

# Loneliness in Pregnant and Postpartum People and Parents of Children Aged Five Years or Younger: a Scoping Review

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## Research

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# Abstract

**Background:** Despite evidence that loneliness increases during times of transition, and that the incidence of loneliness is highest in young adults, loneliness during pregnancy and new parenthood has not been developed as a program of research. Because loneliness research has primarily focused on older adults and other high-risk populations, the concept of loneliness and its effects on this population are not well understood, leaving a gap in our understanding of the psychosocial needs and health risks of loneliness on pregnant people and new parents. A scoping review has been completed in order to map and synthesize the literature to date on loneliness experienced during pregnancy and the first five years of parenthood.

**Methods:** To address the aim of this review, a wide net was cast in order to detect experiences of perinatal or parental loneliness, and/or instances where loneliness was measured in this population. Among the inclusion criteria were loneliness in people who were pregnant, who were parents in the postpartum period, or who had children aged five years or younger. A search for literature was conducted in December 2020 using nine databases: MEDLINE (Ovid), EMBASE (embase.com), SCOPUS (scopus.com), Cochrane Library including CENTRAL (Wiley), CINAHL (Ebscohost), PsycINFO (Ebscohost), Dissertations & Theses Global (ProQuest) and Sociological Abstracts (ProQuest) and the Web of Science Core Collection (Clarivate).

**Discussion:** Perinatal and parental loneliness studies are limited and have rarely been targeted and developed through a program of research. Loneliness inquiry in this population has frequently been studied in relation to other concepts of interest (e.g., postpartum depression). Alternatively, the importance of loneliness has emerged from study participants as relevant to the research topic during qualitative inquiry. Across studies, the prevalence of loneliness ranged from 32% to 100%. Loneliness was commonly experienced alongside parenting difficulties, with parents feeling as though they were alone in their struggles. As loneliness has been called a sensitive indicator of wellbeing, we believe screening will help healthcare professionals identify common difficulties and early signs of depression experienced during pregnancy and parenthood.

The protocol is available on Open Science Framework at DOI [10.17605/OSF.IO/BFVPZ](https://doi.org/10.17605/OSF.IO/BFVPZ).

## Introduction

A substantial number of loneliness studies focusing on older adults and other high-risk groups have associated loneliness with a variety of negative physical and mental morbidity and mortality risks [1–3] including increased systolic blood pressure; depression; impaired sleep; [4] and higher rates of mortality.[1] Little available research, however, addresses loneliness in pregnant and early parenthood populations. Within that small body of work, few studies have made loneliness the clear focal point of attention.

Loneliness is defined as a negative emotional experience related to an appraisal of deficiency within a person's social network. For example, there may be a perceived deficiency in either the quantity or quality

of one's social contacts.[5] Loneliness is a *subjective* appraisal in contrast to social isolation, which is an *objective* condition of being physically alone. In other words, a person might live a socially isolated life and rarely or never feel lonely; while another might have a dense social network and still feel lonely for lack of a particular type of connection they sense is missing from their network.

Becoming a parent has been described as a major life event because of the significant life transitions with which it is associated.[6] Transitional loneliness may be particularly salient during pregnancy and new parenthood, as it is defined as the experience of loneliness during a period of crisis or developmental changes.[7] Loneliness in this population is common, with 2018 data indicating that just under one in three new parents always or often felt lonely—and that 82% experienced loneliness at least some of the time.[8]

### Aims and review questions

The aim of our review was to map the literature on loneliness in the perinatal population. Our primary goal was to describe the evidence on the subject of loneliness among pregnant persons and new parents of children under the age of five. Data was found that addressed our secondary questions: a.) Within subgroups, what has been targeted for loneliness research on pregnant/parenting individuals? b.) What methodologies have been used and how has loneliness been measured and defined in this population? c.) What is already known about loneliness in this population?

## Methods

We conducted our scoping review under guidance from The Joanna Briggs Institute (JBI). [9–12] We adhered to the PRISMA reporting guidelines for scoping reviews to ensure transparency and reproducibility.[12] EndNote (Clarivate Analytics) was used to manage citations and remove duplicates, and Covidence (Veritas Health Innovation) was employed to screen and review search results. Our protocol was published in *Systematic Reviews* (DOI: 10.1186/s13643-020-01469-5)[13] and Open Science Framework (DOI 10.17605/OSF.IO/BFVPZ).

## Eligibility criteria

In order to ensure concordance between the inclusion criteria and the research questions, JBI's Population-Concept-Context (PCC) framework was used ).[12] Inclusion criteria targeted a population of pregnant people or parents with children aged five years or younger. Parenting a child age five or younger was selected as an age cut-off point as parenting demands are generally greater for younger children, and parenthood is a period of life marked by rapid transitions in roles and responsibilities. Studies with a focus on loneliness experienced by children were excluded, as were studies with no English-language translation available.

## Search strategy

An information specialist (MMM) developed the searches utilizing a combination of keywords and database subject terms for parental loneliness for nine databases; the search was last updated in December 2020. No filters or date limits were applied. Gray literature was searched by first author. Peer review of strategies using the PRESS guidelines was conducted by a library colleague.[14] References of included studies were searched by the first author to identify additional sources. See PRISMA flow diagram of results (Fig. 1). Additionally, see the supplemental file for the detailed search strategy.

## **Source of evidence screening and selection**

Two reviewers (RP, JKM) independently screened titles and abstracts and then reviewed full text. Reviewers reached consensus through discussion when disagreements emerged, negating use of a fourth reviewer (SS) to resolve conflicts.

## **Data extraction**

Charting of data was done with REDCap electronic data-capture software hosted at the University of Utah.[15, 16] Preliminary data-extraction forms were created for a subset of relevant articles as an early check on reliability and thoroughness. All data were charted by the first author (JKM), then underwent assessment by one of two additional reviewers (ET and RP), each working independently, which deviated from our protocol to have two reviewers extract the data independently. During extraction, the team met when necessary to resolve conflicts and to obtain clarity. See supplemental Tables 1 and 2 for details on extracted data.

## **Results**

### **Selection of sources of evidence**

A total of 4,804 records were identified through searches. After duplicates were removed, a total of 2,452 records were imported into Covidence for screening. Title/abstract screening removed 2,090 records and moved 360 records to full text review, which was conducted by three reviewers (RP, ET, JMK) and resulted in 130 records for inclusion in the review, two of which were from gray literature. See the PRISMA flow diagram (Fig. 1) for details of the selection process, including reasons for exclusion.

### **Extracted data**

See Fig. 2 Types of Articles Included and supplemental files for full details about records included in this review. The majority of selected studies (98, 75.4%) did not have loneliness as a main focus of study. In most quantitative studies, loneliness data were collected as co-variables in studies focused primarily on other topics. For example, adolescent pregnancy and postpartum depression were common topics in studies that met inclusion criteria. Loneliness was investigated within these studies to determine its relationship with adolescent pregnancy or postpartum depression. Quantitative studies focused on unique groups including refugees, child abusers, and most recently, maternal mental health during the COVID-19 pandemic.

Qualitative investigations focused primarily on people suffering from postpartum depression, and mothers and infants considered medically at high-risk. Loneliness emerged from participants as a factor that was relevant to their health and wellbeing, and to the qualitative study's primary concept of interest.

## Studies with a primary focus of perinatal or parental loneliness

Thirty-two articles had a primary focus on loneliness (32, 24.6%),[6, 13, 17–46]. Eighteen of these were cross-sectional investigations without follow-up,[17, 24, 25, 27, 28, 30, 32–35, 42, 45] editorials, [22, 29, 41] or review articles [13, 40, 43]. We identified an ongoing longitudinal program of research in Finland focused on mothers' and fathers' loneliness over time, and in relation to depression, socio-emotional outcomes in children, respiratory infections in children, continuity of maternity care, and family-level influences on social competence in children.[20, 21, 37, 39, 47] Additionally, Rokach[33–35] published three articles about loneliness during pregnancy and motherhood, investigating the antecedents of loneliness and coping techniques found in this population.

## Types of loneliness identified

Lee et al. (2019) qualitatively investigated experiences of loneliness in first-time, non-depressed mothers[25] where both *situational* and *transient* types of loneliness were identified. It should be noted that Lee et al. identified a discrepancy in Young's (1982) conceptualization of *transient* loneliness.[5] The authors argued that Young's notion of transient, or "everyday" loneliness, as a normal phenomenon that occurs periodically but resolves, *inadequately* captured the acute nature of the situational and transient loneliness experienced by these new mothers. The authors state that the intensity of loneliness experienced by their participants was deeply felt and was threatening to the identities of the mothers. The authors found that loneliness was tied to difficulties experienced during new motherhood, such as struggles related to feeding their babies and feeling fearful and judged by others for not measuring up to the cultural narrative of the ideal mother.

Weiss (1973) described an additional two ways of viewing loneliness—the loneliness of social isolation (i.e., social loneliness) and the loneliness of emotional isolation (i.e., emotional loneliness).[48] Weiss described social loneliness as often coinciding with large role shifts and life changes, such as those experienced during pregnancy and early parenthood.[48] His framework of loneliness was used by several authors for investigating loneliness [20, 21, 39, 47, 49], with evidence that both the social and emotional dimensions of loneliness exist in mothers and fathers.[21]

## Definitions of loneliness used

Across studies, loneliness was generally described as a perception of quantitative or qualitative deficiencies in a person's network. Most articles that used a formal definition of loneliness had roots in this definition, which stems from Perlman and Peplau: "the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or

qualitatively” (1981, pp. 31).[5] Additionally, authors frequently sub-categorized loneliness following Weiss’s (1973) concept of social and emotional loneliness (described more completely in the previous section titled *Types of loneliness identified*).[48] Often loneliness was not clearly defined by authors. To review all definitions used by the sources included in this review, please see supplemental Table 2.

## Measurements of loneliness used

The UCLA Loneliness Scale (adopted in various versions) was the most frequently used measure.[50–52] The UCLA Loneliness Scale includes questions encompassing both social and emotional aspects of loneliness as described by Weiss.[21, 37] Seven articles published between 1981 and 1996 used the 20-item Revised UCLA Loneliness Scale.[28, 31, 53–57] Russell (1996) updated the scale again in 1996, making Version 3 currently the most up-to-date iteration of the 20-item scale.[52] We note that after 1996, some published studies had a lack of clarity about which version of the UCLA Scale was used. For example, beginning in 1998 and continuing through 2016, six articles[19, 23, 24, 27, 30, 58] report the use of the 20-item Revised UCLA Loneliness Scale, and often cite Russell et al. (1980), despite Version 3 being the most up-to-date version.

In addition to the loneliness scales described above, some studies used questions from other scales. For example, Santos (2018) assessed loneliness using item number 14 from the Center for Epidemiological Studies Depression scale, “I felt lonely.”[59] Another study investigated differences between child abusing and non-abusing parents using the Michigan Screening Profile of Parenting. This study found that parents who abused their children had a tendency toward isolation and loneliness.[60]

Additionally, researchers often created their own items to assess loneliness within their studies.[26, 32, 45, 61–65] An example of this type of loneliness assessment was the following: “I’ve been feeling lonely,” which was one item used in a survey assessing maternal mental health during the COVID-19 lockdown in the United Kingdom.[61] To review all measures used by the sources included in this review, please see supplemental Table 2.

## Prevalence of loneliness

Although prevalence data were limited, with just ten studies reporting the proportion of their sample who experienced loneliness,[26, 42, 61, 62, 64, 66–69] these data illustrate how loneliness is common in this population, and that it increases in special cases, especially as stress increases. Loneliness among pregnant women and mothers in general ranged from 32 to 42%.[26, 42, 64] Loneliness among mothers increased during the COVID-19 pandemic, with prevalence rates ranging between 40 and 59%.[61, 70] Additionally, when parents had a child with a mental or physical health risk, this proportion increased to between 39.5 and 70%.[62, 66] All participants (100%) in studies investigating parenting experiences of non-binary and male gestational parents reported loneliness.[67–69]

## Main findings, including factors associated with and protective of loneliness

# Factors associated with loneliness in mothers and fathers collectively

The transition into parenthood has been viewed as a major life event which impacts daily activities and the composition of social networks, which in turn impact mothers' and fathers' feelings of loneliness.[6] Buecker et al. (2020) found levels of loneliness that were sustained, and even increased over time, after the birth of a child.

The findings of Junttila et al. (2015), which longitudinally investigated mothers' and fathers' loneliness during pregnancy, infancy, and early childhood, are more nuanced and reflect findings of both social and emotional loneliness.[20] Junttila's sample consisted of approximately 2,000 mothers and fathers at each timepoint. The findings revealed that mothers' loneliness tended to decrease after childbirth, while fathers' loneliness increased slightly after the birth of their children.[20] Interestingly, this finding conflicts with their 2013 study, which found that fathers were lonelier during pregnancy, but that mothers' loneliness increased after childbirth.[21] While most participants in the Junttila et al. (2015) study seemed to adapt to new parenthood, lonelier parents experienced more problems with their intimate partnerships, social functioning, and mental wellbeing.[20]

## Factors associated with and protective of loneliness in mothers

Also, across the literature, mothers frequently described motherhood as an experience imbued with loneliness,[25, 29, 71, 72] lacking social support,[25, 73] and sometimes because mothers were not satisfied with their partners' or families' contributions to parenting.[25, 27, 74, 75] Often-cited root causes of maternal loneliness were: a lack of recognition for the difficulties of being a mother;[25, 75] a lack of empathy from relations;[25, 75] childcare burden;[27, 76, 77] deficient social networks;[25, 27, 44, 70, 76] longing for friendships based on shared experience;[25, 71] and discrepancies between expectations and the realities of motherhood.[25, 29]

Establishing friendships with other mothers sharing similar experiences was frequently cited as protective against maternal loneliness.[22, 25, 29, 41, 71, 72, 78, 79] Participants from the Lee et al. (2019) study reported that connecting online or in person with other mothers with shared experiences helped them to normalize their difficult experiences of motherhood and helped to provide mothers with a sense of worth in their maternal role. It was found that these types of friendships may be facilitated by a.) mothers themselves,[29, 72] b.) trusted community leaders,[42] or c.) by members of the healthcare team who can help to facilitate opportunities for connection.[22] An additional protective factor relates to the density of maternal social networks. In their sample of pregnant women, Yu et al. (2020) found that social network density, or the degree to which mothers' relations are connected to one another, was protective against maternal loneliness.[44] The authors hypothesized that more densely connected networks might provide more coordinated care for mothers, and might also create a greater sense of community.

Mothers' self-perception of poor health was associated with loneliness,[26, 27] and higher loneliness scores (UCLA Loneliness Scale Version 3) were associated with unscheduled hospital use.[18] Mandai et al. (2018) found that as loneliness scores increased (revised UCLA Loneliness Scale), self-reported health status worsened,[27] and Geller (2004) found that lonely pregnant women were twice as likely to make unplanned emergency-room or obstetric visits,[18] with younger lonely women the most likely to seek unscheduled hospital use.

While there is conflicting data about whether younger or older pregnant women and mothers tend to be lonelier, evidence from this review suggests that both younger and older women experience loneliness. Younger mothers (aged 18 to 24 years old) shared that friends who were not parents had different priorities, making it difficult to stay connected to their existing social network. Additionally, younger mothers reported that visits from their network members dwindled over time as the excitement of the new baby diminished.[42] In comparison, older pregnant women (aged 35 or older) explained that they felt lonely because many of their friends had had children earlier in life and that, as a result, they had no one with whom to share their experience of pregnancy.[80]

Breastfeeding and bottle-feeding were identified as sources of mothers' loneliness. Lee et al. (2019) found breastfeeding limited mothers' ability to socialize. Mothers felt their partners lacked empathy for the difficulties relating to breastfeeding and that the realities of breastfeeding did not match their expectation that breastfeeding would be easy.[25] Extreme difficulties with breastfeeding left mothers feeling inadequate and often alienated, as they felt they weren't living up to expected standards and lacked confidants with whom to talk about these struggles.[25, 81] Communication with other mothers who had struggled to breastfeed was seen as essential to overcoming breastfeeding difficulties and to the successful continuation of breastfeeding.[81] Bottle-feeding was also a source of loneliness when mothers felt judged for not providing the gold standard of breastmilk to their children.[25]

## **Factors associated with and protective of loneliness in mothers and fathers experiencing postpartum depression**

Studies identified in this review illustrate the significant presence of maternal loneliness in experiences of postpartum depression.[82–87] Among these results are findings that a.) women with higher loneliness scores during pregnancy and during the postpartum period were more likely to be depressed post-birth; [54, 88] b.) loneliness was found to have a direct negative effect on postpartum depression and infant-mother bonding;[89] and c.) loneliness was positively correlated with postpartum depression.[30] A pattern of loneliness experienced in postpartum depression included the common belief that others did not understand the mothers' experiences of depression,[82–85, 87] and a sense that attempts to communicate struggles with depression were unsuccessful.[82, 84, 85] These perceptions resulted in mothers feeling alienated from their relations; consequently, mothers isolated themselves from their support network.[82–85, 87]

Women frequently reported that postpartum depression support groups, especially those that were tailored to mothers' cultural or personal preferences, were helpful at reducing loneliness because these

women were able to share mutual concerns while hearing about other women's experiences of postpartum depression.[83, 85–87] Group support experiences were described as the first step in recovery, as they provided a place where women finally felt understood.[87] One peer-support intervention using phone and/or online contact was successful in buffering maternal loneliness, reducing postpartum depression and anxiety, and increasing perceived social support.[90]

While most studies focused on maternal depression, a few provided data about depression in fathers, as well.[20, 39, 84, 91] Data from the Lutz and Hock (2002) study found that the effect of loneliness on symptoms of depression was greater in fathers than in mothers.[91]

## **Factors associated with and protective of loneliness in adolescent mothers**

Seventeen studies focused on adolescent mothers as young as age 12, [17, 19, 24, 28, 31, 55, 56, 58, 92–100] revealing conflicting data about whether loneliness is more common in pregnant than non-pregnant adolescents.[28, 55, 56, 93, 97] Studies that found a difference in loneliness scores between pregnant and non-pregnant adolescents [28, 55, 93] found loneliness was reported less often in pregnant adolescents, [93] or more often,[55] or was experienced more severely in pregnant adolescents.[28] Quantitative studies found that loneliness in adolescent mothers was positively correlated with problematic social support and depression, and negatively correlated with self-esteem.[19, 58] Studies examining potential explanations for loneliness in this population found that difficulty with developing personal identities[17] and the effects of pregnancy on the daily lives of adolescents[24] were contributors to loneliness. Qualitative findings underscored the importance of social relationships in adolescents' decisions about engaging in sexual activity and becoming parents, and illustrated the significance of parental relationships in particular.[92, 94, 95, 98]

## **Factors associated with and protective of loneliness in parents who are immigrants or refugees**

Ten studies focused on immigrants and refugees.[38, 63, 86, 101–106] Loneliness in pregnancy and the postpartum period was common for these parents, who found themselves isolated from their families and culture.[38, 86, 101, 103, 104, 106, 107] This lack of familial and cultural interaction left parents missing connections with others who shared their values and practices.[86, 106] These feelings were amplified when parents encountered difficulties with childrearing, leaving them with unfulfilled longing for absent family members or friends.[86, 106]

An increased prevalence of loneliness was found among immigrant parents (39%) who spoke the country's official language less than proficiently, compared to citizens of the country (17% in Australian-born women).[101] Similar findings were found in a study of immigrant women living in Japan who had limited ability to speak the country's official language.[102] The authors hypothesized that healthcare workers overestimated the immigrant parents' levels of language proficiency, resulting in increased loneliness and parents feeling less supported in their care.[101, 102]

Protective of loneliness in immigrant and refugee parents was the presence of family and friends,[103, 107] especially female family members for mothers.[103] Faith and spirituality were also identified as important factors for mental wellbeing.[103, 107]

## **Factors associated with and protective of loneliness in male and non-binary gestational parents**

Three qualitative studies focusing on transgender male and non-binary parents revealed common experiences of social isolation and loneliness,[67–69] which included a sense of alienation[67, 69] and marginalization,[68] describing themselves as outsiders,[69] struggling to engage with the external world[68] but finding themselves excluded from it instead.[69] Participants from all three studies reported problems during pregnancy such as estrangement, deep isolation, and body dysphoria, which was described as a sense of disconnection between “how one feels and how one is perceived” (p. 68).[67] Both during gender transition and during pregnancy, a lack of understanding and empathy within intimate social-support networks was commonly cited.[67, 68]

## **Discussion**

Results from this review indicate that our knowledge of perinatal and parental loneliness is in a relatively amorphous state. The results also indicate that loneliness might be particularly relevant to pregnancy and new parenthood. Little is known about the characteristics or consequences of loneliness during periods of pregnancy and early parenthood. Additionally, information is lacking about prevention or amelioration of loneliness within this population. Conflicting data about how and when loneliness ebbs and flows in this population, as well as how it impacts family relations, leaves a major gap in our understanding of how loneliness could contribute to adverse childhood experiences.

## **Limitations:**

Increased publication on this subject over the past year means that by the time of publication of this review, there are most likely several new relevant articles that have not been captured. This point is illustrated in Fig. 3 Publications on Loneliness Through the Decades which shows publications by decade.

## **Declarations**

### **Ethical approval and consent to participate**

Not applicable.

### **Consent for publication**

Not applicable.

## Availability of supporting data

The protocol for this review was published in *Systematic Reviews* (DOI: 10.1186/s13643-020-01469-5) [13] and Open Science Framework (DOI 10.17605/OSF.IO/BFVPZ). Additional materials are available from the corresponding author on reasonable request.

## Competing interests

The authors declare no competing interests.

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## Authors' contributions

Authorship clarification for the manuscript: lead author: JKM; senior author: MM; first reviewer: JKM; second reviewer: RP; third reviewer: ET; fourth reviewer SS; statistician: N/A; information specialist/project manager: MM. The author(s) read and approved the final manuscript.

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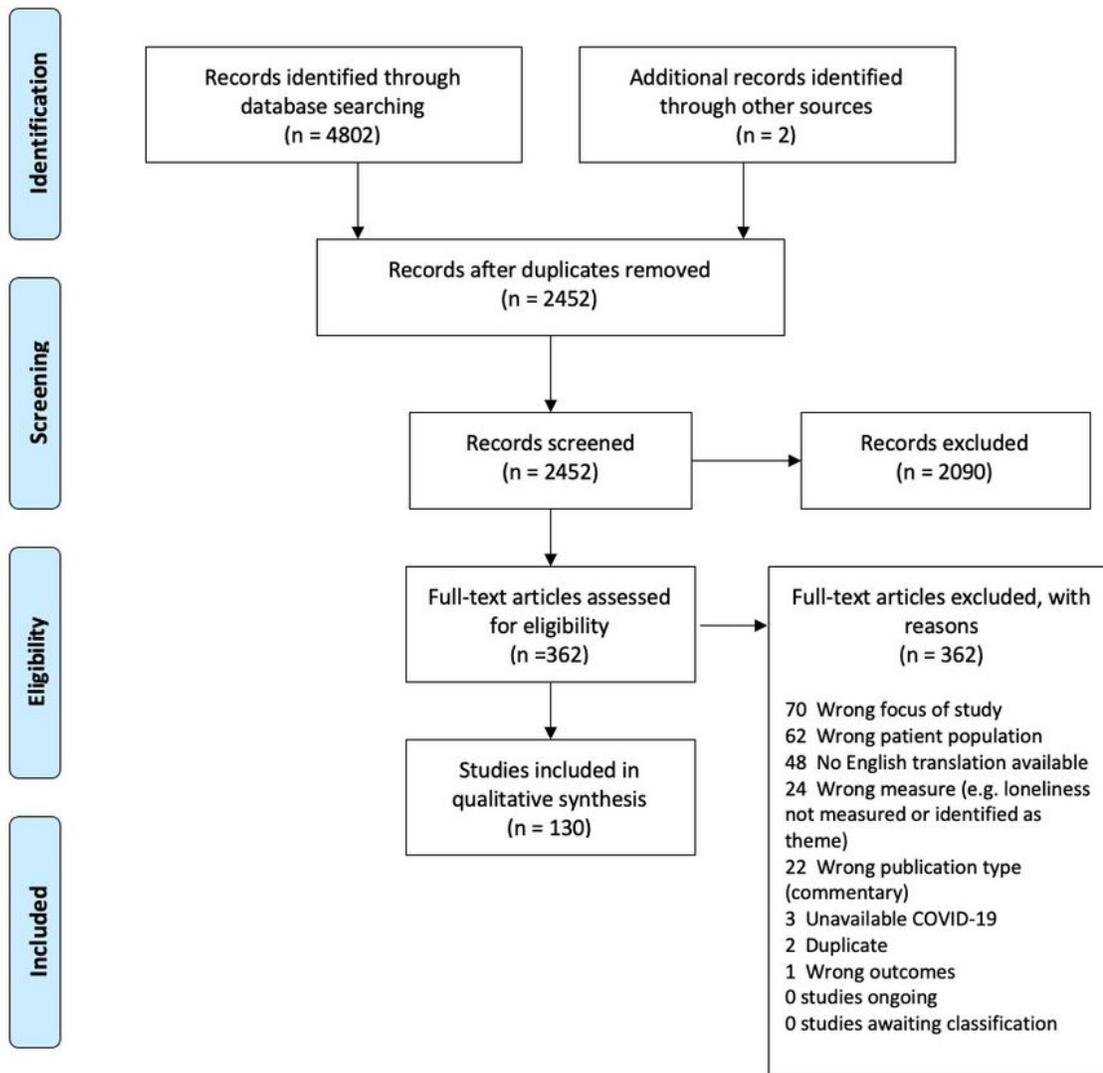
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## Figures



### PRISMA 2009 Flow Diagram

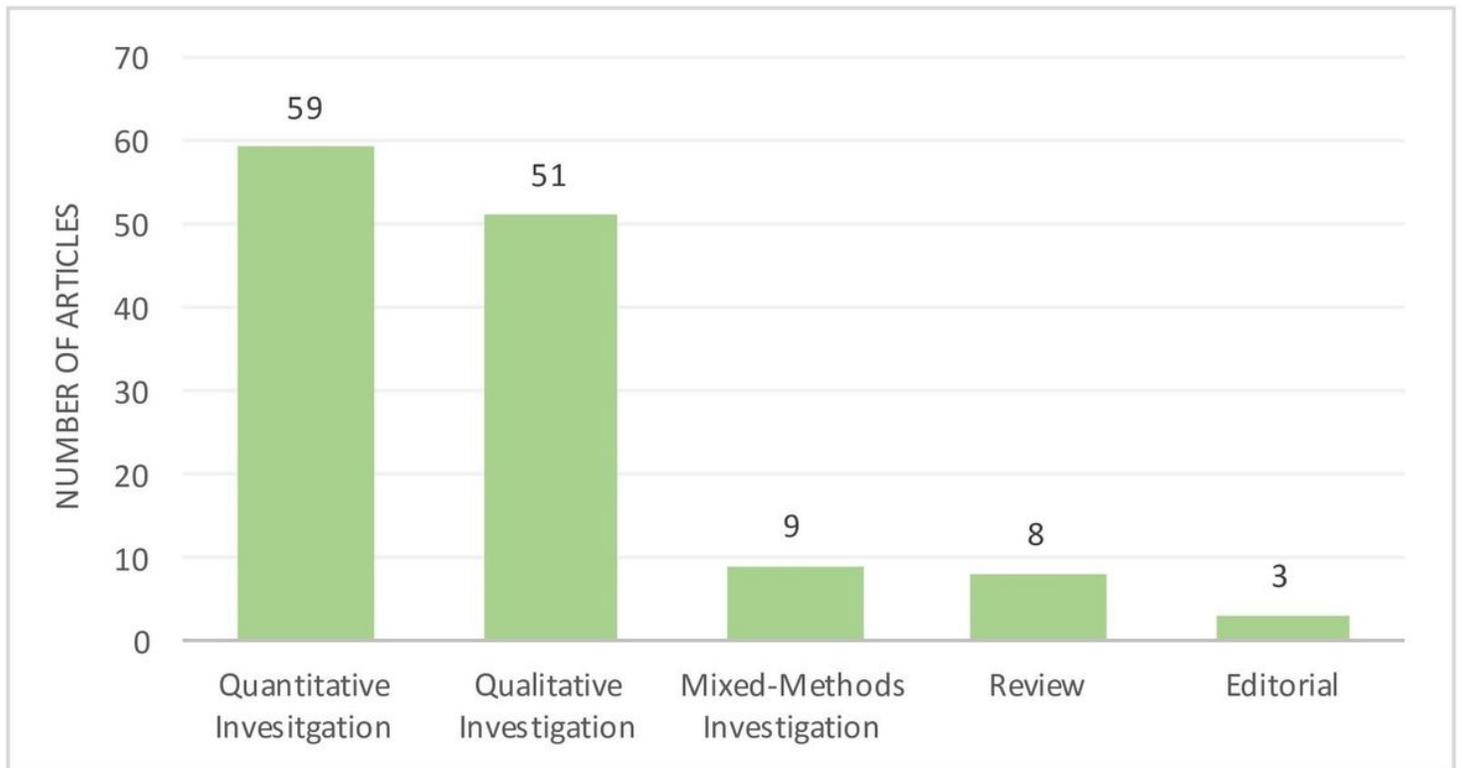


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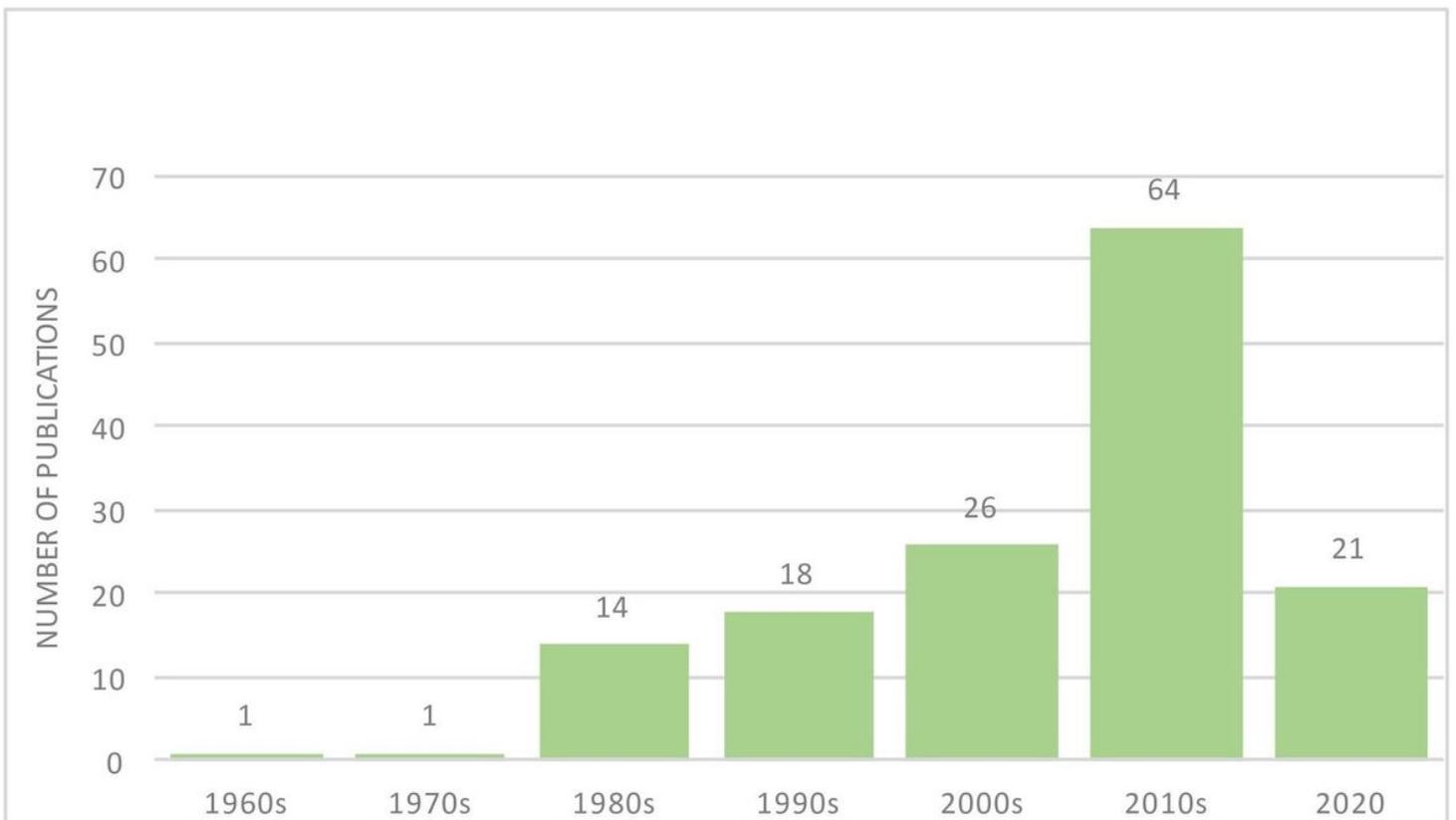
Figure 1

## PRISMA Flow Diagram



**Figure 2**

## Types of Articles Included



## Figure 3

Publications on Loneliness Through the Decades

## Supplementary Files

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- [SupplementalTable1SummaryofDocumentsIncluded.docx](#)
- [Excludedstudies232ScRParentalLoneliness.docx](#)
- [Includedstudies130ScRParentalLoneliness.docx](#)
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- [StrategiesforParentalLonelinessScRranDec22021.docx](#)
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