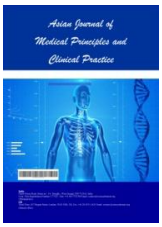

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COVID-19's Dramatic Influence on the Practice of Community Medicine and Recommended Changes to Offset Some of Its Damaging Effects

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

COVID-19 has changed the application not only of hospital medicine but also of community medicine in contexts such as family practice and nursing homes. This article will describe how the pandemic has radically influenced the practice of community medicine when dealing with uninfected patients. The medical system now works in a fundamentally different way. Under the new, formidable changes, physician-patient trust has become increasingly crucial to patient compliance. Since physicians now see and examine patients less frequently, they must rely more exclusively on taking a comprehensive history and using clinical judgment, while still insisting on a physical examination when deemed necessary. When masks are worn, effective communication is more challenging and less effective. Universal social isolation is an aggravating factor, particularly for residents of nursing homes. Provision of safety from the virus is a double-edged sword, as improved safety leads to increased suffering. While continuing to provide quality medical care, we should all try to relieve the suffering that results from steps taken to prevent viral spread.

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Keywords: COVID-19 pandemic; nursing homes; universal social isolation; physical examination.

1. INTRODUCTION

The danger of infection with COVID-19 has changed how medicine is practiced in the community, even in instances where the virus itself is not present. These changes challenge many of the traditional fundamental principles of the practice of good medicine. This paper will address some of the ramifications of overall treatment of patients in the COVID-19 era, based in part on my personal experience in two community environments: family practice and nursing homes.

2. THE CHANGES EXPERIENCED IN A FAMILY PRACTICE ENVIRONMENT

2.1 Refusal to Welcome Patients with Certain Conditions into the Clinic

A fundamental principle of family medicine is to welcome and examine all patients who feel unwell. Common pre pandemic situations are assessing fever and upper respiratory tract symptoms. A study in India found that 35% of all patients presented with fever, while 50% presented with respiratory tract infections [1]. With the onset of COVID-19, especially at the start of the pandemic and contrary to prior standard practice, patients with fever and thereby considered at a risk of being infected with COVID 19 were unwelcome, and were instructed *not* to come to the clinic. Those suspected of having contracted the virus were told to go for testing, while the others, at most, received telephone advice but were not examined nor even seen.

2.2 Patients' Refusal to Attend the Clinic

COVID-19 concerns have similarly disinclined some patients to come in for examination. The fear experienced by many patients, together with, in some cases, protocols that forbade their bringing another individual to accompany them to the physician's office, has altered the threshold of patient willingness to attend clinics for complaints unrelated to the virus. Some avoided dealing with a medical concern altogether, while others were prepared to discuss their condition only by telephone. Prior to the onset of the virus, there was already a trend towards virtual health care (telehealth) [2], and this has been boosted by COVID-19. Telehealth makes administrative transactions such as drug renewals, ordering lab work, and providing sick notes easier for both patient and physician, and this trend has accelerated during the pandemic period, when people try to leave the house as infrequently as possible and physicians will endeavor to see only those patients who require a physical examination. This trend now also incorporates telephone diagnosis and treatment [3]. Accurate diagnosis by telephone is a complex process that involves more uncertainty and has a higher likelihood of failure than renewing a medication that a patient has been taking regularly. Moreover, office visits frequently also include attending to complaints unrelated to the presenting problem, together with physician initiatives such as recommending screening tests. There is evidence to show that the decline in office visits has led to missed diagnoses [4] and the ordering of fewer screening tests [5].

2.3 Hesitancy to Examine those Patients Who do Visit

The frequency of physical examinations was in decline even before the pandemic, perhaps for reasons of convenience and this tendency has since accelerated [6], out of fear of contracting the virus. Because the degree of COVID-19 infection risk depends on the level of physical contact, with proximity increasing the danger of viral spread, it is easier and safer for the physician to talk with patients without physically examining them. Unfortunately, this shortcut approach can lead to misdiagnoses. The other day, a 50-year-old woman presented with classic signs of dysuria, with a presumed diagnosis of simple urinary tract infection. However, because she had undergone a gynecological procedure the previous week, I insisted on examining her. This necessitated further COVID-19 protection precautions and preparation of the examination table before and after her exam. To my surprise, rather than signs of a simple urinary tract infection, she had general abdominal tenderness, with a suggestion of a possible acute abdomen. She was referred to the Emergency Department. I surmise that, had I not insisted on examining her, had I not been willing to go through the cumbersome COVID-19 hygienic routine, and had I not been prepared to take a small increased risk of contracting the virus, should she be a carrier, she would not have been properly evaluated. It is true that

guidelines are now suggesting more extensive use of telemedicine only in situations where the likelihood of a serious problem is slight [7]. However, medicine is not a precise science, guidelines are limited in their accuracy and patients, however well-educated, cannot always know in advance how important a visit to the physician may be. If, in the past, the price paid for those necessary visits was an incidence of medical appointments that in retrospect could have been avoided, today the threshold has shifted towards a greater likelihood of important missed visits, both to community clinics and the Emergency Department [8]. Furthermore, the preoccupation with not missing a COVID-19 diagnosis risks distracting physicians from identifying other important medical problems [9].

In my view, adherence to three principles can minimize the danger of these shifting trends:

Taking a detailed and accurate medical history. While this principle has always been a fundamental tenet of medicine, [10,11] in the absence of a physical examination or in the case of a telephone appointment in which the patient is not even seen, the importance of taking a comprehensive history cannot be stressed enough.

Fostering a trusting relationship with the patient. Trust in the physician promotes compliance [12]. When the medical system is not smooth running, compliance may be problematic, and the trust a patient has in their physician can buffer dealings with bureaucracy. If, for example, after listening to a patient on the telephone, the physician concludes that an examination or a visit to the Emergency Department is necessary, one may presume that a trusting relationship with the physician will help that patient to overcome both logistical obstacles and the fear of COVID-19 transmission, and comply.

Accurately documenting telephone and WhatsApp conversations [13]. In the context of easy accessibility to the family physician, and its associated documentation, medical systems tend to place less emphasis on documenting telephone conversations than on documenting visits. However, in the absence of a patient visit, documentation of a telephone call, when it is used as a substitute for a visit, is as important as documenting a visit both for physician and patient in order to keep track of developing events, physician-patient interactions along with medico-legal considerations.

3. THE CHANGES EXPERIENCED WITHIN A NURSING HOME ENVIRONMENT

3.1 The Dangers

By now, 9 months after the onset of the pandemic, the risk of viral spread within a nursing home's leading to multiple deaths is so manifestly evident that it is essential to maintain appropriate COVID-19 precautions. As an example, in March, early in the pandemic, before appropriate precautions were universally institutionalized, 35 residents of a Seattle nursing home died of the virus [14]. Some reports state that 40% of COVID-19 deaths originate in nursing homes [15]. Moreover, since the implementation of appropriate COVID-19 precautions can minimize both internal nursing home spread and death rates, [16,17] following them has become a cardinal principle of safe care for nursing home residents.

3.2 The Difficulties

3.2.1 Communication problems with residents

Communication with the nursing home resident is an essential component of quality care. Many nursing home residents already suffer from some degree of disorientation and confusion, together with hearing and visual problems, and the necessity for the physician to wear a mask during examinations further impedes effective communication. This continuing problem of impoverished communication is clearly a cause of anxiety and suffering for residents.

3.2.2 Social isolation

Routine implementation of social isolation: Until now, social isolation was a rarely used tool in medicine that was applied primarily to a specific patient to minimize the spread of a specific infection. However, as a consequence of the pandemic, it has become a defining feature of routine care. The tradeoff is clear: prevent the spread of the virus at the expense of patients' suffering from social isolation.

Isolation from family: Isolation from family when a lockdown is indicated both separates the resident from the family and excludes the family from the care of the resident. Even when visits are possible, their quality is compromised, as they are typically limited in time and number.

Visitors are required to wear masks, may not touch their loved ones, and familiar activities, such as feeding a resident, and are often prohibited. Even when permitted – say, by use of gowns, masks and gloves – the technical circumstances are liable to transform a loving act of care into an awkward, sterile procedure. In addition to the angst for family members, the effects of isolation on residents can include increased depression, anxiety, worsening dementia, and failure to thrive [18].

A special case - Isolation of a new nursing home resident: Depending on where new residents have come from before admittance to the nursing home, Ministry of Health policy sometimes mandates an initial period of isolation on admittance. Even without isolation, for many residents the move to a nursing home, often after a medical / nursing setback, is unsettling and traumatic. This difficulty is aggravated when, at this most vulnerable and daunting time, they are isolated from family and their interactions within their new environment are limited. Having followed several such cases, I can report only that it is an appalling experience.

3.2.3 New challenges for nursing home administration

The ongoing requirement for protective material – masks, gloves, gowns and various soaps and sanitizers.

Handling staff shortage due to workers having to be isolated.

Overseeing workers adherence to COVID related regulations while at the same time maintaining worker morale despite the stress and new demands made upon them.

Often there is little to mitigate the communication difficulties and isolation proceeding from COVID-19 protocols. However, there are interventions that can alleviate some of the fallout.

3.2.3.1 Initiating and maintaining continuous contact with the main family caregiver

I define the main family caregiver (MFC) as the individual most involved in the care of the resident. These caregivers' role is particularly important when dealing with confused and demented patients. Even if there is no one main family caregiver there is often one family member (or friend) who is actively in contact with the nursing home. Pre-COVID-19, I would call family members only if a new problem arose, such as a significant laboratory abnormality. However, during the period of lockdown, I began initiating calls to the main family caregivers and informing them of routine laboratory results, even when they were normal. I adopted this approach because I found it a convenient platform from which to give them an overall update on their loved one's condition and allow them to ask questions. It also sent a message that, during lockdown, we were more flexible about telephone contact. Institutions can likewise improve communication by encouraging and making available easy telephone and video access, and by providing families with regular and frequent updates, especially, but not only, when problems arise.

Recommendation: Seek out ways to improve communication despite COVID 19 restrictions.

3.2.3.2 Incorporating positive changes when possible

We identified those residents with poor hearing and began insisting on their using an amplifier when interacting with the physician. In one instance, after wearing an amplifier, a resident with whom communication had until then been a battle responded by asking me why I was shouting. In our case, the COVID crisis triggered an insistence on change.

Recommendation: Review ways in which to improve vision and hearing difficulties, along with medication review to minimize pharmacological related confusion.

3.2.3.3 Allowing exceptions

During a period of lockdown I was dealing with a case in which a decision for hospitalization had to be made. The resident, who, together with poor vision and limited hearing also suffered from cognitive deterioration and questionable judgement, asked for hospital referral after developing a new symptom – chest pain. Her request was out of character. Her previous hospitalizations had been difficult experiences, and in the past, she had asked not to be referred to hospital. Her only daughter was insistent that, despite her current request, hospital referral was against her mother's wishes when her judgment was sounder, and, furthermore, in the daughter's view, it was a not a preferred alternative. From my point of view, the appropriate medical

decision was not clear cut because I knew that frail, confused patients often do poorly in hospital even when they receive superior medical care [19]. The approach we chose was to make a special arrangement for the mother to meet with her daughter, who had no symptoms of COVID-19. The daughter was gowned and masked, and she met her mother outdoors. Under these special conditions, the risk of possible viral transmission, should the daughter turn out to carry the virus, was low. After meeting with her mother, the daughter still believed that the best course of action was to keep her in the nursing home and not refer her to the hospital. I deferred to the daughter's wishes, treated her mother with medication in the nursing home, and she stabilized. The daughter's visit with her mother was of extreme importance to her – more so even than my successful medical management of the case – because it allowed her to be part of the decision-making process. One should note that these exceptional COVID-19 precautions cannot be applied routinely to all families during lockdown; in this case, however, they were safe and implementable, and, as such, I believe, appropriate to the circumstances.

Recommendation: Be receptive to allowing exceptions under justifiable circumstances as long as the exception does not increase a COVID related risk.

Increased responsibility for the nursing home physician. Especially early on in the pandemic, referring a resident to hospital, or even to a community specialty clinic, was problematic. Some resources were unavailable because they had been converted to COVID-19 services, and hospitals had not yet established guidelines for assessing people with fever, so would not automatically accept referrals. Some patients refused to go to hospital. Sometimes policy did not allow a family member to accompany their loved one to the Emergency Department. The combination of all these factors meant that some residents who, before the pandemic, would have been assessed by another physician were now the exclusive responsibility of the nursing home physician. Even now, when the health system has adjusted to dealing with the virus and the extremes that we saw early on in the pandemic are less frequent, I still find myself expected to deal with medical issues alone, whereas in the past I would also have consulted with a colleague outside the nursing home. This situation requires the mobilization of traditional clinical judgement, sometimes beyond one's professional comfort zone, to differentiate more precisely between problems that can still be treated alone versus those that require referring the resident elsewhere.

Recommendation: Physicians should be receptive to functioning outside their "comfort zone" provided there is no associated compromise of quality of care.

3.2.3.4 Work reorganization

While it is standard practice to establish workplace protocols, COVID-19 also requires health staff to be disciplined when they are away from work, so as not to become COVID-19 carriers. The effectiveness of this culture of self-discipline became evident at one of the nursing homes I worked in. For months our nursing home was COVID-19 free. Health staff members were coming to work from home daily, and none had contracted the virus while outside the nursing home. While the incidence of COVID-19 was low in the communities in which the health workers lived, it was not negligible: the living conditions of their close-knit extended families could easily have facilitated viral spread, as happened, for example, in Brooklyn [20]. In August we took on a new worker who claimed to be socially isolated while studying for entrance exams. At the time, procuring a COVID-19 test for a healthy person was not standard procedure. On the fourth day after his arrival, the other workers noted that, while changing the diaper of a resident, the newcomer did not smell the nursing home odors. He was sent home at once and tested for COVID-19. The result was positive. While retrospectively analyzing why he was a carrier and our regular staff were not, I ascertained that all our permanent health workers had internalized the COVID-19 home precautions and practiced them conscientiously, unlike our infected newcomer who was not yet acculturated.

Recommendation: The administration has the responsibility of creating a milieu facilitating maximal health worker adherence to COVID 19 containment both while at work and at home.

3.2.3.5 Dying alone

Because of the danger of COVID-19 transmission, patients, tragically, can end up dying alone, without the presence of family. While there are instances where this cannot be avoided, I believe that attempts should be made

to find workaround solutions whenever possible. As an example, early on during the pandemic, a centenarian who had been a resident of our nursing home for over 14 years was dying of a non-COVID-19 cause. The Ministry of Health policy at the time was to forbid all family visits to the nursing home, but letting her die alone seemed too cruel. Our nursing home happened to have a rarely used side entrance adjacent to her room that allowed a visitor to enter without coming into contact with other people. The family members were cooperative. We knew that if we instructed them to sit at a distance and wear masks, they would comply. In this way, they were able to visit and be with her as they wished, albeit while taking COVID-19 precautions. She did not die alone, and they were able to part from her naturally without any significant added risk of the virus's entering the nursing home.

Recommendation: Whenever possible, perhaps with advance planning, allow residents to die in the presence of their loved ones.

The COVID-19 pandemic has altogether changed the logistics of how community medicine is practiced, even when dealing with uninfected patients. In addition, provision of protection from the virus has, unfortunately, led to increased suffering. In his seminal book "The Nature of Suffering," Eric Cassell wrote: "The test of a system of medicine should be its adequacy in the face of suffering" [21]. As the evolving medical system is now more formidable for patients, increased trust in the family physician can promote improved compliance and care. Since physicians no longer routinely see as many patients as before, and when seeing them now perform physical examinations less frequently, taking a comprehensive history and the application of clinical judgement have become paramount; so, too, has the insistence on performing a physical exam when indicated. Masks and gloves impede communication, and this should prompt us to seek out alternatives. Social isolation is an aggravating factor, particularly for residents of nursing homes, and can unfortunately be only partially alleviated by the use of digital technology and by communication initiatives on the part of the nursing home team. While we strive to avoid compromising the quality of care provided and to develop more effective treatment against the virus and its spread, we should all work harder at finding ways to relieve sufferings that result from the steps taken to prevent viral spread.

4. CONCLUSION

- The COVID-19 pandemic has radically influenced how community medicine is practiced, even when dealing with uninfected patients.
- Never before has social isolation been practiced comprehensively; never before have health workers been extensively expected to observe isolation protocols not only at work, but also while away from work.
- Since physicians do not now always actually see the patient with a presenting problem, taking a comprehensive history and using clinical judgment must often suffice when making medical decisions, though a physical examination must still be insisted upon when deemed necessary.
- Provision of protection from the virus is a double-edged sword, as improved safety leads to increased isolation and associated suffering, particularly, though not exclusively, with nursing home residents
- Continuing to provide safe appropriate care while minimizing human suffering is especially challenging.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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