

EXPLORING LAY ETHICS IN E-HEALTH: ATTITUDES AND MORAL VALUES AMONG THE ELDERLY IN POLAND

Michał Nowakowski

*Uniwersytet Marii Curie Skłodowskiej, Institute
of Sociology
Poland*

ORCID 0000-0003-2539-6294

Anna Witeska-Młynarczyk

*Uniwersytet Marii Curie Skłodowskiej, Institute
of Sociology
Poland*

ORCID 0000-0001-6300-8083

Helder De Schutter

*Katholieke Universiteit Leuven, Institute of
Philosophy
Belgium*

ORCID 0000-0001-5230-539X

Andrzej Juros

*Uniwersytet Marii Curie Skłodowskiej, Institute
of Sociology
Poland*

ORCID 0000-0001-7867-5663

Włodzimierz Piątkowski

*Uniwersytet Marii Curie Skłodowskiej, Institute of Sociology
Poland*

ORCID 0000-0001-9743-3512

Abstract: *This study aims to explore the ethical values and attitudes of elderly individuals in Poland toward e-health technologies, focusing on how lay ethics differ from professional ethical considerations. Methodology: The research employed individual in-depth interviews with 20 elderly participants and uses vignettes to present ethical dilemmas related to e-health tools. The vignettes were designed to contrast various moral values such as privacy vs. survival, normal behavior vs. health benefits, and autonomy vs. equal access. Results: The findings indicate that elderly participants often prioritize human contact over technology, distrust tools that replace personal interactions, and value effectiveness but not as the primary criterion for assessing e-health tools. Concerns about privacy, autonomy, and the erosion of natural social relationships were prominent. Theoretical contribution: This study contributes to the understanding of lay ethics in e-health, highlighting the importance of considering user perspectives and moral values in the development and implementation of e-health technologies. It underscores the need for a more nuanced approach to e-health that balances technological benefits with ethical concerns. Practical implications: The research suggests that e-health technologies should be designed with consideration for user privacy, autonomy, and social interaction needs to enhance acceptance and effectiveness among elderly populations.*

Keywords: *e-health, moral values, technology, elderly, Poland, lay ethics.*

©2025 Nowakowski, Witeska-Młynarczyk, De Schutter, Juros, & Piątkowski, and the
Centre of Sociological Research, Poland

DOI: <https://doi.org/10.14254/1795-6889.2025.21-2.3>



This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

INTRODUCTION

The rapid development of new technologies and their application in various areas of human life is generally regarded as a move toward a better quality of life. Information and communication technologies (ICT) facilitate information exchange and speed up the resolution of many everyday issues. The application of ICT in healthcare is intended to improve the prevention, diagnosis, and treatment of diseases. Studies show that e-health solutions ease access to health services and/or treatments, while telemedicine improves the health security of populations living in rural and remote areas (Banbury, Roots & Nancarrow, 2014; Rajkumar et al., 2023) and introduces novel therapeutic processes (Ahmed et al., 2023; Almasi, Shahbodaghi & Asadi, 2022; Alter et al., 2023; Drapalik, Grodberg & Ventola, 2022; Lee et al., 2023; Ngassa et al., 2022; Tarhan, Örsal & Duru, 2023; Wang et al., 2023). However, the literature on the subject also contains inconclusive results (Amiri et al., 2021; Rochester, 2022; Sekhon et al., 2021).

Whether e-health improves the quality of healthcare depends, among other things, on social approval. Such acceptance depends on the level of trust in technology, the users' digital competence, and the extent to which the needs of end users are addressed. According to the existing measuring models, the inclination to use new tools depends on the confluence of several factors: perceived usefulness, perceived ease of use, trust, privacy, social influence, and social support (AlQudah et al., 2021; Jung & Loria, 2010; Kamal et al., 2020; Shemesh & Barnoy, 2020; Zubair et al., 2021).

Elderly people are one social group whose relations with new technologies are imagined as problematic. Research on elderly attitudes toward e-health technologies in Poland reveals mixed findings. While a majority of older adults are not enthusiastic about using ICT tools for healthcare, a significant minority (41%) support selected e-health services (Bujnowska-Fedak & Pirogowicz, 2014). Factors positively influencing e-health acceptance include urban residence, higher education, normal cognitive function, and access to computers or mobile phones (Bujnowska-Fedak & Pirogowicz, 2014). Performance expectancy, effort expectancy, and social influence are strong determinants of e-health acceptance among older adults aged 60–69 (Rój, 2022). Internet use for health-related purposes is growing, with 81% of elderly internet users seeking health information online (Bujnowska-Fedak & Mastalerz-Migas, 2015). However, face-to-face contact with healthcare professionals remains the preferred source of medical information (Bujnowska-Fedak & Mastalerz-Migas, 2015). These findings suggest a gradual shift toward e-health adoption among elderly Polish people, albeit with persistent barriers and preferences for traditional healthcare interactions. However, the studies mentioned lack an ethnographic perspective. While they indicate the general trends in the elderly population, they are not designed to extend to the real life experiences of the elderly people nor do they allow for a description of the ways in which elderly people's relations with e-health technologies are embedded in social contexts. Aspects such as state of health, family relations, care arrangements, personality, cultural frameworks determining the ethical standpoint and, eventually, the emotions felt remain largely undiscussed. At the same time, these aspects are absolutely crucial as they allow us to frame the discussion of elderly people's relations with e-health technology in human terms.

While a number of studies discuss the attitudes of elderly people toward e-health (Akenine et al., 2020; Aslan et al., 2024; Lindberg & Lundgren, 2022; Nymberg et al., 2019;

Rasi-Heikkinen & Airola, 2023; Stroetmann et al., 2002; Terp et al., 2021), the ethical issues related to e-health and its use by the elderly are rarely explored. In particular, little is known about the perspectives of elderly service users. This gap in the literature is all the more noteworthy given the steady increase in the use of e-health technologies (Jokinen, Stolt & Suhonen, 2021, p. 255).

Meta-analysis of the available research aimed at the ethical assessment of e-health technologies by their (potential) users spotted four main topic areas: (1) privacy in e-health (users/citizens express concerns about sharing information, emphasizing the need to protect privacy by controlling with whom it is shared); (2) beneficence and non-maleficence in e-health (users felt the benefits outweighed the harms, but with concerns that third-party access to protected e-health data could result in: the addition of false information, which would lead to poor medical decisions; misuse, possibly leading to social isolation, stigma, discrimination or rejection at work; the provision of a lower level of care); (3) justice in e-health (attention is drawn to the difficulties associated with access to e-health due to the lack of digital literacy, low mental capacity or numerical skills, questions of affordability); (4) trust in e-health (trust in e-health depends on the effectiveness of e-health systems, and citizens desire competent support and human contact in solving health problems) (Jokinen, Stolt & Suhonen, 2021, pp. 257–264).

The above review illustrates how e-health raises a number of moral concerns among various categories of users. Hence, we designed a study focused on attitudes toward e-health technologies in one specific group, that is, elderly people. We wanted to understand the ethical values involved in assessing the new tools put to use in specific social contexts. To do so, we prepared four stories involving some ethical dilemmas. Our aim was to observe how people practice lay ethics in response to the stories designed by our research team and whether people's concerns are in any way parallel to the central concerns mentioned in academic work on applied ethics and moral philosophy. The five main moral concerns we chose to build our stories around are: well-being (or welfare), autonomy (or freedom), dignity (or esteem), a conception of positive freedom (about what “normal” or “natural” behaviors consist of), and equal (or fair) distribution. In the methodology section below, we lay these out, showing how each corresponds to a key moral theory.

METHODS

Our team consisted of an anthropologist, a philosopher and three sociologists. We began the research with a pilot study in Lublin – a medium-sized city in Poland. We invited a small group of elderly people to participate in discussions about the opportunities and barriers influencing the use of digital technologies. We conducted a quantitative self-assessment of their digital competences and their willingness to learn about the possibilities afforded by digital technologies. Additionally, we conducted a focus group with eight elderly women during which we talked about the e-health tools currently being used in healthcare. At this stage of the research, we found that the seniors were relatively digitally competent, eager to learn more about the usage of computers and smartphones (including for the health purposes), but still concerned about the misuse of new technologies, the fact that this may distance

people from natural/normal/healthy social behavior. They found learning the new technological solutions applied in healthcare was challenging.

Based on these two preliminary collaborations, we concluded that in the face of e-health, the elderly are constructing their own lay ethics, which could differ in relevant aspects from the ethical considerations of professional ethicists. We therefore decided to find out how the elderly evaluate the implementation of specific e-health tools in hypothetical situations. To this end, we decided to use vignettes as a method (Barter & Renold, 2000). One of us had previously worked with this methodology while conducting research with children (Witeska-Młynarczyk, 2019). We constructed four short stories featuring the elderly and some aspect of e-health technology, which we then presented during the individual interviews. Each story had three elements: (1) a description of an elderly person's health problem and current living situation; (2) the use of a specific e-health tool to help the elderly person proposed by a family member or nurse; and (3) a description of how the tool works. Each story was intended to have a specific moral conflict (moral value vs. moral value) that we noticed ourselves. In this way, we also wanted to find out whether the perception of a given technology would be different among laypeople and professionals. The process of creating the vignettes began by listing the moral/ethical values that are central to the history of moral philosophy (ethics). In what follows, we first list those moral values and the traditions in moral philosophy that exhibit them and then subsequently describe the vignettes.

The decision to use vignettes arose in the early stages of designing the survey and stemmed from a desire to make the social survey more like the thought experiments used in ethics research. In addition, research involving asking elderly people for their opinions on new, often unfamiliar technologies required, in our view, an adequate explanation of how they worked. Vignettes as representations of realistic and concrete scenarios allowed the respondents to speak about difficult topics without having to refer to a personal situation while involving them emotionally in the stories presented, making the answers more likely to be authentic, varied and rich than those we would have obtained using abstract questions about specific technologies.

Ethical Values

1. Physical welfare (utility). One key goal of e-health is to improve the happiness or welfare levels of users. This focus on happiness and welfare is central to the moral theory of utilitarianism, which is a form of consequentialism focused on utility (Bentham, 1789; Singer, 1993). It holds that morally right conduct is the conduct that leads to the highest levels of utility or happiness. On this view, the goodness or badness of an act depends on the consequences. If the consequences are good, then the acts that have led to them are good. In what follows, we concentrate on just one version of utilitarianism: "hedonistic utilitarianism." According to hedonistic utilitarianism, utility is defined as what maximizes pleasure and avoids pain. To be fully clear, in this article we do not intend to make a contribution to ethical theory, but to lay ethics, by which we mean ethics as used by people (and not specifically moral theorists). For this reason, and in order to operationalize welfare, we identify two core dimensions of welfare: the importance of improving survival rates, and avoiding physical distress. That is, we shall take an act or choice to be furthering well-being and welfare when it prolongs the life of an individual or improves that individual's condition while reducing

pain or other inconveniences. We do this in order to understand the moral trade-off involved in choices that may improve welfare but decrease other moral values such as dignity, privacy or natural behavior.

2. **Autonomy.** By autonomy we mean the ability of a person to make their own choices, irrespective of what those choices may be. In other words, by autonomy, we shall mean the ability to decide for oneself. Autonomy is connected to values such as control, privacy and freedom. Privacy is related to autonomy in the sense that, when a person's private sphere is shielded from others and also not seen by them, it is easier for that person to live their life according to their own beliefs. For example, at home, privacy is needed in order for someone to experience freedom of choice in what to do (see the discussion in Cohen, 2002: 1-5).

3. **Dignity (respect, esteem).** We focus on the idea that people should be enabled to maintain a certain manner or bearing (Rosen, 2012, p. 40): they should be allowed to enjoy equal esteem, and whatever they do should not lead to inferior or humiliating treatment.

4. **Normal or natural behavior according to a conception of positive liberty.** Some people have argued that the state should let people decide for themselves about what they can do as much as possible, as long as this is compatible with respect for everyone else's pursuit of the same interest. Isaiah Berlin famously called this the conception of freedom as "negative freedom." Charles Taylor, and many "communitarian" thinkers in his wake, instead defend what they call "positive freedom." In his famous essay "What's wrong with negative liberty," for instance, Taylor (1979) stressed that sometimes external interference can further freedom. For instance, pressure from friends to do a worthwhile thing with them might, in some cases, make a person do a certain thing that otherwise internal inhibitions (such as anxiety) might prevent them from doing.

The motivation to engage in positive freedom-enhancing acts, however, presupposes a view of what is the right way of living. Some behaviors are considered as good, or normal, and right. Others will need to be considered as undesirable and problematic. It is to be expected that digital tools and e-health technologies might be considered by many as "unnatural" or "not normal," which we explore below.

5. **Equal access.** An important tradition in moral and political theory stresses equality and equal treatment. For some such as Dworkin and Kymlicka, for instance, it is the lynchpin of any justified theory that it treats everyone with equal concern (see e.g. Kymlicka 2002: 3-5). A large number of specifications exist about what this equal concern may amount to, of course. But one value in e-health ethics, as in other domains of ethics, is that, whatever will be done, is accompanied by a concern for fairness and equal treatment.

Vignettes and Initial Dichotomies

The last step in the conceptualization of the research was a review of existing e-health technologies and matching them with pairs of moral values, one of which, in our opinion, should encourage acceptance of the technology and the other encourage its rejection. We tried to select various technologies and to diversify as much as possible the context of the situation in which a given e-health technology was proposed to the characters in the fictional stories (vignettes).

Table 1. The Vignettes and Initial Dichotomies.

Vignettes	Initial dichotomies
1. Henry, an 80-year-old man, lives alone. He is recovering from a fractured femur and is undergoing rehabilitation. After the accident, his son suggested installing a camera in Henry's flat. This would allow him to check on Henry several times a day: in the morning, at noon, in the afternoon, shortly after dinner and in the middle of the night. This would also seriously reduce the risk of Henry being left unattended if he fell again. If a fall occurred, his son would use one button to call an ambulance. Medical help would arrive at Henry's home within half an hour.	privacy/autonomy vs. survival & health
2. Hanna is 84 years old. She lives alone in a small apartment. She suffers from loneliness. Since the death of her husband, she has suffered from depression. She does not feel like leaving the house. She does not keep in touch with people. She is often depressed. Her family doctor has prescribed medication for her depression, but she does not want to take it because she "doesn't feel better after it at all." Her daughter lives in Ireland and visits her several times a year. During her last visit, she installed an app on Hanna's phone. She wants to buy her annual access. The app is a virtual friend that supports her, urges her to think positively and adopt healthy habits. The virtual friend is available at any time, even in the middle of the night when she feels anxious.	normal/natural vs. survival & health (psychological/mental welfare)
3. Maria is 78 years old. She lives in a village with her husband. Unfortunately, she suffers from a chronic illness, one of the consequences of which is a frequently appearing and persistent cough. There is no decent healthcare where she lives. When the cough appears, the couple fear serious complications like pneumonia. Maria's husband found it was possible to annually rent an electronic stethoscope device that detects threats in the respiratory system. The rental would cost them 600 Polish zloty per year. The device would allow them to independently monitor and record respiratory sounds. The results could be sent to a doctor for immediate interpretation. Thanks to its sensitivity and the built-in artificial intelligence algorithms, the device is more effective, especially compared to the sounds that a doctor hears using a traditional stethoscope.	normal/natural vs. autonomy vs. equal access
4. Antoni is 85 years old and a resident of a social welfare home. Due to his poor health, he does not get out of bed. He has trouble holding in urine and his mattress sometimes gets wet. The nurse suggests replacing the regular mattress with a new one with an electronic system for automatic moisture detection. If such a situation occurs, the nurse finds out about it and can react quickly without waiting for Antoni's request to change the bed linen.	autonomy vs. dignity

Vignette one: privacy/autonomy vs. survival & health. Here, the digitization of healthcare is considered because of the expected health benefits, but the process is, on the other hand, a challenge to privacy. To see how elderly people deal with this dilemma, we prepared a scenario for them showing a proposal to install cameras in the apartment of a person in need of care.

Relevance of this case. Autonomy does not guarantee greater well-being or physical survival. It may lead to it, and one may think that in many instances people's physical future is best safeguarded by giving them control over it. But it is easy to see that an individual may often not be the best judge of what is good for their future health. Indeed, people engage in all sorts of behaviors that may endanger their physical well-being. This leads to an interesting trade-off between the first two values stressed in this overview. Clearly, in Henry's case, it is in his physical interest that his son is able to check on him via a camera. If Henry were to have fallen at home, his physical well-being and pain avoidance would be furthered by this

camera check. But it can also be seen that this is now how Henry himself may choose to organize things. In this case, installing a camera in Henry's home may alert his son to the necessity of summoning emergency medical help, although it may lead to non-physical forms of inconvenience that Henry may experience (such as a lack of autonomy and privacy). So, here, we contrast the values of physical welfare and privacy.

Vignette two: normal/natural vs. survival & health (psychological/mental welfare).

A pilot focus study showed that when evaluating e-health tools, older people worried that digital technologies were contributing to the erosion of the "natural" or "normal" social relationships they equated with face-to-face contact. We thought that this value could be contrasted with the value of survival and health, and vignette two was a story about a depressed person who is offered an AI-based mobile app designed to support her ability to cope.

Relevance of this case. It is easy to see how judgments of an ethical nature about a good life enter the domain of e-health. Indeed, it might be thought that talking to a virtual robot is meaningless, instrumental and not constitutive of normal or proper human relationships. The robot is fake; it is not a real person. But what if communicating with a virtual robot generates forms of physical or even mental pleasure? What if we have a trade-off between what is considered to be right, virtuous or proper on the one hand, and physical survival and pleasure on the other?

Vignette three: normal/natural vs. autonomy vs. equal access. Based on this first idea, we constructed a vignette that presented a proposal for using an e-stethoscope that can detect abnormal auscultation sounds. The idea was to see whether, when evaluating such a tool, older people prefer direct contact with a doctor or the autonomy of assessing their current state of health that such a device could give them.

Relevance of this case. This case explores two trade-offs: firstly, between normal/natural relationships and autonomy: would a person want more autonomy if they judge the costs of that autonomy to lie in unnatural relationships? And, secondly, if a certain e-health device furthers well-being but is, in fact, bad from the point of view of equal access because it is very expensive, would this be an objection to its pursuit?

Vignette four: autonomy vs dignity. The starting point for this dichotomy (perhaps surprising to some because autonomy should, in principle, increase a sense of dignity) was the example of a sensor that notifies nurses that a bed has been wet by an immobilized patient. Such technology can contribute to a patient's sense of dignity by not having to ask for a change of bedding or underwear, but on the other hand, it can reduce the patient's autonomy.

Relevance of this case. With this vignette, we explore the trade-offs between dignity and the values of autonomy and physical welfare. Steven Pinker, who rejects dignity as a moral value, has famously argued "dignity is well worth trading off for life, health, and safety" (Pinker, 2008). Pinker posits here an interesting trade-off between physical welfare and dignity. Here we explore a trade-off between dignity and autonomy. In Antoni's case, a wet mattress can be replaced before the patient even realizes he has urinated in his sleep. This may be thought of as reducing control and autonomy, even though it may be understood as reducing humiliation.

Participants

The interviews were conducted in July 2023 with 20 elderly people living in Lublin. Their ages ranged from 65 to 85. Most research participants were former university employees who were recruited through the university's trade union. Most of the interviews were conducted at the trade union's headquarters. A few interviews were conducted at homes and one by phone. Among the people who took part in the research, half declared that they had completed higher education (11 people), seven people graduated from secondary school and two held basic vocational training. Prior to retirement, 14 people (declaring either a university degree or high school education) did white-collar work, while six (secondary or basic vocational training) did blue-collar work. Three-fourths of the respondents declared a satisfactory or relatively good economic situation.

Most seniors have experienced the effects of the high mobility of younger generations. Thirteen research participants have children who live in another city or abroad, yet, they declared being in frequent contact with their immediate family primarily by telephone or instant messaging (12 of them claimed to talk to their children in this way daily or almost daily).

Our interviewees use both PCs and smartphones. They use applications for communication, content consumption (written, audio and video), online banking, online shopping, monitoring their own behavior (e.g., pedometer, sleep). Some respondents have an individual patient account.¹ Most of them have heard of the term "e-health," but their prior knowledge was rather superficial – this referred to e-prescriptions, e-visits or to the ability to arrange a face-to-face appointment or receive diagnostic test results online.

Research situation

We conducted the interviews in mixed settings. Most took place at the university at the trade union's headquarters, which was well known to the respondents, however, a few took place at participants' homes (if that was more convenient for them), and one was conducted over the phone (at the request of the participant). After completing each respondent's particulars, the researcher read out the content of the vignettes, which, printed in large letters on sheets of A4 paper, were additionally handed to the respondent so that they could recall the details of the story when needed. These sheets were treated as an extra, allowing more freedom and empowering the research participant. After each story, the research participants were asked about the ways Henry, Hanna, Maria, and Antoni felt in the narrated situation, and what was important to them. The same questions were asked in relation to the son, daughter, husband and nurse (for each story, respectively) who came up with the proposal of trying out a new device. The interviewer probed the research participants to imagine the way the characters in the story interacted around the topic, and what their motives were. Eventually, the research participants were asked about the changes the device would bring to the main character's life, and to come up with possible difficulties, if they could imagine any.

1 An individual patient account in Poland, known as an *Internetowe Konto Pacjenta* (IKP) or internet patient account, is a free online platform that allows patients to securely access and manage their health-related information. It serves as a digital health card for Polish citizens and residents, providing access to medical history, e-prescriptions, referrals, test results, vaccination records (including COVID-19), and details of doctor visits and treatments.

However, we did not ask about moral values that seemed potentially important to us in assessing a given technology in a given context.

RESULTS

When analyzing the interviews, we found that for each story, we could group the interviewees' answers into three categories: enthusiasts, those who were ambivalent, and critics. These categories were helpful in sorting out the landscape of opinions and evaluations of e-health tools, so we decided to use them to construct this section of the article.

Vignette One: The camera

In response to the idea of installing video monitoring in Henry's house, research participants referred to children's obligation to take responsibility for their elderly parents, the importance of human care for an elderly person, technology as an insufficient tool for elderly healthcare, privacy, autonomy, survival and health, and sense of security. These were prioritized in different ways.



Figure 1. The frequency of the categories used by the enthusiasts when responding to the first vignette.

Enthusiasts interpreted installing cameras in Henry's flat as a move toward improving his health and safety. Anna's words illustrate the most common explanation:

[...] a lady in Legionowo died and for 5 years no one took any interest, that she did not leave the flat, that the mailbox (was brimming with uncollected letters – author's comment). I think Henry should agree. (Anna, 71 years old, finances)

The enthusiasts did not recognize any significant problems related to the use of cameras at home. Some of the people in this group actually downplayed the importance of Henry's need for privacy. They could not come up with activities or situations that Henry would want to hide from his son:

That he won't make a cup of tea or that he would do something wrong? What sort of wrongdoing can you do that would be embarrassing, making you hide from your son? (Barbara, 65 years old, human resources)

For enthusiasts, the mere presence of cameras was perceived as increasing Henry's sense of security and reducing his feelings of loneliness. Cameras were also interpreted as a

medium that facilitated the maintenance of the father-son relationship. Furthermore, this technology was imagined as a way to avoid having non-related caregivers at home. For the enthusiasts, it was also acceptable for a camera to complement visits by a family member or, even, to replace face-to-face meetings, in case the son could not afford them.



Figure 2. The frequency of the categories used by the ambivalent group when responding to the first vignette.

The ambivalent group recognized the same advantages as those indicated by the enthusiasts (survival/health and sense of security codes) for installing cameras in Henry's house, however, they tended to place the situation in a larger context of care, which pushed their reflection into a more complex direction of kinship and morality. The important question raised by the research participants related to the ways in which the cameras were integrated into the actual care practices performed by the son (relations/children/responsibility). Eventually, even though the technology was generally assessed positively (technology/enthusiasm), in the context of family relations, when the son was not providing the proper direct care, the usage of the technology was interpreted negatively (technology/insufficiency). Moreover, for the ambivalent group, the problem of ensuring Henry's privacy was also equivocal.

Going back to Barbara's words, these provide an illustration of the hesitation characteristic for the ambivalent group. She began by noticing that the installation of cameras would increase the sense of security, prevent difficult situations and help maintain Henry's relationship with his son. She interpreted this solution as proof of the son's concern for his father's well-being. She even noticed that the cameras would protect Henry's privacy in the sense that they would allow him to avoid having a stranger as a carer staying in his flat. However, with time she became more critical. She expressed her worries about the care being limited only to video monitoring, evaluating it as inadequate. She thought the situation was not only about health but also about loneliness which, according to her, was a larger issue.

[...] this man requires additional direct care. And the young man either cannot provide such care or does not want to provide it. At this point, there could still be different ways of providing additional care for this elderly person. And here, it seems to me that maybe he doesn't have time to deal with this issue, or maybe he doesn't want to. It's hard for me to decide. I don't know this son's situation well enough to easily judge him as a bad son. But what he does is insufficient. And, therefore, we can say that it is just a way of pushing away the sense of guilt. (Barbara, 69 years old, office worker)

Eventually, Barbara shifted her attention to the actual intentions of Henry's son. Wondering about the motives behind the proposed solution, she suggested that the technology could be used to avoid a difficult problem.

Similar doubts appeared among the other research participants we labeled as ambivalent. The need of an elderly person to maintain contact with other people was a recurring theme. Here, the family context was crucial for assessing the meaning and value of installing the cameras. Cameras can either be used to mask the failure to provide help or they can successfully supplement real care. The son's suggestion of installing cameras was perceived by some as a sign of a lack of care and affection:

[...] I raised children, taught them, educated them, and now I am left alone in my old age, with no one to lend a hand. Well, this moment is so sad. (Stanisław, 66 years old, porter)

The people in the ambivalent group also underlined the importance of taking into account Henry's attitude toward being constantly monitored.

[...] here you would have to know the person and his disposition and attitude to life. Because one person may not be bothered by it, and it's good to have a camera hanging somewhere. And the other person could feel very strange in his own home because he is aware that some eyes are looking at him from the outside. It would simply be embarrassing, so to speak. (Stanisław, 66 years old, porter)

At the same time, most of the research participants who we placed in the ambivalent group would not mind, if they found themselves in a similar situation to Henry, that cameras were installed for them. They believed that such a solution could be helpful in a situation like Henry's.



Figure 3. The frequency of the categories used by the critics when responding to the first vignette.

More than half of the research participants responded with criticism to the idea of installing cameras in Henry's flat. It was clear for them that Henry's condition is serious, and he needs human care, not remote surveillance:

So, the camera won't replace him. Will the camera give a hand? Will the camera pick Henry up? Will it perform resuscitation? That's it, the ambulance will arrive in half an hour. And the time, so to speak, of blood supply to the brain, 4 minutes, there is no supply. (Wiktor, 69 years old, university administration)

[...] right now we have to start, not by installing cameras in individual houses, but by convincing old people like myself that living alone at home is dangerous. How to convince

society that moving from a single house, somewhere in a block of flats, where no one will knock, to a housing estate, not so much a monitored one, but a housing estate where there is care available. That the nurse will, let's say, or a carer, will check on this man. (Maria, 77 years old, university teacher)

In this group, the proposal to install cameras was clearly interpreted as a sign of carelessness and abandonment of the father:

He [the son] doesn't have to do anything and he feels justified because he sees everything. Yet, this does not meet the needs of the person who is sick. He has no motivation to get fit because he feels abandoned by everyone. (Elżbieta, 69 years old, technical editor at a publishing house)

Henry's story was understood as a tragic situation in which cameras were a necessity and, at best, a lesser evil. Some of the respondents immediately defined this situation as difficult and hopeless, and drew attention to Henry's loneliness and lack of proper care:

[...] no way out. He has to agree to what his son proposes [...] There's no way out, I guess. Is it his only son? (Barbara, 78 years old, porter)

The critics also realized the difficult situation for the son, who was torn between feeling responsible for his father and dealing with his own affairs. Some of them drew attention to the economic situation and a larger cultural context (globalization, migration, work) that make it difficult to maintain proper intergenerational relationships.

The son has his job. He has to earn his pension and to educate his children. I know because I took care of my mother when my father died. It's true that it was short, but I know how burdensome it is [...] we no longer have multigenerational families, where children and grandchildren were taken care of because there was a grandmother or grandfather, there was one at home. (Maria, 77 years old, university teacher)

Many of the research participants also commented on privacy and autonomy being endangered by the installation of the video cameras.

Well, I would feel, I would look for a place where no one can see me. (Ilona, 83 years old, university teacher)

To sum up, the critics of this solution believed that its advantages did not compensate for its disadvantages. Video monitoring did not dramatically increase health safety, while it might have replaced the care and rehabilitation services Henry really needed and, as a result, he would not be properly cared for. The surveillance seemed too much of an interference in his private life, and many research participants pointed out that it might have served the purpose of masking the real lack of support from his son. On the other hand, people noticed that modern living conditions do not favor intergenerational relations of care and make it difficult for children of older parents to fulfill their obligations. Additionally, the difficulties were imagined to be intensified by the lack of access to care services (lack of money for hiring a carer, lack of state reimbursement for such services, lack of appropriate staff).

Vignette Two: The anti-depression app

The second situation presented to the research participants was meant to probe people's responses in regards to the ethical values of normal/natural and survival/physical welfare when confronted with an anti-depression app. Most of the responses we got to this vignette were critical. Even the respondents we qualified as ambivalent seemed to linger toward a

critical tone. Furthermore, for the enthusiasts, depression was recognized as a consequence of a lack of human contact and it was repeatedly placed in a child-parent dyad.



Figure 4. The frequency of the categories used by the enthusiasts when responding to the second vignette.

Overall, the state of depression was commonly recognized as a consequence of loneliness. Hence, the topic of care and children's responsibility toward parents came up in many responses. Enthusiasts pointed out that it might be easier for people with emotional imbalances and special needs to deal with a virtual friend than with real people. The application could be also a good source of informational support for people with mental health issues:

A conversation with an artificial intelligence app can be easier for people who do not like to share their emotions with others. [...] The AI is like a talking Google. It not only provides support but it also holds professional knowledge which is helpful. (Barbara, 65 years old, human resources)

The elderly people are waking up in the middle of the night, they have fears of various sorts and this is really helpful. It would be helpful in my situation. (Maria, 68 years old, court administration).

Enthusiasts do not fear digital illiteracy. The experience of the pandemic was given as an example of a trial for the elderly in terms of how they could manage with computer media communication (CMC). However, even here, doubts emerged and they related to children's duty to care for their parents.



Figure 5. The frequency of the categories used by the ambivalent group when responding to the second vignette.

Both the ambivalent group and the critics put the question of loneliness and proper human to human relationships and care in first place. For the critics, the application is not adequate and will not help because it does not eliminate the cause of the depression: loneliness. Moreover, they doubt whether a severely depressed person would be able to use it due to their illness or low level of digital literacy.

To be honest, I do not see it. I would not find it supportive. An artificial person, an artificial voice, programmed reactions, no. [...] I think there should be another solution. If this daughter cares for her mother, this sort of solution is a last resort. Yet, I guess, it will soon be the reality. We will be talking to the walls. (Milena, 85 years old, store owner)



Figure 6. The frequency of the categories used by the critics when responding to the second vignette.

The research participants in these two groups tended to think that depression is so serious a medical condition that an application installed on a phone would not provide sufficient support for a lonely elderly person. The ambivalent group actually repeated the critics' arguments, but in a less decisive tone, allowing some space for the application to be tried out. They took a position that "the application is better than nothing," or suggested that could can be an easy, non-judgmental and accessible interlocutor "... *on the other hand, she can ask about everything*" (14, Romuald, 71 years old), while the critics rejected it all together.

The words of 83-year-old Ilona illustrate the ambivalent attitude quite well:

I do not know, because a human needs a human. This technology may not turn on. It is different when a real person comes and evaluates the situation. If I can relate to myself, I do use a kind of a virtual club [...]. It talks you into positive thinking and healthy habits. It helps me a lot. [...] Yet, this is for less serious issues, when you look for some sort of support by yourself. (Ilona, 83 years old, university teacher)

Jerzy comes back to the issue of child-parent relations by applying a larger framework in which migration shapes the landscape of care. He explained:

It is a pity that it [the application] is not streaming live. Still, I think it may work. I think that this is one possible solution. This is not the only case like this. A lot of children left and the parents are alone. There are a lot of cases like this[...] If there is such a possibility and this friend can, as it was written here, support and talk to you, it is a very good idea. There are no other solutions. It is good enough. (Jerzy, 75 years old, university teacher).

Vignette Three: The stethoscope

The third vignette was meant to probe people's responses in regards to the ethical values of nature/natural vs. autonomy vs. equal access when confronted with new technology related to health.



Figure 7. The frequency of the categories used by the enthusiasts when responding to the third vignette.

Most of the responses we got to this vignette were enthusiastic. The solution was presented as bringing about calmness, a sense of security and control, as well as adding to the increased sense of agency. Some respondents said that the psychological comfort provided by the device could improve Maria's physical health:

She will feel more secure. Maybe, the cough attacks will be less frequent, maybe they will disappear altogether. You never know what is the reason for those. Maybe it is anxiety... (Elżbieta, 69 years old, technical editor at a publishing house)

Interestingly, in this group there also appeared a strong sense of trust in the ability to make an accurate diagnosis, *"This stethoscope guarantees her a fast and exact diagnosis."* (16, Waldemar, 66 years old), and a systemic argument implying that the use of such a device would unburden the doctors.

As observed by one of the research participants, the control that comes with the stethoscope could be even increased if a more complex application is developed:

Well, if it was additionally attached to some app, which is observed and monitored by the medical staff, well, that would be brilliant! (19, Zbigniew, 72 years old, bank clerk)

The enthusiastic research participants considered digital literacy as a potential issue to be solved for elderly technology users. Some people underlined the need to teach Maria how to use the device, however, all of them were positive about the possible outcome.



Figure 8. The frequency of the categories used by those in the ambivalent group when responding to the third vignette.

Among the people who felt ambivalent about the device, the issue of digital literacy grew bigger. Would people in older age manage to use the stethoscope properly? was a recurring question. Another one concerned the accuracy of the new technology when compared to actual visits to the doctor.

Wiktor, 69 years old, brought up another argument – that the device may be designed to uncover certain causes of symptoms and not the others, so there was a threat built into the technology that the users would calm themselves and neglect other medical tests. He expressed his anxiety about being overly reliant on one e-health tool.

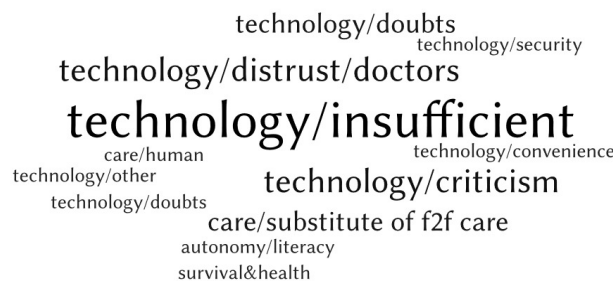


Figure 9. The frequency of the categories used by the critics when responding to the third vignette.

The critical opinions about the stethoscope implied that such a device may be not be trusted by doctors, who would not treat such measurements seriously. Also, the arguments from the ambivalent group about the fact that the device is not capable of providing full information but, instead, gives a very narrow picture of the ailment, was raised.

This would not make the work short! Seemingly, it makes contact with the doctor easier. In reality, it is not easier for the doctor nor for the patients. It is one more gadget. (Barbara, 69 years old, office worker)

Direct contact with the doctor is best. He will examine [...] There is no such machine... The doctors themselves sometimes have problems diagnosing, so, let's not mention such a device. These are the shortcuts because there are not enough doctors. (Artur, 69 years old, construction worker)

Artur brought up the systemic argument again, yet, differently to the enthusiasts, the presence of the device was understood by him as a strategy for lowering the costs of healthcare and managing an understaffed health sector. He argued for the stethoscope to be a poor option. He did not believe in technology replacing humans.

Vignette Four: The mattress

The fourth situation presented to the research participants was meant to probe people's responses in regards to the ethical values of dignity and nature (social relations/human care).

Most of the responses we got to this vignette were enthusiastic.



Figure 10. The frequency of categories used by the enthusiasts when responding to the fourth vignette.

The enthusiasts perceived the use of a smart mattress in this case as increasing the comfort and standard of living for elderly people with urinary incontinence.

Antoni should be happy that such a device exists and that someone invented it. And someone will come earlier so that he doesn't have bedsores or other problems with urea. Very good idea. (Jerzy, 75 years old, university teacher)

Most often, the technology was perceived as helping to avoid the negative consequences of being bedridden, like bed sores. Yet, the notion of “being cared for” was also a visible factor in relation to dignity.

Well, he definitely feels that someone cares about him. So, he's not such "a vegetable," so to speak. (Elżbieta, 69 years old, technical editor at a publishing house)

One of the research participants shared his thoughts that Antoni could even improve his social relationships thanks to this technology, in case he shared a room with someone else who would be bothered by the smell of urine. The research participants in this group pointed out that this solution would allow the nurses to react quickly to the needs of elderly people by changing the bedlinen – another important element for the sense of dignity. Furthermore, the research participants found the issue of communication between the medical personnel and the elderly person important. In a few responses, people stressed the need for delicacy and respect while communicating about such issues with seniors, as they are perceived as shameful.

The whole situation, not only the proposal to change the mattress, is difficult and embarrassing for Antoni, which results from the intimate nature of the problem. (Waldemar, 66 years old, driver and mechanic)

He noted that the first reaction may be shame, but he believed that Antoni should overcome this shame and agree to use a mattress with sensors.

In this group, the motivation of the medical personnel to introduce the new solution was explained positively. The nurse was perceived simply as a good carer, who wanted to perform her job well. Yet, one person voiced the idea that this technology could work as a form of pressure on the nurse who would not be able to ignore people's needs anymore. The research participants also underlined the fact that this new solution would allow the nurse to have more time for other patients, which they valued positively.

We know how busy nurses are in every hospital, in every nursing home, so I think it would shorten the actual waiting time. It would even improve the comfort of the nurse, because she wouldn't have to feel or look at them, and she would react when it was necessary. (Barbara, 65 years old, human resources)

Some of the enthusiasts expressed concern about elderly people's distrust toward and fear of technology.

The nurse has good intentions – urinary incontinence is a sad thing, she doesn't want her patients to lie in wet beds for too long, she can react quickly. Mr Antoni may prefer to lie in wet bedding because he is afraid of new things, or maybe he thinks that there is something else behind this proposal? Does this device perform any other functions? Yet, he should agree. (Zuzanna, 75 years old, accounting department)



Figure 11. The frequency of the categories used by those in the ambivalent group when responding to the fourth vignette.

Among the research participants whose responses were labeled as ambivalent, the narrative of 69-year old Barbara focused on the possible resistance on the side of medical personnel toward the solution. The nurses were talked about as reluctant to react quickly and overloaded and the idea behind the mattress was framed as an additional burden and a form of control over their work. This research participant also pointed out that people with different characters may respond differently to the new technology. Another person suggested that a catheter would be a better solution, as it would provoke less embarrassment. She advised frugality when it comes to new technological solutions and an individual approach when making decisions.

a contemporary academic work on applied ethics and moral philosophy. We used key concepts in moral theory to design the vignettes. Our aim was to understand the extent to which lay ethics corresponded with the propositions advanced by moral philosophers. These provided the guiding framework for our discussions. Another, more anthropological, aim was to sketch the emic perspective on the bigger societal transformations (in particular, technological advancements in the area of healthcare) within which elderly people are ascribed a potentially vulnerable position. The stories we prepared for the research participants were taken as an incentive to morally comment on the changes irritating the fabric of contemporary society. The people we spoke to referred to the sense of loneliness, the quality of human relations (in particular, parent-child relations), migration patterns, the quality of healthcare, the way technology is meant as a replacement for something expensive. Remaining in a dialogue with these large frameworks, the research participants expressed their moral standpoints in relation to concrete examples of the encroachment of e-health technologies into the lives of their fictional peers. Here our collaborators did not speak in unison. The participants used various standpoints listed by philosophers and they engaged in sensible moral discussions and provided a number of arguments for the primacy of autonomy, privacy, dignity, survival or the natural order in each context. We grouped the answers into three categories depending on the attitude people took to e-health technology entering a specific social situation (i.e., the enthusiasts, the ambivalent group, the critics). Since the proposed categorization does not exhaust all the possible ways of ordering the research material, we suggest that the most valuable part of the research material consists of the illustrations of acts of lay moral reasoning our collaborators undertook in response to the stories we scripted.

The use of the vignette method can give rise to some limitations of the study. They are great experimental tools: by modifying the parameters of the same vignette, it is possible to compare the reactions of the respondents. In our study, we did not do this, and the stories included in the vignettes are the result of some arbitrary decisions. How we described the main character's health situation, who the person proposing to use the new technology was, can determine how it will be evaluated. Only when analyzing the content of the interviews did it occur to us that the proposal to install cameras could have been judged somewhat differently if we had placed a daughter in the vignette instead of a son (in Polish culture, daughters are still more responsible for the care of their parents than sons). However, it is worth noting the potential of this method: due to the possibility of controlling such parameters, the vignettes can be used to study attitudes toward technologies unfamiliar to the respondents and to observe the process of making moral judgments about a given technology, imagined uses or unexpected consequences.

The results obtained should be related to the population of people living in a large city. These are people who have relatively high digital competence and show a positive attitude to technological novelties, therefore, the results of the survey could be different among older residents of small towns and villages. On the one hand, a lower level of education and being in a more conservative environment could result in less trust in new technologies. On the other hand, the loneliness and isolation of the elderly living in low-density areas could make e-health tools appreciated for their ability to break the barrier of the long distance from informal and formal caregivers or medical professionals.

IMPLICATIONS FOR RESEARCH, APPLICATION, OR POLICY

We believe that our material spots a number of areas worthy of further exploration. For instance, we noticed that what we call “the elderly generation” is, in fact, a very diverse group of people who can experience different health issues at different times in later life. For example, the vignette in which Antoni was a protagonist seemed quite abstract to many of our collaborators who perceived themselves as occupying a different stage of life. His situation laid dramatically different conditions for experiencing autonomy, security, human contact or dignity in comparison to the elderly figures featured in the other three stories. We hypothesize that the hierarchy of the importance of the values mentioned by seniors eventually depends on the stage of life they occupy during old age.

Our choice of methodology proved that not only the experiences of elderly people are embedded in social contexts but also that the scope of possible moral movement is not simply defined by age, but also by other factors such as health, family situation, personality, dominant cultural frameworks, placement. In Poland, institutional care for seniors is still associated with “less humane” care, an experience of abandonment, a risk. To think about placing your elderly parent in an institution involves ethical dilemmas. Caring for elderly parents is a tough road through a network of imperfect private and public institutions, with a lack of flexible at-home care solutions or a legal framework enabling engagement in practices of care without quitting one’s job. Such structural conditions produce much intergenerational anxiety, difficult to mend with the help of new technologies. Eventually, care for the elderly is also unevenly distributed. The demands rest mostly with females. Last, but not least, it cuts through the imagery of being a modern, nuclear family or a postmodern single person or in a flexible relationship and, here, the traditional values of the multigenerational family do not fit very well. We suggest that the fear and ambivalence evoked by e-health do not come from the technology itself but shall be viewed as rooted in the ways in which different generations collectively transform their values and how technology is interpreted within these various, emotionally loaded social layers of meanings.

Examining the ways in which potential user groups of new digital health technologies assess the ethical implications of their use is useful for designing such tools and the policies that support fair and safe implementation. They help understand what factors influence the trust of users and their expectations of e-health technologies. For example, the finding from our research that older people are concerned about the social isolation that can result from the implementation of e-health tools shows that if such concerns go unnoticed, they can result in unexplained barriers to accessing new technologies, creating further dimensions of health inequality. This type of research can help to show that inequalities are not only due to different economic status, digital competence, but also to the social context, family situation, or culturally based beliefs about family roles.

This work would benefit from being developed with a greater focus on affective materiality and new understanding of the ways in which humans relate with technology (e.g., Höppner & Urban, 2019; Pink, 2015). We believe that the conversations we opened with this research are worth further exploration, maybe, also, by inviting younger generations or people inhabiting other ethnographic contexts to comment on our, or other, stories.

REFERENCES

- Ahmed, M. A. E., Zakaria, M. F., Abd Elaziz, A. A. E., Fouad, M. M., Elbokl, A. M., & Swelam, M. S. (2023). Assessment of the role of telemedicine in the outcome of multiple sclerosis patients. *Egyptian Journal of Neurology, Psychiatry & Neurosurgery*, 59, 1–9. <https://doi.org/10.1186/s41983-023-00690-y>
- Akenine, U., Barbera, M., Beishuizen, C. R., Pour, M. F., Guillemont, J., Rosenberg, A., Coley, N., Mangialasche, F., Salo, L., Savy, S., Pols, A. J., Andrieu, S., Richard, E., Soininen, H., Charante, E. M. van, & Kivipelto, M. (2020). Attitudes of at-risk older adults about prevention of cardiovascular disease and dementia using eHealth: A qualitative study in a European context. *BMJ Open*, 10(8), e037050. <https://doi.org/10.1136/bmjopen-2020-037050>
- Almasi, S., Shahbodaghi, A., & Asadi, F. (2022). Efficacy of Telemedicine for the Management of Asthma: A Systematic Review. *Tanaffos*, 21(2), 132–145.
- AlQudah, A. A., Al-Emran, M., & Shaalan, K. (2021). Technology Acceptance in Healthcare: A Systematic Review. *Applied Sciences*, 11(22), Article 22. <https://doi.org/10.3390/app112210537>
- Alter, N., Arif, H., Wright, D.-D., Martinez, B., & Elkbulli, A. (2023). Telehealth Utilization in Trauma Care: The Effects on Emergency Department Length of Stay and Associated Outcomes. *American Surgeon*, 89(11), 4826–4834. <https://doi.org/10.1177/00031348231173944>
- Amiri, F. S. A. S. E., Bohloully, F., Khoshkangin, A., Razmi, N., Ghaddaripouri, K., & Habibi, M. R. M. (2021). The effect of telemedicine and social media on cancer patients' self-care: A systematic review. *Frontiers in Health Informatics*, 10(1), 1–5. <https://doi.org/10.30699/fhi.v10i1.316>
- Aslan, A., Mold, F., van Marwijk, H., & Armes J. (2024). What are the determinants of older people adopting communicative e-health services: a meta-ethnography. *BMC Health Service Research*, 24(60), 1-6. <https://doi.org/10.1186/s12913-023-10372-3>
- Banbury, A., Roots, A., & Nancarrow, S. (2014). Rapid review of applications of e-health and remote monitoring for rural residents. *Australian Journal of Rural Health*, 22(5), 211–222. <https://doi.org/10.1111/ajr.12127>
- Barter, Ch., Renold, E. (2000). 'I wanna tell you a story': exploring the application of vignettes in qualitative research with children and young people. *Social Research Methodology*, 3(4), 307-323.
- Bentham, J. (1907). *An Introduction to the Principles of Morals and Legislation*. Oxford: Clarendon Press.
- Bujnowska-Fedak, M.M., Mastalerz-Migas, A. (2014). Usage of Medical Internet and E-Health Services by the Elderly. In: Pokorski, M. (eds) *Environment Exposure to Pollutants. Advances in Experimental Medicine and Biology*, vol 834. Springer, Cham. https://doi.org/10.1007/5584_2014_74
- Bujnowska-Fedak, M., Pirogowicz I. (2014). Support for e-health services among elderly primary care patients. *Telemed J E Health*, 20(8), 696-704. <https://doi.org/10.1089/tmj.2013.0318>. Epub 2013 Dec 20. PMID: 24359252; PMCID: PMC4106384.
- Cohen, J. L. (2002). *Regulating Intimacy. A New Legal Paradigm*. Princeton: Princeton University Press.
- Drapalik, K. N., Grodberg, D., & Ventola, P. (2022). Feasibility and Acceptability of Delivering Pivotal Response Treatment for Autism Spectrum Disorder via Telehealth: Pilot Pre-Post Study. *JMIR Pediatrics & Parenting*, 5(3), 1–10. <https://doi.org/10.2196/32520>
- Faber, J. S., Al-Dhahir, I., Reijnders, T., Chavannes, N. H., Evers, A. W. M., Kraal, J. J., van den Berg-Emons, H. J. G., & Visch, V. T. (2021). Attitudes Toward Health, Healthcare, and eHealth of People With a Low Socioeconomic Status: A Community-Based Participatory Approach. *Frontiers in Digital Health*, 3, 690182. <https://doi.org/10.3389/fdgth.2021.690182>
- Hoenig, H. M., Amis, K., Edmonds, C., Morgan, M. S., Landerman, L., & Caves, K. (2018). Testing fine motor coordination via telehealth: Effects of video characteristics on reliability and validity. *Journal of Telemedicine & Telecare*, 24(5), 365–372. <https://doi.org/10.1177/1357633X17700032>
- Höppner, G., Urban, M. (2019). Editorial: Materialities of Age and Ageing. *Frontiers in Sociology*, 4(14), 10.3389/fsoc.2019.00014

- Jokinen, A., Stolt, M., & Suhonen, R. (2021). Ethical issues related to eHealth: An integrative review. *Nursing Ethics*, 28(2), 253–271. <https://doi.org/10.1177/0969733020945765>
- Jung, M.-L., & Loria, K. (2010). Acceptance of Swedish e-health services. *Journal of Multidisciplinary Healthcare*, 3, 55–63. <https://doi.org/10.2147/JMDH.S9159>
- Kamal, S. A., Shafiq, M., & Kakria, P. (2020). Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM). *Technology in Society*, 60, 101212. <https://doi.org/10.1016/j.techsoc.2019.101212>
- Kymlicka, W. (2002). *Contemporary Political Philosophy. An Introduction*. Oxford: Oxford University Press.
- Lee, M. G. Y., Russo, J. J., Ward, J., Wilson, W. M., & Grigg, L. E. (2023). Impact of Telehealth on Failure to Attend Rates and Patient Re-Engagement in Adult Congenital Heart Disease Clinic. *Heart, Lung & Circulation*, 32(11), 1354–1360. <https://doi.org/10.1016/j.hlc.2023.08.010>
- Lindberg, J., & Lundgren, A. S. (2022). The affective atmosphere of rural life and digital healthcare: Understanding older persons' engagement in eHealth services. *Journal of Rural Studies*, 95, 77–85. <https://doi.org/10.1016/j.jrurstud.2022.07.020>
- Maciejewska-Mroczek, E., Witeska-Młynarczyk, A. (2021). Managing the Past in the Context of (Dis)Closed Adoption in Poland. *Revue des sciences sociales*, 66, 78–87.
- Ngassa Piotie, P., Wood, P., Muchiri, J. W., Webb, E. M., & Rheeder, P. (2022). Using a nurse-driven and home-based telehealth intervention to improve insulin therapy for people with type 2 diabetes in primary care: a feasibility study. *Journal of Endocrinology, Metabolism & Diabetes of South Africa*, 27(3), 108–116. <https://doi.org/10.1080/16089677.2022.2074122>
- Nymberg, V. M., Bolmsjö, B. B., Wolff, M., Calling, S., Gerward, S., & Sandberg, M. (2019). 'Having to learn this so late in our lives...' Swedish elderly patients' beliefs, experiences, attitudes and expectations of e-health in primary health care. *Scandinavian journal of primary health care*, 37(1), 41–52. <https://doi.org/10.1080/02813432.2019.1570612>
- Pah, N. D., Motin, M. A., & Kumar, D. K. (2022). Phonemes based detection of parkinson's disease for telehealth applications. *Scientific Reports*, 12(1), 1–9. <https://doi.org/10.1038/s41598-022-13865-z>
- Pink, S. (2015). *Doing Sensory Ethnography*. Los Angeles, London, new Dehli, Singapore, Washington DC: Sage Publications Ltd.
- Pinker, S. (2008, May 28). The Stupidity of Dignity. *The New Republic*. <https://newrepublic.com/article/64674/the-stupidity-dignity>
- Rajkumar, E., Gopi, A., Joshi, A., Thomas, A. E., Arunima, N. M., Ramya, G. S., Kulkarni, P., Rahul, P., George, A. J., Romate, J., & Abraham, J. (2023). Applications, benefits and challenges of telehealth in India during COVID-19 pandemic and beyond: a systematic review. *BMC Health Services Research*, 23(1), 1–15. <https://doi.org/10.1186/s12913-022-08970-8>
- Rasi-Heikkinen, P., & Airola, E. (2023). Health services and eHealth from the perspective of older rural residents of Finnish Lapland. *Journal of Rural Studies*, 97, 177–185. <https://doi.org/10.1016/j.jrurstud.2022.12.016>
- Rochester, C. L. (2022). Does Telemedicine Promote Physical Activity? *Life* (2075-1729), 12(3), 425–N.PAG. <https://doi.org/10.3390/life12030425>
- Rosen, M. (2008). *Dignity. Its history and meaning*. Cambridge: Harvard University Press.
- Rój, J. (2022). What Determines the Acceptance and Use of eHealth by Older Adults in Poland?. *Int. J. Environ. Res. Public Health*, 19, 15643. <https://doi.org/10.3390/ijerph192315643>
- Sekhon, H., Sekhon, K., Launay, C., Afililo, M., Innocente, N., Vahia, I., Rej, S., & Beauchet, O. (2021). Telemedicine and the rural dementia population: A systematic review. *Maturitas*, 143, 105–114. <https://doi.org/10.1016/j.maturitas.2020.09.001>
- Schomakers, E.-M., Lidynia, C., & Ziefle, M. (2019). Listen to My Heart? How Privacy Concerns Shape Users' Acceptance of e-Health Technologies. *2019 International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)*, 306–311. <https://doi.org/10.1109/WiMOB.2019.8923448>

- Shemesh, T., & Barnoy, S. (2020). Assessment of the intention to use mobile health applications using a technology acceptance model in an Israeli adult population. *Telemedicine and e-Health*, 26(9), 1141-1149.
- Singer, P. (1993). *Practical Ethics*. Cambridge: Cambridge University Press.
- Sommer, A. C., & Blumenthal, E. Z. (2020). Telemedicine in ophthalmology in view of the emerging COVID-19 outbreak. *Graefe's Archive of Clinical & Experimental Ophthalmology*, 258(11), 2341-2352. <https://doi.org/10.1007/s00417-020-04879-2>
- Stavropoulos, K. K.-M., Bolourian, Y., & Blacher, J. (2022). A scoping review of telehealth diagnosis of autism spectrum disorder. *PLoS ONE*, 17(2), 1-22. <https://doi.org/10.1371/journal.pone.0263062>
- Stroetmann, V. N., Hüsing, T., Kubitschke, L., & Stroetmann, K. A. (2002). The Attitudes, Expectations and Needs of Elderly People in Relation to E-Health Applications: Results from a European Survey. *Journal of Telemedicine and Telecare*, 8(2_suppl), 82-84. <https://doi.org/10.1177/1357633X020080S238>
- Tarhan, G., Örsal, Ö., & Duru, P. (2023). The effect of telehealth interventions on anxiety management in the COVID-19 pandemic: a systematic review. *Journal of Psychiatric Nursing / Psikiyatri Hemsireleri Dernegi*, 14(1), 59-69. <https://doi.org/10.14744/phd.2022.00378>
- Taylor, C. (1979). *Philosophy and the Human Sciences. Philosophical Papers 2*. Cambridge: Cambridge University Press.
- Terp, R., Kayser, L., & Lindhardt, T. (2021). Older Patients' Competence, Preferences, and Attitudes Toward Digital Technology Use: Explorative Study. *JMIR Human Factors*, 8(2), e27005. <https://doi.org/10.2196/27005>
- Uppal, S. K., Beer, J., Hadeler, E., Gitlow, H., & Nouri, K. (2021). The clinical utility of teledermoscopy in the era of telemedicine. *Dermatologic Therapy*, 34(2), 1-5. <https://doi.org/10.1111/dth.14766>
- Wang, X., Wang, J., Du, X., Yu, L., Zhou, Y., Zhou, S., Wang, Y., & Ding, Y. (2023). Telemedicine during the COVID-19 epidemic improves outcomes in children with tuberous sclerosis complex: A 1206 visits retrospective cohort study. *CNS Neuroscience & Therapeutics*, 1. <https://doi.org/10.1111/cns.14549>
- Witeska-Młynarczyk, A. (2019). *Dziecięce doświadczenia ADHD. Etnografia spornej jednostki diagnostycznej*. [Children's experiences of ADHD. An ethnography of a contentious diagnostic entity.] Warszawa, Oficyna Naukowa.
- Zubair, M., Liang, G., Jawad, M., Dilawar, S., & Ilyas, B. (2021). Fear of COVID-19 and intentions towards adopting e-health services: exploring the technology acceptance model in the scenario of pandemic. *International Journal of Business, Economics and Management*, 8(4), 270-291.

Authors' Note

This work was supported by the EU Research and Innovation programme Horizon 2020 under grant agreement No. 952357 – REINITIALISE (Preserving fundamental rights in the use of digital technologies for e-health services). The authors would like to thank the European Commission for enabling the funding. Additionally, special thanks go to Marta Łacek from the Polish Teachers' Union and Anna Sadowska from the Institute of Sociology.

All correspondence should be addressed to
Michał Nowakowski
Uniwersytet Marii Curie-Skłodowskiej, Institute of Sociology, Poland
pl. Marii Curie-Skłodowskiej 4
20-031 Lublin
m.nowakowski@umcs.pl