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REVIEW ARTICLE

Lonely for Touch? A Narrative Review on the Role of Touch in Loneliness

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Abstract

Loneliness is an increasingly ubiquitous topic in academic, policy, and healthcare domains. This work typically focuses on its negative physical and mental health consequences, generally employing a singular cognitive definition of loneliness. In doing so, one central aspect of our social world has been neglected in loneliness research and policy: touch. Touch is a fundamental human behaviour and a powerful form of communication which plays a role in physical and psychological wellbeing. This narrative review outlines a conceptual basis upon which to consider the relationship between loneliness and social touch and reviews the available research examining this connection. There are strong indications that these social phenomena can interact in a variety of ways and this review argues that elements of presence, absence, and type of touch may impact upon loneliness experiences. Additionally, this review considers the challenges inherent to researching touch and loneliness, reflecting on their sensitive and subjective nature. The increasing relevance of the touch–loneliness connection is described in light of the COVID-19 pandemic and recommendations are given for research, policy, and practice. This review proposes that touch should be a key topic for investigation in loneliness research and outlines the potentially invaluable role of touch in understanding loneliness.

Keywords: loneliness; social touch; narrative review

Introduction

Loneliness is a subjective experience that is prevalent across different life stages and cultures (de Jong Gierveld, van der Pas, & Keating, 2015; van Dulmen & Goossens, 2013; Yang & Victor, 2011). Academic, policy, and healthcare domains are paying increasing attention to loneliness, which has been described as an epidemic, in part due to its debilitating effects on health and wellbeing (Courtin & Knapp, 2017; Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015). Unlike social isolation, which refers to the objective qualities of a person's social network, loneliness is generally described as a subjective experience that occurs when a person perceives deficits in their social world (Perlman & Peplau, 1981). While loneliness is subjective, it is closely related to aspects of the social world such as social integration (Stevens & Westerhof, 2006), social support (Menec, Newall, Mackenzie, Shooshtari, & Nowicki, 2020), and perceptions of social threat (Cacioppo & Hawkley, 2009). However, one key and ubiquitous aspect of the social world has been notably absent from much of the discussion regarding loneliness: touch.

Social touch is a fundamental human behaviour and an important form of non-verbal communication (Routasalo, 1999) which enables humans to interact before they learn language and develop

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mutual understanding even when shared language is lacking (Burgoon, Buller, & Woodall, 1996). Della Longa, Gliga and Farroni (2019) and Della Longa, Carnevali, Patron, Dragovic and Farroni (2021) found that at just 4 months old, infants were more likely to learn an unfamiliar face when their own faces were gently stroked by a parent, but not when stroked with a soft paintbrush or not stroked at all. This affective touch may be a cue which makes social information more salient and encourages social engagement. fMRI research with adults similarly indicates that patterns of activation to touch from a person are different to those for touch applied by inanimate objects, with larger responses to social touch in somatosensory areas and the posterior insula, emphasising the importance of human touch (Kress, Minati, Ferraro, & Critchley, 2011). Even brief touch can be impactful; young adults felt more socially connected after just a quick touch on the shoulder from an experimenter (Kooze, Tjewa Sin, & Schneider, 2014), and in old age, Fast (2002) suggests that the touching of objects can itself express loneliness, with the anxious fondling of objects understood by family as expressing desire for companionship. Touch also appears to have long-term impacts on relational, psychological, and physical health over the lifespan (Lockhart, 2019; Thomas & Kim, 2021).

These impacts on physical health and wellbeing may also extend to loneliness. This review aims to provide an overview of current knowledge regarding the relationship between loneliness and social touch. Moreover, this review highlights the relevance of this relationship for research, policy, and practice around loneliness, and situates this knowledge in the context of the COVID-19 pandemic.

The Conceptual Basis for a Loneliness–Touch Relationship

Touch is a complex sense that can be employed directly or indirectly to express a range of emotions and communications. These range from threatening demonstrations of control to reassurance or solidarity. Loneliness, meanwhile, is a subjective and multidimensional experience that can be expressed through the body via tension, fatigue, emptiness, and language (Smith, 2012). Metaphors for loneliness such as ‘left out in the cold’ reflect a lack of warmth and intimacy (Bound Alberti, 2019) while ‘in touch’ and ‘out of touch’ are phrases used to indicate levels of connection (Montagu, 1971), pointing to the relevance of physicality in loneliness experiences. In aligning social touch and loneliness, three broad touch categories offer a foundation upon which to consider the relationship. These are welcome, unwelcome, and absent touch (Jewitt, Price, Leder Mackley, Yiannoutsou, & Atkinson, 2020), which might also be considered in terms of ‘good’, ‘bad’, and absent touch (Green, 2017). The first relates to a touch type that is wanted and/or warranted and is positively received (such as a warm, welcome embrace from a loved one), while unwelcome touch is conversely negatively received (such as physical abuse). Absent touch instead refers to a state of being without touch and can be perceived in various ways.

Both loneliness and touch have independently received significant academic attention. One might assume that the negative consequences of loneliness (Courtin & Knapp, 2017) would be minimised by the positive effects of touch as a branch of social connection. Indeed, this process has been explored in non-academic literature. In a 2020 Guardian article, author V (2020) describes how touch saved her from ‘unbearable loneliness’, bringing comfort, pleasure, agency, and healing. A COVID-era article from BBC News showcases the centrality of touch in lockdown loneliness, with the author craving touch and reflecting on the length of time since she had last been hugged (Gray, 2021). However, this relationship is less acknowledged in the academic literature. While Gaev (1976) proposed the term ‘physical loneliness’ to describe loneliness occurring when human contact and touch are absent, this definition appears to have received no further academic attention. Accordingly, Victor (2021) identified the possible association between loneliness and not touching loved ones as a key outstanding question for loneliness research.

There are several indications of the importance of touch for wellbeing across the lifespan, which is salient as touch is the first sense acquired and last to leave us (Green, 2017; Paterson, 2009). The majority of touch-based research has focused on the importance of touch in infant development, with evidence that human touch improves health outcomes in the short and long term (Barnett, 2005).

Being touched also has significant positive effects on altruism (Guéguen & Fischer-Lokou, 2003), social connection (Kooze et al., 2014), affect (Peláez-Nogueras et al., 1997), and attachment (Jakubiak & Feeney, 2016), and promotes the release of oxytocin and endogenous opioids (Holt-Lunstad, Birmingham, & Light, 2008; Jakubiak & Feeney, 2017). In the field of nursing studies, touch is often considered an aid to therapeutic engagement (Playfair, 2009) which can be used to communicate support. By demonstrating empathy and reassurance, touch is also thought to impact feelings of loneliness (Sundeen, Stuart, Rankin, & Cohen, 1994). The comforting role of touch in times of crisis has been underlined by reports of the desire for touch among people in prison approaching death by execution (Blakinger & Chammah, 2021). Welcome touch, then, may be associated with a reduction of loneliness through conveying affection, reassurance, support, empathy, and mutual desire (Green & Day, 2013). Indeed, research links interoception (the perception of our own body and its sensations) with emotional wellbeing (Björnsdotter, Morrison, & Olausson, 2010; Burlison & Quigley, 2021), which may underpin the relevance of social touch for feelings of connectedness. While the links between touch and wellbeing might extend to loneliness — a highly social aspect of wellbeing — a deeper understanding of the role of touch in loneliness is lacking.

Empirical Research on Loneliness and Touch

A growing body of research underlines the impact of touch on loneliness, despite touch having been historically undervalued in this field. One pivotal experimental study points to the potential role of touch availability in loneliness. Participants were asked about three aspects of loneliness (neglect, emptiness, and direct feelings of loneliness) and subsequently had oil rubbed onto their hands either by an experimenter or by themselves (Heatley Tejada, Dunbar, & Montero, 2020). The researchers found that single adults felt more neglected than adults who were in relationships, but that being touched by another person lowered these levels to meet those reported by coupled individuals. The authors suggest that the availability of touch for coupled individuals may play a role in this finding and point to touch as a potential environmental cue for the evolutionary function loneliness serves, which alerts us to seek social connection (Cacioppo, Cacioppo, & Boomsma, 2014). Beyond this, a global study including almost 40,000 people in 112 countries found that positive attitudes towards touch were associated with lower loneliness and higher wellbeing, and that most respondents had a positive attitude towards touch (Wellcome Collection, 2020). While 43% of respondents felt that society did not enable touch enough, it is encouraging that the primary reason people gave for this lack of touch was consent. It appears that while the importance of giving and receiving wanted touch is recognised, such touch is lacking and implicated in feelings of disconnection for many people, making it challenging for practitioners and researchers to address. A blended framework of welcome, unwelcome, and absent touch offers a useful way to consider the relationship between touch and loneliness.

Welcome Touch

Welcome touch, or good touch, can encompass a variety of touch behaviours and patterns which are applied and received positively (Green & Moran, 2021). For example, while gentle rhythmic stroking is thought to enhance infant development (Blackwell, 2000), supportive touch (of both planned and unplanned types) is also considered therapeutic (Phelan, 2009), as is comforting touch from a mother, which is thought to modulate negative emotions and generate positive ones instead (Peláez-Nogueras et al., 1997). Indeed, slow, affective touch appears to lessen the distress caused by social exclusion (von Mohr, Kirsch, & Fotopoulou, 2017). This is not limited to human touch however, as a significant reduction in loneliness was recorded among residents of long-term care facilities exposed to animal-assisted therapy whereby all participants reported that touching their pet made them feel good (Banks & Banks, 2002). Physical embraces are also considered important for general life satisfaction, with efficacy dependent on relationship status (Packheiser et al., 2021). Only single participants benefited from increases in average embracing, with those in relationships unaffected, suggesting that touch was more

impactful for those usually deprived of it. During the COVID-19 pandemic, a nationally representative online survey also found a dose-response relationship between loneliness and frequency of hugging, kissing, and partnered sexual contact, with more frequent touch associated with lower loneliness (Rosenberg et al., 2021). Similarly, in this context, loneliness was predicted by the frequency of intimate touch, such as hugs from a close family member, but not by friendly or professional touch, with more intimate touch predicting lower loneliness (von Mohr, Kirsch, & Fotopoulou, 2021).

These instances constitute social touch, a type of evolutionary bonding that allows us to connect or reconnect with our social network (Heatley Tejada et al., 2020). It is integral to human relationships, both in the form of intimate touch with loved ones and informal greetings with strangers. Evolutionary approaches consider loneliness a primitive response that alerts the body to seek social connection in order to avoid loneliness-associated risks such as ostracism and death (Cacioppo et al., 2014). Physiological aspects like interoception may also play a role in this process, with the sensing of signals which indicate pleasant touch and sensitivity to these signals potentially impacting feelings of connection (Arnold, Winkielman, & Dobkins, 2019; Crucianelli, Enmalm, & Ehrsson, 2022). In this sense, welcome touch is both a preventative measure and a social tool with which to reaffirm or enhance social bonds (Dunbar, 2012).

Unwelcome Touch

Unwelcome or bad touch involves ‘domination, threat, and coercion’ (Green & Moran, 2021, p. 174), can signify a warning or indicate power dynamics, and often constitutes violence and violation (Green, Warwick, & Moran, 2021). Touch can be experienced as bad irrespective of how it was intended to be received and such experiences may impact loneliness and connection, with lonely individuals more likely to report less liking of touch (Saporta et al., 2021). Evidence suggests that unwelcome touch, such as abusive touch in childhood, can have a negative effect on adult relationships (Johansson, 2013; Sakson-Obada, 2014). One’s self-esteem and ability to form, develop, and maintain relationships (of both platonic and intimate types) can also be negatively impacted, preventing the formation of new connections (Sakson-Obada, 2014). Given the alarming rise in domestic violence cases during COVID-19 (Social Care Institute for Excellence, 2022), the possible link between unwelcome touch and loneliness demands imminent attention from researchers and policymakers. Experiences of unwelcome touch directly jeopardise the evolutionary bonding mechanism within social touch, which allows us to connect or reconnect with our social network (Heatley Tejada et al., 2020), potentially increasing the risk of experiencing loneliness.

Absent Touch

Absent touch encompasses a lack of access to touch. It may represent an unwanted lack of touch, where the person desires more touch than they can access, or a preferred situation (Green & Moran, 2021). Research implicates the lack of touch in feelings of neglect for single adults (Heatley Tejada et al., 2020). Indeed, the lower levels of loneliness reported by partnered individuals may be related to the availability of physical touch created by these relationships (Adamczyk, 2016; Beutel et al., 2017). During the pandemic, research suggests that the longer individuals had been in lockdown, the more they craved touch, indicating a cumulative impact of touch absence (von Mohr et al., 2021). A qualitative study of loneliness during physical distancing also found that participants reported missing touch in general and in relation to specific contexts, such as the inability to offer a supportive touch to bereaved loved ones, indicating that an absence of touch is subjectively perceived as contributing to loneliness (McKenna-Plumley, Graham-Wisener, Berry, & Groarke, 2021). The absence of touch is considered, in part, a casualty of an increasing reliance on digital culture (Jebara, Orriols, Zaoui, Berthoz, & Piolino, 2014). In considering absent touch, it is important to bear in mind the distinction between people who do not desire touch and people who would like to engage in touch more. Differences in touch preference may be particularly salient with respect to loneliness, which constitutes

the subjective experience of desiring different quality and/or quantity of social connections than are available.

It seems possible that welcome touch may protect against or potentially alleviate loneliness, while absent and unwelcome touch may give rise to feelings of loneliness. It is not yet known if touch can positively regulate negative effects of loneliness but the sporadic literature on the topic certainly suggests that social touch can be associated with reduced loneliness. The single experimental study of this effect shows that even instrumental touch from a non-intimate other can lower levels of loneliness (Heatley Tejada et al., 2020). Recent research further indicates that the absence of touch is associated with loneliness and that the provision of intimate touch specifically is associated with lower loneliness (McKenna-Plumley et al., 2021; Rosenberg et al., 2021; von Mohr et al., 2021). Currently, it remains to be seen whether touch interventions might be a reasonable approach to ameliorating loneliness. However, it seems possible that touch may reduce loneliness, although the impact and processes require further study.

The Current Landscape for Loneliness and Touch

In recent years, loneliness has increasingly occupied public discourse as an epidemic and public health crisis (Easton, 2018; Holt-Lunstad, 2017). Policymakers internationally have committed to alleviating the experience through strategies including tackling stigma and establishing evidence-based loneliness services (Department for Digital, Culture, Media & Sport, 2020; Ending Loneliness Together, 2021). Indeed, research demonstrates the value of variety in loneliness interventions (Fakoya, McCorry, & Donnelly, 2020). Strategies and funding to tackle loneliness have been introduced over the past decade in the Netherlands (Zolyomi, 2019), England (Prime Minister's Office, 2018), Scotland (Scottish Government, 2018), Wales (Welsh Government, 2020), Northern Ireland (Action Group on Loneliness Policy in Northern Ireland, 2020), and Australia (Ending Loneliness Together, 2021) but with minimal, if any, consideration of the role of touch. Research on loneliness has also increased pace in recent years; Web of Science indexes 3,024 articles published on the topic of loneliness in 2021 versus 804 in 2016. Despite indications from public forums and research that tactile experiences can play an important role in loneliness, touch types remain largely absent from loneliness research. Given the impact of the pandemic on remote working and digital practices, the absence of touch from loneliness policies and research is a cause for concern.

Policy is key to understanding the relationship between touch and loneliness not just because it has the means to develop initiatives and enhance interventions, but also because it has shaped the nature of the relationship itself. Touch-related loneliness, for example, might be linked to austerity-based policies which ration care and support and leave those at risk of loneliness with reduced access to necessary social resources (McGrath, Griffin, & Mundy, 2016). Austerity measures, which have impacted societies in the UK, Ireland, Greece, Brazil, and others in recent years, have restricted the potential of communities and limited organic opportunities for social and physical connection (e.g., in libraries or community centres) in the name of reduced welfare spending (Evans & McBride, 2017). The pervasiveness of neoliberalism, an increasingly dominant ideology, also continues to impact connection by increasing perceptions of competition, and has been shown to generate feelings of disconnection and loneliness (Becker, Hartwich, & Haslam, 2021).

Alongside this, the COVID-19 pandemic has left low-income workers, women, and ethnic minorities at most risk, thereby changing the political landscape of touch further through a 'syndemic of infectious disease and inequalities' (Bambra, Lynch, & Smith, 2021, p. xiv). The rise of digital means of connection (such as social media and video calling) along with hybrid working practises (Pink, Ferguson, & Kelly, 2021) have also shifted the ways we connect (Twenge, Spitzberg, & Campbell, 2019), displacing practitioners' sensual bodies (Kong, Noone, & Shears, 2021), and leaving many at increased risk of loneliness (Hwang, Rabheru, Peisah, Reichman, & Ikeda, 2020). Indeed, the move to digital forms of connection and removal of touch have been implicated in loneliness and attachment in this context (McKenna-Plumley et al., 2021; Menzies, Neimeyer, & Menzies, 2020). Yet, we have limited understanding of the explicit links between pandemic inequalities, touch, and loneliness.

By recognising loneliness as an embodied and contextualised sensory experience, we might complement the strengths of pre-existing initiatives such as social prescribing by thinking more literally about connection. Investigations into the effectiveness of friendship benches (where strangers are encouraged to converse in a shared space) should consider the tactile elements of engagement they offer, designs for community centres should explore the value of physical closeness, and befriending services might further investigate the differences between remote and in-person services, and between new acquaintances and close connections. Disciplines like urban planning can contribute valuably to this end. Indeed, existing research indicates that aspects of the environment such as access to transport, housing density, and green space are relevant to loneliness (Gibney, Moore, & Shannon, 2018; Lai et al., 2021). Understanding the experience of loneliness as both subjective and embodied may be key to the success of programmes aiming to tackle loneliness at a national and international level.

Challenges in Researching Touch and Loneliness

The lack of direct empirical evidence regarding touch and loneliness may derive from the ethical challenges of researching these topics. Both loneliness and touch can be sensitive and deeply personal subjects. Reflecting both its potential for comfort and harm, Spieldenner (2021) labels touch as ‘a tool for intimacy and violation’ (p. 339). The same touch may also be experienced differently depending on factors like the relationship between the toucher and the touched, the social and cultural context, and the preferences or past experiences of the actors. Phelan (2009) notes that despite a level of professional taboo around touch in psychotherapy, appropriate touch was not prohibited or described as a boundary violation by the ethics codes of any major psychotherapy association. Indeed, in a qualitative study of the therapeutic context from clinicians’ perspectives, the most mentioned negative consequence of touch was the potential for misconstrual by the client (Harrison, Jones, & Huws, 2012). Work with counselling psychologists found that decisions about touching clients were made with the aim of minimising harm and maximising therapeutic benefit, although little to no training is provided on this practice (Damon, 2018). The boundaries, intentions, and interpretations of the person touching and the person being touched may not align so it is essential that such disparities are considered, acknowledged, and respected (Paradisi, 2020). Cultural norms also regulate touch behaviour and may shape expectations of relationships and understandings and experiences of loneliness (Heu, van Zomeren, & Hansen, 2021; Suvilehto et al., 2019), indicating the potential significance of context and culture in the touch–loneliness relationship.

Other societally mediated factors such as gender and age may also play a role in touch, loneliness, and expectations about their interaction. Research indicates that women, perhaps due to more affiliative socialised gender roles, tend to interact at closer distances than male dyads (Evans & Howard, 1973) and are more likely to perceive touch from strangers of a different gender as unpleasant and invasive (Heslin, Nguyen, & Nguyen, 1983). Meta-analytic work also indicates that females tend to rate affective touch as more pleasant than males (Russo, Ottaviani, & Spitoni, 2020). A 1992 study found that men felt more uncomfortable when touched by same-sex partners and this discomfort was associated with homophobic attitudes (Roese, Olson, Borenstein, Martin, & Shores, 1992). This aspect of stigma may be echoed in research on gender and loneliness which tends to find that men are less likely to report being lonely when the word ‘loneliness’ is directly used (Nicolaisen & Thorsen, 2014). In a recent study of transgender and gender nonconforming patient experiences, many patients reported that healthcare workers had refused to touch them or used excessive precautions (Polonijo, Gardner, Clinton, & Brown, 2020). Discrimination, stigma, and social norms clearly impact the relationship between gender and touch in ways that are potentially pertinent to the experience of loneliness, but these interactions have yet to be explored.

These group-level and individual differences in touch and loneliness, as well as the potential ethical issues of studying touch, contribute to the complexity of exploring this important relationship. Although touch is highly present and commonly discussed in social life, it is conspicuously absent from the growing literature on loneliness. As a result, the use of retrospective reports, observational

methods, and self-touch paradigms may be useful ways of advancing knowledge regarding loneliness and touch. It is vitally important that research and practice in touch and loneliness take into account the complexity of this topic in order to avoid over-simplifying the multitude of roles — good, bad, and absent — that touch can play in our social world.

Research, Policy, and Practice Recommendations

This review presents an argument for an embodied understanding of loneliness which recognises its somatic components. Given the increasing public and political interest in loneliness, this conceptualisation leads to a number of recommendations for research, policy, and practice. We recognise that these should develop alongside new knowledge in this field but suggest the following recommendations as a departure point.

- i. Research on loneliness should explore the role of touch.

If loneliness research continues to exclude touch, it will remain epistemologically invisible in this field despite its obvious relevance. To prevent this, more empirical work on the relationship is needed. Potential lines of research might explore whether the amount or availability of touch impacts the experience of loneliness and whether touch is experienced differently by individuals who are lonely and those who are not, using qualitative, quantitative, and physiological investigations to explore impacts of social touch.

- ii. Policy initiatives addressing loneliness should acknowledge varied facets of connection including touch.

Policy initiatives addressing loneliness have made great progress in advancing the conversation and breaking stigma. However, policy should value the varied facets of social connection relevant to loneliness which include the bonding, comforting, and supportive role of touch and deep pain of its absence. While initiatives like social prescribing might connect lonely people with community groups for example, it is important to acknowledge the variation in preferences, personal circumstances, and (dis)advantage that ultimately comprise experiences of loneliness (Fakoya et al., 2020). For some, it may be an absence of strong social ties which enable comfortable touch, while others require touch in order to form meaningful bonds.

- iii. Service providers and practitioners should ask about and meaningfully consider the role of touch for lonely service users and clients.

In recognition of the wide range of practitioners involved in addressing people's experiences of loneliness, and the subsequent variety of procedures and protocols surrounding their roles, we recommend the broad consideration of touch in loneliness services. As practitioners increasingly reflect on the impact of social isolation and connection, touch should also be considered. This is pertinent in light of recent social prescribing efforts as interventions are matched to the expressed wishes of lonely people. Questions related to clients' tactile expectations and/or boundaries should therefore be considered. Is the person missing someone to hug or a hand to hold? What are the tactile expectations of their client? Beyond this, services might reflect more generally on whether they lack physicality or have assumed clients' tactile preferences without enquiring.

Conclusion

Touch and loneliness are individually well-researched topics in various disciplines and areas of knowledge. Both play invaluable and arguably universal roles in the human experience, but how these concepts interact has been almost entirely overlooked. With their presence in public discourse increasingly

relevant, we are presented with an opportunity to uncover more about the nature of their relationship. This paper has provided a foundation upon which such exploratory research can build and makes a case for imminent action. From here, existing (and emerging) policy can be enhanced to address the embodied nature of loneliness.

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