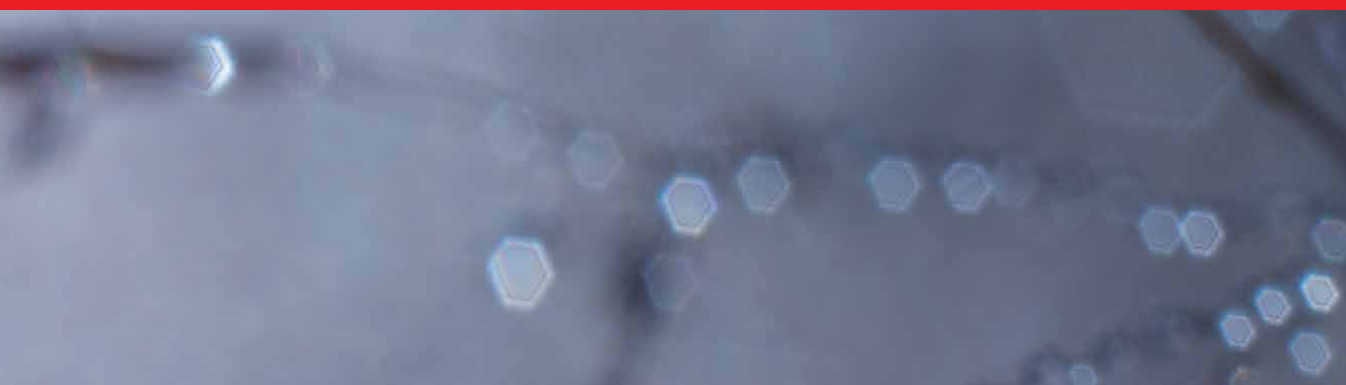




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Determinants of Loneliness

Edited by Md Zahir Ahmed



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Contributors

Andrea Patricia Luna Guillén, Andrejs Ivanovs, Atsuro Tsutsumi, César Rafael Narváez Carrión, Halldór Sigurður Guðmundsson, Helgi Guðmundsson, Ieva Reine, Ilze Koroļeva, Linda Rajhvajn Bulat, Madara Miķelsone, Marco Mauricio Rosales Cevallos, Md Zahir Ahmed, Signe Tomsone, Takashi Izutsu, Yemisi Okikiade Oyegbile

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Meet the editor



Born and raised in Bangladesh, Dr. Md Zahir Ahmed embarked on an academic journey in psychology, driven by a passion for understanding human behavior in the context of adversity. He pursued a Ph.D. in developmental and educational psychology, specializing in disaster psychology. He conducted his post-doctoral research at Zhejiang Normal University, China, exploring the complex factors contributing to suicidal ideation among young adults. His aim was to identify protective factors and develop targeted interventions to enhance mental health outcomes for this vulnerable population. With extensive experience in mental health promotion and youth development gained from his work with various government and nongovernmental organizations worldwide, Dr. Ahmed brings a unique perspective to his research. He is currently teaching at multiple international universities and dedicates his efforts to advancing the field of suicide ideation and prevention research. His work aims to make meaningful contributions to mental health initiatives globally. Dr. Ahmed has garnered widespread recognition for his contributions to the mental health field, boasting an impressive array of international publications and receiving attention from esteemed media outlets worldwide.

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Preface

Being alone and loneliness are not the same thing. Loneliness seeks company, whereas solitude seeks release or escape. The biggest difference is that no one dies of solitude, but loneliness can push you to death. In the seventeenth-century context, being alone was considered a clear violation of humanity. However, humanity is social by nature, and the concept soon started gaining popularity with the help of the Romantics. The world experienced unprecedented shifts in the second half of the twentieth century when people were excited and almost desperate for solitude. And gradually, the worldwide cherished solitude, mixed with loneliness with the wrap of modernization.

Later the scientific literature contradicted the glorification of loneliness or any other unmet needs. The thriving of communication comes with an elevated level of mental and physical concerns; thus, loneliness has become a serious public health concern. The public health implications of isolation are becoming more apparent. The detrimental effects of loneliness elevate the risks of mental health issues, including depression, anxiety, and sleep disturbance, along with different forms of cardiovascular and coronary diseases.

Determinants of Loneliness sheds light on loneliness with very recent and intensified evidence from top researchers worldwide. We place our confidence in the comprehensive findings that will engage the loners in conversation.

Md Zahir Ahmed
School of Psychology,
Zhejiang Normal University,
Jinhua, China

Section 1

Primer of Loneliness

Chapter 1

Introductory Chapter: Unraveling Loneliness – Historical Perspectives and Modern Realities

Md Zahir Ahmed

1. Introduction

Amidst an ever-expanding array of physical and digital connections, loneliness emerges as a multifaceted and frequently misinterpreted phenomenon. Loneliness transcends physical distance; it encompasses an overwhelming feeling of alienation that can persist even in the midst of vibrant interactions with people and networks. It is an inherent attribute of the human race, spanning the annals of time. During the seventeenth century, solitude was considered a fundamental transgression against humanity, which thrived inextricably within societal networks [1]. In the latter half of the twentieth century, a widespread zeal for solitude marked a paradigm shift in people's perceptions of loneliness. This perspective transformed with the advent of Romanticism [2]. Consequently, this shift led to the recognition of loneliness as a significant global public health concern. Persistent and prolonged loneliness is not merely a temporary emotional state; it is a condition that can lead to significant health risks, including depression, anxiety, sleep disturbances, and cardiovascular diseases [3]. Studies on the broader spectrums of loneliness collectively explore social isolation, family cohesion, quality of life, and behavioral outcomes, among others. Although technical advancements have unprecedentedly amplified opportunities for social interaction, they also come with paradoxical effects. Despite hyper-connectivity, a profound feeling of loneliness emerges every day. The feelings of loneliness play a complex emotional role, often underscored by the so-called virtual connectivity, as emotional well-being is something beyond timely and rapid connectivity.

2. Historical perspective of loneliness

Throughout a broad historical context, loneliness has evolved as both a social and psychological phenomenon. Historically, especially in monastic traditions, solitude—often seen as a contemplative, spiritually enlightening state—was hardly distinguishable from loneliness. However, the rapid urbanization and industrialization of the eighteenth and nineteenth centuries led to forced structural changes in society, where the individual experience of loneliness emerged as a threat to the human race. Notably, the Industrial Revolution accentuated individualization through rapid migration to cities, disrupting traditional societal ties and mechanisms [1]. Eventually, this era began to regard loneliness as a negative mental state,

characterized by a disconnection from society despite the physical proximity of its members. Loneliness became bound to the psychological lexicon in the twentieth century, with the pioneering research of scholars including John Cacioppo. Cacioppo's studies explained the complex biological pathways of loneliness that exacerbate physical health issues [4]. In line with modern existential theories, this era was also heavily influenced by post-conflict philosophies, which highlighted the fragile human connections within society. Currently, there is a growing concern that loneliness is an intricate and diverse phenomenon impacting a wide range of age groups, including adolescents and elderly individuals. Analogous to obesity and smoking, it can significantly predict morbidity and mortality rates.

3. Romanticism in loneliness

Culturally, the romantic perspective of loneliness illustrates the cultural, historical, philosophical, artistic, and individualistic representations. The burgeoning industrialization in the late 18th and early 19th centuries gave rise to romanticism, which enlightened the rationalism of individual emotions and their interactions with nature. In the romantic concept, loneliness was not considered exclusively as the state of being alone; rather, it was seen as deep introspection that fostered creativity. To epitomize this notion, William Wordsworth and Samuel Taylor Coleridge in Britain are the best examples, who depicted solitude in their poetry. Their writings suggest that a deeper connection between humans and nature is inspiring and supports solitude [5]. Often, literature from the romantic era was misunderstood by society, yet it was attributed with unique characteristics. Notably, Edgar Allan Poe repeatedly focused on alienation and deeper loneliness [6]. Paintings from this era took a drastic turn by visualizing loneliness. Caspar David Friedrich depicted loneliness by presenting lone figures in vast natural settings to represent being lonely [7]. Loneliness transcended from literature to philosophy in the romantic era, where the internal mechanisms and subjective world synced explicitly. Individuals began to explore the emotional horizon, exclusively emphasizing the philosophical esthetics, gradually replacing the predominated intellectual notions. Eventually, the era used loneliness as a catalyst for self-discovery through esthetics.

4. Loneliness paradox in the hyper-connectivity

Incredibly, loneliness transcends all societal elements, including gender, age, socio-economic status, and geopolitical boundaries. Despite living in an era of hyper-connectivity, most individuals experience a significantly higher level of loneliness and isolation than before [8]. This connectivity paradox partly arises from virtual interactions that lack emotional resonance. Digital exchanges are rapidly replacing human connections and emotions, leaving behind an inconsolable mental state. Additionally, the individualistic pursuits of modern lifestyles make social relationships transient and induce feelings of loneliness. Close-knit family bonds fade with rapid migration driven by modernization, as people flock to urban areas [9]. However, the evolution is not limited to rapid migration to cities; it also transcends work roles, workplaces, and cultures. The post-modern era offers absolute flexibility in work, especially with the rise of remote working, which fosters a new trend of digital nomads who often miss meaningful bonding and interactions with coworkers.

5. Conclusion


Over the time, loneliness has evolved from individual challenges to communal introspections. The consequences of loneliness are acute from both physical and societal perspectives and can be regarded as a modern-day epidemic. Therefore, it is essential to understand the historical roots of loneliness, which may still be embedded in contemporary manifestations. What we understand is that confronting loneliness requires genuine human connectivity and a complex empathetic pathway.

Author details

Md Zahir Ahmed
School of Psychology, Zhejiang Normal University, Jinhua, China

*Address all correspondence to: ahmedzahirdu@gmail.com

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Section 2

Loneliness from Time
to Territory

Perspective Chapter: Loneliness through Time – Geographical Distance, Sensibility Isolation, and Hyperconnectivity

César Rafael Narváez Carrión, Andrea Patricia Luna Guillén and Marco Mauricio Rosales Cevallos

Abstract

Human beings are social by nature, and the poverty or lack of social interactions carries significant consequences with loneliness being a concern in a close relation to these interactions. In this sense, social disconnection due to several forms of discrimination has also been a concern, particularly in the context of two related phenomena: geographical distance and social discrimination, there are multiple examples throughout history. For instance, insightful evidence provided by early voyagers emphasizes the need for inclusion. In opposition, the modern society characterized by the wide use of technology has paradoxically allowed social disconnection through the problematic use of technological devices in several contexts, especially in the case of young users. Societies are complex systems in constant change. The dynamics among various elements of society should be the object of constant reflection to keep the balance and solve every social problem as soon as it appears. The potential of technology makes it a very powerful tool for both connection and disconnection. Therefore, it constitutes a priority to focus on the importance of keeping the balance in its usage.

Keywords: loneliness, technological isolation, hyper connectivity, social discrimination, voyagers, inclusion

1. Introduction

ἄΝΘΡΩΠΟΣ ΦΥΣΕΙ Μ᾽ΕΝ ἜΣΤΙΝ ΖῶΝ ΠΟΛΙΤΙΚΟΝ (Greek for: Man is a political animal by nature), the human being, by definition, is a social being. Aristotle mentioned this centuries ago in his Politics, determining the nature of humans by the existence of the surrounding community or *polis* [1]. Current research has provided genetic evidence to support this claim. Thanks to the domestication of fire, cooking, and child-rearing, a scenario for coordinated, collaborative, and competitive practices emerged [2]. In opposition, the possibility of loneliness and isolation appeared with its natural negative consequences. The act of interacting and growing through the constant

exchange of thoughts, experiences, or even the opportunity to share space, silently defines the social being opening the door to the opposite as the denial of humanity.

Loneliness has been defined as an unpleasant feeling as a consequence of a lack of companionship and a wish for a different kind of interaction [3]. Both loneliness and isolation are naturally related to emotional health, but at the same time, they have proved to be linked to general health [4]. Fostering inclusion is not only about wellbeing but also about health. Having the opportunity to share with others, either in education, cultural, political, or social processes, has the potential to support wellbeing. There is research about the impact of both loneliness and isolation on blood pressure and, as a consequence, on cardiovascular disease [5–7]. At the same time, Mindfulness has been found to have a positive impact on stress and wellbeing [8]. This last factor underlines the importance of emotional factors over physical ones, which helps us understand the difference between the low emotional isolation of some famous characters, even when they were geographically distant, opposite to geographical proximity and social disconnection as features of current societies.

2. The encounter of two cultures

This analysis follows the path of history to dig in loneliness. Fifteenth-century journeys shaped the world, it is a fact. Nevertheless, it was not a peaceful encounter: Eurocentric view of visitors led to a whole process of conquest [9]. Both Columbus's discovery of the route to the Americas and Vasco da Gama's linkage of Europe and India had important consequences for the Western world, Modern *ego cogito* was preceded by *ego conquiro*, a practical conception where both Spain and Portugal imposed their will over what will be called the American nations. Their evident superiority over the Aztec, Mayan, Inca, and other cultures from this new territory is not discussed. One of the most outstanding attributes was that European weapons were not built on steel but on wood [10].

This Eurocentric/Anthropocentric vision of the world was not new nor exclusive to Spain and Portugal. Centuries before, Aristotle himself had established a very closed vision, naturalizing slavery in the Hellenic world [11]. In its politics, we can see numerous examples of it, as when uttering slaves are naturally featured by nature, but not among barbaric people since the governing element is not present there [12], something that would support this view. Otherwise, the amount of resources provided by this conquest will play a leading role catapulting this ascending power far over other cultures like Turkish in the famous Lepanto Battle (1571) [12]. Thus, the empowerment of Europe (Spain and Portugal in particular) was not an isolated event but the result of its encounter with the new world and the resulting harnessing of its resources.

The Eurocentric view, widely criticized nowadays, was not the absolute rule among Spaniards. Already in the sixteenth century, a few authors were criticizing this Eurocentric view of the world, mainly Las Casas, known for his defense of Indians, but also a defender of African slaves and Canarian Guanches:

For as the blacks see that the Portuguese are so anxious for their slaves, because of their greed for what they give them, as well as their lack of faith and fear of God, as many as they can steal and captivate in any way they can, and their own kinsmen do not forgive, and so they only approve of their tyranny and wickedness and unjust wars, which they wage against one another for their slaves [13].

In the case of the Indians' defense, Las Casas's arguments were opposed to the Eurocentric ones, defended by Ginés de Sepulveda in the Valladolid Debate, where the central question is: Are the Indians inferior beings or equal to Europeans? The huge impact of this debate can be easily understood, if we consider the fact that it could affect the exploitation of resources (mainly gold and silver) in the recently discovered mines in the New World and the Empire spread to the West [14]. "Between the start of Pizarro's military expedition in 1531 and 1536, the original *conquistadors* sent enormous quantities of gold and silver to Europe" [15].

2.1 The first voyagers through the New World and the impact of their discovery

The massive arrival of European people to the Americas, starting at the end of the fifteenth century, became a connection between the so-called New World and the Old One. After the flood of European conquerors, some scientists also traveled, mainly to discover new treasures to enrich the European powers according to the ideas of Enlightenment [16, 17]. The exchange between nations would contribute to developing new conceptions, even if it took time to be set in the optimal way to profit both sides. Findings like the treatment of malaria through Cinchona, originally used by Indigenous peoples and then adopted by Europeans even before its scientific description by La Condamine, according to the study of Joseph de Jussieu [18]. In turn, American Indigenous people had access to crops and agricultural technology coming from the Old World [19].

In 1687, Newton's postulation of Earth's shape in his *Principia*. The idea behind was rather simple, gravitational attraction near the Equator is weaker due to the greater distance to the center of our globe, and it was probed by the pendulum oscillation measures by Jean Richer. Contrary to Newton, Jacques Cassini claimed the Earth to be flattened at the Equator and supported his claim with the observations of his father, Giovanni Domenico Cassini. As a result of this controversy, the French king Louis XV ordered Pierre Louis Moreau de Maupertuis to conduct an expedition and resolve the debate. Not one but two expeditions were conducted: the first to Lapland and the second to Peru [16].

Previously in the seventeenth century, the bark of certain trees from Peru became known as a powerful remedy in Europe. Nevertheless, even if the bark was widely accepted, its first scientific description came from Linnaeus in 1742 after some specimens were sent by La Condamine [20]. Such a discovery would constitute a milestone in the development of medicine and would become the source of an important income when introduced to Ceylan, because of its content of quinine more than a century later [21].

Concerning another important finding, rubber, names like Christopher Columbus, Pietro Martyr d'Anghiera, or Gonzalo Fernandez de Oviedo are mentioned, but once again, the detailed description of the origin of such material and its obtaining came with La Condamine in 1736 [22].

When dealing with food, other important products, whose consumption contributed in a certain way to shape nutrition, are now part of our diet. Maize was mentioned by the same Fernandez de Oviedo in his History of Indies, in 1526 [23]. Manioc, mentioned by several voyagers including the same Columbus in his first voyage, and Pedro Alvares Cabral when traveling to Brazil, even if mistaken by yam, or inhame [24]. Tomato, a product that soon appeared in the gardens of Italian aristocrats, was later studied by Renaissance naturalists, even if the specific geographical origin is not clear [25]. Another crop, the potato, was first observed in 1551 by Pedro

de Valdivia, reported by López de Gómara in 1552, and then, documented from the Canary island in 1567 [26].

Nevertheless, not everything was beneficial. Europeans are reported to start smoking as soon as 1492, in Cuba. Soon after, tobacco smoking arrived in Europe from the New World since the very first voyage of Columbus. There is evidence of the imprisonment of a European smoker in Spain for three years by the Inquisition [27].

So, American products were gradually integrated into European society, even with mentions of antiquity as suggested by the Italian name of the tomato: Pomodoro. According to Greek mythology, golden apples grew in a garden that was guarded by the Hesperides nymphs. Nevertheless, there were also polemics around as shown by the fact that tomatoes took nearly three hundred years to be regularly consumed [28].

2.2 Geographic isolation and traveling issues

It is hard to believe that Ecuador, a place visited by more than fifty thousand tourists even in the Middle of the COVID-19 pandemic [29], was isolated before the nineteenth century. Even more surprising than the Galapagos islands, one of the first UNESCO World Heritage sites in 1978 [30], mainly because of its biodiversity, and visited by around twenty thousand people as early as 1980 [31], has been described as follows:

It is to be doubted whether any spot on earth can, in desolateness, furnish a parallel to this group. Abandoned cemeteries of long ago, old cities by piecemeal tumbling to their ruin, these are melancholy enough; but, like all else which has but once been associated with humanity, they still awaken in us some thoughts of sympathy, however sad. Hence, even the Dead Sea, along with whatever other emotions it may at times inspire, does not fail to touch in the pilgrim some of his less unpleasable feelings [32].

What is more, it is hard to believe that this globally known natural paradise has been described as “[a place where] they found nothing but sea lions, turtles, and giant tortoises, each of which carried a person on its back.” Alternatively, even: “Believing that, due to its size and monstrosity, it must have rivers and fruits, we went towards it. The first island might have been about four or five leagues in circumference, and the other might have been ten or twelve leagues. In the meantime, we drank the water we had on the ship and spent three days reaching the island, facing many difficulties during the calm weather, both men and horses alike” [33].

Regarding the continental territory, the Republic of Ecuador, centuries after La Condamine would explore the territory with the same Eurocentric view of the territory: “All this terrain is covered with dense woods where one must clear a path with an axe. I walked with the compass and thermometer in hand, more often on foot than on horseback. [...] I stayed eight days in these deserts” [34]. His voyage was not an easy one, he tells how he was attacked by yellow fever “On July 2 (1735), a Swiss sergeant embarked on our ship, a robust man, was taken away in less than a day by the sickness of Siam (yellow fever), so common in our islands. On the 3rd, a violent fever and other symptoms led to the belief that I was attacked by the same illness. We were supposed to leave the next day. I was treated with all the speed required by such a short time; I was sick, bled, purged, cured, and embarked within twenty-four hours” [34].

In addition to this geographical isolation, far from their hometown, it is worth mentioning the social isolation these French wise men also experienced. Far from

their friends and relatives, members of the French geodesic mission see their rights violated when one of them is murdered in the city of Cuenca, southern Ecuador [35]. It is not a question here of delving into the reasons or the truth of their feelings of abandonment but of arguing for the existence of these, in another form of isolation.

Alexander Von Humboldt in the nineteenth century would tell his journey from Bogota to Quito to his brother: “We preferred to go on foot, and, given that the weather was very good, we spent only seventeen days in those solitudes where there is no trace that they have ever been inhabited...” However, in this case, we can see a positive attitude when reading “The weather had changed; in the last few days, it rained heavily. Our boots rotted on our legs, and we arrived in Cartago with bare and wounded feet. However, we were enriched with a beautiful collection of new plants, from which I have made a large number of drawings” [36]. This last comment would link the feeling of loneliness, not to the natural environment or the lack of population to share with—Von Humboldt appreciates the company of people, he is neither a recluse—as he reflects when writing in the same letter: “... this small town [...] where the inhabitants welcomed us with the most touching hospitality.” Nevertheless, he also has tough words to describe the New World: “The entrance and exit [...] are among the most frightening in the world. It involves dense forests situated amidst swamps; the mules become half-buried, and one crosses gorges so deep and narrow that it feels like being in the galleries of a mine” [36].

A particular mention needs to be made for Haiti, which revolution and abolition of slavery meant isolation from the Western world. Even if they largely contributed to independence movements in South America, the fact that their place in politics was a dangerous symbol of class and racial equality made its inclusion difficult to support, if we can say it politely [37].

2.3 Another form of isolation: Literature and tragedy

The bridge between Europe and America was there. Even after the independence of the ancient colonies, there was contact between Spain and Ecuador. Among the wealthy Ecuadorian people, a few went studying to Europe from time to time, keeping the door open to new ideas.

Within this scenario, diffusion of knowledge in the elite characterized the American societies. Paradoxically, this knowledge linked to the sensibility proper of educated people, these new ideas of liberty constituted a source of new isolation for people ahead of their time. This is the case of Ecuadorian poetess Dolores de Veintimilla, whose opposition to the establishment led her to a direct conflict against the ruling inquisitorial power—since, even if the inquisition had been banished in 1834, in Spain, the whole inquisitorial thought stayed decades after—when urging society to avoid death penalty. This conflict would finish with a paradox; defending life led her to suicide in 1857 [38] as a consequence of social isolation due to her ideas.

President García Moreno would impose the French educative model. Based on the ideas of Juan Bautista de la Salle, the Institute of the Brothers of the Christian Schools holds the most advanced pedagogic ideas of the age [39].

With modernity came years of social development with important triumphs like women’s right to vote, abolition of the death penalty, rights of indigenous people, and guardianship, among others, despite the deep disappointment of people faced with crime, violence, and political instability. In this ambiance, the cultural landscape was enriched with the contributions of the so-called beheaded generation, a group of Ecuadorian poets who had tragically died in their youth, as victims of their desire to

escape from the real and rather mediocre everyday life in their literary productions and the excesses of opium [39].

Coming back to our precious islands, they have experienced strange episodes, which have moved people to produce curious pieces of art. These pieces of art are not restricted to literature but include other forms of art like cinema.

This way, far from our country, the Belgian writer Georges Simenon decided to deepen the problems of isolation from another point of view when creating his novel "Those of Thirst" (*Ceux de la Soif*) set on the Galapagos Islands. Even if this exotic novel is not a detective story like most of his productions, it introduces dramatic tension features in a very close way.

In this novel, the writer evokes the romantic desire to return to nature and get away from the world as well as some tensions resulting from the coexistence of conflictive people. The novel was based on a real story, which was the subject of a previous article. Simenon is not interested in telling us about the quest, since the case remains unsolved, but narrates instead the preliminaries to explain the denouement, which is the drama itself:

"Instead of providing a detective investigation, the novel deals with an attempt to return to nature, undertaken by Europeans eager, for various reasons, to distance themselves from the world. The difficulties they will have to face lead to the drama that served as the pretext for Simenon's report. The writer narrates its background, not the search for the missing couple whose fate remains unknown both in the novel and in real life" [40].

The novel is based on a real story, which can seem more fictitious than the novel. After recording their short movie: "The Empress of Floreana," polyandrous "Baroness" Wagner-Bousquet and one of his male companions disappeared, and the other one died of dehydration after his shipwreck. This strange story would inspire a documentary film: "The Galapagos Affair: Satan Came to Eden" [41].

3. Technological improvement and new interactions

On the other hand, the last decades have seen the rise of new technology. The Internet and social media have changed the way we perform most if not all the activities constituting our labor environment. Education, customary service, and marketing are just a few examples of how useful they can be to get the best results in less time with the investment of minimal resources. Traveling industries have been consistently improved with the implementation of new technological devices and complex systems to allow more efficient processes.

The use of technological devices has become the rule and people use them to communicate, to take pictures, to take notes or record material, to play games, to listen to music, and virtually to every activity they perform. When mentioning the MP3 player, the mobile phone, or the personal computers, adjectives like ubiquitous appear just next. Globalization of business and the commercial benefits of these digital technologies and these last ones are implicated in the origin of this postmodern society [42].

Technology is so important nowadays that reading and writing are no longer enough skills, digital literacy is crucial to avoid isolation in the labor environment due to insufficient performance. In the specific case of the educational sector, organizational communication and collaboration, digital learning and sources, and guidance, technology has shown to be useful too, with an additional strength to support and

empower students [43]. For instance, the use of social media to contact potential clients is a vital part of marketing-related professions, while contributing to data analytics is concern when making important decisions in professional development after considering the needs of every employee and helping them to improve in a personalized way in function of their restrictions of availability or resources.

Technology allows virtual meetings and synchronous communication making mobilization unnecessary with eventual impact on pollution and resource consumption [44]. Working and studying online is a global trend because of the need to save time and support ecological measures to limit the use of polluting transportation.

Nevertheless, there is a dark side when it comes to technology. For instance, there is evidence of links between chatting and divorce cases or fraud. Anonymity and lack of human contact bring people a feeling of protection, which promotes dishonest behavior [45]. The same anonymity proper to the virtual environment is linked to plagiarism and academic cheating, particularly when remote assessment is involved [46]. Considering isolation and loneliness, we can easily understand the lack of social connection between technology users that leads them to commit such dishonest conduct. Even more, technologically problematic use can also be a concern when analyzing addictive behavior, such is the case with problematic Internet use [47], mobile phone addiction [48], and video game addiction [49].

3.1 Personal isolation in the modern world

As acknowledged, technology has significantly transformed not only communication but also education and trade, mainly because of its huge potential to improve information accessibility. However, the benefits it brings should always be considered in light of the importance of keeping a judicious balance to avoid problematic use.

For example, gamification can help improve motivation in educational environments but without adequate guidance, technology use can become a serious problem. There is evidence linking internet addiction disorder, internet gaming disorder, and mobile phone addiction to attention deficit hyperactivity disorder [50]. It is important to reflect on the importance of balance to improve the whole learning process with the contribution of this attractive feature without supporting such harmful behaviors.

This balance becomes important if we consider the association between addictive behavior and loneliness, which highlights the importance of policymaking to avoid such negative effects. In this sense, physical activities, as well as psychological and even pharmacological treatments have been advised to deal with problematic use of technology [51].

Fortunately, when dealing with the use of social media to interact, there is also evidence of the desire of young people, the ones who have used social media most of their lives, for a life without these tools, [52] that makes us rethink about how dependent they are indeed.

As another positive aspect of the use of technology, supporting the need for balance and advising against simply banning technology, there is research on the potential of such technology to allow both synchronous and asynchronous communication in the function of people's preferences to avoid loneliness [53].

More research is necessary to detect the factors intervening in this complex process. It is important to deepen the emotional causes, but also in the social environment in which these behaviors appear. Family interactions, working demands, and socioeconomic factors, all have a direct or indirect impact on addictions, and technology-related addictions are not the exception. Policymaking is also needed to tackle this issue in all its complexity.

4. Conclusions

Loneliness can be a social problem and lead to serious difficulties on both social and personal levels. From a historical point of view, geographical isolation or distance—in the case of European countries and their colonies—has been related to abuse and management problems. At the same time, this isolation has led to some forms of loneliness when social disconnection is involved in the context of isolated voyagers either in xenophobic or xenophile environments.

Additionally, traveling abroad can have a social impact when social elites or just people with a different way of thinking experience loneliness. Avoiding such a problem entails complex dynamics of inclusion. These dynamics are now a priority given the conditions of globalization.

Finally, technology can also lead to loneliness and isolation when abuse of technology is concerned (addiction to technology in any of the newly detected forms), a balanced use of such tools, and a conscious way of using them for not to affect their natural way of interacting with other people.

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Conflict of interest

The authors declare no conflict of interest.

Author details

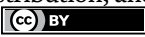
César Rafael Narváez Carrión^{1*}, Andrea Patricia Luna Guillén¹ and Marco Mauricio Rosales Cevallos²

1 Armed Forces University – ESPE, Sangolquí, Ecuador

2 Armed Forces University – ESPE, Latacunga, Ecuador

*Address all correspondence to: crnarvaez1@espe.edu.ec

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Chapter 3

Loneliness in the Baltic-Nordic Region

Ieva Reine, Madara Miķelsone, Signe Tomšone,

Helgi Guðmundsson, Andrejs Ivanovs,

Halldór Sigurður Guðmundsson and Ilze Koroļeva

Abstract

This book chapter investigates loneliness among older adults (67+) in Latvia, Lithuania, Estonia, Sweden, Denmark, and Finland, aiming to identify demographic trends in loneliness within these Baltic and Nordic populations. The findings indicate a higher loneliness rate in the Baltics, with Latvia at 45%, compared to lower rates in Denmark and Finland at 17% and 20%, respectively. The overall loneliness prevalence in the Baltic countries is 34%, significantly higher than the 22% in Nordic countries. Gender differences are evident, with women more likely to report loneliness, especially in the Baltics (41% for women vs. 27% for men in the Nordics). Additionally, the study notes age disparities, highlighting that individuals 76 and older in the Baltics are more prone to loneliness (40%) than their Nordic peers (28%). These patterns underscore the need to consider gender and age in addressing loneliness among the elderly, shedding light on the varying experiences of loneliness across these regions.

Keywords: Baltic, Nordic, loneliness, gender, age, socioeconomic status

1. Introduction

Loneliness is a pervasive concern that transcends geographical boundaries and has garnered global attention for its far-reaching impact on individuals and communities. However, among the myriad dimensions of loneliness, the plight of older adults emerges as a particularly pressing and substantial public health concern, with distinct nuances and heightened relevance, notably in the Baltic and Nordic regions.

The experience of loneliness among older adults in these regions is influenced by a complex interplay of social, economic, and demographic factors, creating a distinctive landscape of vulnerabilities and resilience [1]. A study conducted by researchers using data from the European Social Survey explored factors influencing loneliness among older adults aged 60 and over in 20 countries [2]. The research revealed that the type of welfare regime in a country had a notable impact on loneliness levels among older adults. Nordic, Anglo-Saxon, and Continental welfare regimes were associated with lower levels of loneliness, whereas Southern and Eastern regimes showed higher levels of loneliness. Furthermore, the study highlighted that the

influence of individual resources on loneliness varied depending on the welfare regime. Specifically, in the socially enabling Nordic regime, older individuals were less dependent on individual resources to combat loneliness, in contrast to regimes where family and social ties played a more significant role in mitigating loneliness. These findings emphasize the intricate relationship between individual characteristics and societal-level factors in the context of understanding and addressing loneliness among older populations, as discovered by the researchers.

The challenge of addressing loneliness among older populations is significant in both Baltic and Nordic countries, yet a comprehensive understanding of the precise connections and effective remedies for this problem remains limited. Loneliness, a prevalent issue among older individuals, has been associated with adverse health outcomes, including chronic illnesses, cognitive decline, and even mortality [3–5]. The impact of loneliness on mental and physical well-being is well-documented [6, 7].

Conversely, fostering social connections and active engagement in older adults can promote healthy aging and enhance overall quality of life [8]. Additionally, factors such as gender, marital status, employment, and educational background can significantly influence the extent of loneliness experienced among older individuals [7, 9–11]. These insights highlight the importance of addressing loneliness in older populations and the potential benefits of social engagement and support systems in promoting healthy aging and well-being.

In our exploration of loneliness in the Baltic and Nordic regions, several studies have provided valuable insights. In Estonia and Latvia, research by Aslan and Zengin [12] and Pasupathy et al. [13] point to financial difficulties and disrupted family communications as key contributors to higher levels of loneliness. Latvia, in particular, has been the focus of studies by Reine and colleagues [14–16] that found increased loneliness linked to the lack of contact with family.

The Nordic countries present a different picture, as highlighted in studies referenced by the European Parliament [17] and Nygård et al. [18]. Here, loneliness is influenced by the frequency of social interactions and living arrangements. In Sweden and Denmark, concerns about neighborhood safety and in Sweden and Finland, worries related to income have been noted. Denmark, Finland, and Sweden also face issues regarding the scarcity of emotional support.

In Sweden, older individuals who experience loneliness have been shown to use outpatient healthcare services more frequently, indicating a broader impact on healthcare systems [9, 19].

1.1 The impact of COVID-19 on loneliness and social isolation in older adults

The COVID-19 pandemic has profoundly impacted the social dynamics of older adults, particularly in the Baltic and Nordic regions, which are characterized by unique demographic and cultural attributes. The pandemic's restrictions, such as limited gatherings and reduced face-to-face interactions, have exacerbated loneliness and social isolation issues. This situation is especially pronounced in regions known for their strong social support systems and welfare provisions, highlighting the intricate nature of loneliness in these contexts.

The pandemic has caused significant disruptions in traditional social interaction patterns. Mandated social distancing measures and lockdowns have led to a substantial decrease in physical social interactions, intensifying feelings of loneliness and isolation among older adults [15]. As Brooke and Jackson [20] and others have noted,

this shift is more than a temporary inconvenience; it poses a severe risk to the mental health of this demographic [21].

The rapid transition to digital communication during the pandemic has not been uniformly smooth for older adults. The digital divide became more evident, with some individuals struggling to adapt to new technologies for social interaction, thereby heightening feelings of isolation [22].

The mental health impacts of these reduced social interactions are significant. Research by Andrade et al. [23] indicates an increase in anxiety and depression among older adults during this period, linked to the isolation and fear caused by the pandemic. Moreover, community services, crucial for the social life of many older adults, were disrupted, as Gerst-Emerson and Jayawardhana [24] highlight. These services, which provide essential social contact and routine, were severely affected by pandemic-related closures.

Furthermore, health concerns due to the increased risk of COVID-19 among older populations led to further reluctance in social interactions. As outlined by Armitage and Nellums [25] and van der Velpen et al. [26], these concerns resulted in an increase in social isolation.

Family dynamics also changed, as noted by Berg-Weger and Morley [27]. The restrictions on visiting older family members and the changes in household routines due to lockdowns affected regular family interactions and support systems. The long-term effects on the social behavior of older adults, including potential lasting impacts on their willingness to engage in social interactions post-pandemic, remain a concern, as Courtin and Knapp [28] have discussed.

Despite these challenges, some older adults have shown resilience and adaptability. Balzarini et al. [29] observed that older individuals have adopted new technologies for communication and found innovative ways to maintain social connections within the confines of safety protocols.

This situation in the Baltic and Nordic countries is further complicated by their rapid population aging. These regions are known for their exceptional quality of life and robust social welfare systems, yet they are facing rising rates of loneliness among their older populations. While the Nordic countries have a rich history of research on loneliness, the Baltic states have seen less attention in this area. However, the emergence of the COVID-19 pandemic has catalyzed research efforts in the Baltic states, focusing on factors associated with loneliness among older adults [15, 22, 30].

These studies are crucial for proposing policy recommendations to address loneliness within the region [13]. Additionally, the comparison of loneliness in Iceland with that in Nordic countries is a significant aspect of our study, aiming to understand regional nuances in the experience of loneliness [16, 30]. The COVID-19 pandemic has intensified these issues, particularly in the Baltic states, with studies like that by Pasupathy et al. [13, 21] highlighting increased anxiety and disrupted familial interactions as notable predictors of loneliness during this period.

1.2 Impact of the Soviet Regime in the Baltic States

The Soviet era in the Baltic states (Estonia, Latvia, and Lithuania) was marked by significant social and political upheaval. Policies of Russification, forced migrations, and deportations led to the disruption of traditional family structures and community bonds. These historical traumas have long-lasting effects on the social networks

of those who lived through this period, potentially contributing to greater feelings of loneliness in their later years [31].

Under the Soviet regime, employment patterns and economic structures were radically altered. Post-Soviet transitions also brought economic hardships and instability. Such shifts likely affected the retirement and pension systems, impacting the financial security and, consequently, the social well-being of the older population.

The Soviet period left a cultural and psychological legacy characterized by mistrust of state institutions and a reluctance to seek social support outside of immediate family and close friends. This mindset may influence the willingness of older adults in these countries to engage in broader social networks or seek help for loneliness [32].

1.3 Welfare regimes in the Nordic countries

In contrast, the Nordic countries (Sweden, Denmark, Norway, and Finland) are known for their robust welfare regimes. These systems have historically provided comprehensive social support, including well-developed healthcare, social services, and pension schemes. Such support structures can mitigate the impact of loneliness by ensuring social security and opportunities for social engagement among the older population [33].

The cultural norms in the Nordic countries often emphasize individual independence and collective responsibility. These values are reflected in their social policies, which promote active aging and community participation among older adults, potentially reducing the incidence of loneliness [34].

The Nordic model is characterized by economic stability, low levels of income inequality, and high levels of gender equality. Such factors contribute to a generally higher quality of life and social cohesion, which can positively impact the mental well-being and social connectedness of the older persons.

The social and cultural context in the Baltic and Nordic regions plays a pivotal role in shaping the experiences of loneliness among older adults. As we delve into this exploration of loneliness among older adults in these regions, we confront a critical public health issue that has significant implications not only for individual well-being but also for the broader societal fabric. It is within this context that we seek to elucidate the multifaceted nature of loneliness, with the aim of informing effective interventions and policies tailored to these distinct cultural and regional contexts.

2. Population, methodology, and the aim

The research was carried out using data from the eighth wave of the Survey of Health, Ageing and Retirement in Europe (SHARE) conducted between June and August 2020. SHARE is a prominent and influential social science panel study that has significantly elevated research standards and scientific data collection practices. Its impact extends beyond the European Union, as it not only comprehensively covers all EU member countries with rigorous harmonization but also contributes to a broader network of related studies worldwide, spanning from the Americas to Eastern Asia [35].

The study population comprises older adults aged 67 and above in the Baltic-Nordic region, including Sweden, Denmark, Estonia, Lithuania, Finland, and Latvia.

The total sample size for the study is 5313 individuals, with 2377 individuals from Nordic countries and 2936 individuals from Baltic countries. Additionally, the study assesses the household's ability to make ends meet, with a total sample size of 3925 individuals, including 1748 individuals from Nordic countries and 2177 individuals from Baltic countries.

In order to compare the older populations of Latvia and Iceland effectively, researchers employed a unified methodology to guarantee the consistency of data. This approach included participants aged 67 and above and utilized the SHARE dataset for Latvia and the HL20 dataset for Iceland. Essential demographic variables such as gender, age, marital status, education, employment, financial stability, and health were aligned across both datasets. Additionally, the categorization of responses was standardized for uniformity, a process elaborated in previous research [16]. This methodological strategy, initially applied to Latvia and Iceland, has now been expanded to include other populations in the Nordic-Baltic region, thereby widening its application and deepening the understanding of aging in varied cultural and socioeconomic settings.

In essence, the careful alignment of data sources and the establishment of a uniform age benchmark have allowed this study to effectively utilize both SHARE and Icelandic data. This approach facilitates a comprehensive and meaningful analysis of the prevalence of loneliness and its related factors among older adults in the Baltic-Nordic region and Iceland, ensuring the credibility of the results and enabling valuable cross-regional comparisons.

The study aims to investigate the prevalence of loneliness among older adults in the Baltic-Nordic region. It seeks to understand the association of demographic, social, and economic factors on loneliness in this population. The research will utilize a quantitative approach to analyze the data collected from the SHARE survey of older adults. The study will employ cross-sectional analyses to examine the relationship between loneliness and various sociodemographic factors. The findings of the study will contribute to a better understanding of the prevalence and potential predictors of loneliness among older adults in the Baltic-Nordic region. The results will have implications for the development of interventions and policies aimed at addressing loneliness and promoting social connectedness in this population.

For the statistical analysis, the study employed IBM SPSS Statistics v.27, Jamovi v. 2.3.18, and R v.4.3.0. The research utilized descriptive statistics and the Pearson Chi-square test to examine differences within and between countries or regions. A significance level of $P < 0.05$ was established for the analysis.

3. Prevalence of loneliness on the Nordic-Baltic region

3.1 Key outcome variable

The principal outcome variable in this study was loneliness, categorized according to the specific measures available in each participating country. The study employed distinct loneliness indicators that slightly varied by country. For Latvia, Lithuania, Estonia, Sweden, Finland, and Denmark, loneliness was assessed with the question, "How often do you feel lonely?" Meanwhile, in Iceland, the approach was slightly different, with the question framed as, "Would you say that you are lonely?" This nuanced distinction in question framing was critical for accurately capturing the essence of loneliness as experienced in each country, thus allowing a more tailored and precise analysis.

3.2 Standardization of demographic variables

A methodical approach was taken to standardize essential demographic variables for comparative purposes. These variables included gender, age groups, marital status, education level, employment status, and household financial stability. This standardization was imperative to ensure uniformity and comparability across datasets from different countries.

To accomplish this, the research team thoroughly reviewed the response options for each variable, aiming to align them across the various country datasets. Following this review, the responses were graphically reorganized to create new and consistent response categories, applicable uniformly across all participating countries. This process of reorganizing and standardizing response options, as detailed in Reine et al. [16], was pivotal for the study's coherence and reliability.

3.3 Comparative analysis

This rigorous approach to data standardization was crucial in facilitating a coherent and reliable comparative analysis of loneliness among older adults across different national contexts. This methodology allowed for an insightful examination of disparities in loneliness between the SHARE countries and Iceland, as reported in prior research by Reine et al. [16].

The methodology used for this comparative analysis, focusing on aligning and harmonizing data from the Baltic and Nordic countries, is further elaborated in Mīkelsone et al. [30]. This approach was instrumental in accurately capturing and comparing the nuances of loneliness and social isolation in these diverse geographic and cultural settings.

When comparing the three Nordic countries (Sweden, Denmark, and Finland) with the three Baltic states (Estonia, Lithuania, and Latvia) based on participation in SHARE, it was observed that in Latvia, a notable percentage of older individuals, approximately 45%, reported experiencing frequent or occasional loneliness.

In contrast, Denmark had the lowest rate of loneliness among older individuals at 17%, followed closely by Finland at 20% (**Figure 1**). This data highlights a noticeable contrast between the Baltic and Nordic regions. In the Baltic countries, 34% of older individuals reported feeling lonely often or occasionally, while in the Nordic countries, this figure was notably lower at 22%. Statistical analyses have confirmed that these differences between the two regions are statistically significant.

These findings are consistent with prior research [36–38] that has shown variations in loneliness levels among older adults across different cultural and regional contexts. In summary, older individuals in the Baltic region tend to experience higher levels of loneliness compared to their counterparts in the Nordic region.

3.4 Loneliness and gender

Loneliness in older women tends to be more frequent and severe than in older men [20]. Even when the quantity and quality of their social networks are similar, older women experience loneliness more frequently [11]. This suggests that women may be more sensitive to feelings of loneliness or social dissonance.

Gender composition among respondents revealed substantial distinctions between the regions. In Latvia, 67% of respondents were women, while, on average, 66% were

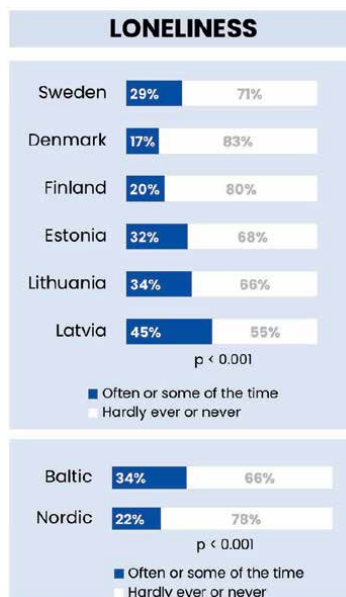


Figure 1.
Prevalence of loneliness in the Baltic and Nordic countries.

women in the Baltics. In contrast, the Nordic countries exhibited a lower proportion of women, accounting for 53% of respondents. These statistically significant gender differences underscore the importance of considering gender dynamics when interpreting loneliness patterns.

Figure 2 illustrates that loneliness is a prevalent issue among individuals of both genders in both the Baltic region and the Nordic countries. What stands out is the consistent trend of women reporting more frequent feelings of loneliness compared to men in both regions. This gender difference in loneliness is particularly pronounced in the Baltic region, where women report feeling lonely often or occasionally at a rate of 41%, in contrast to 27% among women in the Nordic countries.

Interestingly, this pattern of higher loneliness levels among women is observable in both regions, suggesting a commonality in the experiences of women across different cultural and regional contexts. These findings highlight the importance of considering gender-specific factors and interventions when addressing loneliness among older individuals in these regions.

The relationship between gender and loneliness in old age is a complex and multifaceted topic, as numerous studies have explored it across different age groups, cultural contexts, and gender dynamics. These studies collectively contribute to a more nuanced understanding of how gender and age intersect with experiences of loneliness. It is essential to use diverse measurement tools, consider global and cultural perspectives, and examine gender dynamics across the lifespan to fully grasp the intricate relationship between gender and loneliness in old age.

Given the higher frequency and potential severity of loneliness in older women, it can be inferred that loneliness may have a more significant impact on their health [11]. Therefore, healthcare for older women should take into account the potential health implications of loneliness and address this issue as a relevant factor in their medical care.

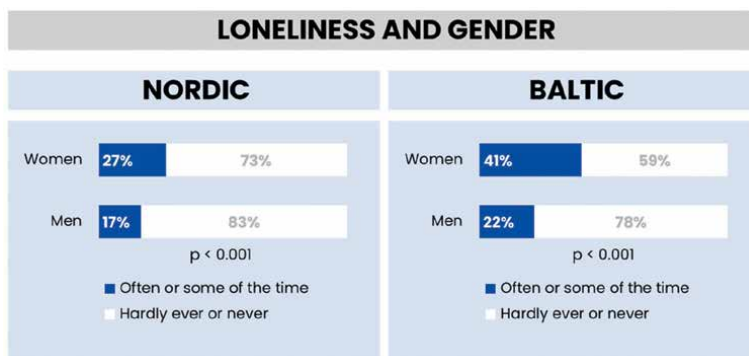


Figure 2.
Loneliness among women and men in the Nordic-Baltic region.

3.5 Under global studies on loneliness and gender disparities

Barreto et al. [36] conducted a comprehensive global study focusing on loneliness, with particular attention to age, gender, and cultural disparities. This study revealed a nuanced relationship between gender and loneliness, suggesting that women, particularly in older age groups, may experience higher levels of loneliness compared to their male counterparts. This finding highlights the importance of considering gender effects when examining loneliness across diverse age groups and cultural contexts.

In their meta-analysis, Hansen and Slagsvold [39] explored the gender differences in loneliness throughout the lifespan. Their findings indicated a pattern where males tend to be slightly lonelier than females during childhood, adolescence, and young adulthood. However, these small gender differences seem to vanish in middle adulthood and old age. This pattern underscores the evolving nature of loneliness across the lifespan and its relation to gender.

3.6 Factors behind higher loneliness levels in older women in Baltic and Nordic regions

The traditional gender roles and societal expectations in these regions could impact men and women differently in their later years. This might contribute to the gender disparities observed in loneliness, with older women potentially being more affected due to their traditional roles and societal expectations.

To explore the potential cultural, societal, or historical reasons behind the higher levels of reported loneliness among older women in both the Baltic and Nordic regions, we need to consider various factors that may contribute to this phenomenon. In many societies, including those in the Baltic and Nordic regions, traditional gender roles often dictate that women are the primary caregivers and emotional support providers in families. These roles can lead to an increased sense of responsibility and emotional burden, which may contribute to feelings of loneliness, especially in older age when family dynamics and personal roles undergo significant changes [40].

Women's socialization often emphasizes close interpersonal relationships and emotional expressiveness, potentially making them more sensitive to changes in social networks as they age. Disruptions or losses in these networks, which are more likely to occur in older age, might thus have a more profound impact on women's sense of loneliness [41].

Statistically, women have a longer life expectancy than men. This often leads to higher rates of widowhood among older women, resulting in a significant change in their social dynamics and an increased risk of loneliness. This aspect is particularly relevant in the context of the Baltic and Nordic countries, where societal norms may not always support remarriage or new romantic relationships in older age [42].

Historical and societal factors influencing women's participation in the workforce can affect their social networks. In many cases, women might have had interrupted careers or lower-paying jobs due to traditional gender roles, impacting their financial independence and social opportunities in later life.

Cultural attitudes toward mental health and seeking help can vary. In some societies, there may be a stigma associated with acknowledging feelings of loneliness, particularly among women, which could lead to underreporting in certain regions and overreporting in others where such stigma is less pronounced.

Exploring the historical contexts, particularly the impact of the Soviet regime in the Baltic states and contrasting it with the welfare regimes in the Nordic countries, can shed light on the different experiences of loneliness among older persons in these regions.

In summary, a multifaceted array of cultural, societal, and historical factors plays a role in the higher levels of loneliness reported by older women in the Baltic and Nordic regions. Understanding these complex dynamics is crucial for developing targeted interventions and policies to address loneliness in this demographic.

3.7 Loneliness across older age groups

The perception that loneliness is more common among older individuals is not consistently supported by research. Studies have shown varying findings on the relationship between age and loneliness. Some indicate no significant age differences in loneliness, while others suggest that younger people may experience more loneliness than older individuals, with a decrease in loneliness as age increases. Additionally, several studies point to a U-shaped curve, where both young adults and older people report more loneliness than those in middle age. However, it is important to note that these findings are derived from a limited number of cultures, which raises questions about the universality of these age-related differences in loneliness.

3.8 Understanding the drivers of loneliness across ages

Research investigating the drivers of loneliness at the individual level can shed light on how loneliness varies with age. Loneliness appears to be influenced by a mix of developmental and sociocultural factors. Previous research [36, 43] indicates that these factors play a crucial role in determining the experience of loneliness across different age groups.

When examining specific age groups, a notable difference in loneliness prevalence emerges between the Baltic region and the Nordic countries, especially among older respondents aged 76 and older. In the Baltic states, 40% of this age group reported experiencing loneliness often or occasionally. In contrast, in the Nordic countries, the reported rate of loneliness in the same age group was lower, at 28% (**Figure 3**). This disparity underscores a significant difference in loneliness levels among the oldest generation, suggesting that older individuals in the Baltics experience higher levels of loneliness compared to their Nordic counterparts.

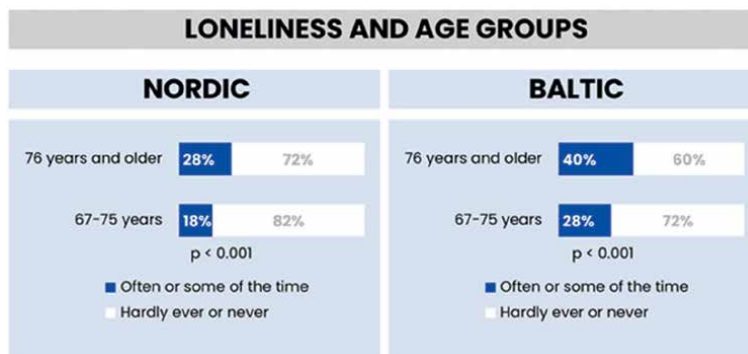


Figure 3. Loneliness among older age groups in the Nordic-Baltic region.

3.9 Demographic composition and its impact on loneliness

Furthermore, it is observed that older individuals aged 76 and above consistently report higher levels of loneliness in both the Nordic countries and the Baltic states compared to the 67–76 age group. However, the composition of survey respondents must be acknowledged as a potential influencing factor. In the Baltics, a larger proportion of the sample consisted of individuals aged 76 and above (55%), whereas in the Nordic countries, this age group made up 45% of the sample. This demographic difference could contribute to the variation in reported loneliness levels among these age groups. Such a comprehensive approach provides valuable insights into the nuanced nature of loneliness across different demographic groups in the Baltic and Nordic regions.

Significant variations in loneliness were observed among different age groups within individual countries and across the regions studied. Particularly in Latvia, those aged 76 years and older reported the highest levels of loneliness, with 50% of respondents in this age bracket expressing feelings of isolation. This highlights the acute challenges faced by the oldest members of society in terms of social connectivity and emotional well-being.

3.10 Factors contributing to loneliness in older age

Loneliness among older individuals is often linked to a variety of factors, including the loss of social connections due to retirement or bereavement, living alone, and reduced mobility due to health conditions. The impact of these challenges on social connection can vary significantly among different age groups, suggesting that the nature and experience of social isolation may differ across various age cohorts. Understanding these contributing factors is vital for developing effective interventions and support systems that cater to the specific needs of older adults in different age groups and cultural settings.

In our analysis of **Figure 3**, which shows variations in loneliness among different age groups in the Baltic and Nordic regions, several key factors emerge that warrant further discussion. These factors offer potential explanations for the disparities observed and have significant implications for policy and intervention strategies.

3.11 Historical and cultural contexts

The contrasting historical experiences of the Baltic states, marked by the Soviet regime, and the stable welfare systems of the Nordic countries provide a backdrop to understand the observed loneliness trends. In the Baltic states, societal upheavals and disruptions in family dynamics during the Soviet era may have long-lasting effects on the social networks and support systems of older adults, potentially leading to higher loneliness levels. Conversely, the Nordic countries' cultural emphasis on independence and community engagement might contribute to their lower rates of loneliness among the older population.

Economic stability and the nature of social welfare policies differ markedly between the Baltic and Nordic regions. The disparity in pension systems and social welfare could influence the financial security and access to social and health services for older adults. These factors are critical in providing opportunities for social engagement and maintaining good health, both of which are essential in combating loneliness.

3.12 Loneliness and marital status

Marital status of individuals in several Baltic and Nordic countries specifically shows the percentage of individuals who are not living with a partner versus those living with a partner (**Figure 4**). In the studied six countries, people who do not live with a partner generally feel lonelier than those who do. The difference is quite big in each country, with Denmark having the least lonely people among those living with partners and Latvia having the most among those who live alone. Latvia has the highest percentage of lonely people who do not have a partner. Lithuania shows a big difference in loneliness between those with and without partners.

In all countries, people living without a partner feel lonelier than those who have one. The findings are statistically strong, meaning they are likely to be true and not just by chance. Sweden has a middle-ground situation where those with partners are not as lonely as in some countries, but not as content as in others.

The numbers show that having someone to share your life with might help with feeling less lonely.

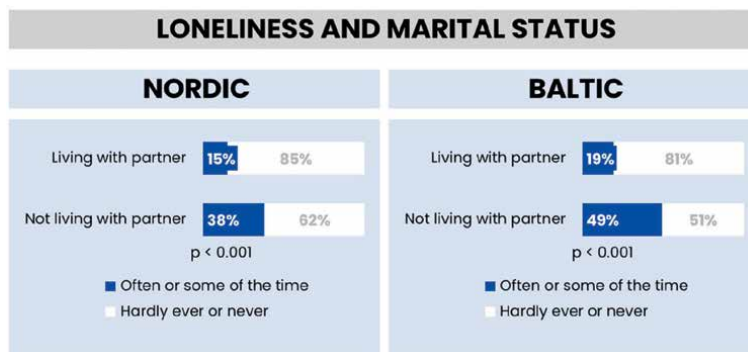


Figure 4.
Loneliness and marital status in the Nordic-Baltic region.

The data indicates that a larger percentage of individuals in the Baltic countries are not living with a partner compared to in the Nordic countries, where a larger percentage are living with a partner.

Expanding on the potential reasons and societal factors that contribute to differences in loneliness based on partnership status in the Baltic and Nordic regions requires a multifaceted analysis of cultural, social, and economic contexts.

In both regions, societal attitudes toward marriage and partnership play a significant role in influencing loneliness. Cultural perceptions that highly value being in a partnership could lead to increased feelings of isolation, both social and emotional, for individuals living without a partner. Especially in older age groups, societal pressure to adhere to traditional family structures might exacerbate loneliness among single, widowed, or divorced individuals.

The level of support available to single individuals is also crucial. The Nordic countries, known for their robust welfare systems, might offer better support for single individuals, potentially reducing loneliness. In contrast, the Baltic states may have less developed support systems, possibly leading to higher loneliness among singles due to limited access to social and community resources.

Economic factors, including the ability to achieve financial stability and independence, significantly impact loneliness. In regions where it is challenging to maintain an independent lifestyle without a partner, single individuals might face more significant hardships, contributing to increased loneliness. This is intertwined with the capacity to engage in social opportunities and community activities, which are vital for mitigating feelings of loneliness.

Urbanization trends and living arrangements also influence loneliness. In urbanized areas where individualistic lifestyles are prevalent, single individuals might experience less loneliness due to more social interaction opportunities. However, in rural areas or communities where living with a partner is the norm, being single might lead to greater isolation.

Furthermore, the historical and cultural legacy of these regions, such as the impact of the Soviet era in the Baltic states, may have lasting effects on partnership statuses and family dynamics. These historical influences can shape current societal attitudes and practices, affecting how loneliness is experienced by those without partners.

Understanding these societal factors provides a deeper insight into the complex nature of loneliness in the Baltic and Nordic regions. It highlights the need to consider these multifaceted influences in developing targeted interventions and policies to address loneliness, particularly among individuals based on their partnership status.

3.13 Cultural influences and historical contexts

The study's findings also invite an exploration of cultural norms and societal expectations, especially in how they shape the loneliness experiences of those living alone. In the Baltic states, historical influences like the Soviet regime's legacy could play a role in reshaping family dynamics, leading to increased loneliness among the older populations. These insights underscore the need for targeted interventions, particularly for older adults living alone and older women. Future research could beneficially explore the effectiveness of social support systems and cultural attitudes toward aging and loneliness in these regions.

3.14 Loneliness and education

In our analysis, we observed a significant connection between educational attainment and employment and their influence on loneliness levels in both the Baltic and Nordic regions. This connection is crucial for understanding the dynamics of loneliness.

Educational attainment often leads to better employment opportunities, which in turn play a significant role in reducing loneliness. Employment fosters essential social interactions and a sense of belonging, a phenomenon highlighted in our comparative study between Latvia and Iceland. This association between employment and reduced loneliness, especially among individuals with higher education, mirrors findings in the broader context of the Baltic and Nordic regions [39].

Figure 5 displays the distribution of educational attainment levels across both regions. The Nordic region has a higher percentage of individuals with both none/primary education and tertiary education compared to the Baltic region.

In both the Nordic and Baltic regions, people with less education tend to feel lonelier than those with more education (**Figure 5**). However, the Baltic region has more people feeling lonely across all education levels compared to the Nordic region. The difference in loneliness between people with the most and the least education is bigger in the Baltic region. Estonia had the lowest percentage of the population with none or primary education and the highest with secondary/postsecondary education.

A comparative study conducted in Latvia and Iceland found that employment appeared to be associated with reduced loneliness among older adults [16]. Specifically, individuals with higher levels of education were significantly less likely to experience loneliness, with a loneliness rate of 46.1% among this group in Latvia. However, educational attainment did not show significant differences in loneliness among older adults in Iceland. These findings suggest that employment and education may play distinct roles in mitigating loneliness in the two countries.

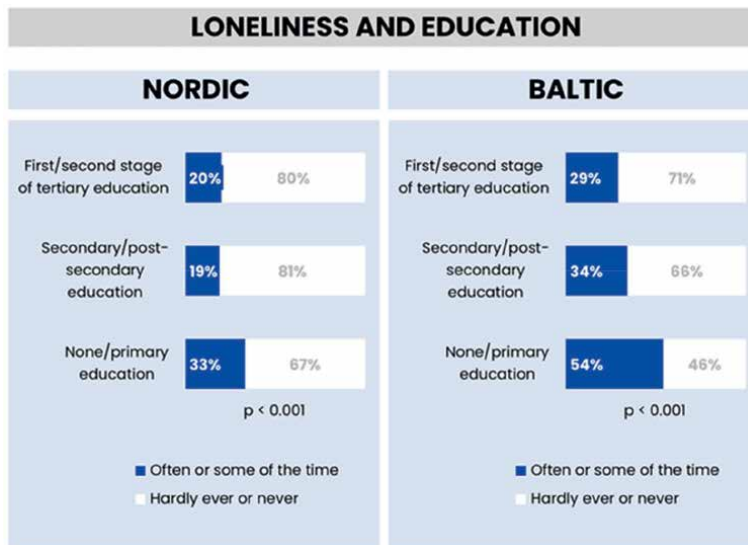


Figure 5. Loneliness and education in the Nordic-Baltic region.

The variations in educational systems and labor market conditions between these regions may influence this relationship. For instance, in the Baltic region, a wider range of loneliness across educational levels could be linked to different employment opportunities and societal perceptions of education.

Higher educational attainment tends to enhance social networks and improve social skills, which are key in preventing loneliness. This is particularly evident in the Nordic region, where individuals with tertiary education benefit from expanded social networks and developed skills.

Cultural and societal attitudes toward education and employment in these regions might also impact loneliness experiences. In societies where higher education and employment are highly valued, individuals with lower educational attainment might experience increased feelings of loneliness due to a sense of marginalization or reduced social worth.

Lastly, the role of education in social inclusion in the Baltic States further underscores its importance in mitigating loneliness. The impact of education on social networks and inclusion is a significant factor in understanding loneliness in these regions.

Through this discussion, we aim to provide a nuanced understanding of how educational attainment and employment are interlinked and collectively influence loneliness levels in the Baltic and Nordic regions. This approach not only enriches our analysis but also offers insights for developing targeted interventions to address loneliness in these culturally diverse areas.

3.15 Loneliness and employment

In the empirical analysis of labor market participation within Northern Europe, the statistical data presents a compelling narrative of employment trends across various geopolitical entities. This analysis encapsulates the employment rates across Sweden, Denmark, Finland, Estonia, Lithuania, and Latvia, providing a granular understanding of regional economic engagement.

Sweden's labor force participation rate stands at 91%, indicative of robust economic policies facilitating high levels of employment. Denmark mirrors this trend marginally lower at 90%, potentially reflective of similar socioeconomic structures. Finland's participation rate peaks at an impressive 95%, which may be attributed to its investment in education and a highly skilled workforce.

Conversely, Estonia reports an 89% rate, followed closely by Lithuania and Latvia, both at 94%. These figures suggest a resilient labor market, possibly buoyed by emergent economic reforms and integration into broader European markets.

Shifting the lens to a regional perspective, the aggregated data for the Baltic states collectively shows a 91% employment rate, while the Nordic region slightly surpasses this with a 92% rate. The statistical significance ($p = 0.466$) of the difference between the two regions is not supported, indicating that despite the diverse economic policies and labor market strategies, the resultant employment rates are comparable and not distinct to a degree of statistical relevance.

The employment rates herein offer a quantitative reflection of labor market health and are a testament to the economic stability and workforce engagement within these Northern European societies.

The investigation into the correlation between employment status and the prevalence of loneliness within the nations of Latvia, Lithuania, Estonia, Finland, Denmark, and Sweden yields a heterogeneous spectrum of outcomes.

Latvia exhibits a noteworthy statistical significance ($p = 0.031$) in its correlation, with 24% of the employed population reporting feelings of loneliness often or some of the time, in contrast to 46% among the unemployed. Lithuania's data, while showing a similar trend—21% of the employed versus 35% of the unemployed feeling lonely—does not reach a conventional level of statistical significance ($p = 0.087$).

Estonia presents a stark differential, with 17% of the employed feeling lonely as opposed to 34% of the unemployed, underpinned by a strong statistical significance ($p < 0.001$). Conversely, Finland's data, showing 13% of the employed versus 21% of the unemployed feeling lonely, does not support a statistically significant correlation ($p = 0.300$).

In Denmark, 12% of the employed report feelings of loneliness, compared to 17% of the unemployed, yet the statistical analysis ($p = 0.184$) suggests this difference is not significant. Similarly, in Sweden, the prevalence of loneliness among the employed (23%) and the unemployed (30%) does not demonstrate statistical significance ($p = 0.214$).

The variance in p values across these nations points to a complex interrelation between employment and loneliness, influenced by a myriad of social, economic, and cultural factors. While some countries show a significant association between employment status and loneliness, others do not, suggesting that employment may be one of several determinants of loneliness, and its impact can differ from one Nordic context to another.

The nexus between employment and the experience of loneliness within the Nordic and Baltic regions has been subjected to quantitative scrutiny, revealing a nuanced picture of social well-being as influenced by labor market involvement.

Within the Nordic region, the incidence of loneliness among the employed stands at 16%, juxtaposed against 23% among the unemployed (**Figure 6**). The statistical significance of this disparity ($p = 0.035$) suggests that employment status is a salient factor in the experience of loneliness, albeit the effect size is modest.

In the Baltic states, the employed report an 18% rate of loneliness, which contrasts with a higher rate of 36% for the unemployed, denoting a more pronounced differential. The p value (< 0.001) associated with these findings denotes a high level of statistical significance, reinforcing the robustness of employment as a determinant of loneliness within these countries.

The comparative analysis between the two regions demonstrates that while both exhibit a relationship between employment and loneliness, the impact is more marked

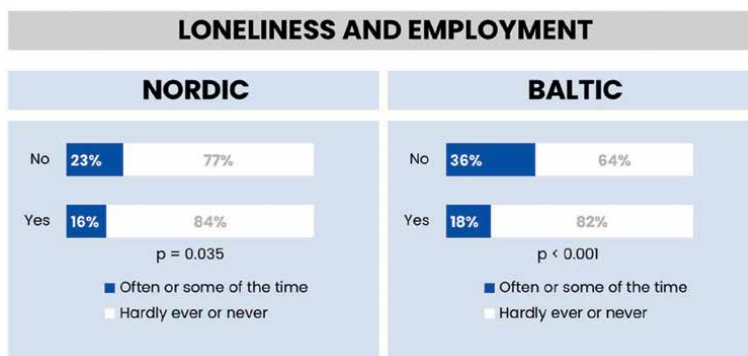


Figure 6.
Loneliness and employment in the Nordic-Baltic region.

in the Baltic region. This could reflect differing social support systems, economic conditions, or cultural attitudes toward work and social connectedness.

In summary, the data suggests that employment serves as a buffer against loneliness in both regions, but the protective effect of employment against loneliness is more evident in the Baltic region than in the Nordic one. This differential underscores the importance of considering regional socioeconomic contexts when assessing the social implications of employment.

However, the association between employment and loneliness may differ depending on the measurement method employed [10, 44].

3.16 Loneliness and household’s ability to make the ends meet since the COVID-19 outbreak

In the wake of the COVID-19 outbreak, the economic resilience of households within the Nordic and Baltic regions has been intricately linked to the emotional state of loneliness, as evidenced by recent empirical data.

In the Nordic countries, the proportion of individuals feeling lonely often or some of the time rises in accordance with increasing economic hardship. Specifically, 23% of those who can easily make ends meet report loneliness, with this figure climbing to 29% among those who do so fairly easily, 38% for those facing some difficulty, and peaking at 46% for those with great difficulty (Figure 7). The statistical significance ($p < 0.001$) of these gradations points to a clear correlation between financial strain and the experience of loneliness.

A similar trend is observed in the Baltic states, although the percentages skew higher across the board. Here, 28% of individuals who can easily meet their financial needs report feelings of loneliness, which increases to 35% for those managing fairly easily. The number rises more sharply to 48% for those with some difficulty and 55% for those struggling greatly. The pattern, underscored by a p value less than 0.001, highlights a more pronounced relationship between economic difficulties and loneliness in the Baltic region.

The data underscores the profound impact that economic challenges, exacerbated by a global crisis, have on the emotional well-being of individuals. The pronounced effect in the Baltic region suggests a greater vulnerability to the intertwining of financial and social distress. This analysis sheds light on the critical role that economic

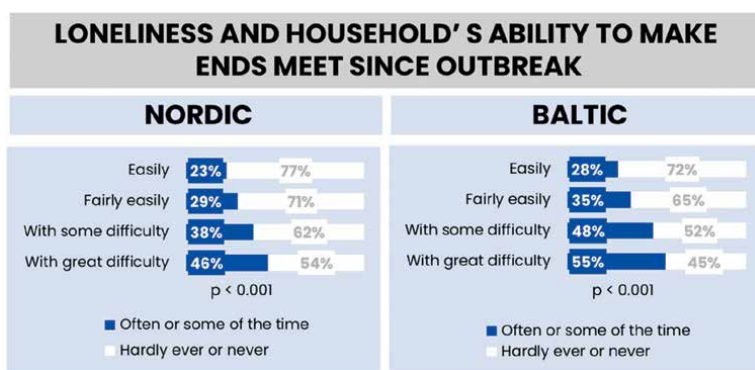


Figure 7. Loneliness and household’s ability to make ends meet since COVID-19 outbreak.

stability plays in fostering social connectedness and mitigating the sense of isolation [1]. It references a theoretical model by De Jong Gierveld and Tesch-Römer [45] that explains loneliness as a result of individual- and country-level factors. The impact of economic inequality on social determinants of health, education, income, and social connections is highlighted, with the suggestion that inequality contributes to increased relative deprivation and loneliness. The importance of structural interventions, such as national programs targeting at-risk populations, to address loneliness and reduce inequalities cannot be overstated, as they provide a foundational approach to tackling systemic issues that contribute to social isolation and economic disparity. Finally, it challenges the relationship between gross domestic product (GDP) and loneliness, suggesting that income inequality and relative poverty have a more significant impact on health outcomes among high-income countries.

4. Conclusion

In conclusion, this chapter underscores the importance of considering the complex interplay of factors influencing loneliness among older adults in the Baltic and Nordic regions. These findings have implications for tailored interventions and policies aimed at addressing loneliness and promoting social connectedness in these distinct cultural and regional contexts.

The differences in loneliness prevalence across the Baltic and Nordic regions highlight the need for targeted interventions and policies that consider the unique challenges faced by older adults in each country. Understanding the cultural, social, and demographic factors contributing to these disparities is crucial in developing effective strategies to alleviate loneliness and enhance the well-being of older adults. The historical context of living under the Soviet regime in the Baltic states, with its associated social and familial disruptions and economic instabilities, contrasts sharply with the experience of older adults in the Nordic countries, who have benefited from stable welfare regimes. This divergence in historical experiences is likely a significant factor in understanding the differing patterns of loneliness and social isolation among older individuals in these regions.

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Author details

Ieva Reine^{1,2*}, Madara Miķelsone², Signe Tomsone³, Helgi Guðmundsson⁴, Andrejs Ivanovs², Halldór Sigurður Guðmundsson⁵ and Ilze Koroļeva²

1 Department of Public Health and Caring Sciences, Uppsala University, Sweden

2 Statistics Unit, Riga Stradiņš University, Latvia


3 Faculty of Rehabilitation, Riga Stradiņš University, Latvia

4 Social Science Research Institute, University of Iceland, Iceland

5 Faculty of Social Work, University of Iceland, Iceland

*Address all correspondence to: ieva.reine@pubcare.uu.se

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Section 3

Concealed Struggles

Chapter 4

Mental Health and Well-Being of LGBTQI+ Persons

Takashi Izutsu and Atsuro Tsutsumi

Abstract

Lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) persons often experience violations of their human rights. Due to persistent social barriers, severe discrimination and human rights violations, social isolation and loneliness, as well as mental health conditions, are reported to be experienced widely among LGBTQI persons globally. Studies have shown that symptoms and diagnoses of depression, anxiety, post-traumatic stress disorder, substance abuse, and self-harm and suicidal attempts are reported higher among LGBTQI persons. Risk factors include factual and perceived discrimination, internalized phobia, violence, unsuccessful coping strategies, lack of sense of belonging, self-stigma, concealment-openness of their sexual orientation and gender identity, rejection by family members and friends, and lack of LGBTQI communities nearby. Further research with special attention to marginalized LGBTQI persons is warranted, together with enhancing awareness, data collection, policy and legal systems and the capacity of key stakeholders to promote and protect the human rights and mental health of LGBTQI persons.

Keywords: human rights, LGBTQI, mental health, social model, United Nations

1. Introduction

Many lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) person experience violations of their human rights based on their actual or perceived sexual orientation, gender identity and expression, and sex characteristics (various terms are used for a range of spectrum of sexual orientation and gender identity including same-sex behaviors, identities or relationships, transgender identities, non-binary gender identities, those who identify as queer, questioning their sexual orientation and gender identity, asexual, pansexual, and two-spirit, intersex persons, and other persons. In this chapter, “LGBTQI” is used consistently with the United Nations (UN) website. See [1] and **Appendix 1**. for details).

This is often due to a lack of awareness and education, homophobic and transphobic attitudes, the existence of discriminatory laws, lack of adequate protection against discrimination, impunity of perpetrators, and a combination of these and beyond. These human rights violations are pervasive in society worldwide, including schools, the labour market, medical settings, legal systems, and national and municipal systems, communities, and sometimes in their own families. Human rights violations against LGBTQI include discrimination, exclusion, denial of their rights, verbal

abuse, humiliation, harassment, bullying including cyberbullying, hate speech, hate crime, physical assault, sexual and gender-based violence, forced medical examinations, “conversion therapy,” sterilization, arbitrary arrest and detention, torture, death threats, death sentence, and murder. According to the UN, 77 countries among 193 UN member states, i.e., about 40% of the countries, have laws to criminalize consensual same-sex conduct, exposing millions of LGBTQI persons to the risks of arrest, prosecution, and imprisonment, and, in five countries, the death penalty [2].

Against these situations, LGBTQI organizations and their allies have continued various efforts at the grassroots level, as well as at the national and international levels. At the UN, based on the Universal Declaration of Human Rights in 1948, which states, “All human beings are born free and equal in dignity and rights” [3], concerns about human rights violations of LGBTQI persons started to be discussed in the 1990s. After years of persistent efforts by various stakeholders including member states, UN agencies, funds and programmes, and civil society organizations including organizations of LGBTQI persons, the 1st UN resolution on human rights, sexual orientation, and gender identity was adopted in 2011. In 2012, a landmark publication, “Born Free and Equal: Sexual Orientation and Gender Identity in International Human Rights Law,” was published by the Office of the High Commissioner for Human Rights (OHCHR) (The second edition was published in 2019) [4, 5]. In 2015, 12 UN system entities issued a joint statement to eradicate violence and discrimination against LGBTI persons [6]. The UN Independent Expert on protection against violence and discrimination based on sexual orientation and gender identity was established by the Human Rights Council in 2016 to assess the implementation of international human rights law, raise awareness, engage in dialog with all relevant stakeholders, and provide advisory services, technical assistance, capacity-building to help address violence and discrimination against persons based on sexual orientation or gender identity: Currently, Mr. Graeme Reid serves as the Independent Expert since November 2023. In 2018, 14 UN entities got together and released “The Role of the United Nations in Combatting Discrimination and Violence against Lesbian, Gay, Bisexual, Transgender and Intersex People: A Programmatic Overview” [7]. An increased number of multi-pronged efforts are going on globally, nationally, and on the ground [1].

However, due to the persistent social barriers, severe discrimination and human rights violations that still exist daily and worldwide, mental health disparities among LGBTQI persons are a significant concern. Those social barriers and mental health disparities are associated with intersections with other factors, including discrimination on the grounds of race, color, descent, age, national or ethnic origin, religion, age, disability, poverty, environment, disasters, and conflicts, too.

2. Mental health and well-being of LGBTQI persons

There has been an increasing number of research conducted on the mental health and well-being of LGBTQI persons. Though pioneering review articles and publications are available and provide useful inputs, the number of studies is still limited, partly due to traditions to ask about gender in a dichotomous way (male or female) without reflecting the diversity of sexual orientation and gender identity.

In general, studies have shown that symptoms and diagnosis of depression, anxiety, post-traumatic stress disorder, substance abuse, and self-harm, suicidal ideation, attempt and death are reported higher among LGBTQI persons [8–10]. While risk and protective factors for mental health conditions among LGBTQI persons are

similar to those among other marginalized populations, factors unique to LGBTQI persons are also reported: In addition to factual and perceived discrimination and disrespect, internalized phobia, violence, coping strategies, and sense of belonging, self-stigma, openness/concealment of their sexual orientation and gender identity, rejection by family members and friends, and lack of LGBTQI communities nearby have been reported to be associated [8, 9]. These factors interact with each other in a complicated manner. For example, concealment can be both a risk and a protective factor since it can lead to positive and negative reactions from their surroundings and impacts on themselves [8]. There were increased reports on mental health among LGBTQI during COVID-19, too.

Loneliness has also been increasingly recognized as a pressing health threat. The World Health Organization (WHO) states that people of all ages are affected by loneliness and social isolation globally. In particular, one in four older adults experience social isolation, and between 5 and 15% of adolescents experience loneliness [11]. Loneliness is linked to depression, suicide, and dementia by up to 50% and can increase the risk of cardiovascular disease and stroke by up to 30% and the risk of premature death by 25%. It affects not only individuals but communities and societies. Based on these, WHO has recently established a new Commission on Social Connection to address loneliness as a physical and mental health threat and promote social connection. According to a meta-analysis on LGBTQI persons conducted by Gorczynski P and Fasoli F [12], sexual minorities report higher ratings of loneliness than those who are heterosexual regardless of their age groups, while the number of studies is limited.

As for intervention to protect and promote the mental health and well-being of LGBTQI persons, while research is increasing, the number of randomized control trials is still limited [13, 14]. In addition, existing research indicates that LGBTQI persons face barriers to accessing mental health services, partly due to widespread stigma and ignorance related to LGBTQI among health professionals [8]. The integration of a clinical perspective is crucial, yet it is also vital to foster an interdisciplinary and multi-sectoral approach. This approach should prioritize awareness-raising initiatives through education, training, social networking services (SNS), and mass media. Policy development should aim to integrate LGBTQI perspectives and explicitly safeguard their human rights as well as mental health and well-being in all settings including the health system. This necessitates a twin-track approach: mainstreaming LGBTQI issues while providing specific services tailored to LGBTQI persons. Furthermore, establishing physical and virtual safe spaces is essential to cultivate social connections and support networks. Complementary to these efforts, a comprehensive range of mental health and well-being services, along with social services, based on the local resources and gaps, are imperative to address the unique needs of the LGBTQI community. It is important to involve LGBTQI organizations in all the processes, including planning, implementation, monitoring, and evaluation, based on the principle of “nothing about us, without us.” For this, capacity development and empowerment of LGBTQI persons will be useful. This includes the capacity to provide social support including peer support to other LGBTQI persons, and the knowledge and skill to change the systems to promote the rights and the mental health of LGBTQI persons. It is also important to make sure civil society, faith-based organizations and young people are in the scope of the solutions since they play critical roles in the protection and promotion of human rights and mental health of LGBTQI persons. Empowering service providers such as primary health workers, mental health professionals, teachers, law enforcement stakeholders, lawyers, social/welfare service providers, and others to strengthen their

awareness of the needs and rights of LGBTQI persons is another priority, too, together with capacity development of those who oversee budget and policy stakeholders. In addition, the arts and music have the power to address barriers, and promote empathy, understanding, mental well-being and societal change.

Research on young LGBTQI persons [15–17] and older LGBTQI persons [18, 19] is increasing. While stigma and discrimination against LGBTQI persons have been gradually decreasing except for certain areas, it is important to conduct further research on the mental health and well-being of LGBTQI persons. In particular, research on marginalized LGBTQI, such as LGBTQI persons with disabilities or chronic conditions, and LGBTQI persons in humanitarian settings, is warranted with attention to their intersection. Based on these, it is urgently needed to accelerate the development of rights-based strategies, policies, programmes, and systems to pursue the mental health and well-being of LGBTQI persons.

3. Way forward

Following up on the Yogyakarta Principles developed and unanimously adopted by human rights experts, including a former UN High Commissioner for Human Rights, members of human rights treaty bodies, NGOs and academia in 2006, and its supplement, the Yogyakarta Principles plus 10 in 2017, as well as various efforts worldwide, there are emerging guidelines on protection and promotion of human rights and mental health of LGBTQI persons including “Advancing the Human Rights and Inclusion of LGBTI People: A Handbook for Parliamentarians” issued by UNDP and Parliamentarians for Global Action (PGA) issued since 2017 and the newest version in 2022 [20]. In the same year, OHCHR’s “Minding the Corporate Gap: How Human Rights Defenders and Companies Can Work Together to Tackle Discrimination against Lesbian, Gay, Bisexual, Transgender and Intersex Persons” was also published [21]. WHO recently announced the development of a guideline on the health of trans and gender-diverse people. In addition, existing tools related to the rights of women and girls, as well as the rights of persons with disabilities, can be used as practical tools just like the Convention on the Rights of Persons with Disabilities (CRPD) [22] was developed based on good practices and lessons learned from the Convention on the Elimination of Discrimination against Women (CEDAW) [23]. Particularly, the concept of the social model in CRPD might be a strategically useful concept for promoting human rights and the mental health of LGBTQI. The social model sees disability as socially constructed: Disability results from the interaction between the person and the environmental (including informational), institutional and attitudinal barriers in societies. Thus, the model finds solutions for removing societal barriers rather than forcing the person to change. In addition, the concept of meaningful participation based on the principle of “nothing about us, without us”, the twin-track approach to push forward mainstreaming together with strengthening specialized services to fill existing gaps, and the disaggregated data derive from CEDAW and CRPD discussions in the international community are important and useful [24]. In data collection, systems to protect information security must be constructed with ensuring confidentiality.

Together with disaggregated data, it is useful to quantify their situation related to protection and promotion of their rights so that longitudinal and horizontal comparison is possible. For this purpose, the Human Rights-based Well-being Checklist (HRWC) (**Appendix 2**) was developed based on CRPD, one of the latest internationally-agreed human rights instruments, through a collaborative action among

the University of Tokyo, the UN, disability and human rights experts, organizations of persons with disabilities and youths. HRWC can quantify states of human rights among individuals and groups. The HRWC consists of 39 questions that assess the degree to which people have experienced specific human rights violations in the last year. The validity and reliability were confirmed. Respondents answer each question on a scale of 0 to 4, while some questions are scored in reverse. The higher the score, the higher the human rights-based well-being [25]. HRWC has been used in various settings including the UN, Bangladesh, Indonesia, and the Philippines.

Due to widespread stereotypes embedded in many cultures and outdated systems in countries, discrimination and lack of protection are still pervasive. LGBTQI persons are not vulnerable but marginalized and violated their human rights. Making sure inclusion of protection and promotion of human rights and the mental health of LGBTQI persons as a priority in all the relevant policies and programmes, meaningful participation of LGBTQI persons including those with mental health conditions or psychosocial disabilities in decision making with ensuring accessibility and reasonable accommodation, and empowerment of LGBTQI persons with enough resources, options and safe spaces, our world will be transformed.

4. Conclusion

The world has changed dramatically and drastically in the past decade around LGBTQI persons: Diversity in sexual orientation and gender identity has been widely recognized and understood as a continuum and spectrum, and various aspects of society have started to include and remove barriers to and respond to the needs of LGBTQI persons. For example, more options exist in various social systems, services and facilities, including marriage equality in 30 countries, more benefits and entitlements to a same-sex partner, including leaving properties to a partner, gender-neutral restrooms, various peer support systems, and beyond. However, at the same time, despite these enormous social advancements, many LGBTQI persons still experience discrimination and violations of their human rights in their daily lives. In some countries, their situation is extremely alarming.

These affect the mental health and well-being of LGBTQI persons critically. Therefore, all the efforts to protect and promote the rights of LGBTQI persons need to integrate perspectives of the mental health and well-being by looking into environmental, institutional, and attitudinal barriers in various aspects of their lives as risk factors. Social support plays a critical role in protecting our mental health and well-being. In that sense, addressing social isolation and loneliness is an important entry point for the mental health and well-being of LGBTQI persons. Ultimately, mental health and well-being should be key indicators of their human rights and well-being.

All of us are unique and different. However, we tend to categorize people by focusing on one aspect and labelling them based on stereotypes. It is high time to return to the foundational principle of the Universal Declaration of Human Rights adopted right after World War II and reiterate that “All human beings are born free and equal in dignity and rights” and respect and embrace multiple differences of all of us. As UNDP and PGA described, “Inclusive societies promise more sustainable human development outcomes. This is because every member of such societies understands that they have a contribution to make, their contribution is valued, and no one should be left behind. Inclusiveness is thus a key precondition for building and sustaining peace, harmony and societal cohesion” [20].

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Conflict of interest

The authors declare no conflict of interest.

Appendix 1. Glossary

(Edited from UNDP, PGA (2022). *Advancing the Human Rights and Inclusion of LGBTI People: A Handbook for Parliamentarians.*) [21].

Aromantic: Someone who does not experience romantic attraction to anyone.

Asexual: Someone who does not experience sexual attraction towards anyone.

Bisexual: A person who is emotionally and/or sexually attracted to persons of more than one sex.

Cisgender: A term referring to persons whose gender identity and gender expression match the sex they were assigned at birth and the social expectations related to their gender.

Gender expression: The way a person communicates their gender identity externally through their appearance, e.g. clothing, hair style, use of cosmetics, mannerisms, way of speaking and demeanor and how these presentations are interpreted based on gender norms.

Gender identity: A person's internal, deeply felt sense of their gender or a combination of genders. A person's gender identity may or may not correspond with her or his sex assigned at birth and their sex characteristics.

Intersex: Intersex people are born with physical or biological sex characteristics, such as sexual anatomy, reproductive organs, hormonal patterns and/or chromosomal patterns, that do not fit the typical definitions or social expectations for male or female bodies. These characteristics may be apparent at birth or emerge later in life, often at puberty.

Queer: "Originally an offensive term used to degrade sexual and gender minorities, this term has intentionally been re-appropriated (taken back) and now refers to a political, sexual and/or gender identity that is intentionally and visibly different from the norm. 'Queer' is often used as a broad term for all people who are not strictly heterosexual or CIS gendered."

Sex characteristics: The characteristics that compose a person's physio-anatomical sex, including genitals, gonads, hormones, internal organs and chromosome patterns. These characteristics may be apparent from conception or at birth, or emerge later in life, often at puberty.

SOGIESC: This acronym derives from the terms sexual orientation, gender identity, gender expression and sex characteristics. These are not specific to LGBTI people: everyone has them.

Trans (or transgender): As used in this publication, transgender describes persons whose gender identity (their internal sense of their gender) is different from the sex they were assigned at birth. Trans is an umbrella term that describes a

wide variety of crossgender behaviors and identities. It is not a diagnostic term and does not imply a medical or psychological condition. This term should be avoided as a noun: a person is not “a trans”; they may be a trans person. It is important to understand that not all people who are considered trans from an outsider’s perspective in fact identify as transgender, nor will they necessarily use this term to describe themselves.

Appendix 2. Human rights-based well-being checklist (HRWC)

The following questions ask how much you have experienced certain things in the last year [26].

Please read each question and circle the number on the scale that gives the best answer for you.

		Never	Seldom	Quite Often	Very Often	Always
1.	I am suffering from inequality & discrimination due to my sex/gender.	0	1	2	3	4
2.	I am suffering from inequality & discrimination due to my age.	0	1	2	3	4
3.	I am suffering from inequality & discrimination due to my disability.	0	1	2	3	4
4.	I am suffering from inequality & discrimination due to my race or ethnicity.	0	1	2	3	4
5.	I am respected as a capable person.	0	1	2	3	4
6.	I can move around in this city without many barriers.	0	1	2	3	4
7.	I can use necessary transportation to participate in social life.	0	1	2	3	4
8.	I can access necessary information to participate in social life.	0	1	2	3	4
9.	I can access the Internet and other new technologies.	0	1	2	3	4
10.	I can ask for support from others when needed.	0	1	2	3	4
11.	I can participate in decision-making related to my community and nation if I want.	0	1	2	3	4
12.	I feel threats to my life.	0	1	2	3	4
13.	I think I can protect my minimum safety when disasters happen in this city.	0	1	2	3	4
14.	My legal decision-making will be obstructed by others.	0	1	2	3	4
15.	I can protect my money and assets without interference from others.	0	1	2	3	4

Determinants of Loneliness

		Never	Seldom	Quite Often	Very Often	Always
16.	I can access legal services such as the court when needed.	0	1	2	3	4
17.	I can be detained unlawfully.	0	1	2	3	4
18.	I can be subject to physical or sexual violence.	0	1	2	3	4
19.	I can make decisions on my body and mind without interference from others.	0	1	2	3	4
20.	I can decide where to live.	0	1	2	3	4
21.	My place of living is OK.	0	1	2	3	4
22.	I can make my opinion heard when needed.	0	1	2	3	4
23.	I can keep my privacy when I wish to.	0	1	2	3	4
24.	I can participate in a fair election.	0	1	2	3	4
25.	I can marry and have a child without much interference from others, if I want.	0	1	2	3	4
26.	I can communicate with my family when I want to.	0	1	2	3	4
27.	I can communicate with my friends when I want to.	0	1	2	3	4
28.	I can have/had quality education.	0	1	2	3	4
29.	I can receive necessary health services when I have a physical health condition.	0	1	2	3	4
30.	I can receive necessary health services when I have a mental health condition.	0	1	2	3	4
31.	I think I can receive necessary social services to live in the community when needed.	0	1	2	3	4
32.	I can choose my work if I want to.	0	1	2	3	4
33.	My work environment is/would be OK (If I work).	0	1	2	3	4
34.	My standard of living (food, clothing, and housing) is adequate.	0	1	2	3	4
35.	I have access to clean water and toilets.	0	1	2	3	4
36.	I can access/enjoy culture and the arts (including music, films, theaters, museums, libraries, etc.).	0	1	2	3	4
37.	I can access/enjoy sports.	0	1	2	3	4
38.	I can enjoy tourism and leisure when I want to.	0	1	2	3	4
39.	I have freedom to keep my culture and religion.	0	1	2	3	4

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Author details


Takashi Izutsu^{1*} and Atsuro Tsutsumi²

1 The University of Tokyo, Tokyo, Japan

2 Kanazawa University, Kanazawa, Japan

*Address all correspondence to: izutsu@g.ecc.u-tokyo.ac.jp

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Chapter 5

Informal Caregiving: The Lonely Road Traveled by Caregivers in Africa

Yemisi Okikiade Oyegbile

Abstract

Individuals with chronic illnesses, disabilities, or aging-related conditions often rely on informal caregivers, typically family members or relatives. This role is frequently taken on by women who are unprepared, untrained, unpaid, and have other family commitments. The physical, social, financial, and emotional burdens of caregiving can lead to sadness, anger, resentment, and frustration, resulting in reduced quality of life, depression, and loneliness. This chapter explores the implications of informal caregiving, focusing on caregivers' loneliness and its determinants. Loneliness manifests as depression, anxiety, hypertension, and a decline in quality of life, contributing to feelings of being unheard and unappreciated. Key determinants of loneliness include personal attributes such as gender, family circumstances, employment status, financial obligations, and education level. Strategies to manage loneliness include respite care, self-care behaviors, recognition, and spirituality. In the African context, cultural expectations and the conflict between traditional and modern values exacerbate these issues. The lack of governmental support places a heavy burden on caregivers to meet all the needs of those they care for. This chapter underscores the crucial role of family and community in providing necessary care and support to caregivers, enabling them to offer optimal care.

Keywords: informal caregiver, loneliness, family, determinants of loneliness, Africa

1. Introduction

Providing care to my 92-year-old father-in-law opened my mind to the world of informal caregiving in an urban setting in Africa. Although my job as a registered nurse requires delivering care to the elderly in the hospital, doing so for my father-in-law was my first experience as an informal caregiver, which is incomparable to institutional care. At the beginning of the caregiving journey, family members suggested us (my husband and I) co-reside with the aged parents-in-law to provide care for them both, his father needing additional care due to his age. Little did we know the huge commitment we signed up for, including the fact that we moved into their home. Days rolled into weeks then months and years, and as the care intensified, so did the burden of providing it with little support from the rest of the family.

Informal caregivers are often family members or relatives, and many having no training or experience in providing care, who through circumstances, are required to provide the services of care on a part-or-full-time basis. They are unpaid family members, spouses, children, grandchildren, or significant others who volunteer or are obliged to provide care for sick, elderly, or disabled individuals (14). The circumstance often requires the person needing care, or the caregiver, to move into the other person's home, resulting in disruption for both. When the homes also consist of other family members, their lives are also affected, with compromises and adjustments being required by everyone.

In Africa, the caregiving environment presents various challenges, given that many countries are regarded as low-or-middle-income and therefore have limited state-funded social and healthcare services. This is often due to financial constraints, which have implications for ensuring the availability, accessibility, and affordability of quality services for all those in need, specifically those requiring at-home care. In many of these countries, most people are unable to afford paid-for home-based caregivers and therefore rely on family members to provide such services for those needing short-and long-term non-medical ongoing care.

Being the daughter-in-law in an African setting, living in my in-law's home, and being a healthcare provider by profession means that it was expected of me to provide the care, with the bulk of caregiving resting on my shoulders [1]. Balancing intense caregiving and a secular job was very demanding, as it imposed a considerable burden on my health, well-being, and quality of life. Despite my commitment to caring for their parents, I received minimal support from other members of their family, which consisted of three brothers and their respective wives and two sisters and their husbands. As a result, I suffered emotional trauma from their lack of recognition and appreciation, as we were constantly rebuked for not doing enough.

Informal caregiving by an unpaid caregiver, usually a family member or significant other, is provided at home to the elderly, disabled, or sick persons as an expression of love and out of a sense of moral duty. Despite some caregivers deriving fulfillment from taking on the responsibilities, it can also impose a burden for a variety of reasons [2, 3]. Globally, informal caregiving appears to be an acceptable way of caring for relatives, having been found to be advantageous for the care-recipient, caregivers, and society. Individualized care can be adapted to accommodate the needs and responsibilities of those involved, as opposed to hospital-based care that is routinized.

Families provide care for elderly, disabled, or chronically sick relatives, neighbors, or spouses for various reasons, including love and reciprocity. They may also do it out of obligation, the lack of alternatives and to promote closer relationships among the sick relatives and other family members [4, 5]. Some individuals take on the role of a caregiver to give their life meaning, especially an elderly spouse or grown-up children, who may be retired or not working, and others add the role to those required by their paying job, often being unprepared for their increased responsibilities, specifically when there is no one else to assist with the caregiving [6].

The term caregiver will be used interchangeably with the term informal caregivers throughout the document to denote those who provide care in home settings, who seldom have the benefit of formal care training, being able to step away from their responsibilities or being paid, therefore being regarded as informal caregivers. In contrast, formal carers work in institutions, such as hospitals, old age, or client homes and are paid to work specific hours a week. Privately employed caregivers are able to receive support interventions when needed and are less likely to experience

loneliness from caregiving, as their family life, social interactions, and lifestyle are seldom affected [2].

2. Implications of informal caregiving

While home care may be a cost-effective measure, provided in the comfort of the care-recipients' or caregivers' home, with minimal cost to the society and the government, it can take a considerable toll on the caregiver's finance, health, and well-being. Being an informal caregiver can have implications for people's physical, emotional, and mental health, as it can be a demanding role, being done out of a sense of duty and often love, but for which people are seldom prepared [7].

As a result of their new circumstances, informal caregivers can experience a variety of emotions such as anger at being forced to provide care and having to give up work [8]. Caring for a spouse or close family relatives could lead to feelings of resentment due to the added responsibilities and losing their lifestyle which are often taken on at the expense of other aspects of their lives, such as social interactions and family time [2, 9]. They may also experience frustration at their family's lack of preparedness, feel inadequate to take up the caregiving role, sadness as it is a family member who has become disabled or chronically ill, and disappointment at the lack of family support, all these resulting in some caregivers caring journey being a lonely one [8].

Studies highlight the prevalence of depression and increased behavioral problems among caregivers, which influence both the quality of care provided, the overall well-being, and quality of life of the caregivers [7, 10]. As caregiving is sometimes unplanned and sudden, the stress and pressure associated with family caregiving duties can stem not only from physically tending to the care-recipient, but also from emotionally worrying about and witnessing a loved one's struggles with poor health, disability, or age-related frailty [11]. The pressure from rigorous routines, potential conflicts within the family, uncertainty about the future, and the distress caused by personal sacrifices are some of the factors affecting caregivers [12]. The pressure and tension associated with caregiving responsibilities within a family can come from providing direct care to the care-recipient, as well as from emotionally investing in and witnessing a loved one's struggles with illness, disability, or age-related weakness [11].

Social interactions with family and friends can also be compromised, with intense and prolonged caregiving being one of the factors that excludes informal caregivers from participating in social interactions/events, including religious and cultural ceremonies, which they may previously have enjoyed [13]. Friends and family members may overtime not invite caregivers to social activities due to their unavailability leading to feelings of loneliness and abandonment. Caregivers are often "hidden", with little social recognition for the time and effort they give to providing substantial care to their dependent relatives. In some instances, care-recipients and family members may not recognize or appreciate the caregivers, leading them to develop feelings of worthlessness. Caregiving may also affect the carers physical health, as trivializing their caregiving role, due to their own assumption, as well as their families and society's expectation, that it is the right thing to do, may result in their over-extending themselves and succumbing to illness or injury, sometimes becoming patients in the immediate future of providing care for a sick relative [14].

Caring for people with chronic illnesses or disability can cause disruption in caregiver's family, as they often take on the caregiving role unprepared, untrained, and for the first time [15]. As most caregivers are females, the responsibility in many African families often falls on the eldest child or the first male child with a wife, who sometimes has to combine it with a paying job and her own family responsibilities [16]. The family's daily routine may be altered, their space shared with a relative who needs assistance, their privacy compromised and everyone's welfare affected, leading to feelings of frustration that can be difficult to manage [17]. Family members may offer support when the caregiving journey begins but may dissipate as the condition worsens or does not improve and the care needs intensify, and this is similar to my experience. The caregivers own families may experience conflicts as the members compete for space, attention, and resources. While some caregivers are abandoned by the family to navigate the caregiving journey alone, others have found it to promote cohesion and provide sense of fulfillment and appreciation, enjoying the presence of the family members who needs care [12].

My sibling's involvement and support enabled me to take a rest and attend a few social programs, particularly during the weekends, and baby-sat my daughter on demand [18]. On the other hand, my husband's siblings, most of whom live hundreds of miles away, seldom helped or involved themselves in caregiving. As our relationship with them became tense, internal family disagreements increased, and strain on our marital relationship intensified as my husband appeared helpless to prevent further confrontation with them about our care of their father [19]. Caring for an additional person can also put a strain on family finances in the absence of government or family support. Not only is there at least one additional person to feed, but depending on their health status, they may need specific food. For example, people who have had a stroke that affects their ability to swallow may require special food that the family does not normally buy due to its cost [20].

Despite the potential adverse effects on caregiver well-being, physical and mental health, and life satisfaction, the start of informal caring does not necessarily result in increased loneliness [21, 22]. Studies highlight that volunteers who provide care willingly are less likely to experience loneliness than those who are compelled to do so [22, 23]. Characteristics such as higher education and socioeconomic status as well as good health have been associated with decreased risks of loneliness among informal caregivers. These have been found to improve time management in providing care and enable the affordability of resources that supports caregiving [23].

3. Informal caregiver loneliness

Caring for individuals who are aging, have a disability or chronic illnesses, can negatively impact caregivers' well-being, as indicated by research revealing feelings of loneliness, hopelessness, decreased self-efficacy, social withdrawal, and loneliness [5]. Loneliness is due to a combination of factors, including not being heard or appreciated, the assumption of the obligation by others, irrespective of what they want, uncertainties about how well they perform the role, and poor coping strategies as a result of the recipients deteriorating condition [8].

Loneliness, stemming from factors such as providing care alone, a lack of time off, and transport to leave the environment and participate in social events, or feeling subjectively isolated, is a psychosocial indicator linked to reduced quality of life. Family

caregivers are often so overwhelmed with caregiving that they do not have the time to engage socially with people in the community or the energy to participate. Loneliness amplifies feelings of vulnerability and heightens subconscious mental processes that hinder relaxation and deep sleep. Together with insufficient social connections, it has been correlated with self-reported disruptions in sleep and daytime dysfunction, such as diminished energy and increased fatigue, anxiety, and depression [24].

The caregiver's endeavor to provide care that ensures as optimal quality of life as possible for the person needing care may result in their experiencing a compromised quality of life [25]. This can be influenced by factors such as gender, cohabitation with the care-recipient, intensity of caregiving, financial instability, and unpreparedness for the role [26]. Isolation and diminished social interactions due to the additional demands on their time and energy can contribute to stress in caregivers, impacting the quality of life for both caregivers and care-recipients. Despite living with a partner while taking on additional care duties, a poor relationship between care-recipient and caregiver could also lead to feelings of loneliness [25].

Experiencing loneliness is a common outcome of caregiving due to the substantial time and effort it required to provide care, often around the clock [27]. Persistent sensations of isolation (loneliness) are characterized by challenges in concentration, cognition, emotions, and behavior, leading to impacts on health and longevity by affecting the genetic, neural, and hormonal mechanisms that regulate well-being [24]. In addition, inherent in social isolation related to caregiving can be physiological, social, emotional, and other health-related conditions.

Various types of loneliness, including reduced personal space, social interaction, and contact with close friends and family, are also attributed to the constraints imposed by informal caregiving [28]. This loneliness often correlates with heightened levels of depressive symptoms and a decline in enjoyment of time away from the caring responsibilities [21]. The experience of loneliness is particularly common among caregivers of older adults who require long-term care and has been linked to several adverse health outcomes, including depression, anxiety, hypertension, and a decline in the quality of life [27, 29]. This chapter focuses on the determinants of loneliness among caregivers and recommends support interventions to manage it.

4. The determinants of loneliness in caregiving

Many factors can influence the manifestation of loneliness in caregivers, such as their profiles, care intensity, caregiving environment, social invisibility, lack of family support, financial constraints, and health crisis, both short and long term.

4.1 Caregiver profiles

The profile of the caregiver can play an important role in how they cope with and respond to the demands associated with providing home care to a relative or family member. Factors such as gender, family circumstances, employment outside the home, additional financial obligations, and educational level can all be important [30, 31]. Caregivers can be male or female, are often middle-aged, divorced or widowed, and retired or actively engaged in secular employment [32]. However, females are more likely than males to take up the caregiving role due to gender-based power dynamics and cultural dynamics, and their responsibilities in the home often result in

the assumption that they are available to provide care and therefore should be willing to do so [33–35].

Informal caregivers have been found to provide care for more than one family member, and their family circumstances sometimes result in competing responsibilities [36, 37]. For instance, the arrival of my daughter presented competing demands between caring for my father-in-law and my new baby. Navigating both responsibilities increased the duration of caregiving and significantly disrupted the mother–child bonding process, given that this was for the first time, which meant learning the process of parenting, with little time for rest and relaxation [38]. Parents with many children can experience extreme fatigue with severe consequences on their overall health [37].

For working caregivers, the demands of caregiving can necessitate reducing the hours of paid work in order to accommodate the caregiving and other home-based responsibilities, leading to financial stress from loss of income or debt accumulation [39]. Studies highlight that the need to decrease number of work hours or leaving employment to care for someone contributes to the overall financial strain experienced by caregivers [35, 40]. Caregivers may encounter challenges that they are not prepared for when taking on additional financial obligations and expenses that are associated with certain illnesses or life stages. The debt burden for caregivers usually increases in countries where medical care costs are paid out of pocket and not provided free to people who cannot afford them [41]. Caregivers who have such financial burdens and lack financial support from the family might experience feelings of depression and anxiety, which exacerbates their loneliness in the absence of adequate support. Although my husbands' family members supported us financially, their lack of trust in how we spent and managed the money resulted in conflict.

The financial strain of caregiving to a chronically sick person can be significant, due to the cost of treatments and medications, and home care products associated with personal hygiene or specialized food. There are also incidental expenses such as transport to health facilities, clothing, and bed linen. These economic burdens can result in a reduced quality of life for the caregivers and their family, with obstacles in following their own treatment plans or neglecting their healthcare needs, leading to depression and emotional stress [31].

Care-recipients and caregiver families face financial challenges in developed and developing countries where health care is mainly funded privately, such as the United States and India, respectively. This can be due to gaps in insurance coverage, where it is available, and the costs associated with accessing or acquiring goods and services related to the additional care. In many countries, the impact of financial hardship also affects patients where government-funded universal health care only covers their medical requirements, but does not provide for their food or other personal needs [40].

Education has also been found to play an important role in caregiving, with college-educated caregivers being more likely to find ways to overcome their challenges by accessing online resources for information compared to those who only have a school education [42]. In some rural areas in Africa, women do not always have the opportunity to complete their school education, let alone attend tertiary institutions. Those schools that do not have electricity are unable to provide computer instruction or expose their students to the vast amount of information that can be accessed through digital technology. While the personal factor associated with caregiving plays a central role in how they respond to their new circumstances, many of which have no

control over, the intensity of care required is also a key factor in their health status, including loneliness.

4.2 Care intensity

Caregivers take on the duty of providing help with everyday tasks, such as getting dressed, eating, bathing, using the toilet, walking, communicating, and dealing with services, such as the healthcare system. The intensity and extended duration of these caring activities can be exhaustive and overwhelming for the caregiver, who may lose important social support and withdraw from others in order to cope with the demands of caregiving, especially for those with functional impairments [43]. Family and friends may distance themselves from caregivers due to their lack of appreciation for the level of care being provided and the ongoing demands of caregiving. Moreover, societal biases against certain health issues, such as HIV/AIDs or Tuberculosis (TB) and disabilities, may lead caregivers to isolate themselves from social activities and gatherings if they need to go with the person needing care [43]. The intensity of care can also depend on the relative's condition, with disabilities and age-related conditions requiring more long-term support, and conditions with poor outcomes, or those that require intense treatment, such as cancers, needing time-consuming attention [33]. Informal caregivers of patients with Cancer provided an average of 32.9 hours of caregiving per week, with most providing care for more than a year, this being in contrast to caregivers of patients with dementia, who provided care for up to 10 years [3, 44].

As the global population's mean age continues to rise, many societies are experiencing a shift toward smaller families and varied living arrangements due to the constraints of urbanization, with smaller homes and properties, and industrialization, where people earn an income from being employed in businesses and factories [45]. The implication of these adjustments is that the smaller families and their work responsibilities result in few family members being able to step into the role of an informal caregiver, imposing the burden on those who are able to do so, or on relatives in other homes. The intensity of care required is not only affected by the person providing the care, the caregiver, but the environment in which they live, all of which contribute to their ability to cope and experience loneliness. Informal caregivers often have concerns about the progression of the older relative's illness, which can change over time as they age or new conditions emerge, such as dementia [44]. Preference among care-recipients to receive care from close relatives, and in the comfort of their or the caregiver's homes, or the lack of funds to hire caregivers, increases the duration and intensity of care for the family caregiver, which reduces their opportunity for having a break [18].

4.3 Support structures

Similar to the caregiving environment in Africa, it is usual for families to designate one person as the main caregiver for elderly members in Brazil, Belgium, and Sri-Lanka [35, 46]. This person takes on the majority of caregiving responsibilities, which can lead to negative effects, such as exhaustion and loneliness [6]. Studies suggest that informal caregivers typically do not receive adequate support from other family members, affecting both their caregiving duties and their ability to attend to their own personal interests [6, 46]. Similar to Africa, studies conducted in Australia and in Belgium highlighted that caregivers spent considerable amount of time providing

care, lived with the person(s) receiving care, provided care for multiple individuals, and received no outside help. This resulted in their experiencing increased psychological distress, their unmet personal needs being associated with their feelings of social isolation and loneliness [35, 43]. Spouses mentioned feeling more restricted in their situation and carrying a greater weight of responsibility than other caregivers, such as parents or friends, as they deal with the caring for their partner [47].

4.4 Lack of government support

The lack of financial support from the government puts a strain on many families, whose income is often barely sufficient to meet all their family needs, and who not have to accommodate an additional person. The added family responsibilities can result in one family member having to reduce the working hours or stop work completely, due to their additional caring needs. While informal caregiving reduces the financial cost of social care for the government by keeping them out of funded homes and hospices, in many countries they receive little or no social or financial support from the state when they take on these additional responsibilities [37]. In most developing countries, government support is not available, with family members filling the care gap.

In African countries in particular, government seldom allocates resources to social support interventions due to their resource constraints and the assumption that it is a family responsibility, thereby accepting the caregiver's invisibility. This underscores why some caregivers become chronically sick themselves, as there is no financial or psychological government support for them to call on when the family is not willing or able to assist with their responsibilities. In South Africa, the government provides a disability grant for those approved for such by their physicians, and an old age pension for those 60 years and over whose income is below a threshold amount, which can be used to provide for their needs by the caregiver [48, 49]. In the United Kingdom, elderly persons are supported by government funded measures, such as meals and home help, which enabled people to live as independently as possible for as long as possible, often supplementing family caregiving [50]. The government also provides a weekly carer grant, irrespective of the relationship to the person being cared for [48], while many families pay for private caregiver assistance at their homes. In instances where caregivers receive support from relatives and the government, they are able to provide extended good quality care without developing problems themselves [10].

4.5 Accessing specialized medical care

Some chronic or debilitating medical conditions require specialized and or tertiary care, which is usually provided in urban hospitals, the caregivers generally needing to accompany them, either for a day visit to a clinic, or for admission into hospital for an extended stay. For both events, the caregivers are expected to accompany them, to get them there, and sometimes speak on their behalf. This means that their caregivers residing in rural areas may also need to relocate, find accommodation, navigate in a new environment, and at the same time disrupt the dynamics of the family left behind, including their social and financial relationships.

4.6 Culture and care

Ubuntu, a belief system that has its roots in Southern Africa, emphasizes the importance of deriving a person's identity from the community, although

the sentiment may apply in many other communities without being formalized. The principle of “I am because we are” includes interpreting the social concept of sickness and caring among families [51]. The importance of mutual support in “Ubuntu” has kept families, communities, and societies united during difficult times [52]. In cultures that embrace Ubuntu, it is common for extended family members to take on the responsibility of caregiving. Sickness is perceived as a family affair in many African cultures, with extended family dynamics often resulting in decisions being made by senior members, those affected having little ability to influence or challenge what has been decided. Inter-generational dynamics also make it difficult for elders to be challenged, with decisions being made that can override the wishes of affected younger persons, such as caregivers.

In some African cultures, the understanding of health conditions may not be Western-based, making the approach to caring difficult when there are varying concepts of the causes of problems and how to address them. For many families, the first point of contact with a health practitioner is a traditional healer, who may prescribe rituals and herbal portions, with Western health care only being sought when there is no improvement. This can put pressure on caregiver, who needs to provide care throughout this process, and is often not listened to when telling the family that there is no improvement or conditions have worsened, adding to their sense of loneliness and isolation. Caregivers who are required to implement instructions that are contrary to their beliefs and practices might withdraw from caregiving, this being regarded as an insult to the family, for which they may suffer social isolation.

In Malawi, when a person becomes sick and is hospitalized, they receive care not only from healthcare professionals but also from their relatives, who are referred to as Guardians. This practice is influenced by the Ubuntu philosophy in response to the inadequate number of staff to deal with the high patient numbers in many healthcare facilities [52]. In Africa, cultural expectations and the preference for family-based caregiving over institutional care, which may also be limited, significantly increased the responsibilities shouldered by family caregivers.

The complexities associated with having to work within cultural constraints can be very frustrating and sometimes demeaning for caregivers, with the family keeping a close watch to prevent breaches, and to reprimand when their standards or requirements are not met. Adhering to cultural protocols can also be difficult for younger family members who do not subscribe to them or whose education and experiences have resulted in their choosing to subscribe to different beliefs and practices. This can create conflict between the family member and caregivers, who may not be prepared to compromise their beliefs and standards to accommodate their relative’s wishes particularly when it affects their lives and those of their immediate family.

For example, there are also cultural norms regarding younger women caring for older men, mothers caring for sons, and children bathing their parents and seeing their nakedness, a taboo with severe consequences, which makes caregiving challenging in the absence of additional help [53]. In this regard, rural women are more likely to be prone to cultural pressure, specifically in patriarchal African societies, where they do not have the same platform as men to voice opinions or challenge decision [54].

4.7 Global and local health crisis

Health crises can also affect both the provision of care and interaction with the broader community due to factors such as stigma, discrimination, and fear of contracting an illness. This section reviews the effect of the COVID-19 pandemic, as an

example of enforced isolation, and HIV, as a long-term epidemic that results in death in the absence of effective medication, both being public health challenges that can affect caregiver loneliness.

COVID-19 was a health crisis that entailed enforced isolation for a number of months to prevent the spread of the disease that resulted in loneliness for both the care-recipient and caregiver [25, 55]. While the duration of the social isolation was of short duration, the at-risk categories of the elderly and those with compromised immune systems in particular were advised not to see their families for an extended period. For care-recipients who enjoyed the company of friends and family members, their sole support then became the caregiver, who had to provide additional emotional support when family contact was not possible. This placed an additional stress on the caregiver, who then had to provide for all their emotional needs, and could not take a break or vacation. During the pandemic, individuals did not necessarily experience loneliness due to lack of companionship, but rather as they could not meet friends and social groups who provided various types of support, leading to feelings of social disconnection and loneliness [56].

Studies [11, 57] highlighted that loneliness during the initial stages of the pandemic was influenced by factors related to the absence of social support, which affected caregivers well-being, and increased cognitive decline in care-recipients with dementia [11]. Caregivers increased loneliness was linked directly to their caring role, with high anxiety levels, the loss of engagement in formal activities and the cognitive state of their patients. However, other studies highlight that living with care-recipient with dementia during the pandemic could potentially serve as a safeguard against loneliness for those who might otherwise have been living alone [23, 25, 58].

As a continent, Africa has the highest incidence of HIV/AIDs, the lack of information about the virus, its transmission, and associated disease, resulting in some people still experiencing stigma and discrimination, being ostracized by their families and communities [59]. The absence of antiretroviral (ART) medication results in the progression to AIDs, which is associated with weight loss and high fever, these being visible signs of infection. The end stages of the disease require extensive caregiving, often a family member, with care being required to ensure that they also do not become infected. Many of those infected are young and middle-aged who have children, the sadness for the caregiver not only being the loss of their loved one, but the knowledge that they will likely need to take on the additional responsibilities of childminding, adding to their emotional stress [60]. The sadness of caring for a loved one who is clinically very ill and who will die can be traumatic for the caregiver, the pain of the pending loss adding to their loneliness, specifically in the absence of assistance with the caring responsibilities.

5. Managing loneliness

For the many caregivers who live with the relative needing care, their responsibilities are a full-time undertaking, in addition to their other household tasks, which can result in tiredness, exhaustion, and the need for time off. In those homes where there is no support, support mechanisms need to be found that are accessible and affordable. This section reviews a number of options that caregivers can consider to ensure that they can provide the required care over the anticipated time that it will be needed for. These include respite, needs assessment, self-care behaviors, recognition and appreciation, electronic health tools, caregiver support networks, and spirituality. The final section deals with practical implications of findings.

5.1 Respite care

One of the ways for caregivers to get some relief from their ongoing responsibilities is for them to access respite care this being opportunities for caregivers to have additional time to themselves, access organizations that offer emotional support, and provide skills to improve the care situation and enhance their well-being [61, 62]. While informal caregiving reduces the financial cost of social care for the government by keeping them out of funded homes and hospices, it is unlikely to receive social or financial support from the state when they take on these additional responsibilities [37].

Scholars note that respite care for caregivers to enable them to take a break from their responsibilities significantly reduced loneliness and other forms of social isolation or invisibility [15]. Such opportunities enable them to have time for themselves, including to have medical checkups, and to address their psycho-social and spiritual needs. It also gives them the opportunity to reflect, reassess, and respond to personal issues that may have been neglected as a result of their caregiving responsibilities [28]. It is therefore important for family members who are not directly providing care to offer to stand-in for caregivers on a regular basis to give them a rest from their often physically and emotionally demanding tasks.

5.2 Needs assessment

Caregiver needs are likely to vary, depending on factors such as their financial situation, geographic location (urban/rural), religion, socioeconomic status, and cultural values, making an assessment of their needs important to enable interventions to be tailored to address them. Family members, friends, community leaders, and social organizations are best positioned to identify the unmet needs of caregivers for social connections and to make suggestions or take action to address them [43]. Health-promoting efforts through the media and health facility staff need to be advocated for caregivers to enable them to sustain healthy living and to make other family members aware of their needs.

5.3 Self-care behaviors

Caregivers have adopted various types of self-care behaviors to help them cope during difficult times, including exercise, participation in support groups, doing meditation, [63], getting enough sleep and rest, and avoiding smoking and consuming alcohol [64]. Self-care behaviors have been found to promote good health and improve the quality of life for family caregivers. Those who adopt limited or no self-care behaviors often experience caregiver stress, mental and emotional health issues, and unmet needs, which negatively affect their overall health and quality of life. Being able to take time for themselves, either at home or away from their responsibilities, with the help of extended family members, including children, grandchildren, or significant others will enable them to regain strength to return to their caregiving duties.

5.4 Recognition and appreciation

It is very likely that a family member serving as a caregiver for an elderly person will undergo emotional distress, resulting in significant caregiver strain due to their strong emotional connection [5], the absence of recognition or appreciation for the role they play being potentially traumatic. Extended family members need

to recognize the significant role caregivers play and appreciate them regularly. Recognition can be demonstrated in the form of providing emotional and informational support, such as information that may assist in managing loneliness and other emotions [5].

In addition, asking about their needs, identifying when they are socially isolated, and making an effort to provide resources for social connectedness may well be appreciated by the caregiver [43]. Family members must check on them regularly to ensure that they keep their doctor's appointment and other health professional's appointments to enable them to take care of themselves [65]. Building a strong relationship with the person needing care can also assist in understanding both parties' frustrations and needs, with open communication being important to negotiate time constraints, stress, and how to manage loneliness [61].

Although my brothers-and-sisters-in-law did not appreciate our efforts, my father-in-law did. He demonstrated kindness, was cooperative with caregiving, and understood the complexities of care provided to him. He engaged the power of storytelling to relieve me of stress, often referenced inspiring words from the Holy Bible and sang hymns to ameliorate my feelings of worthlessness.

5.5 Electronic health tools or mobile health applications

Globally, there is a significant increase in the use of technology for a variety of purposes, such as Mobile Health Apps (mHealth Apps), to address health issues such as weight loss, cessation of smoking, and healthy eating. Healthcare providers are also encouraging their clients to use them to improve disease management and health promotion purposes, as it is free and available online. The mHealth application was also developed to empower caregivers to make informed health-related decisions and communicate with healthcare providers, as one category of those who use the sites. Recent studies documented the benefits of these mobile applications, including providing relevant health and medical information to caregivers and patients [66, 67].

mHealth apps provide information to caregivers by reviewing various condition that they might develop, such as stress reduction and health promotion strategies [67]. It is an online support group, where caregivers can ask questions through a secure chat process, with responses being provided in real time. However, in order to benefit from these health apps, caregivers must have access to a smart phone and Internet data, which can be difficult to obtain or expensive in low-income countries and rural areas. This might be a barrier to caregivers who cannot afford additional expenses due to the cost associated with caregiving. Offering health information and advice to caregivers using trustworthy, science-based mHealth apps and smart devices could be an effective health promotion tactic. Healthcare providers and policymakers should advocate for validated and efficient mHealth apps specifically for caregivers to promote their use and optimize health advantages for both caregivers and care-recipients [66].

5.6 Caregiver support networks

While caregiver's need to receive both practical assistance and emotional support in order to accomplish their daily tasks as a caregiver, employer, family, and community member, the former may not be available from family members, and assistance may need to be sought from friends [6]. Support networks play a vital role in assisting caregivers and their families, providing help with health care and household tasks,

and addressing financial and emotional concerns. These networks can be categorized as either informal or formal, the former including family members, friends, neighbors, and social groups, such as churches, linking caregivers to community resources. Formal support networks are provided through organizations established by public policies, such as health services, hospitals, long-term care facilities, as well as government and non-government programs. Some formal networks provide training in caregiving tasks and obtain assistance from professionals in fields of nursing, medicine, psychology, and social work [37].

Formal Caregiver Support Networks globally are intended to assist informal caregivers who may work outside the home while also providing elderly care at home. A systematic review classified the needs and resources of caregivers who are also employed outside the home using the individual, group, leader, and organization (IGLO) model. The model outlines various ways in which workplaces can support caregivers, such as through peer support, managerial guidance, organizational policies, and cultural considerations. Within organizations, support for caregivers can be designed and provided at various levels, including those with limited resources, such as in the form of flexible working hours [36].

5.7 Spirituality

Caregivers who experience spiritual well-being tend to have improved quality-of-life outcomes [47] as it helps to relieve the stress associated with providing care on a daily basis. In addition, the belief in the existence of a higher purposeful force, practicing rituals or spiritual ceremonies, praying, studying religious texts, and engaging directly with nature were found to nurture optimism, satisfaction, and coping among caregivers [68]. Another aspect of spirituality is the social and emotional support obtained from their religious communities, where simply being shown concern for their well-being helps caregivers to feel heard and valued [69]. Some African religions regard children with disabilities as a gift from God, while others regard them as a curse, putting additional pressure on the mother, who is often blamed for such an occurrence [70]. This can place an additional burden on the mother, who becomes the caregiver, as she feels responsible for the child's condition, the presence of blame increasing her sense of isolation and loneliness.

6. Practical implications of the findings

A number of measures need to be implemented at family, society, and governmental levels, in resource-constrained countries in Africa in particular. This can greatly reduce the mental, social, and physical challenges linked to their caregiving duties, simply acknowledging the important role they play in making them feel less invisible, alone, and lonely.

At a government level, policies need to be developed and implemented to ensure that training of healthcare staff is undertaken to provide support to caregivers at primary healthcare level, in particular, but also in clinics and hospitals where specialized staff are accessed, such as rehabilitation services for disabled persons.

At the clinic level, advice and training need to be provided, possibly in groups on specific days of the month, at which caregivers can meet, share experiences, and receive support and instruction from each other and the staff. Where community health workers are available, they need to be mandated to provide such care and support.

At a community level, more public health messaging, through mediums such as community radio, needs to expose the realities of caregiving and provide advice and support through weekly interviews with a range of specialists in a variety of areas. Given that this can happen to any family, preparing people with family members who may require care in the future will assist in alleviating the stress of being prepared, and not knowing what resources can be accessed and from whom. It will also expose the realities associated with the physical, social, emotional, mental, and spiritual roles that the caregiver plays.

The next level is that of the extended family, who need to be involved with the care responsibilities and not leave everything to the caregiver. They also need to be available to relieve caregivers from their responsibilities to enable them to focus on their own state of well-being, which they may neglect due to their many responsibilities. Receiving genuine care and empathy from extended family members, along with their acknowledgement and support, is crucial for preserving the dignity of caregivers tending to relatives at home.

The caregivers' immediate family also need to be informed and involved, to enable them to understand the implications of the pending changes, how their lives will be affected, and how they can pull together to make the new arrangements as pleasant as possible for themselves and the care-recipient. Preventing resentment, specifically among children, who may need to share their mothers time with someone else, is essential for them not to feel neglected and to understand that this is a reality that many families face.

It is therefore essential at the start of the caregiving to meet with family members and friends who may provide support, to establish a common understanding of the current status of the person, their caring requirements, and the various roles and responsibilities. The discussions of this meeting need to be recorded as a record of what was understood and agreed to by all those involved, possibly also the care-recipient. The areas that need to be addressed include:

- Health status, e.g., current conditions, medical requirements, costs, access, monitoring changes, and who will be responsible.
- Healthcare needs, e.g., food, personal hygiene, costs, and who will be responsible.
- Financial affairs, e.g., contributions, management, expenditure, and responsibilities
- Family support, e.g., caregiver respite care, meeting spiritual needs
- Duration of care, and what will happen if the caregivers' circumstances change and they can no longer provide such a service.
- Type of care required, e.g., care such as bathing, administration of medication, blood sugar, and blood pressure check.
- Cultural considerations, including spirituality, so that the caregiver is aware of any expectations that they cannot accommodate, which the family needs to know before a crisis arises.

- Caregiver respite, this is related to time away from their caregiving responsibilities, either of them being away from home, or the care-recipient spending time at another family members home.

Such meetings should be held annually to monitor any changes in the situation and enable a re-evaluation of the finances in particular, as that can be an area of contention. The intention of such a record is to set out the parameters at the start of the caregiving, to monitor changes that take place over time, and as a record that can be referred to regarding decisions about what was to be done and by whom. This will prevent any unfounded accusations being leveled at the caregiver by the family and protect the care-recipient in the event that decisions agreed to by the family are changed by the caregiver. Calling annual review meetings will serve to remind the family of their ongoing responsibilities, the need to care for the caregiver, that circumstances change, and that caring for a family member is not necessarily an easy undertaking.

7. Conclusion

Caregivers can face many challenges while providing care for family or loved ones, the lack of acknowledgement, and support by others often resulting in their experiencing loneliness and other forms of caregiver burden as a consequence of providing intensive, substantial, and prolonged care. The many millions of silent caregivers accept their circumstances as part of their family obligations, which does not necessarily mean that it is easy for them. The myriad of emotions that are associated with providing care can result in a feeling of loneliness when the person is not heard, understood, or appreciated. Providing them with support is essential if the often-long-term obligations are not to negatively affect their own health and well-being, given that it can be a 24-hour-a-day responsibility.

Making time for themselves, being with their families and friends, and engaging in their normal social and economic activities are key to ensuring their well-being. Providing them with access to social, online, and facility-based support networks is essential to preventing loneliness, with the government needing to promote the provision and uptake of support services through public health messaging.

Maintaining positive relationship with the care-recipients, praying often, and listening to spiritual podcasts are some of the coping mechanisms I adopted. In addition, my siblings assisted me as often as time permitted them, especially during weekends, which enabled me to spend time with my own small and growing family, go grocery shopping, and take care of my household responsibilities. This caregiving experience strengthened my relationship with my father-in-law and gave me insight into the process of aging. It made me more tolerant, kinder, and less stressed about the small stuff, and I became more appreciative of informal family caregivers who provide care to their relatives who needed care.

Conflict of interest


The author declares no conflict of interest.

Author details

Yemisi Okikiade Oyegbile
Durban University of Technology, Durban, South Africa

*Address all correspondence to: yemisio@dut.ac.za

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Section 4

Self-Harm Dynamics
of Loneliness

Chapter 6

Loneliness in the Context of Self-Harm Behaviors in Adolescence

Linda Rajhvajn Bulat

Abstract

Loneliness could both precede and follow poor mental health of adolescents. Since the last decade, the mental health problems in adolescence have become widespread and heavier; it is important to address what role loneliness has in predicting and maintaining mental health problems. This chapter summarizes research data that connect loneliness with specific internalizing problems in adolescence—non-suicidal self-injury, suicidal thoughts, and attempts and deliberate self-harm, with or without suicidal intention. Findings of different studies are discussed in the context of the interpersonal theory of suicide, the integrated motivational-volitional model of suicidal behavior, Nock’s integrated theoretical model of NSSI, as well as the evolutionary theory of loneliness. Since the COVID-19 pandemic and resulting public health measures had major impacts on mental health, including on self-harm, and as loneliness increased due to social distancing and isolation, practical implications for the future crisis are proposed in order to save adolescents’ mental health.

Keywords: loneliness, non-suicidal self-injury (NSSI), deliberate self-harm (DSH), suicide, peer relations, adolescence

1. Introduction

Adolescence represents a developmental phase marked by an escalation in internalizing issues, such as depression and anxiety, as well as an elevated risk of engaging in self-aggressive behaviors like self-injury and suicidal tendencies [1, 2]. Over the past decade, the prevalence and severity of mental health problems during adolescence have intensified [3, 4]. Addressing the role of loneliness in predicting and perpetuating mental health problems is crucial in light of these trends. This chapter seeks to elucidate the relationship between loneliness and specific manifestations of self-harm and internalizing problems in adolescence, such as non-suicidal self-injury (NSSI), suicidal ideations and attempts, and deliberate self-harm, with or without suicidal intent. Despite their distinctiveness and varied operationalizations, these issues often intertwine, and the boundary between NSSI and suicidality is frequently indistinct during adolescence. Huang et al. [5] emphasize the intricate connection between NSSI and suicide, highlighting its significance as a substantial public health

concern that jeopardizes the daily lives and both the physical and mental well-being of adolescents.

Suicide stands out as a leading cause of death among individuals aged 10–24 years [6, 7], with suicidality in childhood serving as a predictor for adult psychiatric morbidity, mortality, and general mental health challenges [8]. Nock et al. [9] report that one-third of adolescents with suicidal ideation progress to developing a suicide plan, and approximately 60% of those with a plan attempt suicide. NSSI typically emerges between the ages of 11 and 15 years [10, 11], with lifetime prevalence ranging from 8 to 47% in community samples during adolescence [1, 11–13] and an annual incidence of around 19% [14]. Despite NSSI's exclusion of suicidal intent by definition, various researchers have identified a direct association between deliberate self-harm and suicide attempts [13]. Adolescence is additionally characterized by a heightened incidence of loneliness. The adolescent experience of loneliness differs from that of children or adults, given developmental changes in identity, autonomy, individuation, and social orientation [15]. Loneliness, generally described as an unpleasant and distressing subjective experience, occurs when an individual perceives a lack of acceptance, isolation, or a dearth of contact with others [16, 17]. It is crucial to recognize that quantitative aspects of social isolation inadequately measure loneliness and the absence of social support and connections [18]. Both those with numerous friends and those without it may experience loneliness. Nevertheless, adolescents struggling to form and maintain positive peer relationships or dissatisfied with such relationships tend to report heightened loneliness [19]. Scholars debate whether loneliness is a unidimensional or multifaceted construct, with emotional loneliness linked to deficiencies in family or romantic bonds and social loneliness related to friendships. Additionally, they differentiate between current and prolonged (chronic) loneliness, with the latter posing an increased risk of mental health problems due to its interference with social, cognitive, and physiological development [15]. The Centers for Disease Control and Prevention [20] posit that connectedness, as the antithesis of loneliness, is a vital factor influencing suicidal behavior. Connectedness is described as a sense of interpersonal closeness with the broader social world or individuals, characterized by feelings of caring, belonging, trust, value, and respect. It also entails satisfaction with one's environment or relationships [21]. A consensus exists that connectedness derives from interpersonal affiliations with individuals and institutions, providing emotional and instrumental support through interconnected social systems (e.g., families, schools, peer groups, and communities). Social connection refers to an individual's subjective perception of the closeness of their interpersonal relationships in social life [5]. The CDC's emphasis on enhancing connectedness as a comprehensive framework for suicide prevention underscores the fundamental importance of social connection in human well-being, guiding research, intervention, and policy efforts capable of accommodating diverse approaches [21]. In recent years, particularly during and after the COVID-19 pandemic, numerous studies have affirmed a connection between the mental well-being of adolescents, feelings of loneliness, and their sense of social connectedness. A comprehensive study in Hungary [22] focusing on adolescents and young adults revealed that students with fewer friends who frequently experience loneliness face an increased likelihood of feeling hopeless, thereby jeopardizing their mental health. Females and younger adolescents are identified as being at a higher risk of poor mental health. Amid the pandemic lockdown, adolescents reporting heightened loneliness exhibited significantly more pronounced symptoms of mental health issues [23]. Moreover, individuals with low levels of school and peer connectedness prior to the pandemic demonstrated poorer mental health and well-being both during the lockdown and

shortly after returning to school [24, 25]. An Australian study emphasized the predictive nature of quality friendships before the COVID-19 school closures on elevated levels of positive mental well-being during that period. However, despite these positive connections, there were notable increases in depression symptoms, internalizing and externalizing symptoms, as well as a considerable decrease in positive mental well-being at various points over time (before, during, and after the pandemic) [26].

While these studies are primarily centered on the COVID-19 pandemic, earlier research has consistently highlighted the strong association between loneliness and various mental health problems, including depression, anxiety, and suicidal thoughts. Loneliness is also identified as a risk factor for adolescents engaging in health-risk behaviors such as tobacco and alcohol use, as well as risky sexual activities, social-environmental risk factors like bullying, and overall lower positive mental health and self-esteem [27, 28].

The subsequent chapter delves into different theoretical approaches explaining the link between loneliness and specific mental health issues such as suicidality and non-suicidal self-injury (NSSI). Subsequently, pertinent empirical data on these topics are presented, and finally, practical implications derived from these results are addressed.

2. Theoretical approaches that explain the relationship between loneliness and suicidality

Already in the nineteenth century, French sociologist Durkheim (1897) [21] proposed that suicide arises from a lack of social connection to others. This chapter delves into four contemporary theories connecting loneliness and suicidality, including non-suicidal self-harm behaviors such as NSSI. All these theories have emerged more than a century after Durkheim's initial hypothesis.

Foremost among these theories is the *Interpersonal theory of suicide* (ITS) by Joiner [29] (**Figure 1** in Appendix), one of the most widely cited suicide theories. According to ITS, individuals at greater risk of suicide experience heightened pain, diminishing their survival instincts, coupled with a profound sense of social disconnection, perceiving themselves as burdensome and without a sense of belonging. Whitlock et al. [21] elucidate that suicide, under ITS, stems from perceptions of thwarted belongingness intertwined with perceived burdensomeness and a capacity for lethality. Thwarted belongingness includes indicators like self-reported loneliness, living alone, fewer friends, non-intact family, social withdrawal, and family conflict [21]. Both thwarted belongingness and perceived burdensomeness encompass an intrapersonal dimension (individual thoughts and emotions influencing social interactions' perception) and an interpersonal dimension (interaction with individuals and systems outside oneself reinforcing intrapersonal cognition and affect). Essentially, ITS posits that loneliness contributes to frustration, resulting in a perceived burden and an increased likelihood of NSSI, intensifying lethality capacity further [5]. Adolescents, suffering from loneliness due to isolation or strained social relations, may experience heightened NSSI as a consequence of increased severe distress [5].

The Integrated motivational volitional model of suicidal behavior (IMV) [30] (**Figure 2** in Appendix) aligns with the notion that loneliness precedes suicidal ideation [31]. The IMV model identifies three phases of suicidality: (1) pre-motivational, incorporating background factors (e.g., family suicide) and triggering events (e.g., traumatic incidents); (2) motivational, where suicidal ideation forms through feelings of defeat, humiliation, and entrapment; and (3) volitional, culminating in suicidal

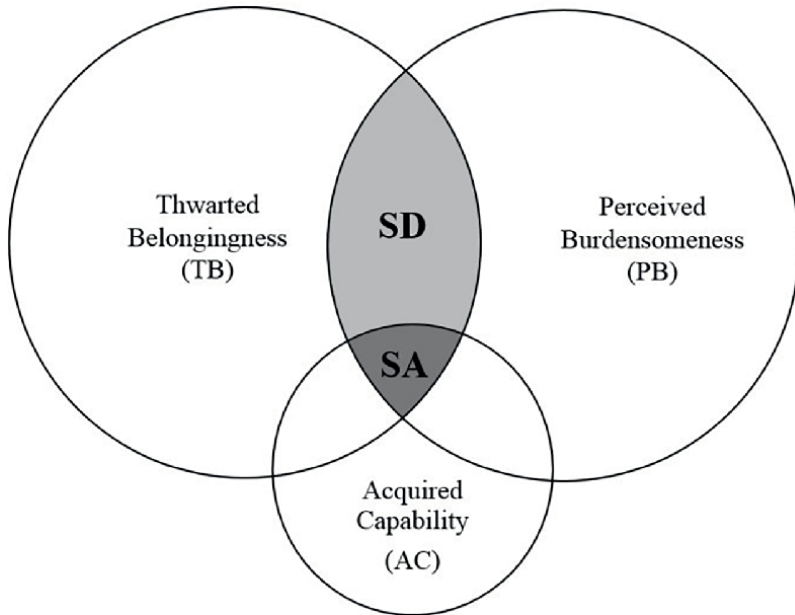


Figure 1.
The interpersonal theory of suicide by Joiner [29]. Source: SD – Suicide desire; SA – Suicide attempt.

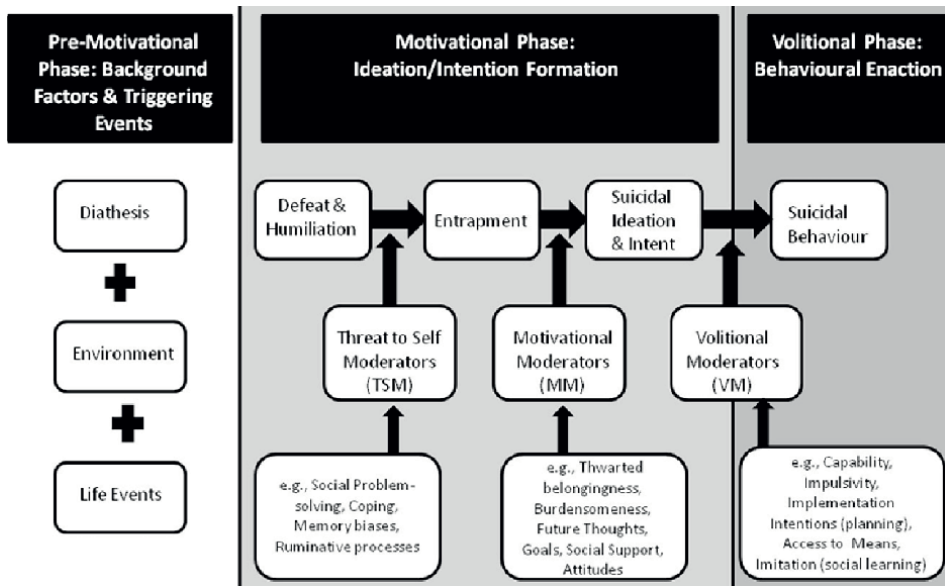


Figure 2.
The integrated motivational-volitional model of suicidal behavior by O'Connor and Kirtley [30].

behavior enactment. Thwarted belongingness, a motivational moderator in IMV, moderates the relationship between entrapment and suicidal ideation. Loneliness also significantly moderates between defeat and entrapment [31], implying that lonely individuals experiencing defeat are more prone to entrapment and subsequent suicidal ideation. Conversely, strong social connections act as a protective factor,

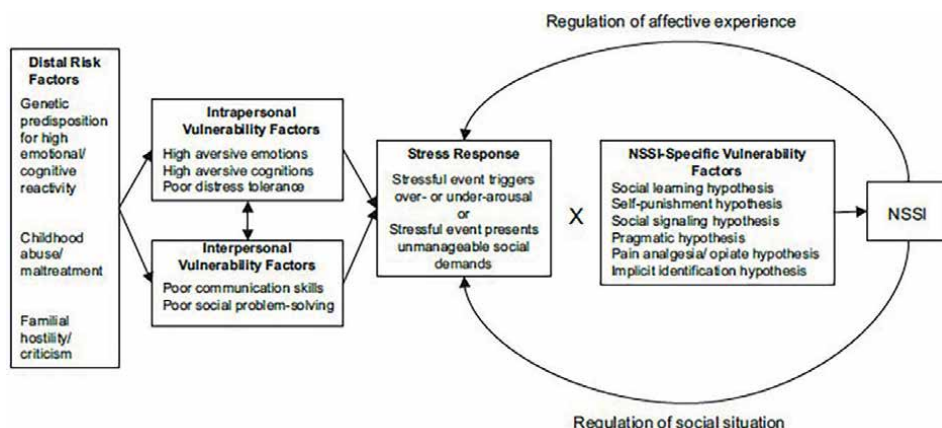


Figure 3.
 Integrated theoretical model of the development and maintenance of self-injury [32].

weakening the links between humiliation/defeat and entrapment and between entrapment and suicidality.

Regarding NSSI, Nock [32] formulated the Integrated theoretical model of NSSI (Figure 3 in Appendix), asserting that social relational distress may prompt NSSI engagement, serving the positive social function of obtaining support or enhancing affiliation with others. This model highlights two crucial relationships between the interpersonal context and NSSI. In the first place, negative interpersonal experiences, including loneliness, often precede NSSI. Behaviorally, loneliness can be characterized by greater use of expressive suppression and regulating emotions by actively rejecting or withdrawing from others [33]. This means that both interpersonal vulnerability factors (such as poor distress tolerance and poor emotional regulation that are connected to loneliness) and interpersonal vulnerability factors (poor communication skills and social problem-solving that are typical for isolated children) simultaneously lead to inappropriate stress response and, according to, for example, self-punishment hypothesis [32] results in NSSI. On the other hand, NSSI behaviors resulting from relational distress could be accompanied by desired consequences such as companionship, support, or intimacy, emphasizing high friendship quality, which is posited in social signaling hypothesis [32]. Thus, loneliness can exhibit both positive and negative connections to NSSI, as demonstrated in subsequent research findings.

Lastly, the Evolutionary theory of loneliness (ETL) [34] elucidates the processes underlying loneliness. The theory posits that feelings of loneliness emerge and persist over time, affecting physiological and mental health, including suicidal behavior and NSSI. Loneliness, according to ETL, operates through a social distress mechanism, motivating individuals to repair and maintain social ties [35]. Loneliness is considered a signaling function akin to physical pain, with an innate human desire to connect with others for protection against potential threats. Failure to fulfill this need for social connection results in reported feelings of loneliness [36]. Loneliness can impact friendship quality negatively, as evidenced by associations with poor social skills or negative cognitive biases leading to unfavorable friendship experiences [37]. Simultaneously, the feeling of loneliness may motivate adolescents to seek close connections with peers, as observed in the Integrated Theoretical Model of NSSI.

In summary, humans possess a strong need and desire for connection with others, and thwarting this need leads to feelings of loneliness. Loneliness signals the absence or threat to vital social bonds, prompting individuals to either repair existing social ties or establish new relationships. While some individuals successfully reconnect, thereby resolving the situation, prolonged or chronic loneliness occurs when individuals fail to establish or re-establish social ties. This chronic loneliness can trigger adverse cognitive and physiological processes detrimental to health and well-being [15], including NSSI and suicidal behaviors.

3. Research findings connecting loneliness with NSSI and suicidality

Adolescents' encounters with solitude significantly influence cognition, emotion, and behavior, with notable implications for mental health [5]. Loneliness has been consistently linked to non-suicidal self-injury (NSSI) and suicidal tendencies, as validated by various studies explored in this chapter. A meta-analysis by McClelland et al. [38] affirms that heightened loneliness correlates with increased individual NSSI, establishing an independent prospective link between loneliness and self-injurious behavior [31]. Those experiencing loneliness are more prone to reporting suicidal thoughts and behaviors compared to their counterparts [18]. This narrative review emphasizes the substantial impact of both objective conditions (e.g., being alone) and the subjective experience of loneliness on suicidal outcomes, particularly suicidal attempts (SA) and ideations (SI). Loneliness emerges as a consistent transcultural factor associated with both SI and SA.

Numerous observational studies reinforce the positive association between social isolation constructs and suicidal outcomes [18]. For instance, a cohort study tracking 832 American children until adolescence reveals that persistent and escalating loneliness in early life predicts SI at age 15 [39]. The Global School-Based Student Health Surveys (GSHS) data from 32 countries, analyzed by McKinnon et al. [40], identifies loneliness as a primary risk factor for SI and suicidal plans (SP), surpassing factors like limited parental support and bullying. Loneliness also surfaces as a risk factor for deliberate self-harm among adolescents in a national Finnish study [41]. However, a European study by Brunstein Klomek et al. [42] reports that loneliness is specifically linked to repetitive direct self-injurious behavior, but not occasional instances. It could be assumed that repetitive NSSI is a product or symptom of more serious mental health problems, which are connected also with poorer social functioning, resulting in higher levels of loneliness. On the other hand, occasional NSSI could be result of poor coping, attention seeking, social imitation of peer's habits, and it is not necessarily connected with social problems and loneliness.

Loneliness and suicidality often intertwine with mental health problems such as depression and traumatic social issues like bullying. Depression and loneliness emerge as crucial risk factors for suicidality across age groups, with depression acting as a mediator between academic stress, loneliness, and subsequent suicidal behavior [38]. That means that children and youth who experience loneliness are at a greater risk of becoming depressed, and one of the ways of dealing with that depression could be engaging in NSSI and/or having suicidal thoughts and behaviors. Moreover, longitudinal studies, such as the one by Lin et al. [43], uncover the mediating effect of self-esteem and the moderating effect of peer attachment on the relationship between cybervictimization and NSSI among Chinese adolescents. High peer attachment, resulting with lower feeling of loneliness, mitigates the

negative effects of cybervictimization, safeguarding self-esteem and reducing the likelihood of NSSI.

The role of loneliness in NSSI is complex, with studies suggesting bidirectional associations and potential mediating factors. For instance, Gandhi et al. [44] reveal that individuals engaging in NSSI report higher levels of parent-related loneliness, even after accounting for age, gender, and depression. Adolescents who have engaged in NSSI throughout their lives also indicated elevated levels of loneliness linked to peers, even when considering gender and age as controlling factors. The association between peer-related loneliness and NSSI might be influenced by depression and other mental health problems, as previously discussed. Physiologically, chronic loneliness can activate the Hypothalamo-Pituitary-Adrenal (HPA) axis, leading to persistent cortisol elevation and potential DNA methylation aberrations, increasing vulnerability to NSSI. Different facets of loneliness have been explored in relation to adolescent suicidality and NSSI. Social and family loneliness are significantly associated with poorer mental well-being (i.e., depression and suicidal ideation), while social and romantic loneliness are more strongly linked to eating disorders and self-harm [45]. Moreover, loneliness was a stronger moderator between entrapment and suicidal ideation than between defeat and entrapment, which is in accordance to earlier mentioned IMV model. In another study, depression partially mediated between family loneliness and global loneliness in relation to suicidal ideation, and at the same time, it fully mediated between romantic loneliness and suicidal ideation [31]. The integrated theoretical model of NSSI by Nock provides a framework for understanding the interplay of psychological resilience and loneliness in the context of child maltreatment and NSSI [46]. Child maltreatment had an indirect impact on NSSI, with both psychological resilience and loneliness serving as mediators. Children who experience maltreatment in the family are less resilient; they isolate themselves from friends and become lonely due to both weak relationships with their parents and with peers, and as a result, they feel lonely. The product of this psychological state could be NSSI. These results provide theoretical support for inhibiting adolescents' NSSI by promoting psychological resilience and reducing the feeling of loneliness.

In the cross-sectional study using data from a nation-wide survey of high school students in Denmark (29,086 students) [47], each type of social disconnectedness was positively associated with mental health problems (including suicidal ideation and non-suicidal self-injury) and negatively associated with mental well-being. In all cases, the presence of loneliness played a significant mediating role in the connections observed. Adolescents facing various forms of social disconnectedness within the school environment, such as a lack of support from classmates or teachers, absence of class social cohesion, or not feeling integrated into the school community, demonstrated an increased susceptibility to mental health issues. Notably, inadequate support from classmates emerged as the most influential factor, followed by insufficient support from teachers or a sense of exclusion from the broader school community, in relation to the majority of the assessed outcomes [15]. Conclusively, when adolescents' social support networks are disrupted, additional risk factors, such as loneliness and/or depression, may increase their NSSI and suicidal behavior [5].

Exploring the role of self-control in the context of loneliness and mental health, Huang et al. [5] find a positive correlation between self-control and adolescent loneliness and NSSI. Self-control mediates the relationship between loneliness and NSSI, while social connection moderates this relationship. The lack of self-control is associated with increased loneliness, potentially leading to social exclusion and diminished self-control once more. This impact of self-control could be understood also through

emotional regulation (children with external locus of control also have poorer emotional regulation strategies), which we already discussed as related to NSSI.

Loneliness appears to have a dual relationship with the mental health of adolescents, both preceding and following periods of poor mental health. The connection between loneliness and NSSI is likely bidirectional. Psychologically, loneliness can disrupt self-regulatory mechanisms (such as emotional regulation), prompting individuals to engage in behaviors they would otherwise avoid just to alleviate the negative affect associated with loneliness [44]. Conversely, involvement in NSSI may lead to feelings of shame, guilt, and regret, intensifying social isolation. Beyond the emotional consequences, the physical impact of NSSI, coupled with the fear of stigmatization, can further contribute to social isolation. NSSI is often stigmatized, with potential negative repercussions for mental health and social relationships [48]. It can serve as a trigger for relationship issues, as it may be disapproved of and perceived as deviant, resulting in avoidance, isolation, or rejection. Research by De Luca et al. [49] with thirteen-year-olds in the USA highlighted that NSSI consistently elevated the risk of various peer problems. Adolescents engaging in NSSI may shape their social environment in a manner that deprives them of positive social contexts crucial for their development. Consequently, NSSI may heighten the risk of victimization and, through increases in depressive symptoms, contribute to heightened stress within friendships [49]. On the contrary, Wang et al. [37] conducted a comparison between adolescents who were either left in the care of others (social welfare system) or remained with their parents. Their findings indicated that loneliness could impact friendship quality both negatively and positively, mediated by NSSI. Increased loneliness predicted higher instances of NSSI, which, in turn, correlated with elevated friendship quality among left-behind adolescents. This outcome contributes to the existing literature on the interpersonal function of NSSI [50], suggesting that left-behind adolescents may employ NSSI as a means to reinforce their friendships when experiencing loneliness. This positive consequence of NSSI could be especially evident among youth in care because children in children homes and foster families are those who have mental health problems more often and where self-injury behavior is more expected. In one way, these problematic behaviors serve as signs of help-seeking and provide more prominent attention and help from others (both children and adults). If the help is assured, mental health problems could diminish. Moreover, while social connection is a fundamental human need, parental absence, as experienced by left-behind adolescents, may diminish the emotional bond between parents and children, leading to heightened feelings of loneliness. As peers become a significant aspect of social relationships for adolescents, those who lack an intimate parent-child connection, such as left-behind adolescents, are inclined to seek close emotional bonds with their friends. In alignment with the interpersonal function, they might use NSSI to evoke concern from their friends or share it as a secret, thus strengthening their friendships through such self-disclosure [49].

In the context of the COVID-19 pandemic, loneliness and mental health problems, particularly among adolescents, have gained increased attention. The pandemic, with its associated social distancing and isolation measures, has intensified loneliness, leading to a surge in self-harm presentations by children globally [51]. Prolonged isolation can induce severe depression and loneliness, providing a motivation for self-harm as a means to alleviate inner pain [5]. Despite the effectiveness of regulations in protecting physical health, changes in social interaction during the pandemic have contributed to increased distress, perceived loneliness, and a decline in mental

health [36]. Social isolation, even when voluntary, poses a risk to mental well-being, particularly during a pandemic such as COVID-19.

In summary, the scientific literature reviewed here underscores the intricate relationship between loneliness, NSSI, and suicidal tendencies among adolescents. The bidirectional nature of this association, along with various mediating and moderating factors, highlights the complexity of these phenomena. Understanding these relationships is crucial for developing effective interventions to promote mental health and prevent self-harming behaviors among adolescents.

4. Practical implications of presented data regarding loneliness and suicidality in adolescence

The CDC's emphasis on enhancing connectedness as a comprehensive guiding framework for suicide prevention is rooted in a foundational recognition of the pivotal role of social connection in human well-being. This approach has paved the way for research, interventions, and policies capable of accommodating diverse strategies [21]. In this final section, we will delve into practical implications aimed at preserving and enhancing adolescents' mental health, with a specific focus on reducing loneliness.

To address loneliness effectively, four primary strategies have been delineated: (1) developing or refining social skills, (2) augmenting social support, (3) increasing opportunities for social contacts, and (4) targeting maladaptive social cognition [52]. In order to fulfill these tasks and to combat adolescent loneliness, there should be a vivid collaboration of different stakeholders through different institutions. In the first place, schools play a crucial role as major partners in promoting the mental health of children and adolescents, ensuring reach to all students, not solely those with recognized issues. Loneliness often goes unnoticed, underscoring the necessity for preventive programs emphasizing peer group belonging, particularly in school settings, with family involvement being another valuable approach [49].

Balanced approaches encompass both school-focused strategies and individual-level interventions, including enhancing self-control, building self-esteem, and acquiring effective coping strategies. Universal, school-based programs like the Youth Aware of Mental Health (YAM) can mitigate stigma, raise mental health awareness, and enhance overall support, as well as equip youth with emotion regulation and problem-solving skills [53]. When intervening in adolescent NSSI and suicidality, prioritizing the strengthening of social connections between adolescents and their peers is crucial in overcoming mental health challenges [5]. Positive relationships contribute to loneliness reduction, fostering self-confidence and instilling a sense of belonging.

Furthermore, in the school context, there is a need to foster openness among adults regarding taboo topics such as NSSI and suicide. Schools with strong social networks connecting adults with adolescents offer more avenues for help-seeking and help-giving interactions compared to those lacking such networks [54]. Developing competent adults capable of detecting and responding to students' distress is essential. The connectedness between youth and adults enhances opportunities for soliciting and activating assistance, increases the likelihood of noticing signs of distress, and provides a sense of utility, meaning, and purpose [21]. Studies within mental health services literature underscore that strong ties with adults in key social settings

enhance adolescents' willingness to seek help for emotional problems, including suicide concerns [54].

Given that parents are primary facilitators of professional services and assistance, their awareness and willingness to identify problems are critical [55]. Linkages between social systems, such as those involving schools and families, are crucial for early detection and response to adolescents facing difficulties. Adolescents experiencing low connectedness across multiple social contexts are less likely to be noticed and assisted in times of distress [21]. Early detection of loneliness in young people by caregivers and teachers emerges as a logical initial step for youth suicide prevention programs [51].

Still, educational and health system are not enough. Social policy should empower social welfare system to, first, recognize and then appropriately approach youth who are in greater risk of being lonely and have mental health problems. In literature, we can recognize different groups of young people who have more mental health problems and are more isolate than their (privileged) peers—for example, those with different physical disabilities [56, 57], who are raised in financial deprived families [13, 57], those who are placed in institutions or foster families [37], and LGBTQ+ youth [58, 59]. These minor groups of children and adolescents should get priority in strategic action plans of reducing loneliness and building adolescents' mental health.

Finally, in the context of future global crises, such as the COVID-19 pandemic, it is imperative to incorporate considerations for mental health alongside physical well-being and to develop a tailored mental health intervention plan. This is particularly significant in the case of children and adolescents, where their social interactions play a pivotal role in overall well-being and mental health. Consequently, any health prevention measures implemented should carefully account for and avoid interference with the primary developmental tasks integral to this phase of their lives. More concretely, in this pandemic, adolescents who had closer relationships with their parents and those who experienced connectedness with peers and adults reported significantly fewer severe symptoms of mental health difficulties and lower levels of loneliness during the period of isolation [23, 60]. Additionally, students who attended school virtually had more mental health problems (including suicide attempts) than those attending school in-person [61], and a large part of this difference could be explained by school and family connectedness. From these results, we can conclude that future crisis policies and strategies should, on one hand, aim to protect children who are not safe in their own homes and for whom home isolation puts them at a greater risk of adverse experiences. On the other hand, future strategies should provide adolescents with opportunities to connect and stay in touch with their peers in the school setting.

5. Conclusion

In conclusion, this comprehensive exploration has delved into the intricate relationship between loneliness and self-harm behaviors, particularly in the context of adolescence. The prevalence and severity of mental health problems during this developmental phase have heightened in recent years, making it imperative to understand the role of loneliness in predicting and perpetuating these challenges. Loneliness, a subjective and distressing experience, manifests uniquely in adolescence due to developmental changes in identity, autonomy, and social orientation.

The Centers for Disease Control and Prevention (CDC) advocate for connectedness as a crucial factor influencing suicidal behavior, emphasizing the importance of social bonds in human well-being. This guiding framework has shaped research, interventions, and policies capable of accommodating diverse strategies. The theoretical perspectives presented, including the Interpersonal theory of suicide, the Integrated motivational volitional model of suicidal behavior, the Integrated Theoretical model of NSSI, and the Evolutionary theory of loneliness, collectively contribute to understanding the complex interplay between loneliness and self-harm behaviors.

Research findings corroborate the positive association between loneliness and non-suicidal self-injury (NSSI) as well as suicidal tendencies among adolescents. The bidirectional relationship, coupled with various mediating and moderating factors, underscores the complexity of these phenomena. The impact of loneliness on mental well-being extends beyond the individual, influencing social and family dynamics, friendships, and overall psychological resilience.

Practical implications derived from the presented data highlight the importance of school-focused and individual-level interventions to address loneliness effectively. Strategies such as developing social skills, augmenting social support, increasing opportunities for social contacts, and targeting maladaptive social cognition emerge as key components. Schools, as major partners in promoting mental health, need to foster openness among adults, encourage strong social networks, and develop competent individuals capable of detecting and responding to distress.

Parental awareness and willingness to identify problems are critical, emphasizing the need for linkages between social systems to facilitate early detection and response to adolescents facing difficulties. The early detection of loneliness in young people, particularly in the school setting, emerges as a logical initial step for youth suicide prevention programs.

In the context of the COVID-19 pandemic, the heightened focus on loneliness and mental health problems among adolescents underscores the need for adaptive interventions. The pandemic-induced social distancing and isolation measures have intensified loneliness, contributing to a surge in self-harm presentations. Acknowledging the complexity of these challenges, understanding the bidirectional relationship between loneliness and self-harm, and implementing multifaceted interventions are essential for promoting the mental health and well-being of adolescents.

In summary, this exploration contributes to the ongoing discourse on adolescent mental health, emphasizing the centrality of addressing loneliness as a preventive measure against self-harm behaviors. The multifaceted strategies and interventions discussed aim to create a holistic approach that recognizes the interconnectedness of social, psychological, and environmental factors influencing adolescents' mental well-being.

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Author details

Linda Rajhvajn Bulat

Faculty of Law, Department for Social Work, University of Zagreb, Zagreb, Croatia

*Address all correspondence to: linda.rajhvajn@pravo.unizg.hr

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Loneliness and Suicidal Behaviors: A Fresh Mental Health Concern in Post COVID-19 Pandemic Period

Md Zahir Ahmed

Abstract

Mounting and multiple-direction evidence have implied the detrimental effect of loneliness on suicidal behavior. The problem has profoundly surfaced during the post COVID-19 pandemic period. The modern human race has a long and deep-rooted endeavor to combat loneliness since it often comes with stress, anxiety, depression, sleep problems, substance abuse, etc. Surprisingly, the discourse regarding the comorbidity of suicidal behavior, loneliness, along with different other mental health problems often remains disregarded. During the devastating COVID-19 pandemic, the physical, emotional, and financial losses accelerated different mental health problems, including suicidal behaviors. Most of the existing literature has focused on mental health consequences and suicidal behavior as an immediate outcome; however, a capful focused on the deep-rooted long-term effect of suicidal behavior as the consequence of pandemic-induced loneliness. Therefore, this chapter will endeavor to reveal the long-term effect of the COVID-19 pandemic on mental health through the lens of suicidality. Afterward, the discussion will suggest effective intervention plans and community resilience strategies for combating loneliness and suicidal behaviors that surfaced as a consequence of the COVID-19 pandemic.

Keywords: loneliness, suicidal behaviors, mental health, COVID-19, pandemic

1. Introduction

Although the COVID-19 pandemic was over long ago, the mental health toll and the long-lasting scar is expected to be intact for a long. The mental health crisis that emerged from this unprecedented took a stringent toll on people of all races across the globe. Since the global confirmed cases of COVID-19 exceeded over 700 million [1], the worldwide mental health impact of the pandemic is outrageous. In order to curb the spread of the pandemic, social distancing to complete rigorous lockdown was implemented worldwide [2], and thus, spontaneous physical interaction between people was curtailed. Apart from the social disruption, economic stagnation due to the COVID-19 pandemic severely impacted global mental health [3]. Initially, the global healthcare authorities prioritized the physical health complications due to the COVID-19 pandemic, and unfortunately, the mental health issues that arose were slightly disregarded due to resource constraints. There is mounting evidence implied

the impact of previous pandemics on mental health is mostly due to food insecurity in society [4–6]. Although the financial upheaval of the COVID-19 pandemic has been overcome globally expeditiously, the scar on mental health will be endured for a long while. We must not forget that multifarious mental health problems were well documented in the previous courses of the pandemic. Infected people demonstrated widespread mental health problems (e.g., depression, memory impairment, confusion, sleep disturbance and insomnia, psychosis, different manias, anxiety, irritability, PTSD, fatigue, etc.) during the Severe acute respiratory syndrome (SARS-CoV), and Middle East respiratory syndrome coronavirus (MERS-CoV) pandemic outbreaks [7]. Undoubtedly, stress, anxiety, and depression symptoms are common in different pandemics among the general people [8, 9]. However, the patterns, prevalence, and odds of suicidality due to the COVID-19 pandemic remain primarily unresolved. Undoubtedly, the social and economic impact of the pandemic could be inferred as the greatest global threat as it manifested the direct financial crisis, leading to burdensomeness and increased suicidal behavior [10]. The conjectured impacts of financial turmoil, curtailed social interaction and less access to resources owing to the pandemic and its association with suicidality are well documented. However, the trajectories of suicidal behavior are yet to be comprehended. Diversified self-risk behaviors were observed during the lockdown and social distancing, and the situation deteriorated the suicidal behaviors [11–14]. Limited access to healthcare facilities [15], loneliness [16], financial constraints [10], and comorbid mental health problems [17] are the critical leading causes for the suicidality during and post COVID-19 pandemic time.

1.1 Objective of the chapter

Globally, suicidality has been considered a massive public health threat during and post-COVID-19 pandemic time. Contemplating the consequences, profound discussion is anticipated to comprehend the suicidal behavior due to COVID-19 and other infectious pandemics in different cultural and individual settings. This chapter will address the prevalence and characteristics of suicidal behavior as the direct and indirect impact of the COVID-19 pandemic through the mediation of loneliness.

2. Multidimensional landscape of loneliness and suicidality in the wake of COVID-19 pandemic

2.1 Loneliness and stigma at the mediational role between COVID-19 crisis and suicidal behavior

A major concern of suicidality surfaced ever since the world experienced the biggest man-made experiment or the rigorous lockdown to curb the further spread of COVID-19 pandemic [18]. It is anticipated that the limited social and physical interaction triggered the perceived loneliness and emerged the suicidal ideation and behavior consequently [19]. When it comes to predicting suicidal behaviors (ideation, planning, capability, risk behavior), loneliness happens to be the most prevalent factor. In addition, there are several health concerns associated with perceived loneliness and social isolation as they often predict poor mental health than directly [20]. Therefore, the role of loneliness is found mostly as mediational in the path of the COVID-19 pandemic and suicidal behavior [21]. Since

loneliness is often prevalent with plenteous other mental health problems (e.g., depression, anxiety, stress, PTSD, suicidal behavior, aggression, substance and behavioral addiction etc.), it has long been considered as one of the fundamental challenges to human civilizations [22]. The increased risk of suicidal behaviors due to the COVID-19 pandemic is well documented by the existing literature [23–26]. Theoretically, this upsurge in suicidal behavior may be attributable to both comorbid mental and physical health conditions along with the pandemic-induced financial constraints and reduced social and physical isolation. Simultaneously, widespread and multi-dimensional stigmas surfaced along with loneliness in the wake of the COVID-19 pandemic as well as in the previous epidemic outbreaks. Stigmatization often thwarts the overall pandemic-curbing procedure by negatively motivating people to report health status and seek medical assistance [27]. Moreover, stigma directly induces loneliness through the elevated likelihood of social exclusion [28]. Stigma-induced loneliness plays a significant role in the mediating path of COVID-19 and suicidality. Individuals experience more suicidality when they are socially isolated, owing to the stigma associated with the epidemic [29]. Furthermore, elevated rates of burnout and stress were reported among frontline public health professionals due to the repeated stigmatization. Professional stress is frequently associated with loneliness, which is severely counterproductive to fight against the pandemic [30]. This problem is exacerbated further when healthcare facilities become inaccessible [25]. Indubitably, the mental health toll, including the suicidal risk and behaviors are burdensome during the surge of the outrageous global pandemic. However, mental health professionals mostly pay attention to immediate actions focusing on traumas and other ailments. The inadequate long-term considerations leave a prolonged scar and footprint on the overall global mental health.

2.2 Loneliness and individual differences in the path of suicidal behavior

In multiple lines of literature, diversified age and professional groups have shown widespread patterns of suicide behavior in surge and post-COVID-19 pandemic time. Interruptions and constant changes in academic settings, social and physical isolation, and unpredictability for the future have all put adolescents and young adults in a predicament [31]. Long-term shutdown of academic institutions attenuated adolescents' spontaneous social interactions, which may lead to perceived loneliness and despair. On the contrary of age spectrum, the pandemic-induced restrictions have had a disproportionate impact on the elderly, particularly those residing in care facilities [32], making them more susceptible to infection and causing them emotional and mental anguish [33, 34]. Unique challenges have been discerned among different professional groups during the pandemic. Owing to excessive stress, traumatic experiences, and professional burnout, healthcare professionals have been confronted with significantly higher suicidal thoughts, ideation, and suicidal behaviors [35, 36]. Individuals working in the hospitality, tourism, and entertainment sectors [37, 38] experienced the financial crisis and subsequent unemployment more acutely than others [39]. Apart from healthcare professionals, other high-risk professionals, e.g., police, military, and other paramilitary forces, have confronted unique challenges globally during the COVID-19 pandemic. It is evident that the exacerbated risk of infection for high-risk professions surfaced with elevated stress and fear [40]. The mental health dynamics of high-risk professions are compounded due to the existing organizational stress and other comorbid situations. Globally,

military forces have been deployed as the last key resources to mitigate the health risks induced by COVID-19. It is evident that military personnel are often prone to widespread mental health problems (e.g., stress, anxiety, depression, PTSD, etc.), which have the likelihood to increase during unprecedented events like the COVID-19 pandemic [41]. Another significant portion of the population is often forgotten during the wake of any health emergency, the prisoners. Since the prisons across the globe lack resources (e.g., healthcare, accommodation, nutrition, hygiene, mental health, etc.), left them highly vulnerable during emergencies. Overcrowd, fear of transmission, lack of information, sudden changes in life, and environmental and health conditions- all these are responsible for inmate's mental health problems [42]. Additionally, the infrequent and uncertain visits of friends and family due to social distancing might lead to widespread mental health problems [43]. It is anticipated that the mental health toll and suicidal behaviors are associated with the financial crisis and unemployment. Another level of complexity has been found in the dynamics of age and professional categories. Additionally, limited marketplace and higher competition posed inflated challenges for the newbies in the workforce during the pandemic period. Although most people adopt remote work because of the flexibility, a major portion has struggled with the adaptation process, resulting in occupational hazards and perceived loneliness.

2.3 Navigating the multidirectional association between comorbid mental health issues, loneliness, and suicide

The complex association between comorbid mental health issues, loneliness, and suicidal behavior has surfaced during the COVID-19 era, which has had far-reaching and multifaceted consequences on global mental health. Individuals with comorbid mental health conditions confronted unprecedented challenges in the surge of any pandemic [39]. Social isolation and inaccessible healthcare facilities exacerbate the worse situation further. Integrating comorbid mental health problems with isolation and perceived loneliness increases the likelihood of suicidal behavior. Individuals with pre-existing depression and anxiety symptoms are more susceptible to loneliness during social isolation, resulting in higher suicidal risks [44]. Loneliness is often associated with depressive and anxiety symptoms due to its overlapping components [45]. Depression can be triggered by perceived loneliness as it often jeopardizes belongingness [46], which resulting the moderation the path of loneliness to the suicidal behavior. It is evident from the existing literature that both isolation and perceived loneliness have aversive consequences on mental health outcomes (e.g., depression, anxiety etc.) of elderly and middle-aged population [47–49]. During most of the pandemic period, new and complex mental health issues surface and pose unique challenges to professionals. Two recent phenomena are noteworthy: cave syndrome, which is characterized by elevated anxiety and extreme reluctance to engage in outdoor and social activities [50]. Additionally, hikikomori- a social withdrawal and self-isolating condition that has been exacerbated due to the rigorous restrictions imposed by the pandemic along with the fear of infection [51]. Amidst the global public health crisis, the multidirectional effect of comorbid mental health conditions, loneliness, and suicidal behaviors exacerbated the risk factors in multiple folds. It can be inferred that individuals with comorbid mental health conditions perceive higher loneliness that can amplify suicidal behaviors since often the, individuals with pre-existing mental health conditions are more susceptible to suicidal thoughts and creativity.

2.4 Economic crisis leading towards loneliness and suicidality

The global financial sectors have reshaped awfully due to the relentless spread and aftermath of the COVID-19 pandemic. Global mental health impendent an insidious impact of that recession, which simultaneously surfaced loneliness and suicidal behavior [52]. A number of countries have experienced the pandemic-induced economic downfall, exacerbating socioeconomic vulnerabilities and weakened social safety networks [53]. Often, the economic turmoil spotlights the physical health consequences during the wake of the pandemic and fades the mental health tolls. Obnoxiously, mental health outcomes of any pandemic have a deep-rooted distressful effect on public health [54]. Apparently, the individual mental health toll mounts with the pandemic since it instigates acute financial instability, loss of jobs, and continuous stress [55]. Financial susceptibility leads individuals to isolation, which consequently persuades perceived loneliness [56]. Social reciprocity declines due to financial hardship, which further stimulates loneliness.

Consequently, perceived loneliness is the strongest predictor of impending suicidal behavior. Socioeconomic isolation and withdrawal are often prevalent among those who are more vulnerable to financial downfall [57]. This disparity surfaces due to the unanticipated shifts in financial plans and extensive uncertainty. Frequently, financial and emotional resilience are disrupted collaterally, triggering suicidal behaviors [58].

2.5 Loneliness is bidirectional with severe behavioral and substance addiction

Mental health professionals are profoundly concerned about the complex correlations between behavioral addiction and substance abuse, and perceived loneliness in the contest of the COVID-19 pandemic. Conventionally, loneliness has been considered as the negative consequence of any addiction. However, the recent pandemic landscape revealed the bidirectional correlation between loneliness and addictions [59, 60]. Loneliness has spawned a variety of behavioral addictions and substance abuse since perceived loneliness has increased through social distancing and curtailed of social interactions to curb further viral transmission [61]. Predominantly, loneliness is characterized by perceived disconnection and alienation, which can stimulate addictive behaviors. In order to cope with loneliness, individuals can develop addictive behaviors to get rid of the alienation and emotional turmoil [62].

Conversely, addictive behaviors lessen social connections, and vulnerable individuals are submerged in severe loneliness [63]. The catalyst role of the pandemic has been found to exacerbate the bidirectional association between loneliness and addictive behaviors. Surprisingly, addictive behaviors have a deep-rooted history of positive correlation with suicidal behaviors [64]. The issue is further magnified by the limited access to the support system during the pandemic time.

2.6 Lack of resilience to cope with loneliness

The recent pandemic highlighted the need for resilience as a life skill in dealing with the widespread emotional turmoil of loneliness. Loneliness, which could be considered an intermittent mental state, becomes severe for those who are unable or unwilling to cope with the difficulties [65]. Resilience can be inferred as *“the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma. Assets and resources within the individual, their life and environment facilitate this*

capacity for adaptation and 'bouncing back' in the face of adversity." [66]. Individuals are more susceptible to the detrimental impacts of loneliness when they lack resilience. Resilience continually acts as a protective factor to buffer the adverse and discrepant mental health outcomes persuaded by loneliness [67]. Without proactive resilience, individuals encounter negative emotional states ineffectively. The COVID-19 epidemic sheds light on the significance of fostering resilience as an essential life skill. The psychological competencies that people need to face and overcome loneliness may be significantly enhanced by building resilience.

3. COVID-19, loneliness, and suicidal behaviors: the role of mental health interventions

In the midst of the epidemic, mental health professionals must act promptly to ensure effective intervention plans targeting the complex relationship between loneliness and suicidal behaviors. To lessen the severity of risk factors concerning increased suicidal behaviors, there are several suggested intervention plans. These consist of enabling those dealing with behavioral addiction and substance abuse, fostering more robust and more effective social networks, creating emergency response mechanisms that are strong and accessible, limiting alcohol consumption, overcoming the economic crisis, reducing aggressive behaviors, and restricting the spread of fabricated news and information. In order to combat loneliness, easily accessible telemental health services, community integration could play a vital role. Only the social engagement where the perceived belongingness is highlighted could ensure the safeguard against escalating severity of loneliness and consequent suicidal behaviors. One probable effective protection against the adverse consequences of loneliness involves maintaining significant relationships using regular phone or video conversation. There is no better way to strengthen mental health than using digital platforms, which provide crucial chances for emotional support, belonging, and the reinforcement of social relationships. Additionally, communities may build supporting networks even when they lack physically close by using technology-enabled platforms for social interaction to share stories, ask for advice, and console one another. A preventative measure against the negative mental health consequences of social isolation, which may include thoughts of suicide, is to maintain interactions with others, even if just online. Specialized care and attention are required for high-risk individuals during the period of emotional distress and self-harm risk. In this regard, it is imperative to rightly recognize the individuals prone to professional help-seeking hesitancy and acute reluctance due to fear, hopelessness, and other associated stigmas. On top of everything, the COVID-19 pandemic strained the global healthcare system, causing the strive for maintaining physical health, resulting in severe disruption in mental healthcare for vulnerable individuals. Therefore, protective factors are essential to ensure mental health amidst the physical healthcare challenges and priorities. Easy access to mental healthcare could be a great addition to the overall intervention plan globally.

4. Conclusion

This chapter sheds light on the immense influences of loneliness on the suicidal behavior that is instigated during and post-COVID-19 period. As the world move

forward to normalization, the correlation between these two dynamics surfaces profoundly. The primary reason for alarming loneliness in the wake of the pandemic was found to be linked with the rigorous lockdown and curtailed social interactions. Within the global public health framework, perceived loneliness was exacerbated by the overlapping fear of infection and an uncertain future, subsequently turning into a mental health Tsunami. Comorbid mental health conditions, addiction, and socio-economic circumstances often impede the indefatigable measures to contend with perceived loneliness during any pandemic. Unfortunately, the profound association between loneliness and suicidal behaviors is often disregarded in the public health as well as mental health frameworks. However, it is evident that unresolved issues of loneliness can manifest and be palpable in mental health outcomes (e.g., suicidal ideation, thoughts, and behaviors).

Along with the mental health outcomes during the wake of the pandemic, it mandates an in-depth focus on the dynamics of loneliness and suicidal behaviors. Future in-depth research could reveal the complex correlations between mental health, loneliness, and suicidality in the wake of any pandemic. Primarily, longitudinal studies could reveal the long-term and comparatively static impacts of loneliness on suicidality, focusing on possible moderating and mediating effects. Additionally, qualitative studies could explain the subjective experiences to shed light on the individual challenges and underlying mechanisms. Furthermore, the global public health sector could benefit from intervention research targeting the development of strategic interventions to mitigate loneliness and suicidality. In order to ensure adequate public interventions, prioritizing the issue should be the topmost task. Resilience at the individual and community levels can be achieved by acknowledging loneliness as the silent mental health pandemic within the vicious cycle of the actual pandemic.

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Acronyms and abbreviations


COVID-19	Coronavirus disease of 2019
MERS-CoV	Middle East respiratory syndrome coronavirus
PTSD	Post-Traumatic Stress Disorder
SARS-CoV	Severe acute respiratory syndrome

Author details

Md Zahir Ahmed
School of Psychology, Zhejiang Normal University, Jinhua, China

*Address all correspondence to: ahmedzahirdu@gmail.com

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Determinants of Loneliness is an insightful examination of loneliness as a profound societal and public health issue, magnified through the lenses of history, geography, social dynamics, and mental health. This edited volume juxtaposes the historic valorization of solitude against the modern-day crisis of loneliness, illustrating how shifts in societal structures, technological advancements, and increased global connectivity have paradoxically fostered emotional and technological isolation. The book captures the nuanced impacts of loneliness across various demographics, including adolescents engaging in self-harm, informal caregivers in Africa, and the LGBTQI+ community, underlining the significant mental health risks and societal challenges they face. Additionally, it highlights the exacerbation of loneliness in the aftermath of the COVID-19 pandemic, establishing it as a pressing global mental health concern. Through comprehensive analysis and global perspectives, *Determinants of Loneliness* invites readers to understand and address the multifaceted nature of loneliness, advocating for empathetic and inclusive community actions.

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