacy and confidentiality during content creation and medical advice provision by medical influencers on SNS, the principles of beneficence and nonmaleficence require that medical influencers weigh the benefit of medical information sharing and medical advice provision against the risks of infringement of the personal and confidential information. To divulge private information in the context of SNS would harm the patients and the image of the medical profession.

Lastly, the principle of respect for autonomy requires HCPs to recognise and allow autonomous agents free will over their health-related decisions which extends to the right to privacy and confidentiality (Varkey, 2021, p.19). The principle of respect for autonomy is preserved through obtaining informed consent before one can divulge private patient information. The duty to uphold confidentiality is not absolute, and in some circumstances, a breach of confidentiality may be warranted (Ewuoso, 2021,

p.42). An example of this would be reporting cases of suspected abuse to prevent further harm to the patient.

The four principles proposed by Beachamp and Childress are all significant, however, their application is on a *prima facie* basis, that is, they should always be implemented except when they compete with any of the other principles (Beauchamp, 2010, p.44). In such an occurrence, principles can be morally superseded by another following careful consideration and weighing of each (Beauchamp, 2010, p.44; Varkey, 2021, p.21). However, in cases where all four principles compete, the agent must apply critical thinking and practical wisdom in resolving the conflict (Beauchamp, 2010, p.44).

The principles of biomedical ethics have been criticised for underestimating the nuances and complexities of ethical dilemmas and for failing to provide clear guidelines on how conflicts between competing principles can be resolved (Trimble, 2024, p.85; Lewis and Schüklenk, 2022, p.134). Nonetheless, the four principles are popular and offer a user-friendly ethical framework that HCPs can use for resolving ethical issues which does not require extensive training in philosophical theories (Beauchamp and Childress, 2001, p.15; Trimble, 2024, p.83).

In the context of SNS and data mining[7], HCPS must be mindful of what information they share on their SNS, especially about patient information received in confidence. In the remaining section I highlight how the principles of biomedical ethics can be

[7] Data mining refers to the gathering and analysis of information from social media platforms to identify any patterns or trends using algorithms to monitor ‘views’, ‘likes’, ‘clicks’ and other user behaviour from SNS profiles for purposes such as advertising, influencer marketing, research, and personalised recommendations amongst many other uses (Telles, 2020, n.p)

jeopardized by potential breaches in privacy and confidentiality through technological advancements on SNS.

6.3. Potential breaches of privacy and confidentiality on social network sites and its impact on the principles of biomedical ethics

Issues surrounding privacy and confidentiality on social media are longstanding and with the evolution of SNS and data mining, it is prevalent for users to be savvy with personal information. Medical influencers' work relies on the accuracy of algorithms embedded in these SNS for increased visibility, which translates to increased engagements and ‘views’. As previously mentioned, content shared on the medical influencer profiles range from daily professional and personal activities, medical advice and health education on various health topics. Due to the broad nature of content shared on these platforms, medical influencers may inadvertently breach patient confidentiality and privacy and undermine the principle of respect for autonomy.

Informed consent is an ethical requirement for HCPs before sharing any information which safeguards the right self-determination on the use of personal data. However, the nature of content creation and the permanence of online data poses unique limitations over control of such information even in circumstances where informed consent is granted. Patients may be unduly influenced to consent to their information being used for content creation or may be unaware of the permanence and public availability of online content. Other online users or medical influencers may for instance, utilise this information in future for purposes that fall outside the scope of the agreed conditions in the initial informed consent process.

Another concern with privacy and confidentiality is the extent to which information is shared publicly even when consented. Not all who utilise SNS are internet-savvy or

educated on the extent to which online information is disseminated. Furthermore, even if a patient is aware of the dangers of online content, it may be difficult for HCPs to ensure that they strictly adhere to sharing only the information that was consented. A pertinent example of this is the case of the ‘Cowboy Surgeons’ that inadvertently shared a personal identifiable trait of the patient during the live broadcast, thus undermining the patient's privacy and compromising the principle of respect for autonomy.

I will now explore the interplay between the principle of nonmaleficence and the sharing of patient information on social media.

Nonmaleficence

The principle of nonmaleficence places a duty on HCPs not to cause harm and is imperative for guiding medical influencers’ conduct on social media to protect patients. There are numerous videos on SNS depicting HCPs using real-life patients for demonstrative health-related purposes. Although most HCPs conceal the identity of such patients or any other self-identifying information, there is an increasing threat for breaches of confidentiality given the evolving digital footprint of SNS platforms. It is noteworthy to highlight that TikTok content creators such as @georainbolt and @yuvatheterrible have demonstrated that a person's geolocation and other personal information can be located through photo and video content posted online. This confirms that any information shared on SNS is vulnerable to potential breaches in privacy and confidentiality, even if some of the data is concealed.

The popularity of medical influencers and the sensationalising of medical content online make influencers susceptible to hostile commentary from followers. This is especially true when they address controversial topics or issues linked to societal

stigma. The case of the Cowboy surgeons demonstrates patients' willingness to participate in medical educational content. Still, even social media-savvy individuals may be unaware of how easily anonymised information can be discerned. For example, a patient of the Cowboy Surgeons agreed to have her procedure recorded and posted. Later, she realised her tattoo, a personal attribute, was identifiable. Social media's volatile nature means complete anonymity is impossible, and some personal identifiers may be revealed or deciphered.

In continuation, I now indicate how the principle of nonmaleficence can be transgressed and patient information compromised by medical influencers sharing it on social media.

Medical influencers may utilise intriguing medical cases on social media to generate engagement with their content. This can promote awareness and drive engagement through discourse on health topics rarely addressed or those often stigmatised and overlooked. However, it can also result in undesirable outcomes. The reception of medical content on social media is unpredictable. Consequently, content that is meant to empower can receive a negative response online due to strongly held individual perceptions. The case of Dr Roxy and the Cowboy Surgeons highlight the non-linear nature of online relationships and how this can conflict with patients' best interests, albeit unintentionally. The relationship between medical influencers and followers can evolve into a doctor-patient relationship, as previously shown. Due to these patients' awareness of medical influencers' online community, they are privy to the negative comments left online in posts containing their medical cases, which can leave unfavourable outcomes, in contrast to protecting their interests.

Data mining by social media platforms and private companies also poses a threat to potential privacy and confidentiality breaches. To record and post content, medical influencers must store private patient information on their devices and upload this information to these platforms. SNS like TikTok have terms and conditions to grant them permission to access, store, and analyse sensitive data, which can be used to enhance their algorithms and the overall consumer experience (TikTok, 2024, n.p). These applications also track user activity across the platform and, in some instances, the activity on other websites or applications. Medical influencers have to be knowledgeable and informed on these contractual agreements before storing and sharing sensitive data on these platforms to protect the interests of the patient.

Furthermore, the presence of artificial intelligence (AI) embedded in these platforms to enhance their algorithms is another cause for concern. This extends beyond the scope of this project but will make for valuable future research. The responsibility to safeguard patient interests in the current digital era demands a continuous evaluation of technological advances and their place in healthcare to promote responsible use.

Social media presents endless possibilities for its use in medicine and health promotion, but medical influencers must uphold the principle of nonmaleficence in these virtual communities. Now that I have shown how medical influencers' use of social media can directly or indirectly affect the principle of nonmaleficence, I will proceed to do the same analysis for the principle of beneficence next.

Beneficence

The principle of beneficence obligates HCP to act in the best interest of the patient (Varkey, 2021, p.18). This means HCPs' actions as medical influencers need to positively affect patient care above all else. This is especially relevant when using any

patient details for content creation. The use of patients in medical content can prove useful for patient education and contextualising complex medical cases that would otherwise be foreign to the layperson. The use of audio-visual media on SNS can help facilitate understanding and retention of medical information. This is accomplished using photos, video, music/sounds, and captions to make content appealing. Medical influencers can also utilise social media content to supplement the medical advice provided to patients in clinical settings.

Now that I have examined how medical influencers' sharing of patient information online can impact the principles of respect for autonomy, nonmaleficence, and beneficence, I will now turn to explore the ethical implications arising from a breach of privacy and confidentiality.

Ethical Implications of breach in privacy and confidentiality on social media

While social media has proven useful for information dissemination and education, influencers utilise these platforms distinctly from normal users. Medical influencers strategically blend their professional branding and personal attributes to shape their online perception. This meshing of the personal and professional brand presents a blurring of the lines where medical influencers may be susceptible to employing strategies that compromise patient care but drive engagement. When medical influencers use real-life cases on social media, they need to protect patient interests. In line with the principle of beneficence, influencers need to disclose information related to their online presence if they intend to use patient information on these platforms. Information disclosed can include the platform/s on which this content will be shared, the number of followers one has, and any conflicting interests. The information shared can be tailored to the patient, and so medical influencers have to

consider what sort of information can affect a patient's decision-making in sharing their details.

I have spotlighted the principles grounding professional medical practice and the trend of medical influencers sharing medical advice online. I now utilise these principles to underline the ethical implications arising from any breach of private and confidential information.

The principles of respect for autonomy, nonmaleficence, and beneficence help to guide HCPs and patients in maintaining a working relationship. Trust is the foundation of the relationship between HCPs and the patient. Social media allows for the rapid dissemination of information to a broad audience, and a breach in privacy or confidentiality by HCPs undermines the trust placed in the profession. This also affects the credibility of medical professionals. Without trust and credibility in the profession, patients may withhold divulging sensitive information to HCPs. The omission of such information can impact the medical care patients receive, further eroding trust in the profession.

The breach of confidential and private data when using real-life patients for online medical content can discourage the public's willingness to have their information shared on these platforms. This can stifle public participation, which is crucial for health promotion. The loss of trust and credibility in medical influencers affects their professional capacity as HCPs. Professionals may be charged with professional misconduct or even face legal action due to divulging sensitive information on social media. This reputational harm can lead to a loss of their professional title and livelihood.

Because social media pushes for viral and sensational content, influencers can be enticed to post unconventional or sensational medical advice. When a post garners significant engagement, even if it's negative, the algorithm pushes this onto new audiences. This results in gross misrepresentation of the medical fraternity because factual and scientific content may not generate as much visibility, as it does not appeal to evoke a strong emotional response. This misrepresentation can bring professional disrepute to the profession at large.

Social media influencing can prove to be beneficial for the dissemination of medical information, health promotion and advocacy, which is aligned with the principle of beneficence. However, the broad reach and the permanence of online data information require medical influencers to exercise caution to safeguard private personal information in their possession.

6.4. Unresolved issues of privacy and confidentiality

Although privacy and confidentiality issues have received constant ethical discourse in this digital era, the evolving software technology and AI embedded in SNS, coupled with the widespread nature of medical advice provision on SNS, poses an increased risk for inadvertent breaches of privacy and confidentiality. Medical influencers in pursuit of providing beneficial medical advice on their SNS may unknowingly cause harm to themselves, patients, colleagues and to the profession through the content shared. Furthermore, unintended breaches of confidentiality undermine the ability for self-determination of patients, colleagues and employer information and may undermine the principle of autonomy, nonmaleficence, beneficence and justice.

6.5. Conclusion

Confidentiality and privacy are underpinned by the principles of biomedical ethics. Succes as a medical influencer is reliant on sharing data in the form of video, photos, comments and live streams, bringing forth privacy and confidentiality concerns in healthcare. These potential breaching in privacy and confidentiality have far-reaching implications for medical influencers, patients, colleagues, and the medical profession when creating video content, sharing photos or live-streaming medical interventions. Such infringements on private information in turn compromises the principles of respect for autonomy, beneficence and nonmaleficence. Lastly, the principle of justice may be undermined by the sharing of sensational content of rare or shocking medical cases in pursuit of ‘likes’, increased views and virality, which risks exploitation of vulnerable patients.

CHAPTER 7: SUMMATIVE NORMATIVE EVALUATION OF ETHICAL ISSUES ASSOCIATED WITH MEDICAL INFLUENCERS AND THE PROVISION OF MEDICAL ADVICE ONLINE

7.1. Introduction

This chapter is dedicated to highlighting the normative ethical issues that arise with the practice of medical influencers providing medical advice online. I provide a summative evaluation of these issues and propose recommendations that may mitigate the ethical issues identified while embracing current online medical trends in achieving the goals of healthcare.

7.2. Evaluating the role of informed consent in the medical influencer online community.

Informed consent is a longstanding pillar in medical practice founded on the principle of respect for autonomy which allows people the opportunity for self-determination in decisions related to health matters.

In chapter three of this research report, I identified the need to incorporate and adapt informed consent practices that suite the unique features of SNS engagements. This adaptation is important given the level of participation in these independent online communities and the types of trustful connections that may at times develop which could undermine autonomous health decisions.

I have shown that although the online medium of communication is not ideal, this does not absolve HCPs in their role of medical influencers from the ethical responsibilities

they have in the online interactions on SNS and reliable provision of medical advice that advances the decision-making capacity of the online audiences.

Earlier in chapter two, I have shown that the disclaimers that the HPCSA advises HCPs to use on their social media profiles may not be effective given the trust-based connections established on SNS, particularly for young audiences. Furthermore, HCPs who decide to engage in medical influencing and the provision of medical advice on SNS should not rely on these disclaimers as a substitute for considerations of enhancing the decision-making capacity of their online audiences.

7.3. Defining the professional virtues in the dual medical professional/influencer identity.

The emergence of medical influencers is a relatively recent phenomenon. Nonetheless, HCPs who take on this role should remain primarily guided by traditional virtues and standards of excellence that underpin virtuous healthcare provision, even though they operate on a different platform than that of traditional medicine. This commitment to virtuous behaviour is essential when medical influencers are creating online medical content and sharing medical information and medical advice on SNS.

In chapter four, I identified potential ethical conflicts between the traditional virtues and expected virtuous behaviours of HCPs and the key traits which translate to success in the role of medical influencer. I have shown how the virtues of *fidelity to trust, effacement of self-interest, intellectual honesty, justice, compassion* and *benevolence* may inadvertently be compromised by the commodified nature of the medical influencing space.

Although medical influencing does not yet meet the criteria of a ‘practice’ in the MacIntyrean sense, it does nonetheless meet some criteria specifically that of a “coherent and socially established cooperative human activity” (MacIntyre, 1984, p.218). As the medical influencer industry continues to advance and younger generations increasingly consume health information online, a further evaluation of the standards of excellence that HCPs aim to achieve within the SNS is warranted. It is thus important, from a virtue ethics perspective to establish the standards of excellence in the newfound role of HCP and clarify the internal goods that the medical influencing activity aims to achieve. Once these internal goods are established, the identification of the virtues which will advance the internal goods of medical influencing is facilitated.

From a virtue ethics lens this is an important endeavour to prevent the exploitation of the followers and participants in these online medical communities for financial gain and social media popularity on SNS.

7.4. Clarifying duties of HCP when engaging in the medical influencer network.

Traditional medical practice is a well-established and regulated profession with a set of duties and corresponding benefits that allow for harmonious relationships between HCPs and the public. The nobility of medicine as a profession comes with responsibility for ethical practice and duties established through the implied social contract between the medical fraternity and the public. The social contract ensures that professionals retain autonomy, financial benefit and status in exchange for

competence, reliability, advocacy, accountability and transparency and a dedication to provide quality healthcare.

In contrast, medical influencing and the provision of medical advice on SNS is currently being carried out on digital platforms with minimal regulatory oversight of professional duties. Another important point to consider is that existing ethical guidelines provided by the HPCSA (2019) on professional conduct of HCPs in the use of social media, as I have shown in chapter two of this research report, do not fully address the nuances of the rapidly evolving SNS landscape. This landscape is characterized by the creation of virtual communities of followers and online audiences that actively engage with medical influencers and with each other of various health related topics. Additionally, in the absence of relevant regulatory framework in the medical influencing industry, considerations of popularity and virality, which is the current commodity in digital influencing spaces might be pursued at the expense of the social contract and professional duties.

Consequently, to uphold the integrity of the profession and preserve the social contract, the duties of HCPs in the extended role of medical influencer need to be clearly established. More specifically, the ethical duties and regulatory frameworks should be established by health regulatory bodies like the HPCSA to guide the provision of online medical advice and ensure mechanism of accountability for unprofessional conduct on SNS for the public interest.

7.5. Addressing privacy and confidentiality concerns in the provision of online medical advice.

Privacy and confidentiality are longstanding issues in the digital landscape. Protecting confidentiality of patients is underpinned by the principle of respect for autonomy which affords individuals control over their information. The principles of beneficence and nonmaleficence require medical influencers to balance the provision of medical education and medical advice against the possible harms associated with divulging private and confidential information related to patients, colleagues or employees. Lastly the principle of justice requires the fair and equitable access to healthcare information.

However, SNS interactions are shifting the narratives around privacy with increased sharing of individual's private lives. Furthermore, the types of photos and video content shared on SNS, the live streaming of medical procedures and the provision of medical advice on these platforms are creating substantial risks to maintaining privacy and confidentiality. Complicating matters further, medical influencers might not be aware that SNS have AI embedded in the platforms and software technology can be used to pinpoint the geolocation of photos and video content. These developing AI and software technologies have far-reaching implications for potential infringements of privacy of patients, medical influencers, their colleagues and employers when creating video content in their place of employment. Such infringements on private information in turn compromises the principles of respect for autonomy, beneficence and nonmaleficence. Lastly, medical influencers may create sensational content by selectively featuring rare or shocking medical cases in pursuit of 'likes', increased

views and virality, which risks exploitation of vulnerable patients thus undermining the principle of justice.

Subsequently, as the trend of online medical influencing continues to evolve it is important that updated guidelines for appropriate and secure use on personal information are developed by health regulatory bodies and experts in the field of bioethics and health law.

7.6. Normative questions for future research

The growth in HCPs' participation in virtual communities is shaping the discourse around the impact of medical influencers in these spaces, especially on the youth. With the increased reliance on social media for information dissemination, the authority of medical influencers can shape public perception and behaviour around health issues. Given the evolving landscape of digital communication and the evolving relationship dynamics between influencers and followers, future research should evaluate the ethical responsibilities of medical influencers on social media. Considering the meshing of professional and personal life online, an inquiry into the existing ethical boundaries can be pursued.

Researchers can evaluate the morality of medical influencers' partnering with brands for medically related content on social media and the level of self-disclosure needed in this context. Studies can explore the public perception surrounding the ethics of medicla influencers' participation on social media. An exploration of how medical influencers apply ethical and professional codes on social media can be critical in aligning professional guidelines with current online practices. An examination of the

ethical implications of AI and data mining tools on social media platforms can be conducted to inform guidelines for medicla influencers' use of these platforms in a moral manner.

7.7. Conclusion

In conclusion, the growing presence of medical influencers on SNS and the provision of medical advice on the online platforms brings several ethical issues which are not apparent in current ethical discourse. Concurrently, the identification of the issues presents an opportunity to develop ethical guidelines and regulatory frameworks that could assist medical influencers in navigating the SNS environment in an ethical manner while advancing the decision-making capacity on online followers. Furthermore, the identification of the goals of medical influencing and the virtues that advance these goals would ensure virtuous behaviour in the dual role of professional and influencer. Lastly the identification of the expected duties in the role of medical influencers that upholds societal expectations and patient confidentiality would allow medical influencers to become a positive source of responsible, scientifically based and beneficial medical information and medical advice.

CHAPTER 8: CONCLUSION

8.1. Conclusion and recommendation for future work

This research report aimed to identify and critically discuss the ethical issues associated with the provision of medical advice by medical influencers on social media.

To achieve this aim, I began with an overview in chapter two of existing literature to highlight current medical influencing trends and the increasing willingness of HCPs in using SNS and sharing medical advice. I then identified the gaps in existing literature concerning the duality of HCPs as medical influencers regarding informed consent, the expected virtues and duties in those dual roles, and concerns related to potential breaches of privacy and confidentiality in SNS interactions and medical advice provision.

In chapter three I identified how medical advice provision on SNS falls short of the standards of information disclosure, evaluation of capacity, understanding and voluntariness which form the basis of a valid informed consent process and advances autonomous decision-making. The identification of these issues contributes to a deeper understanding of how the element of comprehensive information sharing during medical advice provision can be conceptualized and adapted in the evolving landscape of SNS.

In chapter four, I showed that medical influencers require certain character traits to succeed in the influencers industry which conflict with the virtues expected of them as HCPs.

More specifically, the virtues of *fidelity to trust and promise; effacement of self-interest; intellectual honesty; justice; prudence; compassion and benevolence* expected in HCPs may be compromised in the role of a medical influencer which values popularity and engagement, brand identity and online credibility. The recommendation which emanates from this research report is the need to identify the goals of medical influencing and the character traits that medical influencers should develop in their dual role as professionals and influencers. This is important in ensuring that success in the HCP's role as medical influencers does not compromise the goals of healthcare and undermine the virtuous behaviours expected of them as professionals.

Next, in chapter five, I identified the need to establish the duties of HCPs in the extended role of medical influencer to uphold the integrity of the profession and preserve the social contract. Chapter six identified the associated risks to privacy and confidentiality that may arise in the type of content that medical influencers create and share on SNS and during the provision of medical advice. The principles of respect for autonomy, beneficence, nonmaleficence and justice may be inadvertently compromised when medical influencers utilise their platforms to share relatable, sensational and engaging content and medical advice.

Future bioethical research associated with the medical influencer phenomenon and with the provision of medical advice on SNS can be built on the ethical issues identified in this research report.

The identified areas for future research could in turn inform regulatory bodies such as the HPCSA in establishing clear ethical guidelines and regulatory frameworks specific

to medical influencing and medical advice provision on SNS. Additionally, the identified research areas could enhance curriculum development in health sciences education with a view of ensuring ethical and responsible use of SNS and promoting virtuous behaviours in the role of medical influencers.

In closing, the ethical issues identified in the provision of medical advice by medical influencers on social media contribute to a deeper understanding of how medical influencers can become an important source of beneficial and scientifically based medical information and responsible medical advice provision.

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